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The stunted Regional Cooperation for Energy  
Security between Korea,  
Russia and Japan  
- A comparative Analysis

정체된 에너지 안보를 위한 지역협력: 한국,  
러시아, 일본의 비교연구

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**Graduate Program in Area Studies.  
For the degree of Masters of International Studies**

**February 2014  
Graduate School of International Studies  
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Seoul, Korea**

## **Abstract**

# **The stunted Regional Cooperation for Energy Security between Korea, Russia and Japan - A comparative Analysis**

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Regional cooperation in North East Asia is still mainly visible in pioneer projects. Especially the developed North East Asian countries seem to struggle to cooperate with each other. This thesis is to evaluate the stunted regional cooperation between the Republic of Korea, the Russian Federation and Japan on the example of energy security cooperation. The Russian Federation is a major oil producer, however has not completely engaged with all the North East Asian Nation in regular energy trade. The Republic of Korea as well as Japan both need to import almost 100 percent of their oil demand. Both countries are relying of resources from the Middle East and other geographically inconvenient as well as political unstable countries for their security related energy supply. The obvious question is: While the Russian Federation seems as an easy answer to the question from who to buy oil, the Republic of Korea as well as Japan where not be able to work together as importing countries and build successful cooperation; Why are those three geographically extremely close countries with a matching oil demand and supply equation not engaged in energy security cooperation yet?

This thesis tries to analyze this question as well as provide a vast overlook over the cooperative situation for energy security in North East Asia in general by the different regional and international organizations and dialogues as well as an overlook over the energy situations in the

respective countries. It furthermore tries to define the relatively new term of energy security to increase the understanding of the term in today's international relations. The thesis offers a summary of the offers and needs of the three respective countries in the terms of oil related energy security and suggests four main factors why they have not be able to successfully cooperate so far.

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**Keywords: North East Asia, Energy security, Oil, Japan, South Korea, Russian Federation, Regional Cooperation**

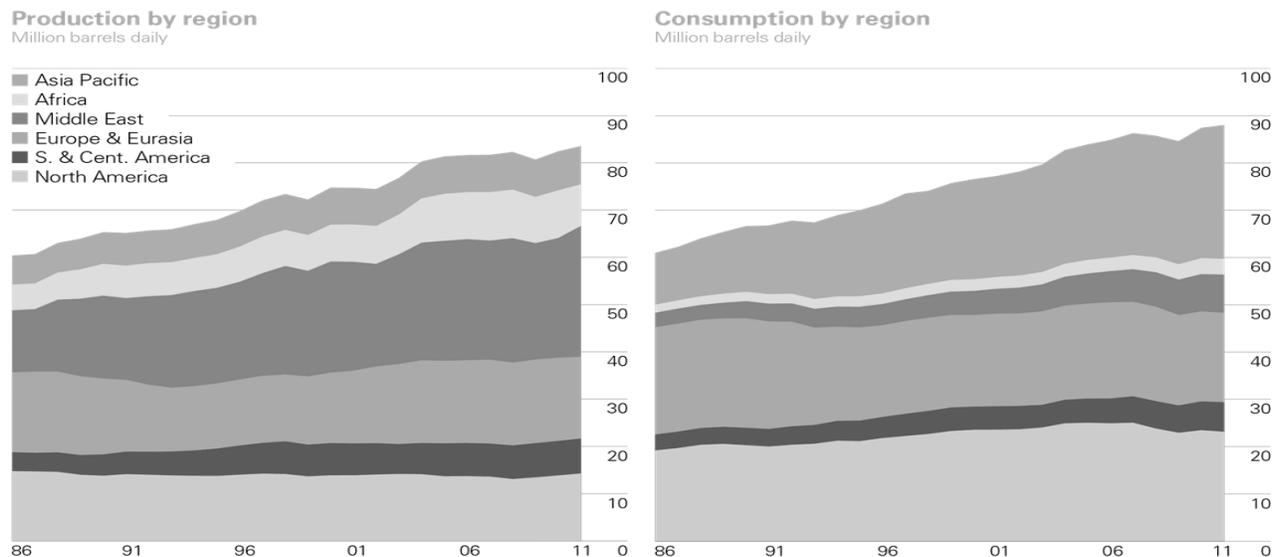
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## I. INTRODUCTION

As Franklin D. Roosevelt<sup>1</sup> once said: “Competition has been shown to be useful up to a certain point and no further, but cooperation, which is the thing we must strive for today, begins where competition leaves off”, this been said, my thesis will research and examine the possibility of regional cooperation for energy security in North East Asia with all its obstacles and prospects. North East Asia still has many unsolved historical and territorial issues, such as the Dokdo/Takeshima conflict. However it is believed that it is time to leave those conflicts behind and focus on cooperation in different sectors. In my thesis I will focus on the possibility of energy security cooperation on oil in North East Asia. According to BP - a British multinational and one of the world's leading international oil and gas companies- the Asia Pacific region is one of the smallest producers of oil, however increasingly becoming the biggest consumer which the released statistics from the “BP Statistical Review of World Energy June 2012” show clearly.



World oil production increased by 1.1 million b/d in 2011, with OPEC accounting for nearly all of the increase despite a 1.2 million b/d reduction in Libyan production. The US had the largest growth in non-OPEC supply for a third consecutive year. World oil consumption increased by roughly 600,000 b/d. All of the net growth came from emerging economies in Asia, South & Central America, and the Middle East, offsetting declines in Europe and North America.

Figure 1<sup>2</sup>

<sup>1</sup> 32nd President of the United States (1933–1945).

<sup>2</sup> “BP Statistical Review of World Energy June 2012”, British Petroleum, UK, London: June.2012.

Producers	Mt	% of world total
Saudi Arabia	517	12.9
Russian Federation	510	12.7
United States	346	8.6
Islamic Rep. of Iran	215	5.4
People's Rep. of China	203	5.1
Canada	169	4.2
United Arab Emirates	149	3.7
Venezuela	148	3.7
Mexico	144	3.6
Nigeria	139	3.5
Rest of the world	1 471	36.6
<b>World</b>	<b>4 011</b>	<b>100.0</b>

2011 data

Net exporters	Mt
Saudi Arabia	333
Russian Federation	246
Nigeria	129
Islamic Rep. of Iran	126
United Arab Emirates	105
Iraq	94
Venezuela	87
Angola	84
Norway	78
Mexico	71
Others	609
<b>Total</b>	<b>1 962</b>

2010 data

Net importers	Mt
United States	513
People's Rep. of China	235
Japan	181
India	164
Korea	119
Germany	93
Italy	84
France	64
Netherlands	60
Singapore	57
Others	483
<b>Total</b>	<b>2 053</b>

2010 data

*\*Includes crude oil, NGL, feedstocks, additives and other hydrocarbons.*

Table 1<sup>3</sup>

The table above (table 1), published by the International Energy Agency shows again more detailed, how high the Republic of Korea and Japan<sup>4</sup> are on the importing list as well as how dominating the Russian Federation<sup>5</sup> is in producing and exporting crude oil.

With reference to the numbers and data about crude oil in the North East Asian region, my main focus will be on possible cooperation in energy security concerning oil. A closer look into statistics regarding the two consuming countries Korea and Japan and the producing country Russia separately, shows why my focus lies on them. I choose those two importing countries over three closely connected main factors. First of all they both are, with the extortion of the

<sup>3</sup> "IEA key world energy statistics". International Energy Agency. France, Paris: 2012.  
< <http://www.iea.org/publications/freepublications/publication/kwes.pdf>>

<sup>4</sup> In the following: Korea and Japan.

<sup>5</sup> In the following: Russia

People's Republic of China<sup>6</sup> increasingly main importer in North East Asia, secondly both of them face challenges with the unstable regions they import from- which I will clarify later- and last but not least both of them are mostly relying on foreign resources in terms of oil. None of the countries has proficient domestic resources to cover their needs of oil. All of those factors show how dependent these two countries are on the importing regions as well as how unprotected they are in the case of rising oil prices and possible crisis in the exporting regions. I chose Russia as cooperating exporter since it is the biggest exporter enclosed in the North East Asian region. Furthermore I believe that without an energy exporting country, energy cooperation with only importing countries will not be able to make a big difference in solving their energy problem. Having the statistics previously shown in mind, the lack of energy security related cooperation between Korea, Russia and Japan becomes interesting.

In the following I will shortly describe why I extorted China out of the cooperation-equation for the importing countries. I will focus on energy security cooperation between Russia, an exporter and Korea and Japan as major importers. However the North East Asian area also includes huge parts of China. I decided not to include China in the possibility of energy security cooperation since there are many factors which differentiate this country from the others. China would fall in the category of the importing countries as well as the producing countries (see table 1, China is on place 5 under the producing countries), but it is not only on a very different development stage than Korea and Japan, but obviously much bigger, which are both factors that influence the demand on oil. In 2008, China consumed around 1.3 million barrel per day (mb/d) of gasoline and 1.5 mb/d of diesel, while the OECD Asian countries combined (Korea and Japan

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<sup>6</sup> In the following: China

included) consumed 1.3 mb/d of gasoline and only 1.1 mb/d of diesel.<sup>7</sup> If you look at the medium term reference case<sup>8</sup> oil demand outlook from OPEC for the year 2016 the estimations lie by only 8.4 mb/d of oil for the OECD Asian countries combined while China trumps it with 11.5 mb/d<sup>9</sup> already, and that is only a three years outlook from now. As you can see China overshadows Korea and Japan completely with its hunger for energy, especially oil. Cooperation based on such inequality in the case of demand could be a huge problem for the power relations inside of the cooperation between the countries.

China is not a member to the bigger international organizations as the OECD (Organization for Economic Co-operation and Development) or the IEA (International Energy Agency) while Korea and Japan both are and Russia has been cooperating with the OECD since 1992 and joined the OECD Nuclear Energy Agency in May 2012<sup>10</sup>, which gives those three countries a common ground for cooperation. Not only this but also the fact that Chinas political system diverges from the democracies and multi-party-systems in Korea and Japan, which could make it quite difficult to find common legal ground for a functioning cooperation under the importing countries. The regional institution of the Asia Development Bank (ADB) groups the countries similar in their report of 2013.<sup>11</sup>

As it is clearly shown in figure 2, Korea and Japan have similar democracy merits – which are “high”, while China resides under “very low”. This data shows how difficult it could be to find common ground to cooperate within the 3 named importing countries. It is crucial for

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<sup>7</sup> “*Global Transport Scenarios 2050*”, World Energy Council. UK, London: 2011, p.40.

<[http://www.worldenergy.org/documents/wec\\_transport\\_scenarios\\_2050.pdf](http://www.worldenergy.org/documents/wec_transport_scenarios_2050.pdf)>

<sup>8</sup> “*World Oil Outlook 2012*”, OPEC. Austria, Vienna: 2012.

<[http://www.opec.org/opec\\_web/static\\_files\\_project/media/downloads/publications/WOO2012.pdf](http://www.opec.org/opec_web/static_files_project/media/downloads/publications/WOO2012.pdf)>

<sup>9</sup> Ibid., pp.56.

<sup>10</sup> “*The Russian Federation and the OECD*”, OECD. Accessed 11/12/2013.

<<http://www.oecd.org/about/secretary-general/therussianfederationsaccessiontothenuclearenergyagency.htm>>

<sup>11</sup> Masahiro Kawai, “*Financial Development Cooperation in Northeast Asia*”; ADBI Working Paper Series, Asian Development Bank Institute: No. 407, February 2013. pp.4.

the importing countries to be able to communicate on common ground to project unity while collaborating with the exporting countries.

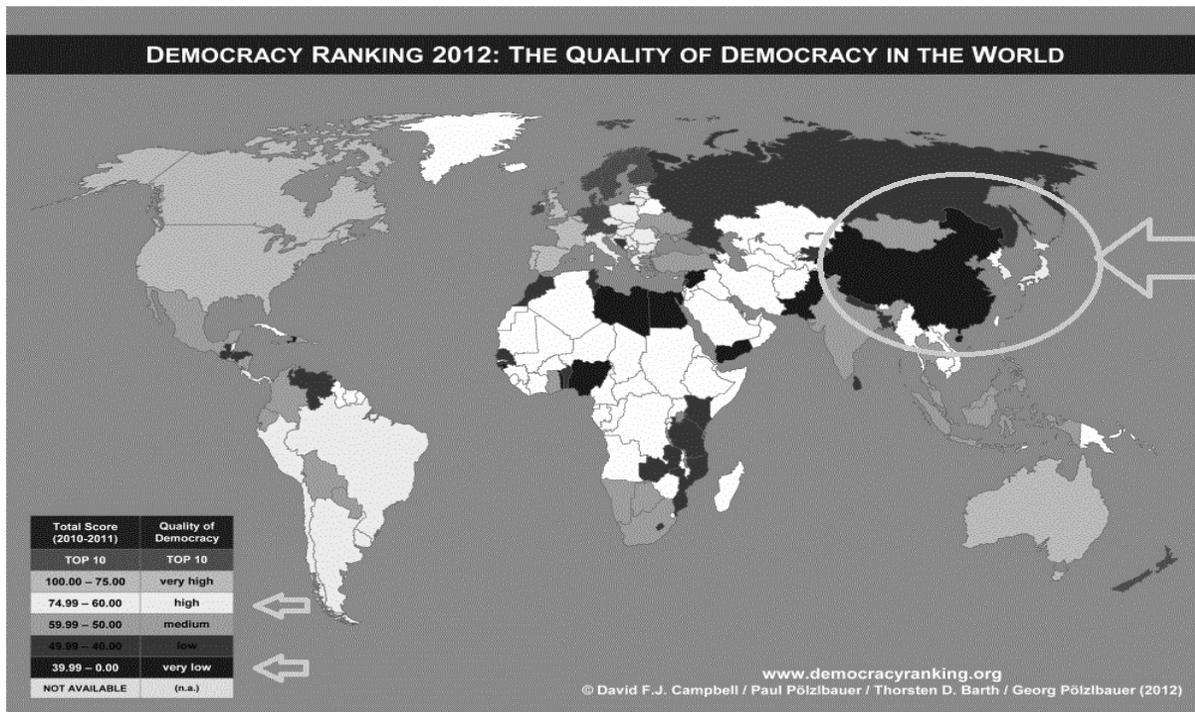


Figure 2<sup>12</sup>

Furthermore the goal of this energy security cooperation is, to successfully cooperate between the exporting countries and the importing countries. I believe that it is in Russia's greater interest, in order to maintain its geopolitical and economic position to cooperate with its neighbors Korea and Japan, to offset China's growing economic and military power over North East Asia. Even though Russia and China have been close strategic partners since the late 1990's there are more and more speculations that Russia will align itself with other powers, such as the US-led West or other Asian powers. As the East Asia Forum stated in 2012, "Russian leadership

<sup>12</sup>“Democracy Ranking 2012”, Global Democracy Ranking.org: 2012.

<[http://democracysranking.org/wordpress/?page\\_id=57](http://democracysranking.org/wordpress/?page_id=57)>

Mission statement: The Democracy Ranking is an annual ranking of all democracies (country-based democracies) in the world by focusing on the Quality of Democracy in an international perspective. The Democracy Ranking publishes the ranking scores and displays ranking score increases or decreases over time. The Democracy Ranking is a ranking of the Quality of Democracy in the sense that the ranking scores should reflect a ranking of democracies according to their differing qualities;

is well aware that China, with its growing strategic capabilities, may pose a serious geopolitical risk in the future.”<sup>13</sup>

I am focusing solely on oil, since it is one of the rare international industries/products that concern every country in the world. Oil is still the biggest energy supply, followed by coal, which is shown by the International Energy Organization in 2012 in figure 3.

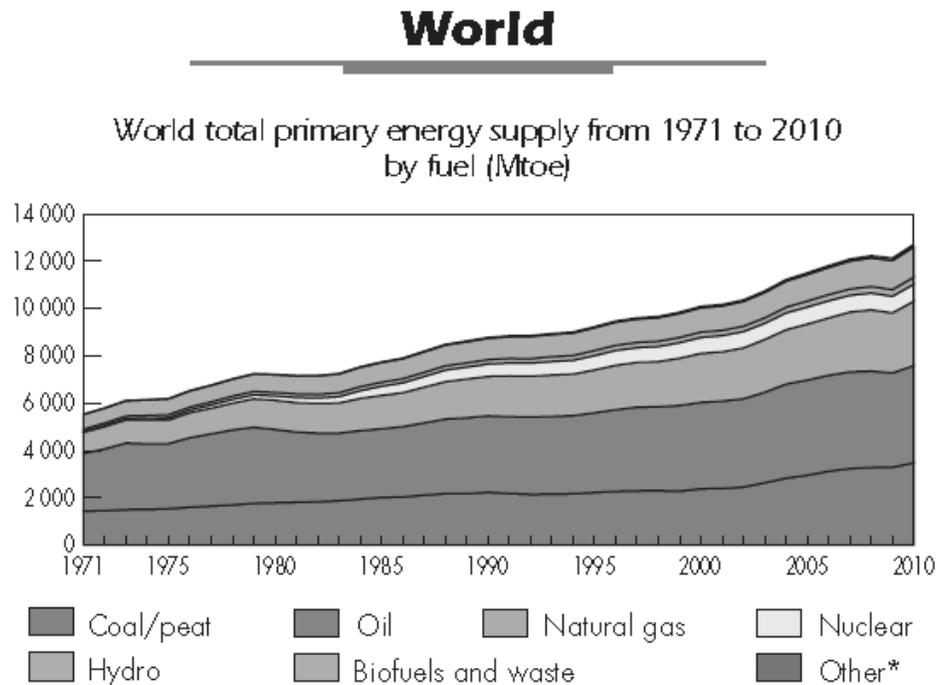


Figure 3<sup>14 15</sup>

Crude oil is used to not only make gasoline but also diesel fuel, home heating oil, jet fuel, chemicals and other products such as plastics, fertilizers and pesticides.<sup>16</sup> One of the major aspects of crude oil is that it is the main resource to extract hydrocarbons, which are used to create fuel and other chemical materials, as well as to create electric energy when burned.

<sup>13</sup> “Russia: between the US and China”, East Asia Forum, East Asian Bureau of Economic research: July 24th, 2012. <<http://www.eastasiaforum.org/2012/07/24/russia-between-the-us-and-china-2/>>

<sup>14</sup> “IEA key world energy statistics”. International Energy Agency. France, Paris: 2012.

<sup>15</sup> toe: tonne of oil equivalent is a unit of energy: the amount of energy released by burning one ton of crude oil/megatone (Mtoe)

<sup>16</sup> Freudenrich, Craig, “How Oil Refining Works”, 04 January 2001. Accessed 11/12/2013. <<http://science.howstuffworks.com/environmental/energy/oil-refining2.htm>>

Although there are many new ideas on how to substitute oil, it seems very clear that those changes will not be made anytime soon. Wind and solar energy for example became more and more developed over the years, but they are not going to be significant energy sources or provide raw material for pharmaceuticals and plastics like oil does. Especially the infrastructure is relying on oil, in every country around the world. Not even natural gas (which is the most likely substitute option for oil) will be able to replace oil, since the infrastructure isn't in place to allow natural gas to become a tangible replacement for oil any time soon.<sup>17</sup> It also shows in this calculated data from the International Energy Agency - an outlook of total primary energy supply (TPES) till the year 2035. In both scenarios, oil is still a strong competitor to natural gas even in over 20 years from now. The NPS (New Policies Scenario) is based on announced policy commitments and plans, while the 450S (450 Scenario) is based on policies under consideration, as well as on a plausible post-2012 climate-policy framework to stabilize the concentration of global greenhouse gases at 450 ppm CO<sub>2</sub> -equivalent.

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<sup>17</sup> “*No Substitute for Crude Oil on the Horizon*”, The Energy Report: Apr 08, 2010. Accessed: 11/12/2013. <<http://www.marketoracle.co.uk/Article18494.html>>

## Fuel shares of TPES in 2035 for New Policies Scenario and 450 Scenario

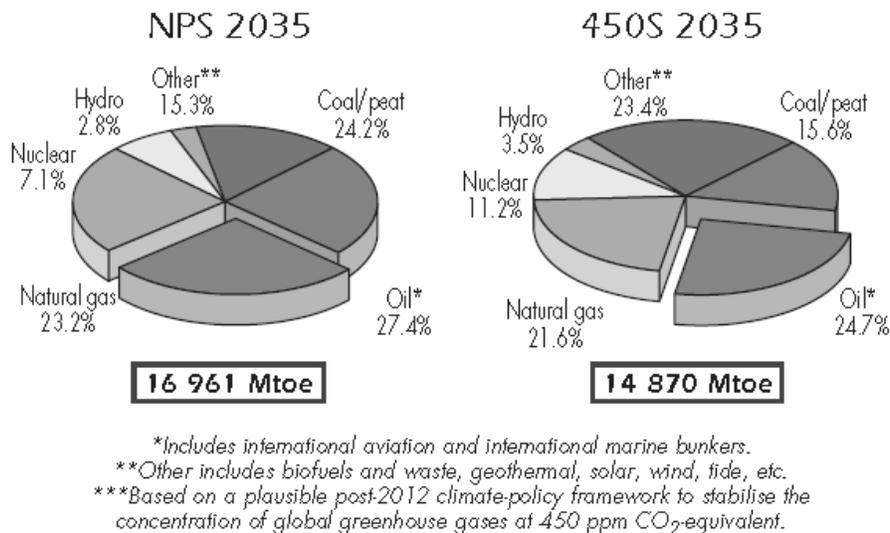


Figure 4<sup>18</sup>

Particularly for growing and developing countries in the infrastructure sector oil will be the main product to rely on, not only in the near future but also in the far future. The transition from oil to natural gas will not happen any time soon and it is not said that the countries that are facing problems with oil right now will not face similar problems with natural gas. The problems arising with oil imports and exports will just change the scene and will have to be translated to problems related to natural gas imports and exports. My intent is to bring light to the problem of regional energy security cooperation in North East Asia on the example of oil. If we can understand the main issues behind that, we can hopefully translate it to other products such as natural gas in the future.

<sup>18</sup> “IEA key world energy statistics”. International Energy Agency. France, Paris: 2012.

## **A. STATEMENT OF PURPOSE**

The purpose of this thesis is to examine and redefine energy security in a context of political dialogue and already established cooperation dialogues. My thesis will be divided in an introduction to the topic and three main parts which will cover the examinations of term definitions, an elaborate literature review on the relevant aspects of this topic and an overview over the current cooperative situation in North East Asia. Furthermore I will cover the idea of energy security related cooperation between the mentioned nations. Here I will deliver a detailed framework and deliberate about whether this could be a possibility in the future as well as how it could benefit the participating nations. The last part will consist of an analysis of already existing projects in the energy security sector to evaluate the effort which is taken in this direction.

The main research question for this thesis will be the very obvious one: Why did energy security cooperation failed so far? After careful research of the phenomena of non-cooperation between the previous mentioned North East Asian countries of Korea, Russia and Japan, I hope not to find a solution to the problem of the high energy demand in that region. Moreover I hope to find a common ground for possible energy projects which could be used to enhance political stability in the North East Asian region, as well as start political dialogues between countries which have unsolved historical and territorial issues until today and therefore lead to cooperation.

My core research will lay in the phenomenon of lacking oil security cooperation between the respective countries as well as ongoing projects. I will evaluate and examine the main reasons why a regional cooperative hasn't been created yet and lead to a greater understanding of the regional cooperation issues in that area. Moreover I will analyze the possibility of a political dialogue through common energy security projects. My main research question is founded on the assessment of various existing international cooperation dialogues, which I will assess in a later

chapter, as well as that the North East Asian area has the requirements for a positive cooperation in the energy sector; and that cooperation on energy security has shown benefits for the participating countries in regional cooperatives elsewhere (ex. European Union). It has been assumed that cooperation between North East Asian countries would be necessary since all are facing the same major challenge to secure their energy supply. However, in the spite of shared sense of necessity, regional energy cooperation was largely unsuccessful.

I would like to enhance the research question about the cooperation failure so far with the deliberation if a concept of energy security cooperation is possible, necessary and furthermore beneficial for all parties involved. The final purpose of this thesis is to be able to have a clear overview over the issues involving the three countries and their non-cooperative energy situation, finding the reason why it was simply impossible to have a functioning cooperation embedded in the IR theory of Realism, and linking the positive and negative aspects together.

## **II. LITERATURE REVIEW**

### **A. METHODOLOGY**

#### **1. Approach/ Data used**

My thesis will approach the topic with a comparative analysis. I intend to combine qualitative with quantitative research, by using official statistics, maps, personal opinions of specialists, research paper previously written on my subject as well as examine acknowledged theories in International Relations. For the purpose and better understanding of this paper I will examine and discuss the difficulties of defining energy security as well as the importance of oil geopolitics; Furthermore I will explain since when the term of energy security became a focus in politics, while the last part will consist of a critical analysis of the theoretical framework I will

use for this thesis. The second main part of this thesis will consist of a critical analysis of previous and today's events in oil cooperation between Korea Russia and Japan, from which I will draw my conclusions and answer my research questions, previously stated. As for most of the statistical data related to oil, as well as other data related to the respective countries and their energy security information and most of the displayed tables or figures in this thesis I will rely highly on the published and confirmed data of the IEA.

For the discussion about the definition of energy security in the first main part, I mostly rely on the research by Arnold Wolfers and David A. Baldwin, both pioneers in coining the concept and first definitions of security in general. Besides the traditional conceptualization I will use modern definitions on energy security from international Organizations such as the NATO, APEC or the UNDP. To explain why I depend on Realism as my theoretical background I will rely on the work H.J. Morgenthau as well as J.J. Mearsheimer, who fundamentally shaped our concept of Realism. However I will also use younger work from Gal Luft and Anne Korin, to deepen the understanding on how energy security as concept fits in an International Relation Theory, to be able to construct a well-rounded picture of the connection between the basic theory and the application of it to today's energy security issues.

In the second main part I will mostly rely on the governmental or energy security related domestic organizations and structures information released of the respective countries, the IEA data and published information as well as the research of Kent E. Calder about geopolitics and energy insecurities in North East Asia. Furthermore I will rely on and assess the different projects and discussions of international organizations concerning energy security cooperation, with of them provided data as well as project reports and statements on these matters.

My goal and contribution to this topic is to present a well-rounded thesis with a collection of informational data tables, including import and export numbers, energy security cooperation related project data and progress as well as a good overview over the main research which has been done in the field so far.

## **B. ENERGY SECURITY**

To define energy security, we firstly have to focus on the question: what does “security” mean in general? While researching the field of security it is hard to find studies concrete on the definition of it. Usually it is just commonly regarded as important without any specification.

Traditionally, the concept of international security has been associated with the use of force between states, with a special focus on great power military actions.<sup>19</sup>

Arnold Wolfers, a professor of political sciences was one of the first people working on a concrete concept of security in his text “National Security” as an ambiguous symbol<sup>20</sup>. He figured that Statesmen, publicists and scholars are tending to advocate, that the foreign policy they support is dictated by the national interest, more specifically by the national security interest. “The absence of threats to acquired values” was his core definition. Acquired values are to be different in every country and culture. He also defined the term “security” as covering a range of goals so wide that highly different policies can be interpreted as policies of security.

Based on Wolfers critical assessment David A. Baldwin wrote also about the concept of security and refined it<sup>21</sup>. His core definition of security is “A low probability of damage to acquired values”. In his definition he took in account that threat not always has to involve a human act. In the case of an earthquake for example, there will be damage, but no human act is

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<sup>19</sup> St. Jean, *“The Changing Nature of International Security: the Need for an Integrated Definition”*.

<sup>20</sup> Wolfers, *“‘National Security’ as an Ambiguous Symbol”*.

<sup>21</sup> Baldwin, *“The concept of security”*.

involved. Since national security can be a dangerously ambiguous concept if used without specification he identified seven categories of security policy<sup>22</sup>, which I want to present here shortly. For a scientific understanding on policy goals it is important to know for whom the security is intended (the individual, state or the international system); for which values the security is intended (physical safety, economic welfare, political independence and territorial or ideology such as freedom, peace and liberal democracy); how much security is needed (it is important to specify the degree of security a country has or seeks) as well as from what kind of threats are we seeking security. For systematic comparison of policy alternatives it is essential to know by what means, costs and in what time period (short-, long run) security is wanted.

The global security perception underwent a major change. It went from the seeming stability of the bi-polar power balance to a system in which sub-national groups and organizations gained more and more power. Comprehensive security and human security gains more and more importance as opposed to military security. The dimensions of security have changed with respect to the following: who should be secured; the nature of international threats; and the kind of reactions that are authorized to manage threats. Security has become an essential element of all areas of public life and basic needs of all natural and social systems. As a constitutive part of the democratic political order, it is the basis for action and planning as well as an enormous challenge not only in the defense of potential dangers. Although many areas of research are dealing with security and it is part of many different discourses, the term security remains a vague concept of huge size under continuous change. So far, nobody in political science has been able to find a final and really satisfying definition of the term security. This is remarkable, as the term has been around since a very long time already. The difficulty in the definition is that security has become an overarching term in the modern world. This means, that

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<sup>22</sup> Baldwin, "*The concept of security*", pp.13-17.

this term has now been drawn into all kind of non-traditional security areas. Furthermore security is one example in (international) policy as one of the most controversial concepts: with it, governments will decide on the priority of policy objectives and the choice of means by which these objectives are to be achieved.

Energy security is one of the new and non-traditional terms in this “jungle of security-terms”. In a very broad definition it can relate to many different factors, which depends on where it is placed in society.<sup>23</sup> Energy as such contains all substances that can deliver or produce energy, like oil, gas, electric energy and others. This part will serve as a general understanding of energy security and its elements, while later I will discuss energy security in relation to the international relations<sup>24</sup> theory of Realism.

There is no universal definition of the term energy security, which leaves us in broad field with small differences in the importance where energy security is placed. Some definitions divide the importance of energy security into two spheres, the political and economic one. Others, like many organizations affiliated with energy have different definitions. The Asia Pacific Energy Research Centre for example defines energy security in its report, “A Quest for Energy Security in the 21st Century”, as the ability of an economy to guarantee the availability of energy resource supply in a sustainable and timely manner, with the energy price being at a level that will not adversely affect the economic performance of the economy.<sup>25</sup> Which is close to the definition the United Nations Development Programme, however they extended it towards a producer and a consumer side as well as towards the environment. In the UNDP World Energy

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<sup>23</sup> Ebinger, K. Charles, “The Meaning of Energy Security Depends on Who You Are”, Brookings: October 10, 2011. Accessed: 11/12/2013.

<<http://www.brookings.edu/research/opinions/2011/10/10-energy-security-ebinger>>

<sup>24</sup> In the following: IR

<sup>25</sup> “*Asia Pacific Energy Research Centre, A Quest for Energy Security in the 21st Century*”, Asia Pacific Energy Research Centre, Japan: 2007.

Assessment report energy security was defined as the availability of energy at all times in various forms, in sufficient quantities and at affordable prices, without unacceptable or irreversible impact on the environment. These conditions must prevail over the long term. Energy security has both a producer and a consumer side.<sup>26</sup>

Taking a wide-ranging economic focus that energy security equals a stable supply of energy for the respective economy as well as price spikes and their effects on the respective country. In this thesis I will emphasize on this; which is widely referred to as supply security<sup>27</sup>. Supply security focuses on a stable, not disrupted supply, as well as domestic stocks which can be used in emergencies. These economic factors prevail for the two nations Korea and Japan; depending so massively on foreign resources. However we should not limit our understanding of energy security on its economic aspects only – sometimes the economic factors go hand in hand with political aspects. NATO (although not direct members - Korea and Japan are global partners and Russia is a member of the Euro-Atlantic Partnership Council)<sup>28</sup> for example has “3 main pillars” of their energy security acquis which mirrors the crosslinking of the economic and political aspects in energy security. The first pillar contains dialogue and sharing of information and intelligence among the allies and partner countries as well as the private sector. It focuses directly on the critical energy infrastructure, transportation and secure energy supply – also to the military forces. The second pillar accounts for stability, which means political dialogue and military cooperation between partner countries, while the third pillar lies on critical energy infrastructure protection, surveillance of sea lanes and territorial waters through civilian experts

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<sup>26</sup>“*World Energy Assessment: Overview 2004 Update*”, UNDP: 2004.

< <http://www.undp.org/content/dam/aplaws/publication/en/publications/environment-energy/www-ee-library/sustainable-energy/world-energy-assessment-overview-2004-update/World%20Energy%20Assessment%20Overview-2004%20Update.pdf> >

<sup>27</sup> Winzer, Christian, “*Conceptualizing Energy Security*”, University of Cambridge, Electricity Policy Research Group: 2011.

<<http://www.dspace.cam.ac.uk/bitstream/1810/242060/1/cwpe1151.pdf>>

<sup>28</sup> NATO. Accessed: 11/12/2013. < <http://www.nato.int/cps/en/natolive/51288.htm>>

or military means.<sup>29</sup> These structures show not only that you cannot completely separate the economic and political aspects of energy security but also the dual nature of energy security. At one hand we have energy as a means, for political and economic goals and on the other hand we have energy as an objective in energy supply.

From an energy exporter's point of view energy security mostly means sustaining and finding new markets to export, for the same political and economic stability reasons as mentioned for the importing countries above. As Iran's oil minister Mr. Gholamreza Aghazadeh noted: "The majority of oil exporting nations are in need of demand security and a guaranteed level of oil income for their economic development".<sup>30</sup> In Russia's case it is similar and means competing with other huge oil exporters for old markets and establishing new markets for its energy exports, which might be happening for example in Asia.<sup>31</sup>

### **C. OIL GEOPOLITICS**

Geopolitics means by broad definition international relations from a geographical perspective, which is important to understand the matter of oil politics when you consider that energy in /securities, are highly influenced by the physical geographical location of the resources of (in this case) oil. Geography and politics are complexly intertwined with each other, since geography basically creates the basis for political calculations.

Location is still a crucial factor in the energy sector. While the world might be "flat" in the political-economic aspects due to globalization (Thomas L. Friedman), natural resources, contrasting to service or manufacturing industries, remain at a permanent location. You can

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<sup>29</sup> NATO. Accessed 11/12/2013.

<[http://www.nato.int/docu/review/2011/Climate-Action/Energy\\_Security/EN/index.htm](http://www.nato.int/docu/review/2011/Climate-Action/Energy_Security/EN/index.htm)>

<sup>30</sup> Energy compasses, Fax file 31. May 1991.

<sup>31</sup> Amotz, Asa El, "Tokyo-Moscow thaw to hurt Mideast oil exporters". Marketwatch: May 3 2013.

<<http://www.marketwatch.com/story/tokyo-moscow-thaw-to-hurt-mideast-oil-exporters-2013-05-03>>

compile the details why geography is still an important part of oil politics in 4 basic concerns. Firstly, the global supply of hydrocarbon resources, which are available for importing countries are highly concentrated in a small number of geographical regions. Secondly Asia has itself no geopolitical capacity to ensure sufficient supply. Thirdly, the very interesting fact that while the major countries of demand and the major sources of hydrocarbon/ crude oil supply countries are oddly close to each other geographically, political as well as cultural restraints between those regions have kept them apart. Lastly pipelines are gaining importance in supplying hydrocarbons/ crude oil especially as political barriers erode and energy demand expand gradually.<sup>32</sup> So basically those energy relevant geographical dimensions are bringing continental overland relationships back in the focus of East-Asian foreign politics.

Due to historical issues which developed into today's political disagreements and territorial issues, especially between Korea and Japan there is no well-developed transnational oil pipeline to counterbalance the domestic demand in North East Asia in contrary for example Europe and North America. But there is not only no well-developed transnational pipeline but the East Asian nations are also lacking powerful domestically based multinational energy firms to ensure an uncomplicated access to international oil markets beyond their region.<sup>33</sup> Furthermore it is very clearly, that especially in East Asian countries the oil/energy demand is rising much faster than in Western nations due to their development status and without sufficient domestic reserves to support that demand.

The international dimensions of this geopolitical dilemma are mostly arising due to the concentration of countries with an absolute demand of crude oil and a rapid growth in energy demand in one region, without a counterbalance. In addition to Korea and Japan, China and India

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<sup>32</sup> Calder, Kent E.; *"The New Continentalism – Energy and Twenty-First-Century Eurasian Geopolitics"*. pp. 28.

<sup>33</sup> *Ibid.*, pp. 33.

are also seeking large amounts of imported energy in form of oil, along the same sea lanes from the Middle East. The problem here is that all those nations are either already major powers or on their way there with their own economic power on the world stage, which affects not only the world market but also the competition or possible cooperation between those countries. Energy markets are global and resources should be theoretically be flexible transferable from one region to another. In reality however, being in an energy-short neighborhood can be a disadvantage for Korea and Japan in form of close and strong competition with other countries which leads to a lack of geopolitical leverage for both countries.<sup>34</sup>

### **1. Global matters that drive/drove the North East Asian Energy issues**

The North East Asia Energy Forum (NEAEF) released 2009 an issue analysis of North East Asian energy cooperation. They divided the main issues in two main points: Firstly, the recovery from the global financial crisis back then, which changed the North East Asian energy supply and demand significantly due to the changes in global economy. And secondly, the changing prices of energy, which is a major factor for energy importing countries.<sup>35</sup> Although this report was written almost 3 years ago, at the end of 2009, the issues haven't changed much. It is still a question of price, where to buy the oil or where to sell it, as well as the North East Asian countries are still facing the high demand of energy, especially oil. The report also points out one of the major problems of a successful cooperation between the North East Asian countries. The major obstacle was back then as well as today the lack of any large scale change in the inability to finance cross-border infrastructure.<sup>36</sup> They don't stay alone with this

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<sup>34</sup> Calder, Kent E.; *"Korea's Energy Insecurities – Comparative and Regional Perspectives"*. pp.17-18.

<sup>35</sup> Northeast Asia Economic Forum, *"A current issue analysis and approach for Northeast Asia energy cooperation"*, compiled December 31, 2009. Pp. 7.

<sup>36</sup> *Ibid.*, pp. 9.

assessment; the Asian Development Bank (ADB) sees as well the need to develop the North East Asian cross-border infrastructure to mainly strengthen connectivity as well as create economic benefits amongst others: in energy security.<sup>37</sup> However despite the financial aspect of such cross-border infrastructure it is extremely dependent on the political decisions made by the involved countries, which is a highly unstable factor due to the rivalries, historical and territorial issues between the North East Asian countries. The NEAEF states clearly that those barriers of political or national nature have to be alleviated in order to realize such cross-border projects.<sup>38</sup>

Furthermore, historical events of energy supply disruptions have nurtured the importance of energy security. The events in the Middle East between 1956 and 1973 can be seen as the start of energy securitization.<sup>39</sup> On July 26, 1956 Gamal Abdel Nasser, President of Egypt at that time, froze the assets of the international oil companies as well as nationalized the Suez Canal. The Suez Canal is and was a key waterway for world trade, also in the energy/ oil sector.<sup>40</sup> Since the Suez Canal was vital for the energy supply in Europe, this temporary disturbance was one of the first realizations, that energy supply could be interrupted. However, this event was just the start of later interruptions in 1967 and threats of decreasing oil production in 1973. The outcome of these events was the realization of how political issues could disrupt energy supply as well as increase the price of energy and revealed the fragile economic relations between energy ex- and importing nations.

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<sup>37</sup> Masahiro Kawai, ADBI Working Paper Series, “*Financial Development Cooperation in Northeast Asia*”; Asian Development Bank Institute: No. 407, February 2013. pp. 3.

<sup>38</sup> Northeast Asia Economic Forum, December 31, 2009. pp. 9.

<sup>39</sup> Belyi, Andrei V.; “*Energy Security in International Relations (IR) theories*”, Higher School of Economics Cathedra on political issues of international energy. <<http://www.paperedu.org/docs/index-27996.html>>

<sup>40</sup>“*1956: Egypt seizes Suez Canal*”, BBC.

<[http://news.bbc.co.uk/onthisday/hi/dates/stories/july/26/newsid\\_2701000/2701603.stm](http://news.bbc.co.uk/onthisday/hi/dates/stories/july/26/newsid_2701000/2701603.stm)>

## **D. THEORETICAL FRAMEWORK OF THE ANALYSIS**

This part will examine the previous research done on how energy security can be placed in IR theories. For the purpose of this paper I will assess and compare the different perspectives on how energy security can be embedded in the different views of IR theories as well as provide a critical summary to determine why I chose Realism to be the theory of international relations which is suited best for the analysis of energy security. There hasn't been too much research on the theoretical classification of energy security yet, mostly because of the fact that the term energy security itself is fairly new and is still subject to identification and analysis.

Energy disruptions occurring in the Middle East between 1956 and 1973<sup>41</sup> were somehow marking the beginning of a global interest on conceptualizing energy security like I mentioned previously. Since then many scholars tried to integrate energy security in existing IR theories, which has not been completely sufficient due to the lack of theoretical background in energy diplomacy, which were not identified or analyzed in international relations for a long time.<sup>42</sup>

### **1. Realism**

Realism in a very general way focuses on nation states and their relationships to each other. The main focus lies on military power struggle, the maximization of power within the state and security competition. The Realists core assumptions are that the nation state is the principle actor in International Relations. Furthermore the nation state is a rational, autonomous and unitary agent, which means it has the same goals and behavior regardless of the regime and tends to pursue self-interest. The primary concern of all states is survival. The Realists see the international system as anarchic, without a central authority as well as an omnipresent state of

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<sup>41</sup> See chapter C1. Energy supply disruptions

<sup>42</sup>Cesnakas, Giedrius; "*Energy resources in foreign policy: A theoretical approach*", in *Baltic Journal Of Law and Politics*, Volume 3, Number 1: 2010.

war leading to mistrust between the states. Or as Fred Halliday claims, “Realism treats states as unitary actors seeking to maximize their advantages within a competitive, or „anarchical“ system, pursuing power politics.”<sup>43</sup> The Realist theory itself has many different schools which have slightly altered some thoughts; however the main pillars remain the same.

In today’s world energy resources are important elements of state power, economically as well as military. The more resources or access to resources a state has, the more powerful is and secure is it. As Gal Luft and Anne Korin stress that: “Realists point out that through history, certain commodities, and in particular energy commodities, minerals, water and food have had a strategic value beyond their market price and as such they have been repeatedly used as tools of foreign policy by exporters and have been among the prime catalyst of armed conflict.”<sup>44</sup> Furthermore, H.J.Morgenthau, one of the most influential IR theorists up till today, defines natural resources as hard power. He evaluates that hard power does not only consists of armed strength but also other elements such as: “geography, natural resources, industrial capacity, military preparedness, population, national character and morale, and quality of diplomacy and government”.<sup>45</sup> These factors he listed have an enormous effect on the state’s industrial power and can be therefore classified as elements of hard power. Taking these notes in consideration oil, as a main energy resource and from vast importance for exporting as well as importing countries are in my opinion best evaluated within the Realist theory. Furthermore, nation states in the Realist view are considered to be rational actors meaning that they are defined by their main interest, which is power and survival. Without sufficient energy resources such as oil, survival and power cannot be generated, especially when a nation has to no such resources on their own

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<sup>43</sup> Halliday, Fred; *“The Middle East in International Relations: Power, Politics and Ideology”*. Cambridge University Press, New York, USA: 2005.

<sup>44</sup> Gal Luft, Anne Korin, *“Realism and Idealism in the Energy Security Debate”*; in Gal Luft, Anne Korin, eds., *Energy Security Challenges in the 21<sup>st</sup> century. A reference handbook*. USA: 2009.

<sup>45</sup>Sutch, Peter; Elias, Juanita; *“International Relations: The Basics”*. New York: Routledge 2007, p.49.

and has to rely on imports, like in the case of Korea and Japan. For energy producers, such as Russia however it means to seek out the security of demand, to have a long term, predictable and regular income to establish survival and power from a national budget perspective. In the case of Russia, oil as an energy resource under the Realist point of view can also be seen as a factor to win geopolitical power over other nation states, as for example in 2004-2009 when Russia expanded its gas exports to the Ukraine and Belarus and expanded its influence over those states. Realism also explains why there has been no functioning cooperation between the North East Asian countries yet. A major point in the Realist theory is the competition of the states in an anarchic international system. Every nation state is only concerned about their own power struggle and survival. It is easily translated to how the North East Asian States act right now in energy politics. Every state tries to solve their energy problem and insecurities in their own way without any binding cooperation, visible in the case of China and Japan, while trying to outbid the other state in the fight over the Russian oil and gas pipelines, instead on cooperating in that matter.

## **2. Why not other IR theories?**

Each paradigm of International Relations theory has its own set of strengths and weaknesses. However, in context to energy security cooperation the Realist paradigm in my opinion is much stronger and dominant than its counterparts. I will shortly describe why I believe that other IR theories are insufficient to describe today's non-cooperation situation in North East Asia as well as why they are not suited to describe the problem of energy security cooperation.

While Realism's main concern is security and order, liberalism is more concerned with the nature and dynamics of the international political economy. For liberals, the foundations of the

post-war international relations of Asia were laid by the post-World War II international economic system under American hegemony. The US was a main player in creating international institutions such as the IMF or the World Bank which played a crucial role in diffusing the norms of economic liberalism. From a liberalist point of view, expanding interdependence will foster peace. The obvious problem with this theory in regard to North East Asia is that it doesn't explain the missing cooperation or the missing intergovernmental institutions. Liberalism fosters ideas like global communities, trade, co-binding practices as well as democratic peace. North East Asia up till now has no regional community and is up till date involved in selfish territorial, economic as well as power struggles. While Realism gives clear aspects why energy security cooperation wasn't successful so far, Liberalism gives us good aspects, why energy security cooperation could be beneficial for the countries without being able to explain the non-existence of such cooperation.

Constructivism's main instruments are ideas and discourse. The state behavior is shaped by elite beliefs, collective norms, cultural and social identities. The interests and identities of states are not predetermined, or a given, but are emerging and changing through a process of interactions and socializations with each other. Conditions such as anarchy and power politics are not permanent features of international relations, but are socially constructed. Constructivism, similar to Liberalism gives us aspects why energy security cooperation could be of great benefit of all the participating countries; however ceases to explain why it didn't happened so far. Constructivists are stretching the idea of an Asian identity which should lead to cooperative behavior. However, the North East Asian states have similar but not identically cultural identities, and therefore no common cultural identity to use as a start base for energy security cooperation.

### **III ENERGY COOPERATION**

#### **A. Benefits**

The benefits of energy security cooperation on the importing countries side can be summed up in three points. Firstly, a common stockpile could not only enhance the amount and therefore security but also enhance the leverage for crude oil prices. Asia still has to deal with the so called ‘Asia Premium’<sup>46</sup>, meaning that the price of the Middle East crude oil imports for Asia is perceived higher than the oil exports for North America or Western Europe due to their heavy dependence on the Middle East. Korea and Japan could try to create a crude oil stockpile to be big enough to enhance their bargaining power in international oil prices as well as achieving a safer balance of supply and demand.<sup>47</sup> Therefore secondly, energy security cooperation is of economic benefit, on a country as well as regional level. Thirdly, energy security cooperation can create political benefit in the sense of strengthening the political bonds between the participating countries as well as in the sense, that in any emergency situation the energy is secured and creates a political stability for the government in the respective countries itself.

#### **B. Necessity**

From geopolitical view energy cooperation in North East Asia is more than overdue. With Russia as the only oil supplier in the region and the extremely scarce resources of oil in Korea, Japan and China, energy projects so far have often brought competition or even territorial disputes between the countries. For example the competition of China and Japan for the Eastern

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<sup>46</sup> The studies about the ‘Asia Premium’ (1-1.5 US\$) are divided over the interpretation of this price differential. It can be seen as a discount for the Atlantic markets given the imperative of Middle Eastern national oil companies, which have large export programs, to diversify exports by region to decrease risk. Others see it as a premium Asian nations pay due to their heavy dependence on Middle Eastern oil.

Doshi, T. K. ad N. S. D’Souza (2011), *The ‘Asia Premium’ in Crude Oil Markets and Energy Market Integration*, in Kimura, F. and X. Shi (eds.), *Deepen Understanding and Move Forward: Energy Market Integration in East Asia*. ERIA Research Project Report 2010-25, Jakarta: ERIA. pp.152-190.

<sup>47</sup> Doh, Hyun-jae; “*Energy Cooperation in Northeast Asia: Prospects and Challenges*”, pp.17-18.

Siberia–Pacific Ocean oil pipeline (ESPO), which China won in the end.<sup>48</sup> Furthermore all countries are trying to expand and discover new oil or gas fields in the Yellow Sea or the Eastern Sea,<sup>49</sup> which will lead to more competition and rivalry and therefore political problems between the major oil importing countries. So in order to prevent these potential conflicts from happening, an institutionalized cooperation amongst them might be a solution and a possibility to strengthen the national energy security for the consuming countries. However, energy security cooperation can not only strengthen the political bond between the importing countries. From a simply political perspective it could diminish the political as well as economic dependence on the Middle East. From an economic point of view energy security cooperation could help dealing with the ‘Asia Premium’ as well as the dealing with the instability of the international oil and energy market in general. From a Russian Point of view, cooperation between Russia and major importing countries would not only create economic and political power and benefits but could also help to develop the Russian energy resources and help financing its vast and underfinanced infrastructure projects in Siberia.<sup>50</sup>

All those different aspects show clearly the ambiguous and multi-dimensional nature of energy security cooperation, since it is not only affecting one dimension but economic as well as political aspects when seen as a strategic resource. Furthermore inside the political or economic dimension energy itself or energy security have multiple facets, which makes it so difficult to cooperate on them.

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<sup>48</sup> Helmer John; “*China beats Japan in Russian pipeline race*”. Asia times: April 2005. Accessed: 11/12/2013. <[http://www.atimes.com/atimes/Central\\_Asia/GD29Ag01.html](http://www.atimes.com/atimes/Central_Asia/GD29Ag01.html)>

<sup>49</sup> Calder, Kent E.; “*Korea’s Energy Insecurities – Comparative and Regional Perspectives*”. pp.23.

<sup>50</sup> Just this October (2013), President Putin called out for Asian financial help at the APEC summit to develop the transport infrastructure from Siberia towards the Far East. With these projects he hopes to attract foreign companies and even more investments.

“*Invest in Siberia’ - Putin call to Asia-Pacific business partners*”. The Siberian Times: October 8<sup>th</sup> 2013. Accessed: 11/12/2013.

<<http://siberiantimes.com/business/investment/news/invest-in-siberia-putin-call-to-asia-pacific-business-partners/>>

### **C. Difficulties**

Despite the reasons speaking in favor of energy security cooperation in North East Asia, it has been largely unsuccessful until now. As mentioned before the energy security agenda is affecting economic as well as political aspects. Especially the historic geopolitical history of the North East Asian countries are difficult to overcome and still affecting today's political behavior tensions as well as towards each other, in form of territorial disputes or unsolved war issues. Political trust is very uncertain and hard to gain. Political mistrust leads to fewer investments due to the fear of uncertainty and tension, which means a huge lack of funding for cooperative projects. In addition to that, Asia as a cooperative region is a very new concept. There is only a very weak regional structure and it lacks prior experience. The economic mutual benefits are still uncertain since all energy security projects are pioneer projects in Asia, which means every country involved in such projects might not gain as much as they wished to gain. Furthermore it is unclear what geopolitical scope of cooperation can be the most successful and beneficial for the member countries. Since Russia is the only vast oil exporter and producer in North East Asia, she will and has so far taken advantage of the sole seller position, which leads to even more competition under the importing countries in order to have the best relationship, projects or oil deals with Russia to maximize their national interest.<sup>51</sup> Considering these conditions, especially in the framework of a Realistic view the current relationships between the North East Asian countries are inclined to be more of competitive than cooperative nature.

### **D. Possible conditions and framework**

It is important that we divide possible energy security cooperation between Korea, Russia and Japan on two levels. There has to be cooperation between the importing countries and the

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<sup>51</sup> Lee, Jae-seung; "Energy security and cooperation in Northeast Asia". pp.10.

exporting country as well as there has to be a cooperative mechanism under the two importing countries. It is vital for a functioning energy cooperation that the importing countries under each other have a close relationship, to stop arbitrary manipulation of the market by the energy exporting country as well as to cope in a fast and professional manner with the possibility of a disruption of the energy supply. They have to project a unity in front of the exporting partner country to be able to make clear decisions.<sup>52</sup>

### **1. Suggestions for Koreas and Japans Cooperation on oil**

The Inter-governmental Collaborative Mechanism on Cooperation in NEA (ECNEA) as well as the Network of East Asian Think Tanks Working Group (NEAT WG)<sup>53</sup> is approaching a framework similar to the IEA. The multilateral framework, as presented by the NEAT WG consists of five major components.<sup>54</sup>

First of all, all countries involved should respect and comply with the international law, especially the UN Convention 1982 on the Law of the Sea, which is especially important for Korea and Japan since all their imports are being shipped rather than coming per pipelines. Furthermore both countries should harmonize their respective domestic laws with the international law as far as possible to avoid conflicts as well as to create a common basis.

Secondly, for the importing countries it is from major importance to share their knowledge and information on oil, the exporting country and other oil related issues such as

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<sup>52</sup> Kim, Dalchoong; Sin, Euisoon; *“Energy policies in Korea and Japan : comparison and search for cooperation”* . Yonsei University Press, Korea, Seoul: 1986. pp.41.

<sup>53</sup>The NEAT WG was one of the think tanks to develop a complete framework for possible energy cooperation in Asia. At the meeting in 2005 the NEAT WG classified East Asia as a potential area for cooperation and wrote recommendations on how to achieve this possible cooperation. They tried to present a framework under which regional energy cooperation could be possible. The main components are regarded to be closely modeled after the International Energy Agency.

<sup>54</sup> *“NEAT Working Group Meeting on Energy Security Cooperation in East Asia”*, NEAT WG: May 6, 2005, Singapore.

<[http://www.ceac.jp/e/pdf/neat\\_wg5.pdf](http://www.ceac.jp/e/pdf/neat_wg5.pdf)>

energy sufficiency, funding and so on. This concept is partially already happening in the academic exchange of the Korea Energy Economics Institute (KEEI) with the Institute of Energy Economics, Japan, as well as cooperation and dispatch of staff to the Asia Pacific Energy Research Center, Japan (APEREC). The KEEI is furthermore engaged in information exchange with various Russian organizations as for example the Economic Research Institute, Khabarovsk, Russia, which could be of further importance in energy security cooperation between all three countries.

Thirdly, Korea and Japan should be working together on developing new energy sources, through direct development overseas as well as in domestic waters. Since Korea and Japan are geophysical so close to each other the two countries could diversify the risk of failing in oil development projects, reduce the required capital and secure the selling market. Especially Korea could utilize the advanced technology as well as managing skills from the more experienced Japanese oil development companies.<sup>55</sup> The Korea National Oil Corporation (KNOC) and the Japan Oil, Gas and Metals National Corporation (JOGMEC) already have many existing ties and information sharing channels which can be used easily for a successful cooperation. Not only joint exploration projects but also joint pipeline projects could be easier to bear financially when conducted together. A good example here is the Eastern Siberia–Pacific Ocean oil pipeline<sup>56</sup>, which could be the most important port in oil related energy cooperation between Korea, Russia and Japan, since it is the shortest way to distribute from Russia towards Korea and Japan by ship. Another important point is cooperation in transport related to the previous exporting countries.

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<sup>55</sup> Kim, Dalchoong; Sin, Euisoon; pp.42.

<sup>56</sup> The Eastern Siberia–Pacific Ocean oil pipeline is a pipeline system to export Russian crude oil to the Asia-Pacific markets (Japan, China and Korea). The pipeline is built and operated by Russian pipeline company Transneft. It starts in the Eastern Siberian oil deposits, goes over Skovorodino, from there one pipeline goes to China, the other one goes to Kozmino. Kozmino is located on the far East end of Russia, over Korea and is therefore the fastest way to ship oil to Korea as well as Japan.

Since Korea and Japan are both importing most of their oil share from the unstable Middle East, it would make sense to share information related to safe transportation via the sea lanes. Even though both countries try to be less dependent on Middle Eastern oil, it will take a while to substitute the Middle East with other exporting countries such as Russia; such a transformation cannot come over night, which makes it important to also consider the current situation, not only the future, or eventual situation.

Fourth, Korea and Japan already signed a strategic alliance agreement (SAA) in 2007 to strengthen bilateral cooperation in regards to oil stockpiling. Such executive meetings are held every year under the SAA.<sup>57</sup> Strategic stockpiling is very important for the importing countries since from a Realistic point of view it guarantees survival in the case of energy disruption, oil is still vital to Korea's and Japan's economic stability as well as national security. Eventually together Korea and Japan could have a bigger volume of oil stockpiles than on their own. Korea and Japan furthermore could cooperate by introducing swap systems of crude and surplus oil products, to meet sudden and temporary energy shortfalls. The geographical closeness as well as the similar composition of the origin of the oil imports would especially enhance the benefits from cooperation in that field.<sup>58</sup>

Lastly, the participating countries should make a step-up coordinating effort on energy maritime security. Since Korea and Japan are both receiving all of their oil through tankers over the sea, it is in their interests to have plan in the case of oil spills, or other unpredictable disasters involving the sea.

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<sup>57</sup> “*Korea-Japan executive-level Regular Stockpiling Meeting*”. Korea National Oil Corporation: Newsletter 2012 vol. 10. pp. 3.

<sup>58</sup> Kim, Dalchoong; Sin, Euisoon; pp.43.

## **2. Cooperation between the exporting and importing countries**

The second level of this cooperation triangle has to be between Korea, Japan and Russia. It is important that Korea and Japan can be able to project a unity as importing countries to reduce the conflicts between them and the exporting country. This cooperation should be divided in three areas, which should cover the sole buyer-seller relationship as well as the oil development and infrastructure area.

If Korea and Japan would be able to achieve a regular buying-selling relationship with Russia, they could avoid the Asia Premium oil prices from the Middle East, as well as provide Russia with a regular financial streak and furthermore gain geopolitical power to outbid China.

Russia as the exporting country is eager to expand its infrastructure net with pipelines and new ports to be able to deliver crude oil to North East Asia, as visible in the Eastern Siberia–Pacific Ocean oil pipeline project. However, it lacks funding. This funding, as well as technology could be provided from the infrastructure experienced countries Korea and Japan. Expanding Russia's oil infrastructure and pipeline net towards North East Asia is in the interest of all.

## IV CURRENT COOPERATIVE SITUATION IN NORTH EAST ASIA

### A. Current energy situation in Korea, Russia and Japan

#### 1. Korea

Korea has, like Japan, almost no crude oil production and is therefore completely dependent on its imports. Consequently Korea is, after Japan, the fifth country with the biggest import of crude oil worldwide with 2,240 thousand barrels per day. As a consumer of crude oil Korea is on place nine worldwide with 2,301 thousand barrels per day, as stated by the U.S. Energy Information Administration for the year 2012.<sup>59</sup>

<b>Key Oil Data</b>	<b>1985</b>	<b>1990</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Production (kb/d)</b>	-	-	-	13.0	9.8	14.2	19.0	20.9
<b>Demand (kb/d)</b>	551.7	1 048.3	2 007.7	2 135.3	2 191.3	2 142.3	2 185.0	2 248.6
<i>Motor gasoline</i>	19.0	64.9	163.9	170.5	162.9	172.0	179.8	188.9
<i>Gas/diesel oil</i>	149.6	279.1	481.2	379.1	413.9	388.3	381.5	389.2
<i>Residual fuel oil</i>	212.2	333.1	558.6	487.2	433.7	331.7	313.2	306.3
<i>Others</i>	170.9	371.1	804.1	1 098.6	1 180.9	1 250.3	1 310.5	1 364.2
<b>Net imports (kb/d)</b>	551.7	1 048.3	2 007.7	2 122.3	2 181.5	2 128.1	2 166.0	2 227.7
<b>Import dependency</b>	100.0%	100.0%	100.0%	99.4%	99.6%	99.3%	99.1%	99.1%
<b>Refining capacity (kb/d)</b>	776	867	1 170	2 540	2 577	2 577	2 607	2 790
<b>Oil in TPES</b>	48.5%	53.4%	63.0%	53.3%	44.0%	39.5%	40.0%	-

Table 2<sup>60</sup>

Oil is still the dominant source of energy in Korea and makes out around 40% of the total primary energy supply (TPES), followed by coal with 28% and natural gas with 14%. According to the IEA the outlook for the next twenty years in the TPES will be a gradual decrease in oil down to 35-31% and a huge increase in nuclear energy, while natural gas will remain flat during the projection period.<sup>61</sup>

<sup>59</sup> International Energy Agency: Accessed 11/12/2013. <<http://www.eia.gov/countries/index.cfm>>

<sup>60</sup> "Oil & Gas Security – Emergency Response of IEA Countries: Korea". IAE:2011. Koreas key oil data till 2010 stated by the IEA, pp.2.

<sup>61</sup> Ibid., pp.4.

Even though Korea completely lacks domestic oil resources, it has a rapidly growing-hence energy intensive - economy. Furthermore it is heavily dependent on oil as a fuel source and in addition Korea is highly dependent on oil from the more and more unstable Middle East.<sup>62</sup> Korea's high and deepening reliance on oil as an energy resource can be explained with three factors. Firstly Korea had started its economic and industrial main development during a historical period where oil as a resource was plenty, which made energy intensive industry a very lucrative one. Secondly, the global oil prices were extremely low and even declining during the 1980s and 1990s, which encouraged the Korean government to deepen its reliance on imported oil as a main form of energy as you can see easily on the numbers in table 2. Even though Korea is now transitioning towards a knowledge-intensive industrial structure it started out with a highly oil-intensive industrial structure in steel, shipbuilding, petrochemical and fertilizer sectors, which are still an important factor in today's Korean economy. Thirdly, Korea's oil demand also rose rapidly because of its automotive revolution after the second oil shock in 1979-80. Due to economic success the car and transport unit ownership, highly dependent on oil, expanded drastically, in contrast to the mass-transit reliance of their Japanese neighbors.<sup>63</sup>

The biggest problem nowadays however is Korea's heavy dependence on the oil exports from the volatile Middle East. In 2011 the oil import sources were up to 84% from the Middle East (Saudi Arabia 33%, Kuwait 14%, Iran 10%, Iraq 9%, Qatar 9% and United Arab Emirates 9%) and only 16% were imported from other sources – as stated by the U.S. Energy Information Administration, Korea Customs Service.<sup>64</sup>

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<sup>62</sup> Calder, Kent E.; "Korea's Energy Insecurities – Comparative and Regional Perspectives". pp.7.

<sup>63</sup> Ibid., pp.11.

<sup>64</sup> "Korea, South". U.S. Energy Information Administration: January 2013.  
<<http://www.eia.gov/countries/cab.cfm?fips=KS>>

Korea is aware of the risk of this dependence and tries to shift the imports towards other sources, looking towards the Americas, Africa and Europe. Korea has been trying to cut its heavy reliance on Middle East exporters due to the rising geopolitical risks in the region that has put supplies at risk – as published by the Gulfnews in June 2013.<sup>65</sup>

One of the major players in Korea's overseas and domestic oil explorations as well as production is the Korea National Oil Corporation (KNOC – established in 1978), with a daily production capacity of over 240 thousand barrels per day (and a capacity target of over 500 thousand barrels per day in 2022) as well as its 146 million barrels of oil stockpiling facilities in the case of an energy disruption. KNOC also owns and operates the eight main oil port terminals where the crude oil is imported. Furthermore KNOC intends to further expand its joint-stockpiling projects with oil producing countries and global oil majors.<sup>66</sup> The KNOC stockholding program is extremely innovative and imaginative and could therefore be very relevant for other countries facing similar problems. KNOC tries to realize the idea of being Asia's "Oil-Hub", which means international joint stockpile projects, as well as time-swap trading, especially in close relationship with Japan, China and Russia. It means KNOC lends crude oil to refiners in times of shortage, using the profits from the crude oil trading to expand its stockpiles, also known as reserve-swapping, as well as leasing space for international oil producers to store their own oil offshore in Korea.<sup>67</sup> It's a pioneer program and could be relevant for Japan and Russia in different ways.

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<sup>65</sup> "South Korea boosts incentives for non-Mideast crude imports". Gulfnews.com: June 5, 2013. Accessed 11/12/2013.

<<http://gulfnews.com/business/opinion/south-korea-boosts-incentives-for-non-mideast-crude-imports-1.1193226>>

<sup>66</sup> KNOC <[http://www.knoc.co.kr/ENG/sub01/sub01\\_1\\_1.jsp](http://www.knoc.co.kr/ENG/sub01/sub01_1_1.jsp)>

<sup>67</sup> Ibid., Operations.

Another important company is the Daehan Oil Pipeline Corporation (DOCPO). Korea does not have any cross-border oil pipelines for import or export; however it has six product pipelines inside the country which are operated by DOCPO.<sup>68</sup>

Korea held 87.2 million barrels of government stocks at the end of 2010. There are 9 government storage sites across the country. 87% of this capacity is for crude oil, while the remaining rest is for oil products. About 73% of the government storage capacity lies in underground facilities, while 27% is in tanks above the ground. Around 44% of the total industry storage capacity was owned by SK Innovation at the end of 2010. The remaining portions were held by GS Caltex (30%), S-Oil (15%), Hyundai Oilbank (9%) and DOPCO (2%), which sums up the remaining main actors in oil related business in Korea.<sup>69</sup>

Since Korea is a member country of the IEA it needs to meet its stockholding obligations towards the IEA standards, by holding governments stocks as well as a minimum stockholding obligation in industry. The legal bases for Korea's stock-holding regime are the Petroleum and Petroleum-Alternative Fuel Business Act and the KNOC Act - under these acts, KNOC manages the state-owned oil emergency reserves. The head of the national crisis management (including oil disruptions) however is the President. The main and leading governmental body responsible for dealing with oil disruptions is the Ministry of Knowledge & Economy (MKE), always in close correspondence with the Ministry of Foreign Affairs and Trade, the Ministry of Strategy and Finance, and the Central Disaster Relief Centre, as well as with the domestic industry. The MKE has three important oil related energy of policies, which are to increase the number of stockpiling facilities to ease any possible disruption in the supply, secondly to raise the self-

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<sup>68</sup> For a complete map please refer to figure 6 in the appendix

<sup>69</sup> "Oil & Gas Security – Emergency Response of IEA Countries". IAE:2011. pp.9.

sufficiency rate by 2012 to 18.1% for crude oil and lastly to increase KNOC's daily production from 50,000 barrels per day (2007) to 300,000 barrels per day by 2012.<sup>70</sup>

Korea is not only known for its innovative stockholding system but also for its engagement as a financial expert in raising funds and developing strategies for energy related projects in the Energy Cooperation in North East Asia through the Korea Energy Economics Institute (KEEI).<sup>71</sup> KEEI is also in charge of the major international and regional energy related cooperation research as well as oil policy research. KEEI's oil related policy research thrives towards energy reduction, especially in the transportation with eco-driving and a fuel economy regulation system. Korea tries continuously to evolve its stockholding system and involvement in international or regional organizations to share information and establish good relationships with the other member countries.

## **2. Japan**

Japan also relies heavily on oil imports, which places them on the third place worldwide (even before Korea) on the list of the importing countries, with 4,579 thousand barrels per day in 2012 due to almost no domestic natural resources. That is around 2,300 thousand barrels more than Korea. And while Korea ranks only on place nine on consumption, Japan is also on the third place with a consumption of 4,715 thousand barrels per day in 2012 as stated by the U.S. Energy Information Administration.<sup>72</sup>

Japan's energy insecurities can be mainly lead back to the absence of domestic resources. However some political decisions further nurtured them. Since World War II Japan has lacked a major political-military capability to exercise international influence, in contrary to the major

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<sup>70</sup>MOTIE: Energy policies. <[http://www.motie.go.kr/language/eng//policy/Epolicies\\_02.jsp](http://www.motie.go.kr/language/eng//policy/Epolicies_02.jsp)>

<sup>71</sup> For more information see chapter B. 6 (ECNEA), of this paper.

<sup>72</sup> International Energy Agency: Accessed 11/12/2013. <<http://www.eia.gov/countries/index.cfm>>

Western nations and the US which lead to an inadequate geo-economic leverage in the global political economy.<sup>73</sup> Japan, as other Asian nations relied in the past mostly on coal. Japan's need for oil started with the rehabilitation in the immediate post-war period, due to the growth in industry and transport. The coal mines started to become exhausted and the mining force was ageing, which resulted in unproductivity. The growing economy, partly a result of the enforced changes in society during the American occupation, needed energy other than coal. Due to the necessity of energy and with the encouragement of the U.S. military administration, the oil industry started to expand, especially around the 1950's. However a vast amount of capital was needed, to change the energy infrastructure around the country, which led to the decision by the Japanese government – with a good amount of pressure from the American side – , to allow the major international oil companies to link up with the local Japanese refining companies. At that point this was the only alternative to the establishment of wholly foreign owned oil refineries, which is a system that is up till today dominating the Japanese oil policies.<sup>74</sup>

### Key Oil Data

	1985	1990	1995	2000	2005	2010	2011	2012
<b>Production (kb/d)</b>	13.7	13.3	18.7	17.5	18.5	18.1	17.4	16.5
<b>Demand (kb/d)</b>	4 436.0	5 315.3	5 692.9	5 515.4	5 327.9	4 464.7	4 480.5	4 728.5
<i>Motor gasoline</i>	569.5	738.5	879.0	998.9	1 045.6	1 003.4	977.9	979.7
<i>Gas/diesel oil</i>	798.9	1 112.3	1 271.1	1 241.3	1 149.8	844.6	820.0	824.5
<i>Residual fuel oil</i>	950.9	898.3	795.6	653.2	581.5	395.3	440.5	563.8
<i>Others</i>	2 116.6	2 566.2	2 747.1	2 622.0	2 551.1	2 221.5	2 242.0	2 360.6
<b>Net imports (kb/d)</b>	4 422.3	5 302.0	5 674.2	5 497.9	5 309.4	4 446.6	4 463.1	4 712.0
<b>Import dependency</b>	99.7%	99.7%	99.7%	99.7%	99.7%	99.6%	99.6%	99.7%
<b>Refining capacity (kb/d)</b>	4 966	4 198	4 847	4 998	4 707	4 896	4 896	4 896
<b>Oil in TPES</b>	55.3%	57.0%	53.4%	49.2%	46.7%	40.9%	45.0%	-

Table 3<sup>75</sup>

Even though Japan was one of the biggest user and producers of nuclear energy after the US and France, before the Fukushima Daiichi nuclear power plant accident in March 2011, oil is still the

<sup>73</sup> Calder, Kent E.; “*The New Continentalism – Energy and Twenty-First-Century Eurasian Geopolitics*”.pp.182.

<sup>74</sup> Odell, Peter R. pp.146-151.

<sup>75</sup> “*Oil & Gas Security – Emergency Response of IEA Countries: Japan*”. IAE:2013. Japans key oil data till 2012 stated by the IEA,pp.2.

biggest energy source in Japan. In 2011 oil made up to 45% of the total primary energy supply (TPES) followed by coal with 23 % and natural gas with 22%. Japan was actually able to decrease its demand from 5.71 mb/d in 1997 to 4.47 mb/d in 2010. However, its oil demand increased again to 4.48 mb/d in 2011 and 4.73 mb/d in 2012 due to the Great East Japan Earthquake with the nuclear power plant accident in March 2011 and its following impacts where oil had to substitute for the loss of nuclear energy.<sup>76</sup>

Since the 1970's oil shocks, Japan sees a threat towards energy security in the heavy dependence on the Middle East. However projects to diversify the suppliers or find alternative energy resources<sup>77</sup> have not been very fruitful so far and Japan is still relying on oil from the Middle East as a primary source; importing up to 82% of its complete crude oil imports from there (Saudi Arabia 33%, United Arab Emirates 23%, Qatar 10%, Iran 9% and Kuwait 7%) in 2011. Only 4% of its crude oil imports are imported from Russia and 14% from the rest of the world – as stated by the U.S. Energy Information Administration, Global Trade Atlas; Japanese Government.<sup>78</sup> But one of Japan's biggest achievement in the case of oil after the 1970's is its energy efficiency. Almost no other country is as efficient in cutting energy consumption per unit of GDP – by today Japan consumes only half of the energy unit of GDP that for example the European Union or the United States do. This was also a great step towards the reduction of CO2 emissions, since energy efficiency was placed the most on the transportation sector, heavily relying on oil. After 1970's the Japanese government raised special taxes to make automobile

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<sup>76</sup> Ibid., pp. 3.

<sup>77</sup> Since the Arab Oil embargo Japan started to heavily rely on nuclear power, which was at that point its number one supplement for oil. However due to a series of accidents, the latest biggest in 2011 at the Fukushima power plant have made nuclear energy a very risky substitute, furthermore the nuclear accidents have put oil back on place as the major energy source.

Chanlett-Avery, Emma; “*Rising Energy Competition and Energy Security in Northeast Asia: Issues for U.S. Policy*”. CRS Report for Congress: February 9 2005. pp.8.

<sup>78</sup> “*Japan*”. U.S. Energy Information Administration: October 2013.  
<<http://www.eia.gov/countries/analysisbriefs/Japan/japan.pdf>>

traveling more expensive, as well as raising expensive highway tolls<sup>79</sup> and is now relying heavily on public transport and mass transit, which leads to reduced oil consumption.<sup>80</sup> Japan has fought its energy insecurities mainly in three dimensions. Firstly, it put restrictions on oil use, especially in the transport sector; secondly it positively supports alternative fuels, particularly nuclear and solar power and thirdly its new energy efficiency policies.<sup>81</sup>

As for the oil stocks, since its membership of the IEA, Japan meets its 90 day stockholding obligations. One of the major key players in this matter is the Japan Oil, Gas and Metals National Corporation (JOGMEC), established in 2004 which is delegated by the Ministry of Economics, Trade and Industry (METI) and Japan's Energy and natural Resources Agency, which is a component of it. JOGMEC's primary role is to manage the oil stock piles. The stockpiling system is divided in governmental – which is run directly by the government - and private stockpiling which has to be performed by private oil companies. JOGMEC is in charge for the national oil stockpiles which are held in 10 national oil stockpiling bases as well as tanks which are leased from the private sector.<sup>82</sup> Another core responsibility of JOGMEC is to collect and analyze oil and gas related data to support decisions of the Japanese government agencies and private companies. It maintains a network of international offices to gather domestic as well as international oil relevant data from all over the world.<sup>83</sup>

Furthermore JOGMEC provides financial support to private sector companies which are involved in oil exploration, production project operations related to oil and gas in foreign countries. Refining and distribution of oil products are also fully privatized and open to foreign

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<sup>79</sup>Lipsy, Phillip Y.; Schipper, Lee; “*Energy Efficiency in the Japanese Transport Sector*” Stanford University: pp.28. < <http://www.stanford.edu/~plipsy/JapanTransport2012-2-22.pdf> >

<sup>80</sup> Calder, Kent E.; “*Korea's Energy Insecurities – Comparative and Regional Perspectives*”. pp.12.

<sup>81</sup> Calder, Kent E.; “*The New Continentalism – Energy and Twenty-First-Century Eurasian Geopolitics*”. pp.184.

<sup>82</sup> “*Petroleum Stockpiling Program*”. JOGMEC Japan Oil, Gas and Metals National Corporation <[http://www.jogmec.go.jp/english/stockpiling/stockpiling\\_006.html](http://www.jogmec.go.jp/english/stockpiling/stockpiling_006.html)>

<sup>83</sup> Ibid., “*Oil and Natural Gas Market Intelligence*”.

capital companies. The 14 major oil companies including refineries and primary distributors in Japan are represented by the Petroleum Association of Japan (PAJ), which represents over 98% of the crude oil distillation capacity in the country.<sup>84</sup>

As Japan is an island country, there are no pipelines going from or to Japan. Japan relies mostly on oil tankers and its ports for the transport to the island.<sup>85</sup> The same goes for the distribution around Japan, it relies only on shipping tankers, with one exception, which is the sole oil pipeline in the country from the refinery in Chiba towards the Narita International Airport.

### **3. Russia**

Russia is one of the biggest oil producers in the world. Currently it ranks on place three after Saudi Arabia and the United States; with a production of 10,397 thousand barrels per day. The self-consume however amounts of 3,195 thousand barrels per day, which makes it possible to place Russia on the second place worldwide, right after Saudi Arabia on the list of the top oil exporters with 7,201 thousand barrels of oil per day in 2012 - as stated by the U.S. Energy Information Administration.<sup>86</sup>

According to BP - a British multinational and one of the world's leading international oil and gas companies- Russia will remain the largest net exporter of oil and natural gas combined, providing 8% and 6% of global demand by 2030.<sup>87</sup> Russia's proved oil reserves are about 87.2 thousand million barrels oil which makes out 5.2% of the total world oil reserves share, and a

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<sup>84</sup> “*Oil & Gas Security – Emergency Response of IEA Countries: Japan*”. IAE:2013. Japans key oil data till 2012 stated by the IEA, pp. 6.

<sup>85</sup> For a complete map please refer to figure 7 in the appendix.

<sup>86</sup> International Energy Agency: Accessed 11/12/2013. <<http://www.eia.gov/countries/index.cfm>>

<sup>87</sup> “*BP Energy Outlooks 2030 – Russia insights*”. British Petroleum, UK, London. <[http://www.bp.com/content/dam/bp/pdf/statistical-review/EnergyOutlook2030/Country-insights/Russia\\_Fact\\_Sheet.pdf](http://www.bp.com/content/dam/bp/pdf/statistical-review/EnergyOutlook2030/Country-insights/Russia_Fact_Sheet.pdf)>

production which makes out about 12.8% of the production worldwide by 2012.<sup>88</sup> Since energy trade is a major economic income for Russia it is only natural to assume that it wants to provide its resources to as many stable buyers as possible. However till now, Russia's involvement in North East Asian energy trade has been very restrained. Except for the Sakhalin Island oil and gas development projects Russia has not yet made a big move forward in supplying North East Asia with oil. Russia mostly concentrated on the resource development in the Russian Far East and focused on developing infrastructure networks that only benefited the Russian Far East domestic market as well as its trade with the EU. The few planning and projects that were executed were focused on bi-lateral projects instead of full energy cooperation between Russia and North East Asia.<sup>89</sup> One of the reasons for the missing cooperation between Russia and Korea and Japan could be the major differences in their political structure<sup>90</sup>, which can make it harder to agree on cooperation policies.

The mobilizing of Russia's Far East resources is the one of the main requirements for possible energy security cooperation with Korea and Japan. The Sakhalin Island oil and gas development projects are marking a good starting point, since it's one of Russia's geographically closest oil and gas fields to Korea and Japan, hence resources can be transported faster and cheaper towards the respective countries. A major weakness in implementing any large-scale cooperation in Northeast Asia is clearly the lack of funds for the vast infrastructure needed on the Russian side; however I believe that two countries as economical stable as Korea and Japan could be great partners for such large scale investment. While Korea and Japan are clearly

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<sup>88</sup> "BP Statistical Review of World Energy June 2013", British Petroleum, UK, London: June.2013.

<sup>89</sup> "A Current Issue Analysis and Approach for North East Asia Energy Cooperation". Northeast Asia Economic Forum: December 2009. pp 8-9.

<[http://www.neaef.org/public/neaef/files/documents/publications\\_pdf/energy\\_cooperation/KEEI%20Analysis%20and%20Approach.pdf](http://www.neaef.org/public/neaef/files/documents/publications_pdf/energy_cooperation/KEEI%20Analysis%20and%20Approach.pdf)>

<sup>90</sup> Figure 2: While Korea and Japan have similar democracy merits, which are "high", Russia is left with a democracy merit labeled "low".

depending on oil as a major energy resource, Russia is depending heavily on its energy export income, which is its sole major trade income. Insofar Russia's energy trade is of main interest for national security and stabilization as well as of development of the nation itself.

Russia can be portrayed as a destabilizing petrostate. Vladimir Putin systematically transformed energy into a major tool of Russian foreign policy as well as economic stabilization during his first time as president (1999-2008). From a geopolitical as well as geoeconomics point of view Russia's resources as well as its position in Eurasia energy as a foreign policy tool seems to be the only rational strategy. This makes Russia prone to press somewhat aggressively to raise the energy prices, as well as to manipulate or generate uncertainties in international affairs with its vast political-military resources to encourage higher prices in energy markets.<sup>91</sup>

Russia is not only struggling with insufficient funding, but also – with a growing as well as further developing economy – with insufficiency in its own domestic energy consumption. Currently the country spends an estimated 3.5 times more energy than the European average, or in other words its current energy inefficiency is equal to the annual primary energy consumption of France. As stated by the International Finance Corporation (IFC) of the World Bank Group Russia could save 240 billion cubic meters of natural gas, 340 billion kWh of electricity, 89 million tons of coal, and 43 million tons of crude oil and equivalents in the form of refined petroleum products by realizing its energy efficiency potential.<sup>92</sup>

As an oil exporting country, Russia has a vast variety of oil companies. The three most important oil related companies however are Rosneft (the state owned Russian oil and gas exploration company), Transneft (state owned pipeline monopoly) and Bashneft (Russian oil

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<sup>91</sup> Calder, Kent E.; *“The New Continentalism – Energy and Twenty-First-Century Eurasian Geopolitics”*. pp. 122.

<sup>92</sup>*“Energy Efficiency in Russia – Untapped Reserves”*. The World Bank Group, Washington DC, USA. pp5.

<<http://www.ifc.org/wps/wcm/connect/de1e58804aababd79797d79e0dc67fc6/IFC+EE+in+Russia+Untapped+Potential.pdf?MOD=AJPERES>>

refining company which is also one of the largest producers of oil products in the country). Rosnefts main focus lies on the exploration and new development of resources. It is also involved in strategic international cooperation in order to maximize the resource development and to be able to constantly expand its resource base to ensure sustainable growth of production in the long term. Eastern Siberia and the Black Sea are of special importance for resource expansion and the Arctic shelf resources will play a key role in the future. The Company acquired its first licenses for exploration and development of Arctic shelf resources in 2010.<sup>93</sup> Transneft operates and owns the largest oil pipeline system in the world, with a total network length of almost 70,000 km and transports about 93% of the oil produced in Russia.<sup>94</sup> Bashneft operates almost all major oil fields and was able to produce a total of 15.4 million tons of oil in 2012.<sup>95</sup>

So far, there has been no crude benchmark<sup>96</sup> in the Pacific region. The Dubai blend traded in Singapore is currently the local marker crude, serving as a main reference for oil prices and quality in the Asian oil market. The Eastern Siberian crude oil is lighter and contains less sulphur (its API<sup>97</sup> gravity is 34.8 degrees and the sulphur content is 0.62 percent, which compares to 31 degrees and 2 percent for Dubai). Another weakness of Dubai is the long haul distance. This is one of the main reasons that the Pacific region is not the main market for Dubai, which it is still an alien grade here. So the Russian blend has every chance of becoming a new benchmark, if certain conditions are met.<sup>98</sup> With the oil development in Eastern Siberia Russia

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<sup>93</sup> “*Development prospects and strategy*”. Rosneft. <<http://www.rosneft.com/about/strategy/>>

<sup>94</sup> “*JSC "Transneft" / Company*”. Transneft. <<http://eng.transneft.ru/company/>>

<sup>95</sup> “*Production Achievements in 2010-2012*”. Bashneft. <[http://www.bashneft.com/popup/dob\\_zad2.php](http://www.bashneft.com/popup/dob_zad2.php)>

<sup>96</sup> A benchmark crude or marker crude is a crude oil that serves as a reference price for buyers and sellers of crude oil. Benchmarks are used because there are many different varieties and grades of crude oil. Using benchmarks makes referencing types and quality of oil easier for sellers and buyers.

<sup>97</sup> The American Petroleum Institute gravity, or API gravity, is a measure of how heavy or light a petroleum liquid is compared to water.

<sup>98</sup> “*ESPO to be new Russian oil benchmark for Asia*”, Russia & India Report. November 23, 2012.

has acquired new possibilities in creating an Asian oil market without the influence of outside states gaining too much influence. Furthermore Russia can overcome its stigmata of having less qualitative good oil than the more famous marker crudes such as Dubai, West Texas Intermediate or Brent Blend in developing its Siberian oil projects.

## B. Overview over the existing cooperative mechanisms in North East Asia

North East Asia as a cooperative region itself hasn't had it easy to begin with. Almost all countries were at war at some point in history or were occupying other states which left scars, seen till today in politics involving territorial issues and missing cooperation between the North East Asian nations. Furthermore Asia's realization of the importance of energy security fuels more and more insecurities and uncertainties in this region. There has been increasingly rivalry to secure energy supplies among the energy importing countries while on the exporting side the countries try to use of their resources for geopolitical leverage, creating even more insecurities.<sup>99</sup>

In this chapter I want to give a short overview over the 7 main energy related cooperation dialogues in NEA which are trying to work on those issues.

	Focus	China	North Korea	South Korea	Japan	Mongolia	Russia
ASEAN+3 (ACE)	E, EI	√		√	√		
Asian Cooperation Dialogue (ACD)	E, Asian bond	√		√	√	√	√
Asia-Pacific Economic Cooperation (APEC)	E, EI	√		√	√		√

<sup>99</sup> Institute of Southeast Asian Studies (ed.); *“Energy Perspectives on Singapore and the Region”*; Institute of Southeast Asian Studies: 2007.

Boao Forum for Asia (BFA)	E	√		√	√		
Greater Tumen Initiative (GTI)	E, HPE	obs	√	√	√	√	√
Inter-governmental Collaborative Mechanism on Cooperation in NEA (ECNEA)	EI		√	√		√	√

Note: E- energy, EI- energy interconnection, HPE – hydropower, obs – observer<sup>100</sup>

Since I am focusing on Korea, Russia and Japan I will leave the other displayed countries largely out of my discussion.

As you can see in the table above there are at least three energy related dialogues where all three countries are part of (ACD, APEC and the GTI). Korea seems to be interconnected the best, participating in all six dialogues.

### 1. ASEAN+3

The Association of Southeast Asian Nations was founded in 1967 and the importance as well as need of an energy related forum was realized soon. While the ASEAN Ministers on Energy Meeting (AMEM) was annually held since 1980, the ASEAN Centre for Energy (ACE) was established a little later on January 4<sup>th</sup> 1999. In the intergovernmental organization the forum is guided by a governing council composed of Senior Officials (ASEAN Senior Officials Meeting on Energy SOME) on energy of the ASEAN Countries and a representative from the ASEAN Secretariat. The core funding is provided by an Energy Endowment Fund established

<sup>100</sup> Source: UN ESCAP

from equal contributions of the ten member countries.<sup>101</sup> The main point of the ACE is the belief that enhancing the ASEAN connectivity will bring the region closer in order to achieve greater energy security. The key points in enhancing the connectivity are capacity building, information sharing as well as exchange amongst the member countries.<sup>102</sup>

The most relevant projects for oil related energy security is the ongoing activity on the ASEAN+3 Energy Security Communication System as well as the newly developed Oil Price Database.<sup>103</sup> The Energy Security Communication System consist firstly of the Energy Communication System - a chat as well as a bulletin board system -; and secondly of a database, consisting of an oil price database as well as the ASEAN energy database.

Another important program under that development is in my eyes the Oil Stockpiling Roadmap Project (OSRM). The ASEAN+3 member countries jointly recognized the necessity of oil stockpiling initiatives in the face of the volatile geopolitical situation in the Middle-East and the risky oil market, which was pointed out again at the ASEAN+3 Ministers on Energy Meeting in 2012. It was also recognized that there is a need to balance energy security with the economic competitiveness and environmental sustainability in the Asian region<sup>104</sup>.

The OSRM is based on mutual benefits, the participation is voluntarily and non-binding, the participants should have mutual respect as well as respect for bilateral and regional cooperation and furthermore the OSRM is a step-by-step approach with long-term perspectives. Unlike other Asian countries, Korea and Japan already have an oil stockpiling system for a

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<sup>101</sup> “*ACE Establishment Agreement*”. ASEAN Center for Energy.

<<http://aseanenergy.org/index.php/about/introduction>>

<sup>102</sup> “*Joint Ministerial Statement*”. The 10th ASEAN+3 (China, Japan and Korea) Ministers on Energy Meeting, Indonesia, Bali: September 25<sup>th</sup> 2013. pp.1.

<[http://www.asean.org/images/2013/socio\\_cultural/jms%20of%2010th%20amem3.pdf](http://www.asean.org/images/2013/socio_cultural/jms%20of%2010th%20amem3.pdf)>

<sup>103</sup> “*ASEAN+3 Energy Security System*”. ASEAN Center for Energy.

<<http://aseanenergy.org/index.php/projects/2009/10/18/asean3-energy-security-system>>

<sup>104</sup> “*Joint Ministerial Statement*”. The 9th ASEAN+3 (China, Japan and Korea) Ministers on Energy Meeting, Cambodia, Phnom Penh: September 12th 2012.

longer time now. The biggest obstacle for the OSRM seems to be the different developing statuses on economic levels of the Asian countries, which makes it hard to make a concrete plan for a universal oil stockpiling program. The future activities will include continuing development of the OSRM, collecting annual information, and assess them in detail, of the progress of the stockpiling programs in each country, workshops for the promotion and support of the different stockpiling programs in each country as well as an implementation of joint projects with the IEA – which will support and assist when appropriate – as contemplated in the 10<sup>th</sup> ASEAN+3 Ministers of Energy Meeting in September 2013.<sup>105</sup> Japan plays one of the bigger roles, since the Japan Oil, Gas and Metals National Corporation (JOGMEC) was jointly organizing the first workshop on the OSRM with the ACE held on March 2013 in Korea, hosted by the Ministry of Trade, Industry and Energy (MOTIE) of Korea. Furthermore the Energy Ministers stated the need for continued collaboration of the ACE and the Institute of Energy Economics, Japan (IEEJ) in developing capacity building programs in order to support policy research and analysis.<sup>106</sup> Other oil-related notes where the recognition of the need of further transparency in the oil markets as well as to share experiences and lessons learned between the member countries.

## **2. Asian Cooperation Dialogue (ACD)**

The Asian Cooperation Dialogue was founded in 2002, with Korea and Japan under the founding members, while Russia joined in 2005 – and is the first continental-wide forum of its kind in Asia. Currently the ACD has 32 member countries – spread over the whole Asian continent, including South-, South East-, Central- and East- Asia as well as the Middle East; the last country to join was Afghanistan in September 2012. The main objectives of the ACD are to

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<sup>105</sup> “*Joint Ministerial Statement*”. The 10th ASEAN+3 (China, Japan and Korea) Ministers on Energy Meeting, Indonesia, Bali: September 25<sup>th</sup> 2013. pp.2.

<sup>106</sup> *Ibid.*, pp.3.

build a complete Asian community by incorporating every Asian country and to fortify Asia's competitiveness by maximizing the diversity and rich resources evident in Asia. The core values of the ACD are “positive thinking; informality; voluntarism; non-institutionalization; openness; respect for diversity; the comfort level of member countries; and the evolving nature of the ACD process.”<sup>107</sup> Up to now there have been 11 ACD dialogues, with the last being held in March 2013.

The main projects debated in this forum are in 20 different areas of cooperation, for example agriculture, tourism, poverty alleviation and important for this paper: energy.

The official joint declaration of the first ACD Energy Forum was in September 2005 with Russia and Korea under the representatives of 14 member countries. The three main points which led to the establishment of the Energy Forum were the escalating oil prices and the effect on the ACD member countries, the felt need to cooperate to ensure sustainable development in the Asian Region as well as the need to address energy security and energy cooperation. In 2005 the main goals were to establish joint research on the topic of energy security and cooperation, also involving collective information sharing and networking between the member countries. Furthermore the ACD tries to create linkages with already existing energy cooperation, with for example the ASEAN+3.<sup>108</sup>

Additionally the forum wants to explore the possibility of setting up a consultative mechanism between ACD oil producing and consuming countries as well as setting up strategic oil storage systems. Important here is to know, that the energy security addressed by this forum lays primarily in the long term sustainable context even if short term energy difficulties are

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<sup>107</sup> “Executive Summary”. Asia Cooperation Dialogue. <<http://www.acddialogue.com/about/index.php#01>>

<sup>108</sup> “JOINT DECLARATION OF THE 1st ACD ENERGY FORUM”; Bali, Indonesia 26-28 September 2005. <[http://www.acddialogue.com/cooperation\\_projects/each\\_cooperation\\_area/energy.php](http://www.acddialogue.com/cooperation_projects/each_cooperation_area/energy.php)>

possible to remain.<sup>109</sup> During the ACD Seminar on Energy Cooperation in October 2006, in Kazakhstan it was again emphasized that the first and most important step towards energy cooperation in Asia is the “finding of mutually acceptable balance between interests of all participants of the energy market [...], as well as its complementarities, assumes necessity of prevalence of long-term contracts between producers and consumers caused by durable pay-backs of such contracts along with the provision of greater availability and transparency of information on available reserves and demand of energy resources”.<sup>110</sup>

Korea’s involvement in the ACD dialogues was primary in the function of a founding member; furthermore the main interest seems to lay in the IT cooperation projects to bridge the digital gap between ACD member countries, working close together with Russia on this project. Especially two national institutions were involved, the Korean Agency for Digital Opportunity and Promotion (KADO) and the Korean International Cooperation Agency (KOICA). However the Korean Delegates were also attending the Energy Seminar of the ACD in Kazakhstan in 2006, while Russia and Japan were not. Yet again the ACD recognized that energy security is one of the most important cornerstones of sustainable development in the Asian region.<sup>111</sup>

Japan, even though also under the founding members it is mostly involved in the environmental education as well as the infrastructure dialogues.

Over all it seems that the ACD could definitely be a common ground for a cooperation dialogue between Korea, Russia and Japan. However up till now it seems that the interest and involvement of those three countries in the ACD lies in different aspects than energy security.

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<sup>109</sup> Ibid., “*Concept paper: Energy Security Strategy: Bahrain and Indonesia*”.

<sup>110</sup> Ibid., “*Concept paper: Development of Energy Cooperation among Member Countries of the Asia Cooperation Dialogue (ACD)*”.

<sup>111</sup> “*FINAL REPORT*”; the First Energy Seminar of the Asia Cooperation Dialogue Almaty, Kazakhstan October 6, 2006.

### 3. Asia-Pacific Economic Cooperation (APEC)

APEC is not only a forum for economic cooperation but has also formed its own energy working group (APEC EWG). The main agenda of the EWG is to facilitate energy trade and investment within APEC economies and ensuring that energy contributes to the enhancement of the APEC community. Korea, Russia and Japan are all members to the APEC community and in this respect also affected by the work of the EWG. The EWG itself is divided in different expert groups which focus on various topics around energy sustainability and cooperation. Those expert groups meet twice a year to update each other of their findings and progresses. Their agenda is broad, including key developments within member economies.<sup>112</sup>

During the 9<sup>th</sup> meeting of the APEC Energy Ministers in June 2010 not only the need to enhance the regional energy security was acknowledged, but also the still existing importance of fossil fuels as well as the need for APEC countries to be able to respond to oil supply disruptions with oil stockpiles and other emergency mechanisms.<sup>113</sup> The main way to ensure energy security will be ensured by cooperation with the IEA. As Miss van der Hoeven, the executive minister of the IEA said in 2012: “International co-operation, such as that between the IEA and APEC, will be essential to achieving our convergent energy security interests”.<sup>114</sup> Furthermore oil supply is still the main focus while talking about energy security; however other fuels, especially gas will be affected by that as well increasingly.

An even bigger and similar cooperation between international organizations is the Joint Organizations Data Initiative (JODI), to further enhance the data transparency on oil. The

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<sup>112</sup> “EWG Business Network”; Asia Pacific Economic Cooperation. <<http://www.ewg.apec.org/ebn.html>>

<sup>113</sup> “Fukui Declaration On Low Carbon Path To Energy Security: COOPERATIVE ENERGY SOLUTIONS FOR A SUSTAINABLE APEC”; NINTH MEETING OF APEC ENERGY MINISTERS, Fukui, Japan: 19 June 2010. <<http://www.ewg.apec.org/documents/EMM9Declaration.pdf>>

<sup>114</sup> “Energy security is best achieved through efficiency, diversity and co-operation”; International Energy Agency: June 29<sup>th</sup> 2012. <<http://www.iea.org/newsroomandevents/news/2012/june/name,28136,en.html>>

member organizations are: APEC, Eurostat, IEA, OLADE, OPEC and UNSD. The work of the JODI consists mostly of oil data gathering as well as verifying from the member countries to be able to create realistic outlooks and statistics on their oil data; furthermore there will be an oil-capacity building workshop in Asia for the last quarter of 2013.<sup>115</sup>

#### **4. Boao Forum for Asia (BFA)**

The BFA is a non-governmental, non-profit international organization that hosts high-level forums for leaders from government, business and academia in Asia and other continents to share their vision on the most important issues in this region as well as to promote regional economic integration. The BFA is modeled after the World Economic Forum held in Switzerland and was formally established in 2001. Korea and Japan were under the initial founder countries; however Russia is not a participant in this forum. The interesting part about this forum is that its permanent principal address is in China and should therefore comply with the Constitution and applicable laws and regulations of China as well as respect local social customs and ethics. Even though Asian countries have participated in many international forums and organizations –for example APEC – the BFA saw that Asia as a whole lacked a forum, led by Asians and guided from the perspectives of Asian interests and views, to enhance cooperation and exchange among Asian nations as well as the rest of the world.<sup>116</sup> Due to the political turbulences in the Middle East and North Africa as well as the oil prices in new heights, the BFA concluded a roundtable discussion on global energy & resources which should be non-binding and a place for business, academic and government leaders to exchange views, sharing experiences and inspiring new

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<sup>115</sup>The International Forum Secretariat; “2013 Mid-Year Review”; Joint Organizations Data Initiative: 2013. <[http://www.jodidata.org/\\_resources/files/downloads/reports/jodi-mid-year-review\\_05aug13.pdf](http://www.jodidata.org/_resources/files/downloads/reports/jodi-mid-year-review_05aug13.pdf)>

<sup>116</sup>“Overview”; Boao Forum for Asia. <<http://english.boaoforum.org/gyltbjjsen.jhtml>>

ideas, from 2011 on.<sup>117</sup> It shows clearly that this forum sees the need to work rather together than against each other, as BFA Chairman Yasuo Fukuda said for the annual conference in 2013: “[...] under the current economic situation, pursuing national interests is no longer an option for countries and all countries need to work together to cope with the economic crisis and achieve common development goals.”<sup>118</sup> The BFA is however not only used to discuss cooperation, economic and energy, it is also used as a political platform for politicians of the respective countries to meet and discuss the political issues between them. In the early half of 2013, for example was it possible for former Japan Prime Minister Yasuo Fukuda to meet with Chinese president Xi Jinping regarding conference the issues. It was the first prominent meeting between a significant leader of Japan and China’s president, even if Fukuda was there only due to his role as chairman of the BFA.<sup>119</sup> During that forum it was also possible for Samsung Electronics Co. vice chairman Lee Jay-yong and Kumho Asiana Group chairman Park Sam-koo, to meet with the Chinese president to discuss talks on cooperation.<sup>120</sup> The BFA attempts to be a neutral ground for the East Asian Nations to academically discuss ideas about energy, and cooperation in general, without being confined by political, historical or territorial issues between the countries.

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<sup>117</sup> “*Boao Forum for Asia to build dialogue platform for energy and resource suppliers and demanders*”; Boao Forum for Asia: May 11<sup>th</sup> 2011. <[http://211.88.5.153/CPF/News\\_ShowContent-en.asp?Seq=2005001216](http://211.88.5.153/CPF/News_ShowContent-en.asp?Seq=2005001216)>

<sup>118</sup> Fukuda, Yasuo; “*Boao Forum for Asia Shall Become Birthplace of Positive Energy*”; Boao Forum for Asia: April 27<sup>th</sup> 2013. <<http://www.boaforum.org/mtzxxwz xen/7871.jhtml>>

<sup>119</sup> Hofilena, John; “*Former Japan PM Fukuda meets China President Xi in Boao conference*”; Japan Daily Press: April 8<sup>th</sup> 2013. <<http://japandailynews.com/former-japan-pm-fukuda-meets-china-president-xi-in-boao-conference-0826552/>>

<sup>120</sup>“*Samsung’s Lee, Kumho’s Park meet Xi Jinping at Boao Forum*”; The Korea Herald: April 8<sup>th</sup> 2013. <<http://www.koreaherald.com/view.php?ud=20130408000630>>

## 5. Greater Tumen Initiative (GTI)

Originally known as the Tumen River<sup>121</sup> Area Development Programme, the now called Greater Tumen Initiative (GTI, rebranded in 2005) is an intergovernmental mechanism between the four member countries China, Korea, Russia and Mongolia which is furthermore supported by the United Nations Development Programme (UNDP) and was established in 1991.<sup>122</sup> One of the GTI's main focuses lies in energy which makes it interesting for the energy related cooperative mechanisms in North East Asia. Japan is not a membership country; however one of the main objectives of the GTI action plan till 2015 is to strengthen the partnerships with Japan and North Korea and their participation in GTI cooperation for common prosperity in NEA.<sup>123</sup>

The GTI energy board was established upon the idea to create benefits between the consumer and producer member countries as well as to address regional energy issues. The three main objectives are information sharing, enhancement of cooperation and energy policies and the reduction of non-physical barriers for energy trade and investment in the Greater Tumen Region (GTR). The biggest and still ongoing project (timeframe 2013) so far is the “Capacity Building Training on Energy: Policies and Prospects for Regional Energy Cooperation”. The prime interest for this project is to foster the regional cooperation especially in the energy sector. It will deepen the awareness and knowledge of the involved countries within the energy sector, improve energy policies, tie consumers and producers of energy closer together as well as foster mutually beneficial activities.<sup>124</sup>

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<sup>121</sup> The Tumen River in NEA is a 521 km river that forms part of the border between Northeast China, the DPRK and Far East Russia. The river rises in Mount Baekdu (DPRK)/ Changbai (China) and flows into the East Sea /Sea of Japan.

<sup>122</sup> “Overview”; The Greater Tumen Initiative. <<http://www.tumenprogramme.org/?list-1524.html>>

<sup>123</sup> Ibid., “Strategies”.

<sup>124</sup> Ibid., “Projects - Capacity Building Training on Energy: Policies and Prospects for Regional Energy Cooperation”.

Korea sees its benefits in this initiative mainly because it is a huge energy consumer and importer and can be easily tied to major energy producers as well as access to convenient transportation and shipping routes in that region. However Korea also hopes to use the GTI as an open communication channel with North Korea. Russia as a main producer of energy is mostly interested in stabilize its power as a major economy in the North East Asian region, as well as using the GTI to finance its infrastructure projects around the Siberian mineral mines. Japan initially only an observer, mostly because it was on the search of new market access in the energy sector, is getting more and more interested in the possibilities of the infrastructure projects in the Tumen region which would have a positive impact on the economy of the western coastal region of Japan.<sup>125</sup>

The biggest issues of the GTI so far are mostly funding and the lack of a long term vision, as the project still hasn't achieved a major breakthrough in the greater Tumen region as well as between the member countries.

## **6. Inter-governmental Collaborative Mechanism on Cooperation in NEA**

The Energy Cooperation in North East Asia (ECNEA) was established in November 2005 and under the collaboration with the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). ECNEA was created by consensus of the Senior Officials of four countries in North East Asia, namely, the Democratic People's Republic of Korea, Mongolia, Korea, and Russia. One of the key factors for the establishment were the rising oil

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<sup>125</sup>Yoo, Donna; "*Northeast Asian Economic Cooperation: Assessment and Prospects of the Greater Tumen Initiative*"; Asia-Pacific Cooperation Academy, Kangwon National University, Chuncheon, Korea: August 10<sup>th</sup> 2011. <[http://www.academia.edu/1811357/Northeast\\_Asian\\_Economic\\_Cooperation\\_Assessment\\_and\\_Prospects\\_of\\_the\\_Greater\\_Tumen\\_Initiative](http://www.academia.edu/1811357/Northeast_Asian_Economic_Cooperation_Assessment_and_Prospects_of_the_Greater_Tumen_Initiative)>

prices, noted in 2005.<sup>126</sup> The first session was hosted by the Ministry of Fuel and Energy of Mongolia with the Vision “By 2020, improved energy security in North East Asia through energy cooperation in a sustainable manner”.<sup>127</sup> In the case of the ECNEA, amongst others, Korea and Russia are participants in this dialogue, but Japan is only an observer. Financial support for the development of the Strategy was provided by Korea through the Korea Energy Economics Institute (KEEI).<sup>128</sup> The participating countries established a Senior Officials Committee for Energy Cooperation in North East Asia (SOC) as the leading decision-making and governing body of the collaborative framework. The SOC has established two working groups so far, the Working Group on Energy Planning and Policy (WG-EPP) and the Working Group on Coal (WG-Coal). Right now the Five Year Strategy Plan has come into operation under the timeframe from 2010 to 2014, which is next year. As you can see in Table 5 in the appendix, the topics marked with “High Priority” are development of oil, gas and coal resources, oil and gas pipelines and grid interconnection, energy efficiency, information and data sharing on this topic as well as the development of a regional market. Almost all the high-priority-topics are completely funded already. Surprisingly the strategic oil reserves and stockpiling arrangements are marked with a low priority.

During one of the last session (7th) of the SOC on ECNEA in November 2011 the Committee confirmed that the implementation of the Five-Year Strategy is progressing well and in accordance to the plan. They also extended their gratitude especially towards the Governments of Korea and Russia for their continued support towards promoting energy cooperation in NEA

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<sup>126</sup> “*Five Year Strategy (2010-2014) to implement Intergovernmental Collaborative Mechanism on Energy Cooperation in North-East Asia*”, United Nations, Thailand, Bangkok: March 10<sup>th</sup> 2010. pp. 22.  
<FiveYearStrategy-ECNEA.pdf>

<sup>127</sup> “*Energy Cooperation in North-East Asia*”; United Nations Escap.  
<[http://www.unescap.org/esd/Energy-Security-and-Water-Resources/energy/trade\\_and\\_cooperation/cooperation/](http://www.unescap.org/esd/Energy-Security-and-Water-Resources/energy/trade_and_cooperation/cooperation/)>

<sup>128</sup> “*Five Year Strategy (2010-2014) to implement Intergovernmental Collaborative Mechanism on Energy Cooperation in North-East Asia*”, United Nations, Thailand, Bangkok: March 10<sup>th</sup> 2010.

and for their technical and financial support in the implementation of the Mechanism.<sup>129</sup> The last session (8th) was held during April this year, 2013. However it seems that the main focus this year will lie rather on electricity than oil, while the main focus for the 9<sup>th</sup> session next year will lie again in regional energy cooperation as well as on an overall evaluation of the five-year-plan.<sup>130</sup>

The five-year-plan can be divided into high, medium and low priority areas, as well as into high, medium and low priority areas which are funded, partly funded or not funded yet. The most important group is the high priority area which are already funded (meaning it has a high chance of being successfully executed) such as the development of coal, gas and oil resources, the collection and dissemination of information and data regarding the energy situation in North East Asia, to strengthen the government and business dialogue in order to launch new cooperation initiatives as well as the facilitation of a capacity building programme and technical exchanges.<sup>131</sup>

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<sup>129</sup> Ibid. pp.3.

<sup>130</sup> Ibid.

<sup>131</sup> Ibid., pp.11.

### C. Interconnection

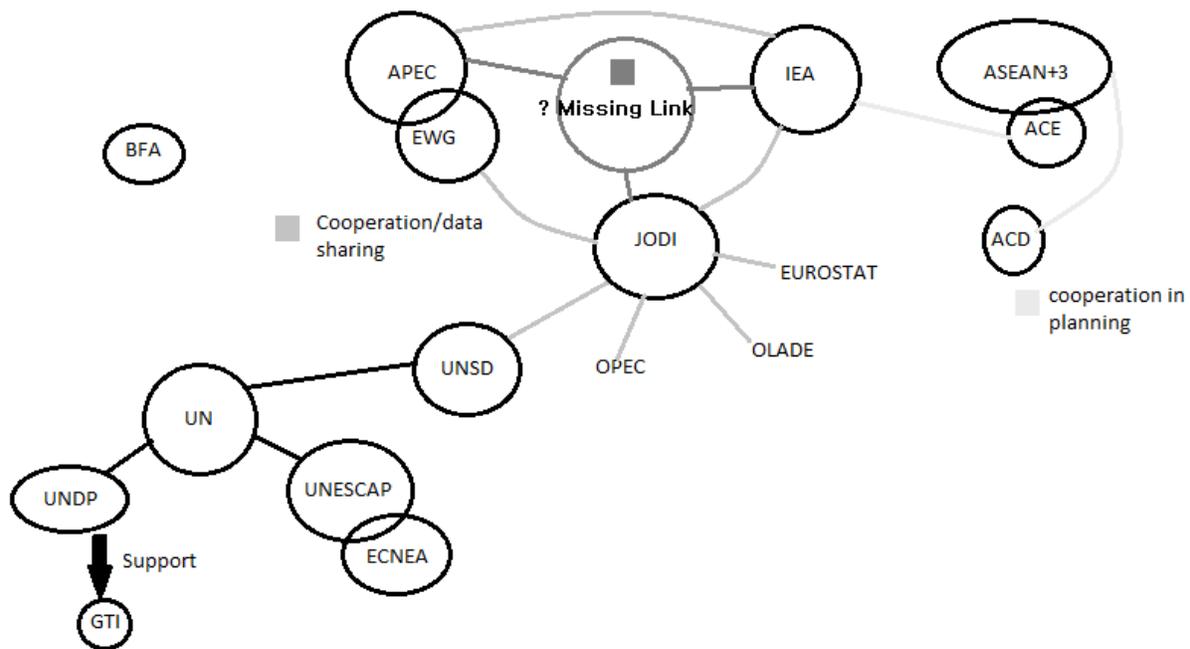


Figure 5 Interconnection of the energy related organizations and dialogues

The main issue which appears is that there are obviously a lot of big international and regional organizations dialogues concerning the topic of energy security and energy cooperation within the region of Asia as a whole or explicit North East Asia. As a German proverb says: too many cooks spoil the broth – there are too many organizations involved in the energy cooperation dialogues in North East Asia without showing a clear result, maybe even confusing the process. Figure 5 shows how they are interconnected with each other. It looks like there are three different clusters; the first and probably biggest one is the one around the UN. The UN has different sections with the respective under sections working at the energy security and cooperation issue in North East Asia, as the UNDP, UNSD and UNESCO with ECNEA. However the only link towards the other organizations is through the statistics division, which is exchanging data with JODI. Then there is a small cluster around the ASEAN+3, where there are

different attempts or plans to have joint cooperation between ASEAN+3 and the ACD, and the ACE with the IEA. But it is still in planning and not executed yet. The GTI and BFA are the least interconnected dialogues and therefore most unlikely to be able to actually change anything on a larger scale, just because of lack of information, funding and support.

The last one and in my opinion the most important cluster is the cooperation between APEC, JODI and the IEA, especially because all three of them are interconnected under each other in more than one way as well as that Korea, Russia and Japan are all members of all three of them. Furthermore they represent three completely different aspects. JODI represents the data collection, information sharing and transparency which are needed in functioning energy security cooperation. The IEA represents the international aspects, information and cooperation outside of Asia and APEC is representing the regional aspects concerning the Asia specific information on energy security cooperation. Overall these three aspects make a great base for functioning energy security cooperation; the information is there, on a regional as well as international basis, which is crucial in order to make actual energy related policies. However these are still three independent organizations, which makes it unclear, whose job it is to push through with such energy related policies and cooperatives between the North East Asian countries. The current status is basically, that all three of the organizations are collecting data and information, exchanging discussions with experts and politicians of the respective countries as well as collecting ideas on how to make such energy security cooperation possible. What is missing is a link in the middle to organize the findings, convert them into strategies and then have the power to actually be able to provide a ground for the involved countries to make actual legal commitments towards those cooperative ideas.

## V. CONCLUSIONS AND PROSPECTS FOR THE FUTURE

If we just sort out the facts on what each country needs and what it can offer, it is striking how Korea, Russia and Japan would seemingly be cooperation partners a long time ago already. However, some of those aspects are also the reason why this didn't happen yet.

From a Realistic point of view, every country has to struggle for their own survival and due to an anarchic international system, mistrusts its fellow competitor countries. Korea, Japan and Russia being Realistic states is on one hand further nurturing the competition for resources under the importing countries and on the other hand making it impossible for the importing countries to trust a powerful exporting country with their security-insufficiency.

	OFFERS	NEEDS
KOREA	<ul style="list-style-type: none"> <li>• Knowledge on how to retrieve funds (ex. Oil stock leasing)</li> <li>• Capital</li> <li>• Infrastructure</li> <li>• Stable energy demand flow</li> </ul>	<ul style="list-style-type: none"> <li>• Secure oil supply</li> </ul>
JAPAN	<ul style="list-style-type: none"> <li>• Knowledge in energy efficiency</li> <li>• Technology (resource development)</li> <li>• Capital</li> <li>• Policy expertise</li> <li>• Stable energy demand flow</li> </ul>	<ul style="list-style-type: none"> <li>• Secure oil supply</li> </ul>
RUSSIA	<ul style="list-style-type: none"> <li>• Oil resources</li> </ul>	<ul style="list-style-type: none"> <li>• Funds for infrastructure and resource development projects</li> <li>• Knowledge in energy efficiency</li> <li>• Stable energy exports</li> </ul>

Table 4 Summary

Table 4 summarizes again shortly, what the exact needs and offers of the respective countries are. Clearly for the importing countries the main agenda is a secure oil supply, to stabilize their security and economic development. However, Korea and Japan as technological and politically advanced countries have also a lot to offer. As previous mentioned, Korea has

been engaged in a pioneer project of leasing and swapping oil stockpiles as well as oil stocking facilities in order to gain funds. Furthermore Korea was already successfully in charge of raising funds for energy projects at ECNEA with the domestic economics institute KEEI. Korea's vulnerabilities are similar to Japans, but even though it is a divided nation it lays physically on the Eurasian continent, and is inevitably geopolitically more engaged than the insular and slightly isolated Japan – which is of further interest relating to pipeline projects in North East Asia.<sup>132</sup> Korea and Japan both have a greatly developed industrial as well as public infrastructure system and the necessary capital to invest; furthermore due to their complete dependence on oil imports they can supply a stable energy demand flow. Japan is also known for its energy sufficiency policies and success and it is believed that a synergy with Russia as one of the most energy-intensive economies leading to one of the highest energy demand expansions on earth would be of great benefit<sup>133</sup>. Russia is a huge landmass with vast energy – especially – oil resources, however without the funding to actually develop it towards its full potential. Additionally its knowledge in energy sufficiency is rather lacking and needs to be changed soon in order to live up fully towards its economic potential. Energy efficiency will not only allow companies to maintain their competitiveness but also increase oil and gas export earnings, which are vital for the survival of the state.

I was able to determine five factors on why Korea, Russia and Japan haven't been able to successfully cooperate yet.

- Firstly there are obviously historical and territorial issues which didn't make a political cooperation easy, especially due to ongoing unsolved issues from the Korean War era between Korea and Japan. Furthermore, as the importing countries try desperately to

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<sup>132</sup>Calder, Kent E.; *"The New Continentalism – Energy and Twenty-First-Century Eurasian Geopolitics"*; pp.195.

<sup>133</sup> Ibid., pp 188.

develop some oil resources in their nearby waters to further stabilize their oil supply territorial issues have risen. Additionally Russia has added to those rivalries in starting bidding wars between the North East Asian countries over very vital and important pipeline projects towards North East Asia. As mentioned previously Korea and Japan are highly democratic countries which also could stay in the way of cooperating with Russia which is classified as a rather low ranking democracy.

- Secondly there is a lack of funding or the will to fund. Russia's vast resources can only be developed and transported to the respective countries with sufficient funding and infrastructure, which Russia unfortunately lacks. Korea and Japan however have the sufficient capital and knowledge to invest. The problem with resource development projects or other oil related infrastructure projects is the uncertainty of a 100% gain. As a Realist state it is unlikely to invest in projects without being sure to be able to gain either economically or strategically. Projects like these have to be built upon trust between the cooperating states, which is an unlikely state under Realism, where mistrust is a main factor shaping international relations between the different nation states.
- Thirdly I developed the idea of a missing link in already existing cooperation. As previously evaluated, there are already broad varieties on international cooperation dialogues concerning the North East Asian energy security situation. The fact that there are so many different international organizations involved makes it even more obvious that up till today all of them failed to actually set up a functioning cooperation between oil importing and exporting North East Asian nations. I determined the missing link to be somewhat a link between APEC, JODI and the IEA. All three organizations stand for three important aspects as the regional aspect, the international aspect and data collection,

information sharing and transparency which are needed in functioning energy security cooperation. Effective energy security cooperation has to function on a regional level with its laws and policies, however it also has to be represented and be conform on an international level and needs all the knowledge and data of the cooperating countries combined. The missing link has to be an institutional mechanism which is uniting all three aspects and be able to act as an intermediary between the global market and the regional needs for infrastructure and other economic development within the region, particular in the area of energy. So why is this link still missing? It can be all traced back to the Realist behavior of states. A new supranational institution needs firstly and initiative and secondly funding. Since this would be a pioneer project, the risk of failing or only slow success runs very high. These two aspects are the main reason why from a Realist point of view a state as a rational actor would not initiate such project, as any form of gain can't be guaranteed.

- For the fourth point we need to consider the “Russia - Factor”. Geopolitically, Russia is not only extraordinary by size but also lies precisely in the middle of the Eurasian landmass. Russia borders on 14 countries by land and shares maritime borders with Japan and the US. Its geographically status puts Russia in a position which makes it possible to dominate its surrounding nations. North East Asia's main competitor for Russia's energy resources is the EU. Very naturally, due to the development stage of the EU, Russia concentrated first on the energy market on the West, while North East Asia was uninteresting for a long while. Basically on a first-comes first-served basis Russia's whole energy market concentrates firstly on the EU and only secondly on North East Asia, strictly because the market is already better developed.

- Last but not least, probably the most important factor is the market competition. Why is competition almost inevitable? Korea and Japan pursue a mercantilist approach and compete with each other in buying energy in order to maximize their national interest. Russia as the only big energy exporter in North East Asia is likely to want to take advantage of its sole seller position – which would draw the importing countries in dependency. Those facts are further nurtured by distrust coming from historical disputes and competitive behavior between the North East Asian states in various political and territorial issues. Furthermore competition could drive the North East Asian countries at this point to advance. In order to be able to compete the states will put more effort in finding energy security solutions. Competition could drive the exporters to reduce their prices or increase their quality, both very much needed in the case of Russia. It also could drive the importers to develop new energy security solutions. Those factors could be very helpful in determine a stable and independent oil market in North East Asia.

Keeping these five factors in mind the question if such energy security cooperation is even possible, remains. The demand as well as the supply exists, furthermore all three countries are engaged in cooperation dialogues as well as information sharing on energy resources and energy security, which seems like great cooperation base. However main issues such as territorial disputes or the reluctant funding has to be eradicated first. To erase the inability to finance cross-border infrastructure some researchers suggest that a regional development bank might be the key to manage such huge investments and financial requirements.<sup>134</sup>

The main key for possible energy security cooperation between Realist states could be the difference in a hard energy agenda or a soft energy agenda. Hard energy agenda meaning

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<sup>134</sup> “*A Current Issue Analysis and Approach for North East Asia Energy Cooperation*”. Northeast Asia Economic Forum: December 2009. pp.9

pipelines, new oil developing projects and competition; soft energy agenda meaning cooperation on energy projects, energy efficiency, common stockpiling, information sharing and furthermore slow institution building – a practical and achievable agenda. To ensure stable regional energy cooperation between mistrusting states it has to be guaranteed that the respective countries are moving together towards a virtuous circle of energy cooperation out of neo-mercantilist competition<sup>135</sup>. A soft security approach based on common interests, exchange and resources could be more useful rather than a hard approach which would drive the states into competition again. From a realist point of view the soft security approach seems to be more neutral and harmless while a hard security approach could come with serious conflicts of political and economic interest. Under the soft agenda, even though energy security can be a highly political issue, it might be possible to pursue them as politically non-sensitive projects which may be the only achievable solution for a cooperation agenda at the intergovernmental level. Especially in the case of Korea and Japan energy security cooperation projects could actually be the start of a better understanding of each other on a political level. Additionally a soft security agenda should be possible with a relatively small investment, since funds are definitely a problem till now. The second step would be a gradual approach from a soft security to a hard security approach.<sup>136</sup> Basically it could be an option to use energy security cooperation to strengthen the bond between the involved countries, therefore making bigger energy projects possible as well as facilitate the clarification and mobilization of common interests and public good, which in return could increase the likelihood of constructive cooperation in the whole North East Asian region. The Korean Journal of Defense states that energy relations among North East Asian countries have

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<sup>135</sup> Neo-Mercantilism proposes that economic independence and self-sufficiency are legitimate objectives for a nation to pursue, and systems of protection are justified to allow the nation to develop its industrial and commercial infrastructure to the point where it can compete on equal terms in international trade.

<sup>136</sup> Lee, Jae-seung; *“Energy security and cooperation in Northeast Asia”*. pp.227.

been mainly bilateral so far, and the basis of multilateral cooperation has not been hardened. It suggests that issue linkage between the energy agenda and other security and economic agendas may facilitate further energy cooperation in the region.<sup>137</sup> Through FTA's and energy security negotiations or dialogues economic interdependence might be increased which could result in more stable relationships between the countries, fostering future cooperation projects on a wide scale. Successful energy security cooperation in Northeast Asia needs careful reconsideration of the agenda-setting and the modality of cooperation.

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<sup>137</sup> Ibid., pp.229.

## VI. APPENDIX

Table 1. Strategic Plan (2010-2014)

Objectives and priority areas	2010	2011	2012	2013	2014	Responsible	Priority	Funding status
<i>Objective A. To formulate and promote policy recommendations and/or inter governmental agreements among the participating countries of MEA through the conduct of joint studies and policy dialogues.</i>								
A 1. Development of oil, gas and coal resources						WG-EPP WG-Coal	High	Funded
A 2. Oil and gas pipelines and grid interconnection: Development of policies and regulations for energy trade						WG-EPP	High	Partial
A 3. Regional market (trade and investment): Investment promotion and project development						WG-Coal	High	Partial
A 4. Utilization of renewable energy						WG-EPP	Medium	None
A 5. Improvement of energy efficiency						WG-EPP	High	None
A 6. Strategic oil reserve or stockpiling arrangements						WG-EPP	Low	None
<i>Objective B. To increase the importance and visibility of the Collaborative Mechanism by serving as a reliable source of information to energy industries and government organizations</i>								
B1. Collection and dissemination of information and data regarding the energy situation in North-East Asia						WG-EPP WG-Coal	High	Funded
<i>Objective C. To strengthen the Government-Business Dialogue in order to increase the involvement of industries in the activities of the Collaborative Mechanism and to launch new cooperation initiatives.</i>						WG-EPP WG-Coal	High	Funded
<i>Objective D. To conduct promotional activities on energy trade and investment such as trade fairs, forums and exhibitions involving energy industries, government agencies and financing sector</i>						WG-EPP WG-C	Low	None
<i>Objective E. To further enrich energy cooperation activities to support the activities of the Collaborative Mechanism</i>								
E1. Facilitation of a capacity building programme and technical exchanges						WG-EPP WG-Coal	High	Funded
E2. Strengthening the institutional arrangement of the Collaborative Mechanism to improve the effectiveness of the SOC						SOC ESCAP	High	Funded
<i>Objective F. To strengthen the implementation mechanism</i>								
Funding mechanism, secretariat, nodal institutions, monitoring and evaluation systems						SOC, WG+, ESCAP	Medium- High	Funded

Note: More details of this table can be found in Annex 9 (Strategic Plan, 2010-2014)

Table 5 Strategic plan

“Five Year Strategy (2010-2014) to implement Intergovernmental Collaborative Mechanism on Energy Cooperation in North-East Asia”, United Nations, Thailand, Bangkok: March 10<sup>th</sup> 2010. pp. ix.  
 <FiveYearStrategy-ECNEA.pdf>



The boundaries and names shown and the designations used on maps included in this publication do not imply official endorsement or acceptance by the IEA.

Figure 6 Korea's oil infrastructure map

“Oil & Gas Security – Emergency Response of IEA Countries: Korea”. IAE:2011. Korea's key oil data till 2010 stated by the IEA. pp. 8.  
 <[http://www.iea.org/publications/freepublications/publication/Korea\\_OSS2011.pdf](http://www.iea.org/publications/freepublications/publication/Korea_OSS2011.pdf)>



This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Figure 7 Oil infrastructure map Japan

“Oil & Gas Security – Emergency Response of IEA Countries: Japan”. IAE:2013. Japans key oil data till 2012 stated by the IEA. pp. 8.

<[http://www.iea.org/publications/freepublications/publication/2013\\_OSS\\_Japan.pdf](http://www.iea.org/publications/freepublications/publication/2013_OSS_Japan.pdf)>

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One of the first steps to accomplishing great things in your life is to stop dwelling on the negative things in your past. It is important to carefully assess your present strengths, successes and achievements. Dwell on those positive experiences in your life and quit limiting your potential by constantly thinking about what you have done poorly, or where you failed. Alice and the Mad Hatter in Wonderland had a conversation that illustrates this concept:

Alice: Where I come from, people study what they are not good at in order to be able to do what they are good at.

Mad Hatter: We only go around in circles in Wonderland, but we always end up where we started. Would you mind explaining yourself?

Alice: Well, grown-ups tell us to find out what we did wrong, and never do it again.

Mad Hatter: That's odd! It seems to me that in order to find out about something, you have to study it. And when you study it, you should become better at it. Why should you want to become better at something and then never do it again? But please continue.

Alice: Nobody ever tells us to study the right things we do. We're only supposed to learn from the wrong things. But we are permitted to study the right things other people do. And sometimes we're even told to copy them.

Mad Hatter: That's cheating!

Alice: You're quite right, Mr. Hatter. I do live in a topsy-turvy world. It seems like I have to do something wrong first, in order to learn from what not to do. And then, by not doing what I'm not supposed to do, perhaps I'll be right. But rather I'd be right the first time, wouldn't you?

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