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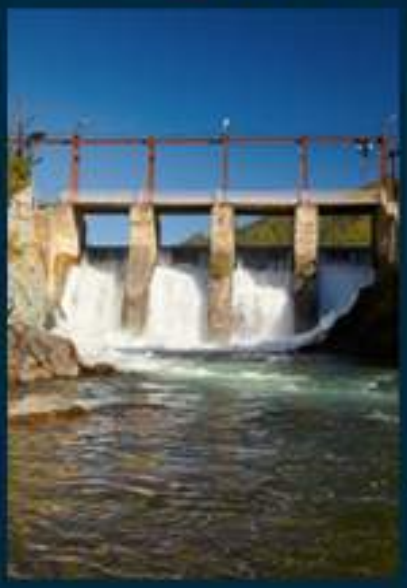



EUCERS Newsletter

European Centre for Energy & Resource Security
Department of War Studies, King's College London

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Introduction

Welcome to the 47th edition of the EUCERS Newsletter for the (quiet) month of August.

This issue's general article section includes two pieces. First, Francesco Ventura, research associate at EUCERS, writes on the terrible trinity of war, water and energy in the Middle East.

Secondly, Mogha Bassim, lecturer at the University of Buckingham, analyses the trends, uncertainties and risks in oil prices in the medium-term.

In our Activities section, we report from our most recent EUCERS Executive Summer School.

In EUCERS on the Road we continue to inform you about conference participation and presentations of our members, as well as latest publications.

I hope you enjoy the newsletter!

Justus Andreas
Research Associate and Newsletter Editor at EUCERS, King's College London

In this Month's Edition:

ARTICLES

The war, peak water and the energy nexus in Syria and Iraq

Francesco Ventura

Francesco Ventura is a political analyst, focused on Turkey, the Middle East, hydro-politics, energy security and geopolitics. He holds an MA in International Politics and European Studies from Florence University (cum laude, 110/110) and contributes at different Italian geopolitical magazines, such as Limes, Eurasia and Altitude.

The Middle East is facing a water crisis. The ongoing conflict in Syria and the struggle in Iraq are even worsening the situation. An International Committee of the Red Cross (ICRC) report[1] warned how war is bringing region's water supplies to a breaking point. The connection between water crises and war is deep and known. In Syria, it was a long drought that started in 2006, along with other factors, such as a repressive regime, an erosion of economic health and the region's balance change, that brought social and political frictions to the boiling point[2]. The following use of water as a tool and weapon, especially by the fundamentalist organisation Islamic State (IS), has been accelerating the depletion of freshwater. The passing of peak water in Syria and Iraq could have significant implications for energy, because of the water-energy nexus. The peak water is a concept analogous to the idea of peak oil: the point "at which we run up against natural limits to availability or human use of freshwater"[3]. The water-energy nexus means that in order to use water for economic purposes there is need of a large amount of energy. Similarly, many technical processes within the energy cycle need a large amount of water[4].

The Euphrates and Tigris are the main source of water for Turkey, Syria and Iraq. Especially the Euphrates river is of critical importance. Flowing for 2,700 kilometres from Turkey to the Persian Gulf, it supports over 60 million people. The three riparian states have built several structures aimed to use its water for the economic development since the early 70s. In the past 50 years this has included approximately 32 dams and barrages, causing a 40-45 percent reduction in water flow[5]. Turkey has not signed the 1997 UN *Convention on the Law of the Non-navigational Uses of International Watercourses*. Consequently, the lack of general agreements on water sharing and the lack of coordination between each state on water management, as well as a growing water-intensive agriculture have led to over-exploitation of the river.

The violent conflict and the weakness of institutions in Syria and Iraq are two important reasons for a renovated aggressive approach towards water exploitation by the local actors. The IS militias have taken control of vast parts of the Euphrates valley in Syria and Iraq and its hydraulic structures, from the Tabqah Dam in the Syrian sector of the river to the Ramadi Dam, west of Falluja in Iraq, pushing south to Haditah Dam, the second largest of the Euphrates. Since 2013, when IS seized the Tabqah Dam, the river level has dropped dramatically[6]. Furthermore, since the Islamic militias captured the Ramadi

1 International Committee of the Red Cross (2015), *Bled Dry. How war in the Middle East is bringing the region's water supplies to breaking point. An ICRC report.* ICRC, March, http://www.icrcproject.org/app/water-in-middle-east/PDF/full_report-water-middle-east-icrc.pdf.

2 Joshua Hammer (2013), "Is a Lack of Water to Blame for the Conflict in Syria?", *Smithsonian Magazine*, June, http://www.smithsonianmag.com/innovation/is-a-lack-of-water-to-blame-for-the-conflict-in-syria-72513729/?no-ist=.

3 Meena Palaniappan and Peter H. Gleick (2009), "Peak Water",*The World's Water 2008-2009*, Island Press, Washington DC, 1-16, p. 1.

4 Afreen Siddiqi and Laura Diaz Anadon (2011), "The water-energy nexus in Middle East and North Africa"*Energy Policy*, No. 39, August, 4529-4540, p. 4530.

5 M. Nouar Shamout and Glada Lahn (2015), *The Euphrates in Crisis. Channels of Cooperation for a Threatened River*, Energy, Environment and Resources Research Paper, Chatham House, April, p. 2, http://www.chathamhouse.org/sites/files/chathamhouse/field/field_document/20150413Euphrates_0.pdf.

6 *Ibid*., p. 24.

barrage, the river flow has dropped below 50 percent of previous levels, according to Furat al-Timimi of Iraq's parliamentary Agriculture and Water Committee[7]. Also, IS has already given proof to be able to use water as a weapon by flooding Abu Ghraib and drying the marshlands in the south of Iraq, inhabited by Shiite population, as already Saddam Hussein did in the 90s.

On the other side, Syrian and Iraqi governments and IS are blaming Turkey for limiting the water flow Euphrates. Last June, Syrian Minister of Water Resources Dr. Kamal al-Sheikah and his Iraqi counterpart Eng. Mohsin Al-Shammari met to discuss the decreased flow of water from Turkey to Syria and Iraq. They accused Turkey of violating the laws and regulations governing the distribution of water between them. They stressed that the flow at Jarablus, on the Turkish-Syrian border, was 330 cubic meters per second, instead of the agreed 500 cubic meters[8]. Turkey, for its part, rejected accusations, blaming the inefficient hydraulic system in Syria and Iraq and the use of water as a weapon by the Islamic State. However, Ankara added that it has to look after its own and it continues to construct the final six dams of its 22-dam project, the South-Eastern Anatolia Project, known better with its Turkish acronym GAP[9]. Turkey supplies 89 percent of the Euphrates' water flow, since the river and most of its tributaries are generated in Turkish territory. Furthermore, Turkey adopts the absolute territorial sovereignty principle for its water and owns 141 dams on the Euphrates and its tributaries, with an estimated 90 billion cubic meters of water-storage capacity, the equivalent of two to three years of the entire flow. So, Turkey owns an incredible tool of pressure on its downstream riparians.

The consequence of these significant shortcomings in the regional water management is a dramatic shortage of water. In Syria, many cases report that the rate of water loss due to damage is continuing to increase. As result, there is an over-pumping of water from regulated and unregulated wells for drinking, sanitation and electricity production[10]. This trend meets another terrible evolution in these lands: climate change. A study led by Professor Jay Famiglietti and his research team for NASA revealed that Arabian aquifer, the groundwater of the Euphrates-Tigris basin, had lost 144 cubic kilometres of freshwater between 2003 and 2009, an amount equivalent to the Dead Sea[11]. As Dr. Famiglietti wrote in a post, the level of water began dropping more quickly[12]. The drought of surface water, the limit to the river flow by Turkey and the sectarian use of water by the warring parties caused a further reliance on the groundwater. People have dug several wells, many unreported, in order to provide themselves the necessary water. However, depletion of groundwater leads to impoverishment of soil, exacerbating dryness and the ability of land to retain water.

At this point, a serious risk deriving from the encounter of water stress and war is to reach and surpass peak water. Without an appropriate management it could lead to catastrophic consequences for both humans and ecosystem. The Pacific Institute has pinpointed three different concepts of peak water: peak renewable water, peak

7 Joanna Paraszczuk (2015), "IS 'Water War' Dries Marshes In Southern Iraq",*Radio Free Europe/Radio Liberty*, June 28, http://www.rferl.org/content/is-water-war-dries-marshes-in-southern-iraq/27098762.html.

8 M. Nassr/Mazen (2015), "Water Resources Minister: Turkey violets agreements on water share", *SANA*, June 17, http://sana.sy/en/?p=45392.

9 Zaid Sabah, Selcan Hacaoglu, Jack Fairweather (2015), "Water Shortages Unite Iraq, Islamic State Against Turkey", *Bloomberg Business*, July 2, http://www.bloomberg.com/news/articles/2015-07-01/water-shortages-unite-iraq-islamic-state-against-turkey.

10 ICRC (2015), p. 5.

11 Katalyn A. Voss, James S. Famiglietti, MinHui Lo, Caroline de Linage, Matthew Rodell, Sean C. Swenson (2013), "Groundwater depletion in the Middle East from GRACE with implications for transboundary water management in the Tigris-Euphrates-Western Iran region", *Water Resources Research*, Vol. 49, No. 2, February, 904-914, http://onlinelibrary.wiley.com/doi/10.1002/wrcr.20078/full .

12 Jay Famiglietti (2013), "Water and the Root of Violent Conflict in Syria", *The World Post*, July 9, http://www.huffingtonpost.com/jay-famiglietti/water-and-the-roots-of-vi_b_3884175.html.

nonrenewable water, peak ecological water[13]. Although estimating the time when the surface renewable water could reach its peak is a highly complex task, the peak of nonrenewable water is similar to the traditional peak oil. It concerns the level of groundwater: when production rates substantially exceed natural recharge rates and when over-pumping or contamination leads to a peak of production followed by a decline[14]. This is exactly what is currently happening in Syria and Iraq. Very close to this is the peak ecological water: the exceeding of the "point of water use that causes serious or irreversible ecological damage"[15].

In summary, the Euphrates and Tigris region is suffering from a variety of highly adverse developments that include Turkey limiting the rivers' water flows, IS targeting water structures in its occupied territories, while Syrian and Iraqi water systems continue to suffer from inefficiencies and the Iraqi marshlands and the Arabian aquifers are drying out, with all factors leading to a rapidly increasing cost of water. However, another nightmare is looming: the water-energy nexus. Notwithstanding the Middle East being a fossil fuel-rich region, in order to produce energy it needs water, and to use water it needs energy. Water extraction, treatment, distribution and disposal processes consume a large amount of energy. Similarly, many technical processes of harnessing, extracting and producing energy require a large amount of water[16]. For example, Iraq, which is one of the biggest oil producers in the world, requires growing amounts of water to sustain its growth in oil production, because water is injected into oilfields to support reservoir pressure[17]. The Iraqi government put a great trust in the CSSF project, which will have to bring seawater into southern oilfields. However, as IEA underlined, "water that is not supplied from the CSSF would need to be sourced from aquifers and surface water"[18]. So, the depletion of groundwater and the growing scarcity of surface freshwater are able to lead to alarming energy shortcomings.

In Syria and Iraq we can observe a terrible trinity the war, the risk of peak water and its energy nexus. It seems that it is impossible to solve any of these problems individually. But it seems clear that a peak water of the aquifers will be an element fostering the conflict itself and as such also the complication for an efficient production and use of both water and energy.

Future expectations for energy in the Middle East and North Africa (MENA) region

Dr Mogha Bassim

The importance of the energy of the Middle East and North Africa (MENA region) to the world and the MENA region itself stems from the fact that 5 out of the top 10 of the major oil producers worldwide are located in this region. In addition the five countries (Saudi Arabia, Iran, Iraq, Kuwait, UAE and Libya) hold 50.5% of the total world reserve[19].

Furthermore, the cost of production per barrel in the MENA region is cheaper when compared to the other oil producing countries and particularly when compared to the cost of North Sea, Canadian oil sands, or US Shale[20].

13 The Pacific Institute, *Peak Water*, http://pacinst.org/issues/sustainable-water-management-local-to-global/peak-water/.

14 Ibid.

15 Meena Palaniappan and Peter H. Gleick (2009), p. 10.

16 Afreen Siddiqi and Laura Diaz Anadon (2011) p. 4530.

17 Saltanat Berdikeva (2012), "No Water, No Gain for Iraq's Oil Development", *National Geographic*, November 13, http://energyblog.nationalgeographic.com/2012/11/13/no-water-no-gain-for-iraqs-oil-development/.

18 IEA (2012), *Iraq Energy Outlook*, World Energy Outlook Special Report, November 12, p. 68.

19 Central Intelligence Agency, The World Factbook, 20 August 2015 https:// www.cia.gov/library/publications/the-world-factbook/rankorder/2244rank.html

20 Marina Petroleka "Outlook for Oil Prices & Iran's Return To Market", European Centre for Energy & Resource Security Department of War Studies(EUCERS), King's College London, Issue 46, July 2015.

Oil Price Sensitivity

The oil market prices are highly sensitive and respond fast to sudden economic crises, political changes and conflicts[21] which would affect oil demand or supply. The East Asia economic crises in the Nineties drove the oil prices down to less than US$10/bbl. On the other hand the Middle East conflict in the seventies drove the price up 4 times with only 7 % reduction in world production over a period of just 6 month. Similarly, the changes in Iran's political regime at the end of the seventies followed by the Iraq-Iran war in 1980 which reduced the world production by approx. 10%, drove the price to a high US$ 100 approx. (adjusted for inflation for 2010).

The Organization of Petroleum Exporting Countries (OPEC), established in 1960, has at times with some success been able to stabilise the oil prices by controlling the supply side quantities in order to avoid the extreme conditions of high oil price surges and possible recession. OPEC unfortunately has limited tools to enforce the control of production of its member countries, and even less control for the non-member oil producing countries. Furthermore, OPEC is faced with the challenge of sensitive oil prices that highly responsive to crises.

Recent Developments in Oil Prices

During the past few years oil prices sustained a high level of US$ 100 and higher. Production of Shale oil in USA experienced spectacular growth, altered crude and oil product flows and shifted the perceived situation in the oil market from scarcity to abundance. Several factors contributed to the growth in production including innovations in extraction and treatment as well as Government financial support for the smaller entrepreneurial companies in the U.S. light tight oil (LTO) sector, and the reduced cost of the oil services industry [22].

Dr Mogha Bassim has been a lecturer in Economic and Econometrics since 2005 and joined the University of Buckingham in 2012. She is specialised in lecturing the Economics of the Middle East.

A sudden drop occurred in oil prices from approx. US$ 105 down to half this value in few weeks in the second half of 2014, and with the decision of OPEC towards the end of the year to let the market determine the price together with an increase in world production, the price plunged further down.

Future Expectations for Oil

Projections and future expectations remain always associated with some uncertainties and risks, which have to be evaluated in order to plan ahead strategies for elimination or control, should these occur. This is particularly the case for oil future expectations due to its high sensitivity to changes. BP listed a number of the uncertainties in their energy outlook for 2035 [23] related to GDP Growth, Climate Policies, Geopolitics and China's Electrification, all of which remain relevant to the expectations in this article.

First, the future expectation of oil demand

Primary energy consumption is expected to increase by 37% between 2013 and 2035, with growth averaging 1.4% p.a [24]. Oil demand will continue to grow due to the growth in demand in China, East Asia and several other countries like India and Japan as well as the growth in consumption within the oil producing and non-producing countries in MENA. Population and GDP growth will contribute to the growth in energy demand.

21 BP, Crude Oil Prices 1861-2014, August 2015, http://www.bp.com/en/global/corporate/about-bp/energy-economics/statistical-review-of-world-energy/review-by-energy-type/oil/oil-prices.html

22 Clingendael International Energy Program, The Oxford Institute for Energy Studies, King Abdulla Petroleum Studies and Research Center (KAPSARC), "CRUDE OIL MARKETS IN 2015: THE BATTLE FOR MARKET SHARE", July 2015.

23 BP Energy Outlook 2035, Feb. 2015, pp 78

24 Ibid, pp 11

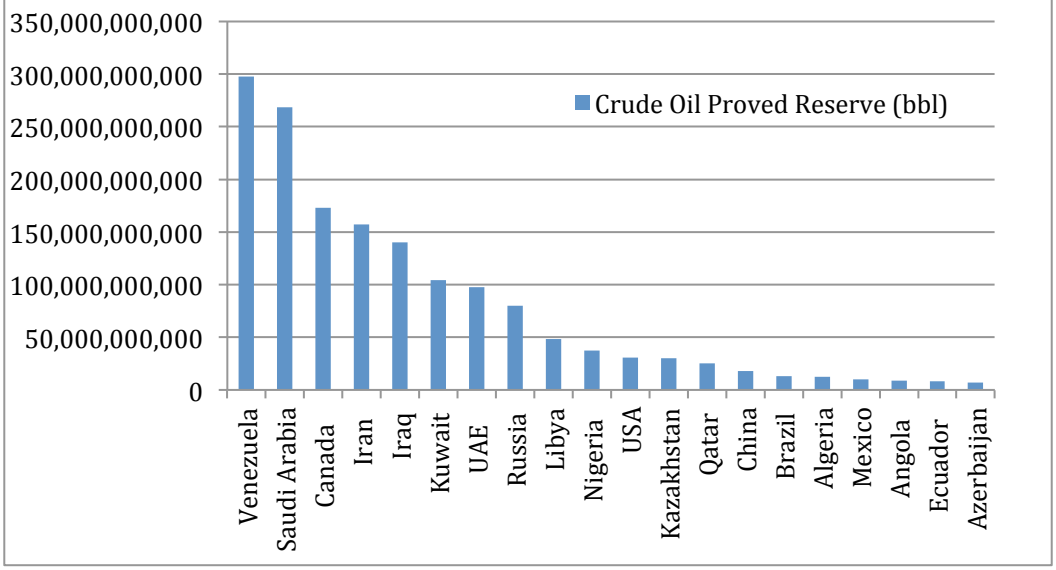
The demand is likely to be pushed up further by countries depleting their reserves. For example, the USA is producing 11,110,000 bbl/day from its relatively limited reserve of 30,530,000,000 bbl [25]. While the USA is currently importing 8,527,000 bbl/day and rated as the first crude oil importer in the world, shale oil production which may support part of the lost production and future increase in demand is still more expensive.

Crude oil reserves for the top 20 countries with highest reserve and the current daily crude oil production levels are shown in fig (1) and fig (2) respectively. The figures are indicating how fast each of these larger reserves will be depleted. If production continues to be at the same daily rate, the US and Mexican reservoirs appear to be first to be depleted within the next 10 years, followed shortly afterwards by China. Currently, the production levels in these countries are 11,110,000 for the USA; 2,882,000 for Mexico and 4,180,000 bbl/day for China representing approx. 20% of the 95 000,000 bbl/day in current world demand. This together with the increase in demand in these countries will be turned into additional world demands. Part of this energy requirement is expected to be covered by the fast growing renewable energy and natural gas but part will remain as an additional demand on oil. This could push prices up considerably noticing the effects of the 7% and 10% production reductions on prices during the seventies.

In the absence of new major discoveries of cheap oil with low extraction cost and considering the growth in demand, it would be reasonable to assume that the price will go up and can be controlled at certain levels by controlling the supply.

Second, the future expectation of oil supply

Figure 1: Crude Oil Proved Reserve (bbl)



Oil revenues represent the major source of income for several of the main oil producers and the drop in oil prices is hurting all oil producers to varying degrees. However, for the industrial countries the excessive increase in crude oil costs affect the prices of final products and the markets in general and can lead to recession.

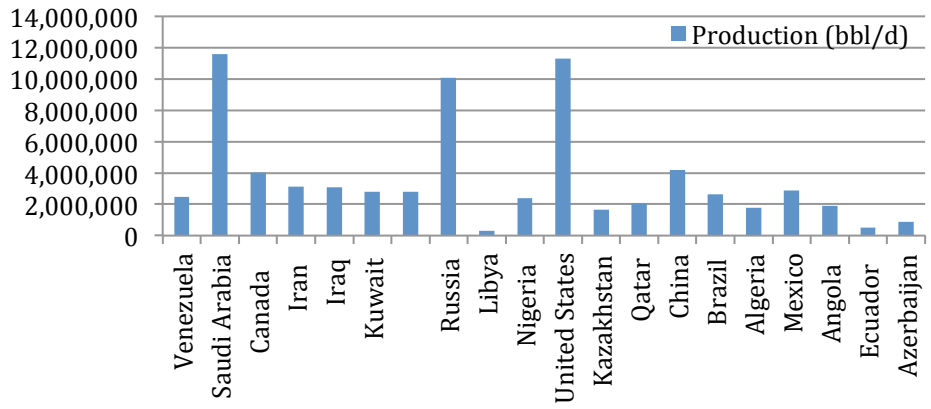
The recent drop in oil prices in 2014/2015 can be attributed to have been initiated by improvements in extraction and processing of shale oil which resulted in a sudden growth in its supplied quantities. This was followed by OPEC's decision to let the market determine the price and the increase in production by non-OPEC countries. The re-entry of Iran to the oil supply market, when the sanctions lifting comes into effect, is expected to increase the supply even further and can put more pressure on current low oil prices.

Producers with the low production cost in and outside the MENA region are expected to seek a reasonable margin of profit at supply levels which

[25] Central Intelligence Agency (CIA), The World Factbook 2014, 20 August 2015
https:// www.cia.gov/library/publications/the-world-factbook/rankorder/2244rank.html

would enable each supplier to continue with the social and economic development programs.

Figure 2: Production (bbl/d)



Provided that in the already unsettled MENA region countries do not experience sudden political turmoil, armed conflicts, or other shocks that can affect the oil market, the suppliers would be expected to seek a market balance in the shortest possible time. To allow for the impact of re-entry of Iran into the market next year a longer period of 1½ to 2 years may be expected to reach the market balance. Producers are under internal pressures and also from the producers most hurt by the fall in prices [26].

Third, the future expectations for oil prices

There have been different estimates for the expected future oil prices. Estimates by Bloomberg predict US $70/bbl average Brent price for 2016 whereas BMI predicts US$60/bbl [27]. Traders predicted a much less figure of US$38/bbl as reported by CNBC. This is a wide range of expectations and the deletion of the low more conservative US$ 38 is probably appropriate.

Fourth, other future expectations

Given the continued improvement in technologies of oil extraction [28] , local oil producing companies may find themselves in a position where they have to accept difficult contract conditions with the specialized multinational oil companies in the future, and the need to give these companies more concessions in terms of production sharing. An example of such situation can be in the extraction of shale oil in two MENA locations identified to have substantial quantities.

Chinese and East Asian economic growth increased their demand for oil from the MENA region over the past few years. This trend is expected to continue and increase in the following years as China continues to grow at 7% and subsequently at 4% [29]. In a recent bid, China may have increased its trade in crude oil bought from the gulf area and may be encouraged to take a more active role in oil trading and pricing [30].

The MENA region's oil producers are increasingly concerned with the growing local demand for energy which reduces their capacity to get the revenues from oil exports. There is also a growing awareness of the importance of using clean non depletable energy for the future when oil reserves are reduced. UAE [31] and other Gulf States started programs for implementing solar energy at a wide scale. Several other MENA countries have had varying degrees of progress in using solar and wind power. Nuclear power generation has also been considered in some

[26] Pablo Cano "Trilla Oil, China and Venezuela: A Love Triangle?", European Centre for Energy & Resource Security Department of War Studies(EUCERS), King's College London, Issue No.41, Jan. 2015.

[27] Marina Petroleka. "Outlook for Oil Prices & Iran's Return To Market", Op.cit, pp 5

[28] Prof. E. Roger Owen, "One Hundred Years of Middle Eastern Oil", Middle East Brief, Crown Center for Middle East Studies, Brandeis University, No. 24, Jan 2008. PP6

[29] BP Energy Outlook 2035, Feb. 2015, Op.cit, pp 9.

[30] The Oxford Institute for Energy Studies "Eastward-Shifting-Oil-Markets-and-the-Future-of-Middle-Eastern-Benchmarks" July 2015.

[31] Linda low, Abu Dhabi's vision 2030, World Scientific, 2012

MENA countries with various degrees of progress due to the high safety requirement and the political unrest in the region
The continued political unrest in the MENA region is part of the reason for the creation and growth of ISIS in several locations in the MENA region. Oil smuggling has been used to finance its operation and expansion. This pattern is expected to be reduced in the coming years as government control and peace is regained in these areas.

Conclusion
There will be progressively growing demand for oil in the foreseen future. This will push the oil prices up to an initially balanced level. This level is expected to be determined by this demand and the needs of countries producing and supplying the cheaper oil. A ceiling value for this price would probably be the price of production of the expensive types to limit the supplied quantities to the market.

There is a continuing and growing shift in demand eastwards which will affect the future oil trade and prices.

ACTIVITIES

EUCERS Executive Energy Seminar 2015

Kalina K. Damianova

In July 2015, the European Centre for Energy and Resource Security (EUCERS) King's College London in cooperation with King's Summer School offered the EUCERS Executive Energy Seminar (EEES). The proven success of the previous three years has motivated us to gather again energy experts and academics, energy executives and private and public institutions representatives to discuss the increasingly interdependent dynamics of the global energy developments and international political and security trends.

From 13 to 17th of July, in the iconic building of Somerset House the "Changes and Challenges in International Energy Markets" seminar took place, chaired by Dr Frank Umbach, Associate Director at EUCERS. Participants from various sectors of the energy field had the opportunity to benefit from the insights of the speakers on different contemporary issues, facing the energy industry and policy on strategic and operational level. Each session was followed by a Q&A and further discussions, when the participants could exchange opinions and share their experience. The topics of the sessions ranged from international market, climate, policy and security trends to regional spotlights, such as the energy future of Ukraine, Iraqi Kurdistan, Kazakhstan and Russia. Additionally, EU level focused topics, such as the creation of the Energy Union, the diversification initiatives and the example of the German 'Energiewende' were presented.

Kalina K. Damianova is one of the two 2014/2015 KAS Energy Security Fellows at EUCERS. She is conducting her research on Iran in the context of (re)emerging energy superpowers. Kalina also holds an MA with distinction in International Peace & Security from King's.

Dr Frank Umbach, EUCERS Associate Director, provided the participants with a comprehensive overview on changes and challenges in international energy markets, looking into the influential trends on global and regional levels. The presentation triggered discussions about on-going issues, such as the fall of the oil prices and the redirection of the energy flows. In this regard, the debate was complemented by Dr Benny Peiser's, Director, The Global Warming Policy Foundation, presentation on Climate Change vs. Energy Demand, topic that affects the energy sector on global and regional level. In the context of the environmental debate and energy developments, Mr Michael Feist, CEO of enercity – Municipal Utilities Hanover, Germany, gave a detailed presentation on the benefits and challenges of the German "Energiewende'' and on how it could be related to the other European states.
In terms of the EU, Matthias Dürr, Head of RWE AG Representation in Brussels, gave a timely

analysis of the Energy Union and the New Market Design. The EU Diversification Strategy, one of the key strands of the EU energy security strategy was an area, presented by Dr Tomas Maltby, Lecturer in International Politics, King's College London. He focused on the energy diversification projects of the EU, in the context of the end of South Stream, the future role of the Southern Corridor and the East Mediterranean Sea Resources.

Europe's energy security has been inevitably affected by the on-going conflict in Ukraine. The in-depth expertise of Dr Umbach on Eastern Europe and EU-Russia relations made his presentation on Ukraine's energy security future a comprehensive lecture, contributing to the participants' understanding of the challenges in the region. An essential topic for a discussion on the EU energy security is the future of the energy supplies to the EU from one of its main partners in this field - Russia. Dr Adnan Vatansever, Senior Lecturer, King's Russia Institute and Associate Director at EUCERS, gave a detailed expert analysis on the Russian energy sector and its future perspectives in the context of the energy supplies to Europe and the sanctions imposed on Moscow. An overview of the energy potential and sector specifications of another potential energy superpower in Eurasia, Kazakstan, has been made by Aura Sabadus, Senior Reporter, ICIS and EUCERS Research Associate.

In relation to the emerging energy superpowers, which is the topic of the 2014/2015 EUCERS/ISD/KAS Workshop Series, a special event was dedicated to Brazil. One of our KAS fellows, Flavio Lira, working on a study on Brazil, presented his findings on a panel of officials and experts on Latin America and Brazil. The EEES participants could join our event and take part in the debate afterwards, which was followed by a reception.

Iraqi Kurdistan, another energy wealthy zone, was analysed by the Managing Director of Carduchi Consulting, Shwan Zulal in a very insightful presentation. Inevitably, the discussions were influenced by the current events on the international stage, such as the reaching of a permanent agreement with Iran and the potential of the lifting of the international sanctions imposed on this energy rich state. The political and security challenges, one of the key problems for the energy sector on almost all levels, were a topic of analysis of Mohammed Shakeel, Middle East Analyst, Global Strategy and Business Development, Statoil, London. He focused on the Political Risk in the Oil and Gas Industry. Dr Umbach contributed to the wider debate of security challenges by introducing into the discussion a comprehensive presentation on the emerging threats, namely the ones of Cyber Security. The place that NATO could play in the energy security field was discussed by Michael Ruehle, Head of Energy Security Section, Emerging Security Challenges Division, North Atlantic Treaty Organization (NATO).

The executive energy seminar week was concluded by a presentation and discussion on the topic of Alternative Energy Dispute Resolutions. Professor Dr Nicole Conrad, Director of the Energy Arbitration Center Switzerland (EACS) at the ZHAW, familiarised the audience with the legal mechanisms and possible challenges that might be encountered in Energy dispute resolution. On the final day of the EEES a lunch, followed by a small informal ceremony of certificates awarding was organised.
EUCERS also offered a visit to the London Eye, one of the most popular tourist attractions in London. The participants had the opportunity to have dinners together and share opinions in a more informal atmosphere, as well.

The EUCERS team was delighted to welcome all participants and speakers to this year's executive energy seminar and are looking forward to organize the next executive energy seminar in 2016. We would like to thank the Chairman of the programme Dr Frank Umbach, the presenters and the participants and Carola Gegenbauer, EUCERS head of operations and organiser of the EEES for making this seminar a valuable experience for all.

DISCLAIMER

The views expressed in this Newsletter are strictly those of the authors and do not necessarily reflect those of the European Centre for Energy and Resource Security (EUCERS), its affiliates or King's College London.

ANNOUNCEMENT

This will be the last Newsletter issue edited by Jan-Justus Andreas, KAS Fellow at EUCERS 2013/14 and EUCERS Newsletter Editor since November 2013. Justus has been doing a remarkable job editing the newsletter in the past two years and we would like to thank him sincerely for all his hard work. Justus will now focus on his doctoral research at the University of York and we wish him the very best for his future endeavours and are delighted to keep him associated to EUCERS as a Research Associate.

EUCERS ON THE ROAD

Our team represents EUCERS at various conferences and events all over the world. This section gives a regular update and overview of conferences and interview contributions by EUCERS Director Professor Dr Friedbert Pflüger, Research Director Dr Frank Umbach and Associate Director Dr Adnan Vantansever.

13.08.2015 Berlin, Germany	Friedbert gave a lecture at the "German Russian Summer School" hosted by EUREF on „Germany & Russia: A partnership in energy for half a century – and for the future"

PUBLICATIONS

Dr Frank Umbach share with us his most recent publications and interviews:

Frank wrote on "Baltic Energy Security - No Longer a Regional Energy Island", at the Geopolitical Information Service (GIS - www.geopolitical-info.com), 7 August 2015, 6 pp.

Frank discussed "Falling Oil Prices and the Geo-economic Impacts on the International Oil Market", published in the Diplomatic Journal for Global Energy Cooperation, first edition (ed. by the South Korean Foreign Ministry), Vol. 01/2015, pp. 48-57 (http://www.mofa.go.kr/trade/Energy/20110915/ene.pdf).)

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If you have found our Newsletter interesting, wish to hear more about our activities, or, indeed, contribute with ideas or essays, please contact Carola Gegenbauer, Operations Coordinator EUCERS on carola.gegenbauer@kcl.ac.uk or call 020 7848 1912.

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