Introduction

Welcome to the 41st edition of the EUCERS Newsletter and the first one in the year 2015.

This month’s general article section includes a piece by Dr. Francesco Sindico, Expert in International Environment, Energy and Natural Resources Law at London Centre for International Law and Practice Director of the Strathclyde Centre for Environmental Law and Governance, on the law of trans-boundary groundwater aquifers. A second piece by Pablo Cano Trilla, Oil & Gas Law Associate at the London Centre of International Law Practice, assesses the implications of falling oil prices for Venezuela and its relationship with China.

We are most happy to announce that Dr Frank Umbach has accepted the offer of the influential Ukrainian think tank DiXi Group to become a member of their Supervisory Panel.

Also, the first EUCERS workshop of our new Energy Series on "Global Energy Superpowers" will take place on February 24, 2015. The first topic will be “Iran's Re-emergence as an Energy Superpower: Obstacles, Opportunities, Impact”.

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
ARTICLES

How to regulate what you cannot see: emerging legal frameworks for transboundary aquifers
Francesco Sindico

Groundwater and Transboundary Aquifers

What natural resource is more important than water? People need it to survive, ecosystems need it to sustain themselves, a range of important socio-economic actors rely on water for their daily business. Even energy is heavily dependent on water. Shale gas requires tremendous amounts of water to operate and hydropower, obviously, relies on the availability of water in a specific region. Taking into account the importance of water for society, one would assume that we all know where our water comes from. Most of us immediately think of rivers, lakes and, more generally, surface water. But the reality is that almost all available freshwater resources in the world are an invisible natural resource. In fact, groundwater accounts for a staggering 97% of available freshwater resources.

This fact alone calls out for greater attention for groundwater management, but a further facet is also seldom recalled in the literature, let alone in the media or at policy level. Groundwater is often trapped in geological formations that straddle between national borders. What we have then is a transboundary aquifer. Immediately the “political” challenges of managing an invisible resource that is divided between two or more countries should be apparent. But then, if only a handful of these transboundary aquifers existed in the world, maybe we should not be that concerned, considering the myriad of other challenges we have to face in the field of natural resources. Policy makers and diplomats have already enough on their hands in trying to deal with, for example, climate change, one would think. However, the figures that have now constantly been released by international actors mapping transboundary aquifers tell a very different story. As of 2014 more than four hundred (that is 400!) transboundary aquifers have been identified.¹ Not all are fully understood in terms of their hydrogeological characteristics, but, nevertheless, the countries under which the transboundary aquifer is located, agree on its existence. How many of these are regulated by some sort of international legal instrument?

The answer to this question reveals the policy relevance of looking into the management of transboundary aquifers in the years to come. Only 5 transboundary aquifers are regulated by some sort of legal instrument, and, of these, the only one properly governed by a treaty in force is the Genevese Aquifer shared by Switzerland and France. The four countries present within the Guarani Aquifer System (Argentina, Brazil, Paraguay and Uruguay) have signed the Guarani Aquifer Agreement in 2010, but the latter has not yet entered into force.² Two transboundary aquifer systems in Northern Africa, the North Western Sahara Aquifer System (Tunisia, Algeria and Libya) and the Nubian Sandstone Aquifer System (Libya, Egypt, Sudan and Chad), feature incipient information exchange provisions and institutions, as does the Iullemeden Aquifer System (Nigeria, Niger, Mali). But that is all…. All other transboundary aquifer systems have no ad-hoc specific regulation. Some transboundary aquifers around the world are currently being studied in the framework of international projects, such as the Dinaric Karst Transboundary Aquifer System (Albania, Bosnia and Herzegovina, Croatia and Montenegro), the Stampriet Kalahari/Karoo Aquifer System (South Africa, Botswana and Namibia) and the Trifinio Aquifer (Guatemala, Honduras and El Salvador), but no specific policy recommendation has yet come out of these projects.

Does that mean that policy makers in countries that feature transboundary aquifers - and with more than 400 worldwide many countries are in such a position - have nowhere to go for guidance when it comes to devising the management of a transboundary aquifer?


Luckily the international community was not completely blind to the importance of transboundary aquifers. Policy makers have now a set of guidelines that they can go to if they wish to embark on the difficult task of discussing management options over a transboundary aquifer. In 2008 the UN General Assembly adopted a Resolution that annexed the United Nations International Law Commission Draft Articles on the Law of Transboundary Aquifers. For those less familiar with international law, the International Law Commission is a UN body tasked to codify and progressively develop international law. It is both legal and political at the same time. States dictate the work it undertakes. They are the ones who decide what the Commission will look at (its “mandate”). But its work is also legal because it elaborates Draft Articles based on its own understanding of the state practice and of the emerging rules of international law applicable to a specific topic. It is political again because, once it adopts a set of draft articles, these are then submitted to the States who can (and will) present amendments and suggest modifications. The Draft Articles are finally agreed to by the States, and in the case of the UN General Assembly annexing the Draft Articles on the Law of Transboundary Aquifers no State voted against it.

In 2002 the UN International Law Commission was given a mandate by the international community to explore the law applicable to transboundary groundwater, oil and gas. Just a year later the special rapporteur Chusei Yamada decided to separate the three items and to start by focusing only on groundwater. The latter was aptly relabelled as transboundary aquifers aligning it with its true hydrogeological nature. It took six years for the International Law Commission to agree a set of 19 draft articles. This may seem a lot of time, but compared with the timeframe it took to agree draft articles on issues such as state responsibility or transboundary surface water, it was actually done quite swiftly. The 19 draft articles set a very general framework that highlights both the key substantive and procedural principles and regulations in the management of a transboundary aquifer. It is not my intention here to dwell on the content of the Draft Articles, many other experts have done this and I have also participated in the debate. What is important to highlight here is that while policy makers do not have a perfect blueprint that they can just “copy and paste”, those interested in the management of a transboundary aquifers do have a set of useful guidelines in their hands. This is not just wishful thinking, but the practice of the last few years shows that the Draft Articles are playing a role. One can debate as to the scale and importance of such role, but it would be difficult to deny it altogether. In 2010 the four Guarani Aquifer System countries referred to the Draft Articles in the preamble of the Guarani Aquifer Agreement. The 2013 United Nations Economic Commission for Europe Model Provisions for Transboundary Groundwaters are clearly guided by the Draft Articles. In at least one country, the judiciary has referred back to the Draft Articles in a case before it. While this practice was emerging, the international community, through the yearly debates at the UN General Assembly Sixth Committee, continued to discuss the fate of the Draft Articles. In 2008 the international community urged countries to “take into account” the Draft Articles. In the latest iteration of these talks the language has changed- and in international law language does not just change randomly. Countries are now encouraged not just to take into account the Draft Articles, but to consider them as “guidance” when devising agreements over the management of specific transboundary aquifers.

Arguably, the Draft Articles are consolidating themselves as the toolbox for policymakers wanting to start discussions about transboundary aquifer management. Flexible and unspecific as they may seem, they do provide a useful framework, a useful starting point for countries. Policymakers genuinely interested in managing transboundary aquifers are not left in a void; they have somewhere to go to. The Draft Articles are only a first stop, but a useful one that can provide the necessary guidance to engage fruitfully with neighbors in the negotiation of a management structure that could govern and regulate a transboundary aquifer. But, going back to the very nature of

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5 Acuerdo Sobre el Acuífero Guarani (San Juan, Argentina, 2 August 2010; not yet in force). An English version of the Agreement can be found at: <http://www.internationalwaterlaw.org/documents/regionaldocs/Guarani_Aquifer_Agreement-English.pdf>.
8 The Law of Transboundary Aquifers (UN Doc. A/68/470, 19 November 2013), at paragraph 3.
the natural resource, why would two countries want to have a joint management structure over a transboundary aquifer? By briefly looking at the environmental challenges posed to groundwater by shale gas and climate change, the importance of managing transboundary aquifers should become more apparent.

Transboundary aquifers, shale gas and climate change

Back in 2010 when the Guarani Aquifer Agreement was signed the Brazilian part of the aquifer system did not face severe water related problems. Water was generally abundant and of relatively good quality. Four years later, the city and the State of Sao Paulo have faced one of the worst droughts in memory. The effects of climate change pose a serious threat to water resources, and the images in Sao Paulo were just a stark reminder of this. In order to cope with droughts more groundwater needs to be pumped, which can lead to overexploitation of the aquifer. If this happens close enough to the border, the water table can be affected and quantity of water in one country may be affected by usage of water in the neighboring country; hence, the need to jointly manage the transboundary aquifer.

But what if a country allows exploration of shale gas very close to a border in which there is a transboundary aquifer? What if shale gas exploration and exploitation lead to groundwater pollution? In such a scenario the quality of the (ground) water in one country may be affected by activities taking place in the neighboring country. Once again, the relevance of devising joint management structures capable of preventing, in the first place, pollution, or minimizing and dealing with its effect becomes paramount for a proper management of a natural resource.

Climate change and the energy water nexus provide two clear examples of why countries should consider the management of their transboundary aquifers as a top policy priority. In this context, it is important that policy makers are aware of the “guidance” that the Draft Articles on the Law of Transboundary Aquifers can provide and that they are ready to use them accordingly. While the Draft Articles cannot make visible what is not, they can help shed light on an increasingly important invisible natural resource.

Oil, China and Venezuela: A Love Triangle?
Pablo Cano Trilla

Oil prices from 2010 until mid-2014 remained stable at around $110 a barrel. However, since June 2014 oil prices have dropped abruptly, being the current price below $50 a barrel. While the decline in oil prices is beneficial for oil-thirsty economies, it is negative for the economic viability of countries like Venezuela that are heavily dependent on the revenues generated by the oil industry.

The oil bubble burst has been mainly attributed to an excess of supply caused by the shale revolution in the United States, but also to a weak demand, consequence of the stagnation of the global economy. However, Nicolas Maduro, President of Venezuela since 2013, has different views. He has publicly blamed the United States of America. In his opinion, the decline of oil prices is a direct consequence of a calculated policy intended to harm those countries that are generally considered as America’s adversaries in the political arena, essentially Venezuela, Russia and Iran.

Difficult times for Venezuela

Regardless of what caused oil prices to drop, the consequence is that, despite having the world’s largest oil reserves, the Bolivarian Republic of Venezuela is in trouble to obtain the financial resource necessary to maintain the current levels of public spending. The main reason is that the Venezuelan Government did not foresee the spectacular decline in the price of oil. It is estimated that the Venezuelan 2015 public budget was drafted expecting that the international price per barrel would be of at least $60. The effect that the oil price drop is having in Venezuela’s finances is revealed when it is taken into account that oil revenues represent an average of 50% of the Venezuelan Central Government income and 95% of Venezuela’s exports.

When oil prices were at its peak, the revenues that were produced permitted the government to maintain ambitious social plans while taxes were kept at a very low level. Still, even during the boom years, Venezuela had to borrow large sums from foreign lenders in exchange for future oil production -it is estimated that the government in Caracas was running public deficits of around 10%. Unlike the Latin American nation, during the boom years some resource-rich countries (e.g. Saudi Arabia) saved part of the revenues in order to overcome difficult situations in the future. To sum up, the lack of an adequate forecasting strategy, combined with ill management of public revenues and corruption, has brought Venezuela to the verge of economic collapse. At this
point, it is difficult to imagine how the country’s economy will endure without obtaining foreign assistance in the form of extra financial resources.

China: the economic partner of the Bolivarian Revolution

In the past, to raise these necessary funds to keep the country running, the Government of Venezuela has preferred to avoid Western-controlled financial institutions (e.g. the International Monetary Fund and the World Bank) and seek alternative channels of funding. The reason is that those institutions tend to condition financing to the implementation of certain economic policies that are sponsored by them. Those policies, for example correction of excessive public deficit, contradict the socialist ideals that guide the Bolivarian Socialist Revolution. For this reason, the Venezuelan Government has chosen Chinese instead of Western financiers. Additionally, many Latin American left wing parties, including the political movement (chavismo) created by Maduro’s predecessor -Hugo Chavez- have traditionally sought to decrease the influence of the United States in the region. This is perfectly complemented with Chinese foreign policy, that aims to extend its global influence by promoting South - South cooperation.

As mentioned, politics play a very important role to explain the strengthening of the bond between China and Venezuela. Nevertheless, economics are the fundamental cause. The surge of China as an economic superpower has naturally accelerated bilateral trade around the globe. Latin American countries are no exception to this trend, and for the last fifteen years China and Venezuela have been building a strong commercial partnership. As the Asian nation is currently the world’s largest oil importer, unsurprisingly the world’s largest oil reserves owner, Venezuela, is exporting hydrocarbons to China in colossal quantities. China is the second largest buyer of Venezuelan oil, behind the United States, and the chief investor in Venezuela. In sum, the Asian giant is voracious for natural resources to fuel its economic growth. and Venezuela is placed in a privileged position to fulfil these needs. The main “advantage” offered by the financial institutions of the People's Republic of China is that these institutions are guided by the “non-interference principle”. In other words, this principle means that funds are given without imposing macroeconomic policies to the borrower. Accordingly, China provides loans while Venezuela provides contracts that ensure oil supply in the long-term. To this day, China has loaned approximately $50 billion to Venezuela. In exchange, it is calculated that about 50% of all the oil that Venezuela exports daily to China (300,000 out of 600,000 barrels) is destined to pay its debts, according to figures from the U.S. Energy Information Administration (EIA).

Will Venezuela collapse?

As mentioned earlier, dropping oil prices combined with Venezuela’s economic deterioration has led to distrust over the country’s capacity to meet its debt responsibilities, pushing many analysts to believe that the Caribbean country will have many difficulties to avoid defaulting on its debt payment obligations. If default occurs the main cause will be the extreme dependency in falling oil revenues, aggravated by erroneous economic policies and corruption. At this point, Venezuela’s financial situation is ruinous; the 2015 annual deficit of the Venezuelan State is expected to reach $20 billion, while the accumulated debt amounts $115 billion. Furthermore, the internal political situation is deteriorating as economic recession hits the country (the International Monetary Fund forecasts a 7% of contraction of the GDP in 2015), inflation ranks among the highest in the world (64% in 2014) and serious shortages of consumer goods are widespread. Understandably, President Maduro’s approval rate among Venezuelans is below 25% according to several polls, and criticism is increasingly arising within its own supporters.

In this context, President Maduro visited recently several oil-producing countries’ leaders, in order to attempt to coordinate a common strategy to halt falling oil prices. In addition, he visited Beijing while the China-CELAC (Community of Latin American and Caribbean States) meeting was taking place. The majority of analysts agree that the only reason for Maduro to attend this meeting was to obtain much needed financial assistance from China. The outcome of the trip to China has had uncertain achievements. While Maduro announced that China had committed to invest $20 billion, Chinese leaders remain silent. It seems clear that these funds are nothing but a restructuration of Venezuela’s financial obligations towards China, in order to facilitate debt payment, or perhaps a long-term commitment to invest in industrial developments. In any case, as has previously been pointed out, among the few available solutions to maintain the Bolivarian Socialist Revolution alive, the best option for the Government in Caracas is Chinese financial assistance, since a sudden rise of oil prices is not to be expected in the short-term.

So far, public and private Chinese financiers have bankrolled the Bolivarian Republic of Venezuela with generosity (up to $50 billion in loans). Yet, among Chinese public officials there is a growing concern regarding Venezuela’s potential default, because it would mostly affect Chinese investors and financiers. Moreover, many high-ranking bureaucrats in Beijing are also concerned about the possibility that the opposition wins the upcoming elections, and consequently a pro-Western political movement reaches power. Therefore, it is in the best interest of China to bailout Venezuela for two
reasons: (1) ensure that debts are paid and (2) uphold a close associate at the Government of the world’s largest holder of proven oil reserves.

Conclusion

As China owns most of Venezuela’s debt, and it is in constant need for oil to ensure energy security, it is imperative for China to hinder a financial meltdown of Venezuela. Therefore, it should be expected that the Chinese government will provide some sort of financial relieve to Caracas. But, if this scenario materialises, it is not likely that new loans will be given with no conditions attached. In this sense, the Venezuelan case could compel the People’s Republic of China to reconsider the application of the non-interference principle when it comes to guide its foreign lending policy. Financing countries like Venezuela at a massive scale without considering the appropriateness of the economic policies implemented by the debtor is risky. Furthermore, the political friendship that was underpinned by the flow of money may end abruptly if the debtor is unable to pay; thus, the positive benefits of lending without conditions would disappear. To conclude, the author believes that China will progressively adopt an attitude towards international financing similar to Western countries: financial resources are dependent upon certain conditions and controls imposed by the financier. When confronting criticism for interfering in other countries’ political affairs, the Chinese government should remember the teachings of Confucius: ‘A man who has committed a mistake and doesn’t correct it is committing another mistake’.

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

We would like to announce that EUCERS Research Director, Dr Frank Umbach, has accepted the offer of the DiXi Group to become a member of their Supervisory Board. The DiXi Group is one of the leading Ukrainian think tanks focusing on research and consultations in the fields of policy, energy security and investments since 2008. The Group is an influential actor in Ukraine and has recently also established a liaison office in Brussels. We congratulate Frank and hope for a fruitful cooperation between EUCERS and the DiXi Group.

Also, the first EUCERS workshop of our new Energy Series on “Global Energy Superpowers” will take place on:

EUCERS/ISD/KAS Energy Talks:
Iran’s Re-emergence as an Energy Superpower: Obstacles, Opportunities, Impact

24. February 2015, 13.30-15.30 with a reception afterwards
♦ King’s College London ♦ War Studies Meeting Room ♦ Strand Campus ♦ London WC2R 2LS

Welcome Address and Introduction

Professor Dr Friedbert Pflüger, Director, EUCERS
Sasha Havliceck, CEO, ISD
Hans-Hartwig Blomeier, Director London Office, KAS

We are delighted to have already confirmed the following speakers:

H.E. Dr Ali Majedi, Ambassador of the Islamic Republic of Iran to Germany and former Vice-President for Economy and International Affairs in the Ministry of Oil.

Alistair Burt MP, Member of Parliament and former Parliamentary Under Secretary of State at the Foreign and Commonwealth Office (FCO) responsible for FCO policy on Middle East

Dr Elham Hassanzadeh, Research Fellow, Oxford Institute for Energy Studies and author of the book “Iran’s Natural Gas Industry in the Post-Revolutionary Period”

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, Associate Director Dr Adnan Vantansever and Research Director Dr Frank Umbach.

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| 15.01.2015 | Moscow, Russian Federation | Adnan was a speaker at the annual Gaidar Forum “Russia and the World: The New Vector” on the topic of “Economic and Social Development in Resource Exporting Countries: Towards Higher Efficiency and Innovation in the Energy Sector”.
|            |           |                                                                      |
| 18.12.2014 | London, UK | At the annual Iraq oil and gas conference, Friedbert spoke on “Natural Gas Utilisation to fuel the Energy Expansion”.
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| 08.12.2014  | Washington D.C., USA | Friedbert gave an energy perspective in a panel on “Russia’s Expansionism and the Consequences for the Transatlantic Partnership” at the Center for American Progress and Atlantik Brücke conference. |}

**PUBLICATIONS**

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

Frank published on “Die Furcht vor einem kalten Winter” („The Fear of Cold Winter”), in Loyal 01/2015, pp. 7-17

Frank gave an interview for Gulsen Cagatay on the Kremlin’s decision to cancel the South Stream Pipeline and to Favour another Turkey Gas Pipeline, in: Energy Terminal/Anadolu Agency, on 18 December 2014.


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**Volker Beckers**, Chairman, Spenceram Limited

**Professor Dr Albert Bressand**, Professor in International Strategic Management in Energy, University of Groningen

**Professor Dr Iulian Chifu**, Advisor to the Romanian President for Strategic Affairs, Security and Foreign Policy and President of the Center for Conflict Prevention and Early Warning, Bucharest

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