ORSAM Report No: 104
ORSAM WATER RESEARCH PROGRAMME
Report No: 12, February 2012

AN EVALUATION ON THE DRAFT ARTICLES ON THE LAW OF TRANSBOUNDARY AQUIFERS

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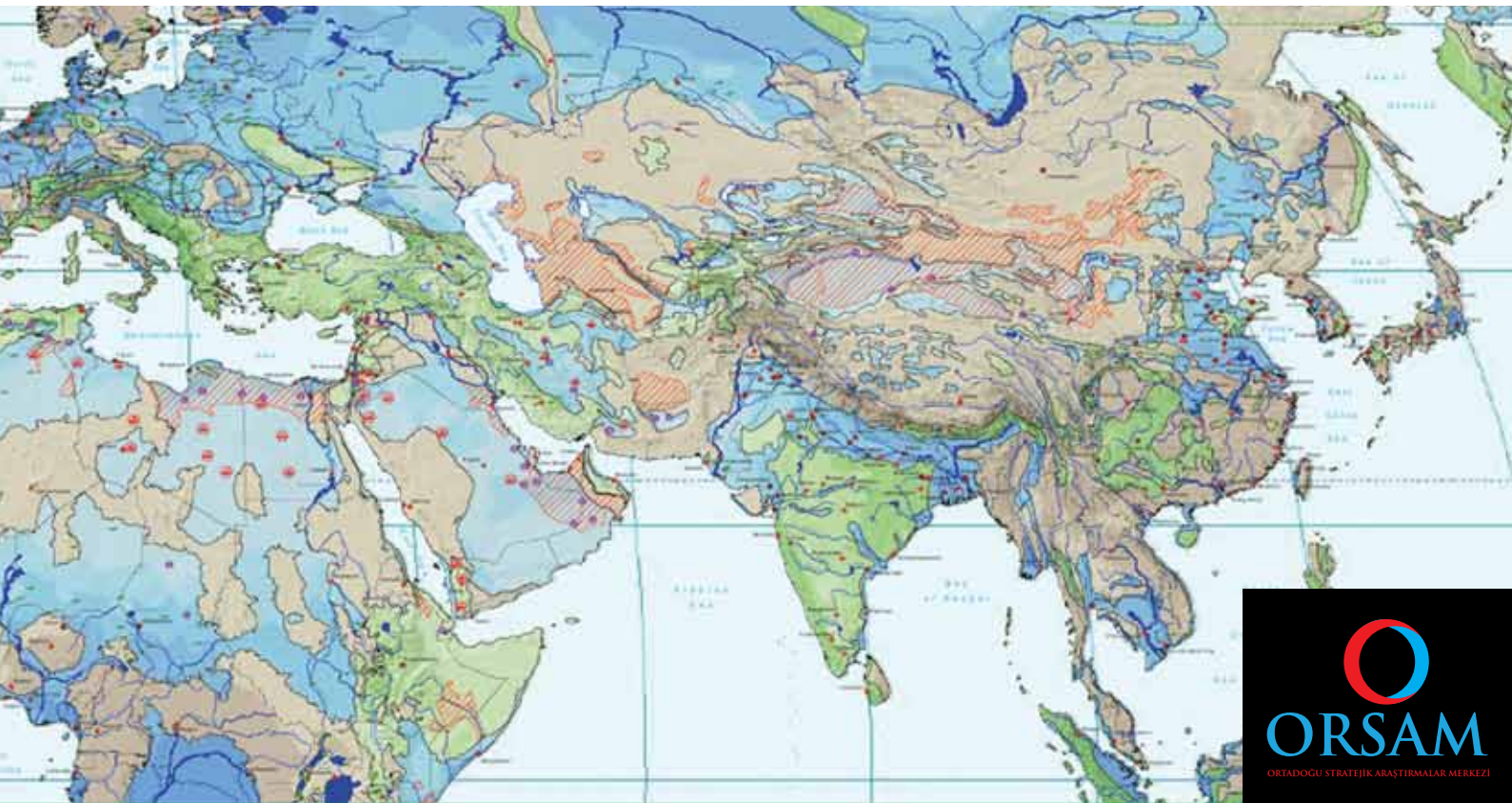

AN EVALUATION ON THE DRAFT ARTICLES ON THE LAW OF TRANSBOUNDARY AQUIFERS

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ORSAM Report No: 104
ORSAM Water Research Programme Report No: 12

February 2012

ISBN: 978-605-5330-99-6

Ankara - TURKEY

ORSAM
CENTER FOR MIDDLE EASTERN STRATEGIC STUDIES

Strategic Information Management and Indepentdent Thought Production

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History

In Turkey, the shortage of research on the Middle East grew more conspicuous than ever during the early 90's. Center for Middle Eastern Strategic Studies (ORSAM) was established in January 1, 2009 in order to provide relevant information to the general public and to the foreign policy community. The institute underwent an intensive structuring process, beginning to concentrate exclusively on Middle affairs.

Outlook on the Middle Eastern World

It is certain that the Middle East harbors a variety of interconnected problems. However, neither the Middle East nor its people ought to be stigmatized by images with negative connotations. Given the strength of their populations, Middle Eastern states possess the potential to activate their inner dynamics in order to begen peaceful mobilizations for development. Respect for people's willingness to live together, respect for the sovereign right of states and respect for basic human rights and individual freedoms are the prerequisities for assuring peace and tranquility, both domesticalhly and internationally. In this context, Turkey must continue to make constructive contributions to the establishment of regional stability and prosperity in its vicinity.

ORSAM's Think-Tank Research

ORSAM, provides the general public and decision-making organizations with enlightening information about international politics in order to promote a healtier understanding of international policy issues and to help them to adopt appropriate positions. In order to present effective solutions, ORSAM supports high quality research by intellectuals and researchers that are competent in a variety of disciplines. ORSAM's strong publishing capacity türansmits meticulous analyses of regional developments and trends to the interested parties. With its web site, its books, reports, and periodicals, ORSAM supports the development of Middle Eastern literature on a national and international scale. ORSAM supports the development of Middle Eastern literature on a national and international scala. ORSAM facilitates the sharing of knowledge and ideas with the Turkish and international communities by inviting statesmen, bureaucrats, academics, strategicts, businessmen, journalists, and NGO representatives to Turkey.

ORSAM Water Research Programme

About the Programme

Water is irreplaceable, valuable and one of the most important substances for the sustainability of the life not only for human beings, plants and animals but also for the whole ecosystem. The surface and ground waters are utilized for domestic, agricultural and industrial aims. However, there is a dual pressure over water sources due to the human activities and natural changes. Especially, in the places where water shortage is experienced, over-population, immigration from rural areas to urban, food security policies, growing socio-economic wealth, agricultural, domestic and industrial based contamination, the changes in precipitation due to the global climate changes, affects the hydrological cycle. Thus, the water sources are exposed to some changes in respect of their quantity and quality. While demand for water has been gradually growing up, in water stressed areas, the water supply stays stable. While the problems on the management of water resources are experienced, on the other hand the effects of environmental problems on water resources are gradually increasing. Turkey and its close environment, especially, the Middle East are the most influenced regions by such problems.

On the other hand, Turkey's relations with Euphrates-Tigris Basin riparian neighbours are very important when taken into consideration that Turkey has more than 40 percent of the water resources potential on the transboundary basins. In order to reach the political target which both Turkey and other riparian states pursue, of establishing regional stability, augmention of welfare and deepening the relationship among the neigbouring states, it is essential for all the parties, to have good faith and knowledge based active cooperation in the water resources utilization. In addition, during the process of Turkey's EU candidacy, the agenda of harmonization of EU Water Framework Directive with her own national legislation will along with bring the future water policies to have a new content.

In accordance with the foregoing factors, "ORSAM Water Research Programme" was established on 1st January, 2011 within ORSAM, for the aim of presentation of the enlightening findings and the observations of the current developments on water issues of Turkey's close environment and in the worldwide , to the public opinion and to the decision-makers, which have been acquired by means of analysis.

In the studies of ORSAM Water Research Programme, the Middle East engaged issues are given priority as there is a big increase in the political, economic and social problems, due to the both climate changes and inefficient utilization of water sources in the Middle East and as existing problems in the water budget.

ORSAM Water Research Programme aims to produce new ideas that offer different political alternatives on water issues, to encourage and diversify the qualified studies of competent reseachers and intellectuals from different disciplines in order to form vigorous solution offers and to support the development of water literature in Turkey.

In this scope, ORSAM Water Research Programme aims both, to facilitate the hosting of academics, the representitives of the non-governmental organizations, bureaucrats, statesmen, diplomats, strategists, journalists and businessmen, who studies on the water issues in region countries and to provide the sharing of informations and considerations of those, with the public opinion both in Turkey and in the worldwide.

PRESENTATION

Groundwater has become an important component of water management and supply for the majority of word population. However groundwaters are often an undervalued natural resource both in national and international level. Along with the technical development, groundwaters became the main source of water worldwide. In international law while there are many agreements and treaties that arrange the management of transboundary rivers and lakes, groundwaters are disregarded.

United Nations International Law Commission started to work on transboundary groundwaters in 1994, in order to arrange the utilization, management and preserve of those resources. Although, 1997 United Nations Convention on the Law of Non-Navigational Uses of International Watercourses refers to groundwaters, it does not cover all types of groundwaters. 1997 UN Convention just covers groundwaters that have relationship with surface water bodies. In order to overcome this deficiency, International Law Commission finished its work on transboundary aquifers and transmitted to the United Nations General Assembly.

Adoption of the resolution by General Assembly has created some debates. The two hot spots are sovereignty of aquifer states and the ultimate form of the draft on the law of the transboundary aquifers. The article about the sovereignty of the aquifer states is controversial since there are claims that, there is not any clause, such article 3 of the draft articles in international water law. Ultimate form of the draft also can cause confusion with the 1997 United Nations Convention on the Law of Non-Navigational Uses of International Watercourses since this convention also arranges the groundwaters.

In this report, ORSAM Water Research Programme, Hydropolitics Researcher Dr. Seyfi Kılıç evaluates the Draft Articles on the Law of the Transboundary Aquifers within the historical context of the International Law Commission's work.

Hasan Kanbolat
ORSAM Director

Content

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ORSAM Water Research Programme Report No: 12, February 2012

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AN EVALUATION ON THE DRAFT ARTICLES ON THE LAW OF TRANSBOUNDARY AQUIFERS

Abstract

The United Nations International Law Commission completed its work at its 2008 session on the law of transboundary aquifers, which composes of nineteen articles, and transmitted this draft articles to the General Assembly. Then, the General Assembly adopted the law of transboundary aquifers at the sixty-third session by a resolution on 11 December 2008.

Groundwater provides approximately 50% of the current water supplies globally and 20% of the irrigated agriculture. However, it is often difficult and costly to distinguish groundwater from surface water. Groundwater resources are generally undervalued both at the national and international level in contrast to the surface water resources such as rivers and lakes. This situation can also be observed in the international law area. In contrast to the more than 400 international agreements and treaties about transboundary rivers and lakes, there are just four arrangements about the transboundary aquifers. The ignorance of the transboundary aquifers is not only because of the unseen nature of this resource, but also the high cost of the comprehensive and quantitative hydrological surveys of the transboundary aquifers.

Although these articles on transboundary aquifers can be deemed as continuation of the 1997 United Nations Convention on the Law of Non-navigational Uses of International Watercourses, the Draft have a different clause in article 3. "sovereignty of the aquifer states." The emphasis on sovereignty in the draft articles caused critics, even though the ILC's comment listed international treaties and legal documents which refer sovereignty of states on natural resources.

The aim of this report is to provide information on the draft articles on the law transboundary aquifers that have many debates in different provisions.

1. Introduction

The United Nations International Law Commission (ILC) completed its work at its 2008 session on the law of transboundary aquifers, which composes of nineteen articles, and transmitted this draft articles to the General Assembly.[1] Then, the General Assembly adopted the law of transboundary aquifers at the sixty-third session by a resolution on 11 December 2008.[2]

These articles on transboundary aquifers can be deemed as continuation of the 1997 United Nations Convention on the Law of Non-navigational Uses of International Watercourses. The reason is that when the ILC adopted the final version of draft articles, it also issued a resolution on confined transboundary groundwater.[3]

In the 1994 report, the ILC stated that it has recognized that confined groundwater, which does not have an interrelationship with a watercourse, is also a natural resource and that there is a great need to elaborate rules pertaining to confined transboundary groundwaters. Thus, it is clear that the ILC, in its 1994 report, recognized that the draft articles on Non-Navigational Uses of International Watercourses covers groundwaters that have a relationship with surface waters and does not cover groundwaters that have no relationship with surface waters.[4]

In the report, the ILC recommended that the principles, which are related to international watercourses, would also constitute a guide to the states on transboundary groundwaters. However, in the preamble of the resolution, the ILC highlighted that there is also a need for efforts to elaborate rules pertaining to confined transboundary groundwaters.

After the report of the ILC on confined transboundary groundwaters in 1994, it included the topic that is named as "Shared Natural Resources" in its work program.[5] The topic of shared natural resources is planned to cover not only groundwater, oil and natural gas, but also migratory birds and animals. Ambassador Chusei Yamada, who was appointed by the ILC as a special rapporteur for the study, considered that it would be appropriate to study on transboundary groundwater as a priority in order to complete the ILC's recent work on watercourses dated 1997. In fact, the 1997 United Nations Convention of Non-Navigational Uses of International Watercourses regulates the groundwater uses but it creates norms just for the groundwaters that have a relationship with the surface water bodies such as lakes watercourses. However, the special rapporteur Yamada made no distinction between the groundwaters that have a relationship with surface waters and that have not.

The aim of this report is to provide information on the draft articles on the law transboundary aquifers that have many debates in different provisions. The rest of the report is structured as follows; Section 2 provides an overview to the groundwater resources, third section is about the first steps on the draft. Fourth section of the report provides general information on draft articles. Fifth section, allocated to the evaluation of the draft articles. Sixth and seventh sections of the report are about the highly debated issues namely data gathering and sovereignty of the aquifer states. Finally, section eight concludes the report.

2. The Importance of Groundwater Resources

Although groundwater is often an undervalued source in transboundary water politics, it constitutes 97% of all freshwater resource. Groundwater provides approximately 50% of the current water supplies globally and 20% of the irrigated agriculture.[6] However, it is often difficult and costly to distinguish groundwater from surface water. Furthermore, a surface spill can be easily observed and measures

can be taken. However, underground spill requires a more effective measures and also scientific knowledge, technology and financial resources. In the hydraulic cycle water flows, leaks and springs from surface water to groundwater and turns back. In some states of United States of America, which make a legal distinction among groundwater and surface water, extensive financial resources and time are spent in order to assess the proper legal regime.[7]

Middle East Region, which suffers from inadequate water supply, has huge groundwater supplies. These resources are also transboundary aquifers that have no contemporary recharge. These aquifers are also called as fossil aquifers and they contain thousand years old water supplies. The best known fossil aquifer system in the world is Nubian Sandstone Aquifer System, which contains 375.000 km^3 of water under the Chad, Libya, Sudan and Egypt.[8] It is not economically possible to withdraw all the water but the amount of water in the aquifer is very huge. In order to understand the amount of water contained in the Nubian Sandstone Aquifer System, it is worth to mention that the annual average flow of the Nile River is 84 km^3. [9] Other aquifer system in the North Africa is North Western Sahara Aquifer System under the Algeria, Tunisia and Libya. Disi Aquifer System lies under the Jordan and Saudi Arabia. The afore mentioned aquifers and aquifer systems are not only subject of the Law of Transboundary Aquifers Draft, which is adopted by the U.N. General Assembly in 2008. The Draft encompasses not only renewable but also non-renewable groundwaters.

As mentioned before, groundwater resources are generally undervalued both at the national and international level in contrast to the surface water resources such as rivers and lakes. This situation can also be observed in the international law area. In contrast to the more than 400 international agreements and treaties about transboundary Rivers and lakes, there are just four arrangements about the transboundary aquifers.[10] The ignorance of the transboundary aquifers is not only because of the unseen nature of this resource, but also the high cost of the comprehensive and quantitative hydrological surveys of the transboundary aquifers.

Only a few nations have the relevant technical information in order to handle the issue and as a result of this, groundwaters are faced with overexploitation and degradation. The ambiguity of the groundwaters can be observed in the US and Mexico border. In 1973, the US and Mexico signed an agreement to develop groundwaters in the border area. However, both sides still have not even come to a compromise on the number of the transboundary aquifers despite approximately 30 years after the agreement. There are numbers that claim the transboundary aquifers at the border region are eight, eighteen and twenty.[11]

Using the term Transboundary by ILC in the Draft articles is deliberated. At the beginning of the work, Special Rapporteur Yamada was tasked to handle the groundwater resources in the scope of the "shared natural resources". However, after the submission of the Yamada's first report, the term "shared" posed a common doubt on the work by the members of the ILC and the Sixth Committee of the United Nations. Since the term "shared" causes an approach on a resource that may be interpreted as common ownership and common heritage of mankind. In order to refrain such interpretations draft articles refers to the UN General Assembly Resolution 1803 on Permanent Sovereignty over Natural Resources on the preamble. After the change of the title from shared natural resources to the transboundary groundwater resources, the new debate was started to be over the scope of the 1997 UN Convention and Draft Articles.[12]

First session of the United Nations International Law Commission.

3. Road to Draft Articles on the Law of Transboundary Aquifers

In 1992, when Robert Rosenstock was Special Rapporteur on the Watercourse Convention, expanding the scope of the work by including all groundwaters, renewable and non-renewable, was refused. [13] The ILC did not want to broaden the work at that stage since it did not take into account the issue from the beginning of its work. Then, the ILC adopted a resolution in order to include the groundwaters, which are not arranged in watercourse convention, namely non-renewable aquifers. However, the ILC preferred the confined aquifers expression misleadingly. After the scientific assistance of UNESCO (United Nations Educational and Cultural Organization), the ILC changed this attitude and rewrite the expression as aquifer.[14] The ILC adopted a resolution that recommends states to "be guided by the principles contained in the draft articles on the non-navigational uses of international watercourses where appropriate in regulating transboundary groundwater".[15]

1994 resolution of the ILC also emphasized at the preamble of the resolution "a need for continuing efforts to elaborate rules pertaining to confined transboundary groundwater". Non renewable aquifers are not the only type of the aquifer that is excluded by the ILC work on Watercourse Convention. There are also aquifers that are recharged by rain and discharge its waters directly to the sea. Mountain Aquifer under the West Bank in Palestine is recharging only by precipitation. This aquifer can be expressed as well known example in this type.

When Chusei Yamada was appointed as Special Rapporteur on the ILC's work, namely "Shared Natural Resources", his work was all about oil, gas and "confined transboundary groundwaters". Confined transboundary groundwaters definition was referred to non-renewable, or in other words, fossil groundwaters, which have no connection to surface water resources. However, Chusei Yamada focused at the first step on transboundary groundwaters and on developing a legal regime for these resources and postponed oil and gas resources to a later stage.[16] In addition, in 2004, the ILC decided to expand the scope of the work to all kinds of renewable and non-renewable transboundary aquifers.[17]

From the beginning of the work of Yamada to 2008, Yamada presented five reports. And at this era, the ILC received comments from 47

different governments. Although, there was a consensus among commenting states that the ILC's priority should be given to the groundwater resources, those states could not reach a consensus on the idea of a binding convention or a non-binding guideline.

The ILC recommended to the General Assembly to take note of the draft articles on the law of the transboundary aquifers in a resolution and recommend states to manage the transboundary aquifers on the basis of the principles in the draft. Then at a later stage, elaboration of a convention on the basis of the draft articles also recommended by the commission. The United Nations General Assembly followed these recommendations and adopted the resolution of the UN.[18]

4. An Overview of the Draft Articles

The draft articles of the United Nations ILC on the transboundary aquifers are composed of nineteen articles. These articles are divided into four parts. These parts are as follows: Preamble, General Principles, Protection, Preservation and Management and Miscellaneous Provisions.[19]

The first part of draft articles consists of two articles. Article 1 defines the scope of the draft by: a) Utilization of transboundary aquifers or aquifer systems, b) Other activities that have or are likely to have impact upon such aquifers or aquifer systems, c) Measures for the protection, preservation and management of such aquifers or aquifer systems. This definition, which has three aspects, apparently indicates that other activities have a potential to affect aquifers.

In the 2. article, the terms used in the draft articles are defined. These terms are as follows: a) aquifer, b) aquifer system, c) transboundary aquifer or transboundary aquifer systems, d) aquifer states, e) utilization of transboundary aquifers or aquifer systems, f) recharging aquifer, g) recharge zone and h) discharge zone.

The second part of the draft articles is named as General Principles. Article 3 titled "Sovereignty of States" gives sovereignty to each aquifer state on the part of the aquifer or aquifer system located in its territory. This emphasis on the fact that sovereignty does not exist in 1997 UN Convention, the draft articles can be deemed as continuation of the 1997 UN Convention.

Article 4 is devoted to the Equitable and Reasonable Utilization. According to this article, aquifer states shall utilize transboundary aquifers in equitable and reasonable manner by, a) accrual of benefits therefrom to the aquifer states concerned, b) maximizing the long-term benefits, c) establishing unilaterally or jointly a comprehensive plan and d) not to utilize a recharging aquifer or aquifer system at a level that would prevent continuance of its effective functioning.

Article 5 arranges the factors relevant to equitable and reasonable utilization. This article generally follows the Article 6 of the 1997 UN Convention. However, there are two additions. One of these additions is related to the phrase that refers to the state's contribution to the formation and recharge of the aquifer. The second addition is the role of the aquifer or aquifer system in the related ecosystem. Furthermore, Paragraph 2 of Article 5 is about the weight to be given to those factors. In general, Article 5 is roughly indicates the same features of Article 6 of the 1997 UN Convention with mutatis mutandis.

The difference between the 1997 UN Convention and the Draft Articles of the Law of Transboundary Aquifers is also worth to mention. In the Article 5, a special emphasis is made on vital human needs as follows: "in weighing different kind of utilization of a transboundary aquifer or aquifer system, special regard shall be given to vital human needs".

Article 6 with the title "obligation not to cause significant harm" reproduces the Article 7 of

the 1997 UN Convention. However, in the draft articles of the Law of Transboundary Aquifers adds a paragraph deals with "the activities other than utilization of a transboundary aquifer that have or likely have an impact upon that transboundary aquifer". This paragraph expands the "obligation not to cause significant harm" as compared to the 1997 UN Convention. This extension is justified by hydrologic reality which can be stated as significant harm can be prevented by not only with respect to other aquifer states but also to in whose territory a discharge zone is located. This obligation is based on the Latin maxim "sic utere tuo at alienum non laedas", that means states not to use or allow the use of their territory in a way that will harm the other state.

There is also uncertainty in who will decide the significant harm threshold. Will aquifer state in whose territory the pollution occur decide that pollution may cause significant harm to other aquifer state or the harmed aquifer state?

Article 7 of the draft articles arranges the cooperation among the aquifer states. This article also reflects the Article 8 of the 1997 UN Convention. However, it should also be stated that there is an important difference between the draft articles and the 1997 UN Convention. In the draft article, "sustainable development" is mentioned as a basis among the others namely sovereign equality, territorial integrity, mutual benefit and good faith to reach equitable and reasonable utilization of the aquifers.

Article 8, which is related to regular exchange of data and information, is largely based on the Article 9 of the 1997 UN Convention. According to draft article 8, aquifer states shall exchange available data and information on the condition of their transboundary aquifers. However, according to the paragraph 2 of the article, where the knowledge about a transboundary aquifer is not clear enough, aquifer states have to devote their best efforts in order to obtain these data and information. Moreover, where appropriate, aquifer states shall work with other aquifer states and international organizations in the process of obtaining those data. In the paragraph 3, requesting data is regulated between aquifer states as follows: "if an aquifer state is requested by another aquifer state to provide data and information relating to an aquifer system that is not readily available, it shall employ its best efforts with the request". However, there is an interesting clause in this paragraph as in 1997 UN Convention that the requested state can claim payment in order to obtain the data and information.

Article 9 of the Draft contains the provisions of regional agreements and arrangements. The Draft Article encourages the states to construct bilateral or regional agreements in order to manage the aquifer of aquifer system.

The third part of the Draft Articles, which is titled as Protection, Preservation and Management" contains six articles. According to Article 10 "Aquifer states shall take all appropriate measures to protect and preserve ecosystems within or dependent upon, their transboundary aquifers or aquifer systems..." Furthermore, states are responsible not only for the water in an aquifer but also for the water that released through its discharge zones. This article is based on the Article 20 of the 1997 UN Convention. However, there are interpretations that obligations of the states in the Draft Articles are weaker than 1997 UN Convention.[20]

Article 11, which is about recharge and discharge zones of the aquifers, is a new clause concerning the 1997 UN Convention. According to this article, recharge and discharge zones of transboundary aquifer or aquifer systems must be identified by the state whose territory encompasses the aquifer or the system. States are also responsible for preventing and minimizing the contamination of re-

charge and discharge processes. Second paragraph of this article arranges the protection of aquifer or aquifer system with the states, which are not the aquifer states. This means that a state that is not an aquifer state can have responsibility by the territory in which discharge or recharge zone is located.

Article 12, which is titled as prevention, reduction and control of pollution, has parallel provisions with Article 21 of the 1997 UN Convention paragraph 2. Because of the technical reasons it is more difficult and expensive to restore an aquifer than a surface water body. Article 12 of the draft, in contrast to the 1997 UN Convention, has no comprehensive and detailed definition of pollution and emphasizing human health or safety. However, this article limits the harm just for states. This article also indicates the state-based structure of the draft.
Monitoring the transboundary aquifers is arranged in Article 13. According to the paragraph 1 of this article, states where possible, monitor the transboundary aquifers jointly with other aquifer states and international organizations. If it is impossible to monitor jointly, aquifer states shall exchange the data. On the other hand, the second paragraph of this article is related to the standardization of the monitoring activities, which will be implemented by the aquifer states.

In the Article 14, which is titled as management, it is stated that transboundary aquifers' management plans shall be established by the aquifer states and aquifer states shall consult each other in order to manage the aquifers. Moreover, if it is possible, a joint management mechanism shall be established.

Article 15 is related to the planned activities and, then of course, the consultations and negotiations among the aquifers states. This article consists of three paragraphs. According to the first paragraph, an aquifer state has a responsibility for assessing the effects of its planned activities on other aquifer states. In the second paragraph, it is stated that an aquifer state, which assesses that an activity might have adverse effects to other aquifer state, shall provide a notification. It is also emphasized that this notification must be "timely". However, there is no clear limitation on that time in the article in contrast to the 1997 UN Convention. This notification must also have included data, information and environmental impact assessment. The third paragraph of the article 15 arranges the disagreement of the planned activities. According to this paragraph, relevant states must consult with each other and conduct negotiations in order to reach an equitable resolution. The second sentence of the paragraph states that relevant parties can also apply to an "independent fact-finding body". This expression paves the way for the internationalization of the disagreements over the transboundary aquifers.

The Transboundary Aquifers Law Draft, mutatis mutandis, follows the general concept of the 1997 UN Convention. However, in the article 15, a short and undetailed consultation process is envisaged in contrast to the 1997 UN Convention. In 1997 UN Convention a long and detailed process is proposed which draws objections from many states.

The last part of the Draft, Part Four, is titled as "Miscellaneous Provisions" and it consists of four articles. Article 16 is related to "technical cooperation with developing states". In this article, it is stated that states have responsibility to cooperate and help developing countries in scientific, technical and legal areas and several issues related to aquifer management, monitoring and minimizing detrimental effects.

Emergency situations are arranged in Article 17 of the draft. The first paragraph of this article defines the emergency situation and involves both natural and human activities that may affect a transboundary aquifer. The second paragraph arranges the behaviour of states where the emergency situation is oc-

curred. The expression of "vital human needs" is again seen in this article like the draft article 5 that indicates the obligation of states to take measures to meet such needs.

Article 18 is a reflection of Article 29 of the 1997 UN Convention. The only difference is that "international watercourses" is replaced by transboundary aquifers. Both provisions state that relevant water resources are protected by the international law in the case of international and non-international armed conflicts.

The last article of the draft is Article 19, which is based on article 31 of the 1997 UN Convention. States are obligated to give as much as data and information but if the data and information are vital for the national defence and security, none of the articles can force the states to give the data. As in the 1997 UN Convention, the draft gives a large room to the states by not defining what is vital for national defence and security.

5. Discussion

The Draft Articles on Transboundary Aquifers is not just about the aquifers that have no relationship with the surface water bodies. It is imperative to state this since the United Nations ILC decided to work on confined aquifers, after finishing the Draft of the Law of the Non-navigational Uses of International Watercourses in 1994. The 1994 Draft of the Law of the Non-navigational Uses of International Watercourses was adopted by the General Assembly of the United Nations on 21 May 1997 and became a Convention. According to the paragraph (a) of the Article 2 of the 1997 UN Convention, "watercourse means a system of surface waters and groundwaters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus".[21]

In 1994, the ILC's mind is clear that if an aquifer which have hydrological relationship with a transboundary river, it becomes under the jurisdiction of the 1997 UN Convention. Thus, other types of aquifers, which have no relationship with surface water bodies, should be arranged under another agreement or convention. However today, the scope of the transboundary aquifers draft is not limited to aquifers, which have no relationship with surface water bodies.[22] The Draft intends to cover all types of transboundary aquifer waters that are recharged from and discharge into surface waters. This coverage seems problematic, since the 1997 UN Convention covers aquifers and groundwaters, which have hydrological connection with "international watercourses". Therefore, the "dual arrangement" will cause confusion on the same aquifer or aquifer system. McCaffrey indicates three problems for this overlap: "first, it is likely to lead to confusion as to which instrument should apply to a situation that they both cover; second, the rules applicable to situations the two instruments cover are not perfectly congruent and third and most fundamentally, the transboundary aquifers draft's use of "sovereignty" over transboundary aquifers as a guiding principle is entirely inconsistent with the United Nations Convention"[23] In order to overcome this problematic issue, McCaffrey asserts that, if the ILC had decided that the ultimate result of the transboundary aquifers draft would be a guide to states in transboundary aquifers management, there will be no problem. He also states that the General Assembly can decide in this way. However, it is difficult to reach a solution in this way since a state, which is a party of the 1997 UN Convention and not to the ultimate from of the draft, cannot be forced to implement the ultimate form of the draft in its transboundary aquifers relevant issues with its neighbouring countries. The inadequate codification status of the international law on water will be complicated by a new arrangement or convention. In order to overcome the conflicting arrangements of the Transboundary Aquifer Law and the 1997 UN Convention special rapporteur Yamada proposed on article titled "Rela-

tions to Other Conventions and International Agreements".[24] However, this article was not included in the draft by the ILC's Drafting Committee. According to paragraph 2 of the proposed article, "none of the articles shall alter the rights and obligations of the states parties which arise from other conventions and international agreements compatible with the present draft articles which do not affect the enjoyment by other states parties of their rights or the performance of their obligations under the present draft articles".[25] In the first paragraph, the relationship between the draft and Convention on the Law of the Non-navigational Uses of International Watercourses is formulated. According to the proposed first paragraph, if a state parties both to the ultimate form of the draft and the 1997 UN Convention, the provisions related to transboundary aquifers of the Convention can be applicable only if proper with the draft's provisions. It is clear that, the ILC gave priority to the Law of Transboundary Aquifers Draft. Including these two paragraphs to the Draft can prevent the above mentioned confusion among the two international arrangements at least a little and the ultimate form of transboundary aquifers draft would have superiority over the 1997 UN Convention.

6. Data Issue

As mentioned above, in the article 8, data sharing among the states encompass all aquifer states. This means that any state, whether or not decided to utilize a transboundary aquifer, is obligated to identify the recharge and discharge zones of the transboundary aquifer or aquifer systems. Bear in mind that identifying the recharge and discharge zones and gathering data and information of an aquifer is an expensive and time consuming work. This obligation has a potential to cause tension among the riparian states. In order to keep away from such tensions among the riparian states, paragraph 4 of the draft article 8 puts the phrase "where appropriate". However, draft articles do not describe what is appropriate and what is not. It seems that setting the 4. paragraph, draft articles indents to reduce the burden of the aquifer states, since especially the developing and underdeveloped countries have not enough financial and technological resources to identify such obligations. However in order to manage a transboundary river properly it is required more than promises to cooperate.

7. Law of Transboundary Aquifers and Sovereignty of States

One of the most controversial articles of the Draft of the Law of the Transboundary Aquifers is the article 3 titled Sovereignty of Aquifer States. In international arena sovereignty is one of the most popular argument. States often suggest sovereignty on management and conversation of their natural resources. Also international law and international instruments like agreements and declarations recognizes the sovereignty of the states over their natural resources. Draft Articles on the law of the transboundary aquifers follows the track and refers to the U.N. Generals Assembly Resolution on Permanent Sovereignty over Natural Resources no. 1803 dated 14 December 1962, and states that "Each aquifer state has sovereignty over the portion of a transboundary aquifer or aquifer system located within its territory. It shall exercise its sovereignty in accordance with international law and present articles."

In the ILC's comment on Shared Natural Resources in paragraph 2 of the draft article 3, it is stressed that many treaties and other international legal instruments refer to the sovereignty of states over natural resources. ILC's comment also states that by reference to the international law draft article 3 became a balanced text in paragraph 3 of the comment of the draft article 3.[26]

The emphasis on sovereignty in the draft articles caused critics, even though the ILC's comment listed international treaties and

legal documents which refers sovereignty of states on natural resources, both in preambles and provisions such as Vienna Convention for the Protection of Ozone Layer (1985), United Nations Framework Convention of Climate Change (1992), United Nations Convention on the Law of the Sea (1982), Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (1999).[27]

Stephen McCaffey, former Special Rapporteur of the ILC on the Law of the Non-Navigational Uses of the International Watercourses suggest that, the emphasis on sovereignty on transboundary aquifers will raise the abandoned doctrine of Harmon. He also states that 1997 UN Convention, International Law Association and International Court of Justice, have all rejected the concept of absolute sovereignty of the states on transboundary freshwater resources within their territory.[28] McCaffrey also objects the examples in the commentary by stating that, just two of those instruments concern freshwater and they reproduce the general formula of the Rio Declaration on Environment and Development. He adds that Principle 2 of Rio Declaration refers to states' "sovereign right to exploit their own resources" by emphasizing their "responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states."

States insists sovereignty on their portion of transboundary aquifers since large territories underlain by transboundary aquifers and historically groundwater are regarded as belonging to the state where it is located. [29]

At the early stages of the debate of the draft articles, much of the members of the ILC emphasised that permanent sovereignty over natural resources was central to the subject matter and must be placed in the Draft Articles.[30] Some of the members of the ILC and Sixth Committee of the UN insisted for a specific reference in the preamble of the General Assembly Resolution on permanent sovereignty. However some members insisted to devote a specific article for the same purpose.[31] Insisting to devote an article to permanent sovereignty was about the concern that those resources can be deemed as a common heritage of mankind. Hence none of aquifer states can claim sovereignty on their portion of a transboundary aquifer and conduct their policies in order to utilize, manage and preserve such resources.

The first sentence of the draft article 3 fits with the traditional notion of sovereignty. Second sentence aims to balance by stating that the sovereignty over the transboundary aquifers shall be conducted with the international law and draft articles. By stating this, the law of transboundary aquifers draft recognizes that the sovereignty is not absolute. As an addition to this explicit limitation, there are also some implicit limitations on the sovereignty of the states over the transboundary aquifers. The provisions on equitable and reasonable utilization, no significant harm, monitoring and exchange of data of the draft articles also limit the absolute sovereignty.

There were only six commentary states on the draft article 3. Those states are Austria, Brazil, Israel, Portugal, Cuba and Turkey. Portugal's comment on the draft article 3 has some differences of other five countries. Portugal emphasised that absolute sovereignty must be restricted by stating cooperation.[32] On the other hand Brazil and Israel commented on sovereignty by an amendment that sovereignty should be exercised by transboundary aquifer states in accordance with international law. McCaffrey interprets the comments of five states and ILC's position and concludes that while the comments of the states on the draft article 3 seem to reflect the Harmon doctrine in order to support their interest that they considered, states' practice in fact have not coherence with the infamous and discredited Harmon doctrine.[33]

Although there are some claims that the first sentence of the draft article 3 "lets the genie of sovereignty out if bottle and the second sentence cannot put it back in,"[34] the essence of the draft does not connote an approach in general. In the general comment over the Law of Transboundary aquifers ILC states that the Special Rapporteur "also aware of dissimilarities among these resources he recognizes that the work on transboundary groundwaters could affect any future codification work by the commission on oil and natural gas."[35]

In fact this explanation represents why sovereignty clause take place in the draft articles. ILC does not consider water in an aquifer different from oil and natural gas resources. ILC assumes water as an economic source that can be exploited by states. Arguing water as an economic resource like oil and natural gas is controversial. Many specialist, academics and politicians object to handle water just as an economic good, since water is vital for not only for human beings but also for the whole ecosystem.

Consequently emphasis on sovereignty on transboundary aquifers waters brings an important shift in customary international law of freshwater. However, if the draft takes a form like a convention at a later stage, according to the recommendation of the sixth committee, it will also bring several debates on the issue among the states.

8. Conclusion

Groundwater has become an important component of water management and supply for the majority of word population. However, it is mostly disregarded nationally and internationally. Recent effort to arrange the management of aquifers by ILC can be evaluated as a well intentioned work. Nevertheless, it is clear that the draft articles on the law of transboundary aquifers creates new debates on international law on water while there is no binding international law instrument that concerns the rights and obligations of the states.

The most controversial issue is the sovereignty provision of the aquifer states. This provision is regarding as a fundamental shift on international law on water. Because this kind of provision has never been adopted in any international instrument neither officially nor in other institutions' works such as International Law Association. However "sovereignty" can pave the way of adoption of the law of transboundary aquifers by states, which hesitate to involve such arrangements. Since the United Nations Convention on the Law of Non-navigational Uses of International Watercourses still not in force though 15 years of adoption in the U.N. General Assembly.

There are some deficiencies in the draft articles. Firstly, unlike surface waters such as rivers and lakes, interests of states in transboundary aquifers cannot be identified clearly. In the case of a transboundary river upstream and downstream riparians' interests and concerns can easily be perceived and policy can be established. However because of the unseen and complex nature of the aquifers, it is difficult to identify the aquifer states' interests and behaviours.

Another deficiency of the draft is that the draft articles do not aim to preserve the aquifers. In paragraph 5 of the commentary to the article 4, ILC explicitly states that it is not necessary to limit the utilization to the level of recharge. Draft article 4 just limits utilization at a level that would prevent continuance of its effective functioning. The main objective of the draft articles is yield maximation, not sustainable utilization.

ILC's work also indicates that scientific assistance is crucial for legal issues. UNESCO's support on the law of transboundary aquifers saved ILC from an inaccurate definition on aquifers. At the early stages of the work ILC decided to work on aquifers that have no hy-

draulic relationship with other water bodies and used the term "confined" in order to define those types of aquifers. However after the UNESCO's support ILC chanced its attitude and did not use this term. Since hydraulically, confined aquifer means aquifers under pressure. Nevertheless, after a while, ILC decided to expand the scope of the draft and to include all types of aquifers, renewable and non-renewable.

The final form of the draft is still ambiguous and debates on the issue are on the agenda. If the draft takes a form like a convention, it will cause confusion among the states which take part just one of the conventions that regulates the same issue. It is worth to remember that 1997 UN convention also arranges the groundwater. Second option is to annex the draft as a protocol to the 1997 UN Convention. This option will also create potential disagreements, since the position of the adopted countries of the convention to this draft is unclear. Thus it is possible that this overlap will cause confusion on international law on freshwater.

ENDNOTES

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