

# ORSAM WATER INTERVIEWS 2011

## ORSAM SU SÖYLEŞİLERİ 2011

حوارات برنامج المياه التابع لاورسام عام ٢٠١١

CENTER FOR MIDDLE EASTERN STRATEGIC STUDIES  
ORTADOĞU STRATEJİK ARAŞTIRMALAR MERKEZİ  
مركز الشرق الأوسط للدراسات الاستراتيجية



# ORSAM WATER INTERVIEWS 2011

## ORSAM SU SÖYLEŞİLERİ 2011

حوارات برنامج المياه التابع لاورسام عام ٢٠١١

**ORSAM Report No: 144**

**ORSAM Water Research Programme Report No: 17**

**January 2013**

**ISBN: 978-605-4615-41-4**

**Ankara - TURKEY      ORSAM © 2013**

Content of this report is copyrighted to ORSAM. Except reasonable and partial quotation and exploitation under the Act No. 5846, Law on Intellectual and Artistic Works, via proper citation, may not be used or re-published without prior permission by ORSAM. Assessments expressed in this report reflect only the opinions of its authors and do not represent the institutional opinion of ORSAM.

## CENTER FOR MIDDLE EASTERN STRATEGIC STUDIES

---

### **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 begin 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 prerequisites for assuring peace and tranquility, both domestically 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 healthier 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 transmits 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 scale. ORSAM facilitates the sharing of knowledge and ideas with the Turkish and international communities by inviting statesmen, bureaucrats, academics, strategists, 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, augmentation of welfare and deepening the relationship among the neighbouring 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 researchers 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 representatives 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

Water is one of the most important substances which is irreplaceable for the entire ecosystem, valuable and provides continuity of life. However, there is a bilateral pressure on water resources both due to human activities and also due to the changes caused by the nature. Especially in the areas with water shortage; overpopulation, increasing number of rural-urban migration, food safety policies, rise of socio-economic prosperity, agricultural, domestic and industrial pollution, and the change of precipitation regimes due to the global climate change. As a result of this, water resources are undergoing a change with each passing day both in quantity and quality. Especially in the areas with water shortage, water supply remains the same while water demand is increasing day by day. On the one hand problems related to water resources management come up; on the other hand the impact of environmental problems on water resources is increasing with each passing day. Turkey and its immediate neighborhood, but especially the Middle East, are the areas where the aforesaid problems are observed the most.

“ORSAM Water Research Programme” was created within ORSAM on 1 January 2011. ORSAM Water Research Programme was created to follow current developments on water agenda across the world and in immediate neighborhood of Turkey and the trends on water policy trends, to present enlightening findings of analyses to the public opinion and decision-makers. In addition, the Programme aims to generate ideas involving different alternatives on water policies; to encourage and diversify the qualified works of competent researchers and intellectuals from different disciplines to offer efficient solutions; and to support the development of water research literature in Turkey.

Within this scope, ORSAM Water Research Programme also aims to facilitate visits of academicians, representatives of non-governmental organizations, bureaucrats, statesmen, strategists, journalists and businessmen, who are related to water studies from countries in the region, in Turkey; and to share their knowledge and views both with Turkish and also with world public opinion.

To this end, ORSAM Water Research Programme publishes current analyses, weekly water journals, reports and interviews on ORSAM Water website. This report includes interviews made in 2011 with academicians, specialists and executives from Turkey and world that are specialized on water. We extend our thanks to ORSAM Water Research Programme Specialists Dr. Tuğba Evrim Maden and Dr. Seyfi Kılıç, who made these interviews.

Hope to meet again in our new studies;

**Hasan KANBOLAT**  
**ORSAM Director**

**Tuğba Evrim Maden (Phd)**

Tuğba Evrim Maden, who completed her undergraduate study at Hacettepe University Department of Hydrogeological Engineering, did her master's degree at Hacettepe University Hydropolitics and Strategic Research Center. In 2010, she received her Ph. D. from Ankara University, Institute of Social Sciences. She has been working in Center for Middle Eastern Strategic Studies (ORSAM) – Water Research Programme as “Hydropolitics Specialist” since 1 December 2010. Maden is a member of ISA (International Studies Association) , IWA (International Water Association), International Association of Hydrological Sciences (IAHS) and a member of UİK (International Relations Council of Turkey).

**Seyfi Kılıç (Phd)**

Seyfi Kılıç, who completed his undergraduate study at Gazi University Department of International Relations, did his master's degree at Hacettepe University Hydropolitics and Strategic Research Center. In 2010, he received his Ph. D. from Ankara University, Institute of Social Sciences. He is working in Center for Middle Eastern Strategic Studies (ORSAM) – Water Research Programme as “Hydropolitics Specialist”.



## **Contents**

Presentation .....	4
Interviews .....	9
1. <b>Prof. Dr. Ahmet Şahinöz:</b> “THE SOUTHEASTERN ANATOLIA PROJECT (GAP) CAN SUPPLY ENOUGH FOOD TO THE WHOLE MIDDLE EAST” .....	9
2. <b>The Regional Process Coordinator of the Fifth World Water Forum Hamza Özgüler:</b> “THE 2011 ISTANBUL INTERNATIONAL WATER FORUM IS ONE OF THE MOST SIGNIFICANT FORMATIONS OF OUR REGION” .....	15
3. <b>Hydropolitics Specialist Dursun Yıldız:</b> “TURKEY SHOULD GUIDE HER NEIGHBORS ON WATER MANAGEMENT TECHNIQUES AND PLANNING” .....	18
4. <b>Akif Özkaldı Deputy Director General of State Hydraulic Works (DSİ):</b> “THE SECOND İSTANBUL INTERNATIONAL WATER FORUM IS THE INDICATOR OF TURKEY’S REPUTATION ON THE WORLD” .....	27
5. <b>Un Joint Program Managers Atilla Uras and Alper Acar:</b> “THE SUCCESS OF TURKEY AT THE CLIMATE CHANGE WORKS ON THE SEYHAN BASIN WILL SET AN EXAMPLE” .....	31
6. <b>Prof. Ayşegül Tanık From ITU Faculty of Civil Engineering, Environmental Engineering Department:</b> “FROM NOW ON, WE STARTED TO THINK ON BASIN BASIS AND WE STARTED TO SEARCH OUT SOLUTIONS ON BASIN-SCALE” .....	38
7. <b>Prof. Dr. H. Gonca Coşkun:</b> “WOMEN ASSUME KEY ROLE IN WATER RESOURCES MANAGEMENT” .....	41
8. <b>Arzu Özyol, CEO at HYDRA:</b> “THE PARTICIPATION OF WOMEN IN DECISION-MAKING MECHANISMS RELATED TO WATER AND ENVIRONMENT IN TURKEY IS ALSO QUITE LOW” .....	44
9. <b>Dr. Gülay Yaşın, GIZ Turkey Director:</b> “THE WETLANDS IN TURKEY SHOULD BE PRESERVED IN A BETTER WAY” .....	50

10. <b>Assoc. Prof. Boğaçhan Benli:</b> “WE HAVE TO INCREASE THE PRODUCTIVITY AND EFFICIENCY OF WATER USE IN THE MIDDLE EAST”.....	55
11. <b>Iranian Water Expert Azaranfar:</b> “WATER RESOURCES MANAGEMENT IN IRAN” .....	61
12. <b>Dr. Al-Mossavi:</b> “FEDERAL GOVERNMENT CAN MAKE THE WATER RESOURCES MANAGEMENT DIFFICULT IN IRAQ” .....	64
13. <b>Prof. Dr. Cumali Kınacı, Director General of Water Management of the Ministry of Forestry and Water Affairs:</b> “WE AIM AT OVERCOMING LACK OF COORDINATION IN WATER MANAGEMENT” .....	66

By: Tuğba Evrim Maden (Phd)  
Seyfi Kılıç (Phd)

## ORSAM WATER INTERVIEWS 2011

**PROF. DR. AHMET ŞAHİNÖZ:** “THE SOUTHEASTERN ANATOLIA PROJECT (GAP) CAN SUPPLY ENOUGH FOOD TO THE WHOLE MIDDLE EAST”

**4 February 2011**

*Head of the Hacettepe University Department of Economics Prof. Dr. Ahmet Şahinöz replied the questions of the ORSAM Water Research Programme. Şahinöz shared his opinions about the food security and the conditions of the Southeastern Anatolia Project (GAP). Şahinöz told that Turkey should finish the GAP as soon as possible and raise its share in the food market of the Middle East and added that both Turkey and Middle East will derive a mutual profit from that. “The GAP can supply enough food for the whole Middle East; the Middle East enriches the farmers of the GAP” said Şahinöz.*

**Ahmet ŞAHİNÖZ:** I graduated from Hacettepe University Department of Economics. I got my doctorate between 1974 and 1979 in France. I have been working in Hacettepe University since 1979. In 1985 I became an associate professor and in 1991 a professor. I worked as an associate dean between 1993 and 1995. During various periods, I worked as a vice chair. I have been working as the head of department since 2006. I performed the senate membership between 2007 and 2010.



**ORSAM: In general, what are the current conditions of the food market in the Middle East?**

**Ahmet ŞAHİNÖZ:** As I often researched the agricultural sector in my academic studies, the Middle Eastern food markets are my special field of interest. Although the Middle Eastern countries seem at first sight as rich countries, when we have a closer look we see that they possess every feature of poor societies. Namely, the wealth is limited in these countries, accumulated only in the hands of a small group. The larger part of the society, however, has the characteristics of poor countries. For this reason, the marginal propensity to consume which determines the income-demand relations in these countries is considerably high particularly in food products. When the income increases, the first thing that the people do is to satisfy their food consumption, that is, their biological and physi-

cal needs, in total their vital needs. This is one of the basic rules of the economics. In this regard, any income increase in the Middle Eastern countries accompanies an increase at the food demands. Namely, in these countries the income elasticity of the demand in terms of food products is quite high. This is the situation in theory. But we can see its status in practice when we look at the foreign trade statistics of the Middle Eastern countries. In the 1980s, I went to Paris for a Project. The Project was entitled as “The Middle Eastern Food Markets and Turkey”, the Project results were published later with the same name by the Bank for the Development of Industry. At that time, there was not such a common statistical data network. I went to the OECD to study the figures there. Fifteen Middle Eastern countries, from Libya to Saudi Arabia and Iran, both the oil producers and the non-oil producers, were researched all together as the non-oil exporters also benefit in a way from the oil income, and I observed that the region has turned into a great food market after the 1973/74 oil crisis.

The food imports of these countries had a fast increase following the 1973-74 oil crisis, that is, the period when the oil prices increased at once by 3-4 times. The oil prices that were 3 dollars at that time had not increased since the Second World War because oil was under the control of the Western enterprises. As both the oil and energy are the motors of the capitalist development, these enterprises had not increased the prices. In this way, they had contributed to the economic growth of the Western world. But when the oil prices had an immediate increase after the 1973-74 crisis, the extraneous income of these Middle Eastern countries rose by 3-5 times. I guess, after that date, the oil income of these countries raised from \$30 billions to \$90 billions and then to \$200 billions. In the same way, the food imports had a rapid increase.

Namely, this is a normal human behavior. They firstly raised the food imports. When the food import composition is taken into account, it is seen that these countries have a very large importation variety from wheat to milk, from milk to meat, from meat to cereals, water and livestock. I remember again quite clearly that the import rose in these 7-8 years from below \$3 billions to over \$20 billions and this figures, at that time, were very high.

Oddly enough, the oil prices in these countries started to diminish after 1983 and the unit price lowered to 10 dollars. But, in spite of that there was not a considerable decrease at the food imports of these countries. These were decreases at the imports of other products. This is called the ratchet effect in macroeconomics, it is a consumption theory found by Duesenberry and Modigliani. Briefly, people do not give up easily their consumption level even if their income decreases. This is the “irreversibility” rule. I made the calculation of that in my study for project-book: the elasticity of the food imports according to the oil prices is considerably high (0.6) during the period of increase and considerably low (0.2) at the period of decrease. This means that any decrease at these prices affect very little the food imports. What I want to say is that every Middle Eastern country has had the required income level for the food consumption for the last 30 years. However, the Middle Eastern countries do not have the agricultural production to meet that demand because of the geographical reasons. Briefly, it is not possible that these countries satisfy their food demands by means of their own productions because of the geographical reason. Therefore, the food imports of these countries are going to continue by gradually growing for long years.

**ORSAM: What is the influence of the rapid population growth at that point?**

**Ahmet ŞAHİNÖZ:** With the population growth, the food demands increase and get diversified as well. And this means that there is a great potential in this region in terms of food markets and these markets are “natural markets” for Turkey. Why? Firstly because these countries are very close to Turkey in terms of geography. Secondly they have been sharing a similar culture since the Ottoman and as it is known culture does not change easily. And the culture shapes the consumption patterns of the societies as well. For example, a Turkish cheese, of course provided that it is produced at a certain quality, is preferred to the most famous French cheese of the World in this region because of the taste preferences. And this does not change easily with an immediate increase of income. The taste preferences are natural pleasures and habitudes that require 100 years to be shaped.

This is why I assert that the Middle East is a natural market for Turkey. But unfortunately when the statistics are taken into account, it is seen that Turkey could not take a share from these markets during the rapid growth of that food market, that is, after the 1970s. In the beginning of the 1980s, Turkey made a move for food export in this region. But it could take a share of only \$1 milliard from the market of \$20 billions. When in the middle of 1980s the violent food trade competition between the US and the Europe which was called the “subsidy war” ended up with a considerable decrease at the food prices, countries that were doing exports without high subsidies such as Turkey had to withdraw from the foreign markets. But actually Turkey has the capacity of supplying enough food for at least one third of these markets. Then who supplies the food now for these markets? They are the European Union, the USA, Australia, New Zealand, even Brazil and Canada. But unfortunately Turkey cannot benefit enough from these markets. But why cannot

Turkey benefit? There are various reasons of that: the organization issue for the export, the advertisement issue, firm scale issue, the issue of settlement on the markets, the financing issue, the product quality issue, the Turkish agriculture’s production and fertility issue etc. But these problems can be resolved. Now the Turkish exporters can reach to every corner of the World.

Turkey can rediscover these markets and Turkey really must discover these markets because Turkey has a huge project which is called GAP. Turkey must make the GAP functional by activating this Project, by making it effective, dealing with the irrigation, fulfilling the deficiencies. Namely, there is water there in the huge water reservoir, next to it there is a huge arid plain waiting for water. But we are not being able to irrigate it. The Turkish Republic should give priority to these investments. With the irrigated farming, there will be a need for a total production planning for the region. Why? In order to rediscover these markets and to conquer these markets in economic terms, Turkey need to make a production planning in the GAP area and this production planning should correspond to the structure of the food markets of the Middle Eastern countries because the producers of this region do not have the capacity of penetrating the foreign markets. They have neither the technical equipment, nor financial means and nor the knowledge to penetrate these markets. Therefore, in order to be penetrated into these markets, these producers need to be planned and oriented. And the people who are supposed to do that are the GAP administrator, the regional development agencies. Can you imagine that France exports peaches, cucumbers and the US exports oranges? Nevertheless, the products of this region have the possibility to be transported as quite fresh, directly to that region. The products of this region are much more

healthy and natural than the products of the Western countries. The more income receives the Middle Eastern countries, the more they become sensitive to the environment issue and health norms. They also demand now for the organic hormone-free products produced with less fertilizer. The GAP area is an ecologically clean region which has not been polluted much with the industrial inputs. Turkey can conquer the markets by using also this factor. The GAP can supply enough food to the Middle East and the Middle East enriches the farmers of this region, I think.

**ORSAM: We observe that a lot of countries give utmost importance to the food security. What is the reason of that? What is the importance of the GAP in terms of the food security of Turkey**

**Ahmet ŞAHİNÖZ:** The food security is a strategic target of all the countries in the World, without any exception. It has been confirmed especially after the Second World War. During the War, the European countries were obliged to the American food products. And this accompanied quite high political costs, too. These costs were not easy to cover. You may have a deficiency about any matter and you can fulfill it with another means; but you have to meet your need related to food just with food. There lies an obligation then. For example, you may be obliged to the foreign suppliers in the automotive sector, but this does not cause much effect, it is the same even for the cement and energy; however countries want always to guarantee their food security, this is a high level strategic target.

Turkey has not deviated from this strategic target until now. However recently we have seen sometimes that the food imports exceed the food export. This does not mean that Turkey has lost its food security. The food security does not mean that you must

produce all the products that you consume. It means that you must have the capacity of producing an important amount of the strategic products, that is, the vital products of the alimentation and nourishment such as grain, meat, milk etc. However you do not have to eat and produce peaches. Exporting bananas from foreign suppliers does not mean that you have lost your food security. The population of Turkey has been growing as well as its income; however its agricultural production has been growing correspondingly as a result of the recent wrong agricultural policies. In that case, the food security of Turkey has been irrevocably imperiled. This process has recently started. One of the occasions which can stop this process is the GAP. If Turkey uses irrigation as well as technology corresponding to its soil and climate, not only enables it the food security of the Middle East that I just mentioned, that is, it can save them from being obliged to the American wheat, French fruit and vegetable; but also Turkey obtains a regional development.

**ORSAM: Has the progression that has been made since the initiation of the GAP satisfied the expectations? To what extend?**

**Ahmet ŞAHİNÖZ:** The GAP is the biggest project of Turkey, the biggest project of the Republic, but unfortunately also one of the projects which have been ignored the most. The GAP was planned to be terminated in 1995, it was postponed to 2000. It was postponed from 2000 to 2005, from 2005 to 2010 and now it has been postponed to 2015. However Turkey has been losing millions of dollar for every irrigation channel that it could not build and delayed there because water is there, soil is there; however it cannot combine them and produce products. Actually with irrigation, enough fertilizer, enough agricultural pesticides, enough and good seed, the fertility can be increased by 3-5 times. Turkey

have not been benefiting from those. In order to find out the reason of that, we should look at the 1990s, that is, the years of its expected terminations. The GAP is a project whose total cost of is \$32 billions, but just a part of about \$18-19 billions has been done. It seems that there are not any problems at the energy production. The dams have been constructed; however in terms of irrigation, only a part of 15-20% has been finished. While 1 milliard 800 million hectares have been planned to be irrigated, the total land of current irrigated farming is only 250-300 thousand hectares. The reason of that are the chronic budget deficits appearing in the 1990s. Turkey has gone through budget problems since the middle of the 1980s. Namely, Turkey has always had budget deficits. The budget of Turkey has never given the opportunity of making investments easily. Especially in the 1990s, the whole taxes collected by the state were covering only the interest costs. Therefore, there was a problem of creating an investment fund for the GAP. Maybe after the 2000s when the budget deficits were decreased to a certain level by means of the policies out of interest in 2005-2006, an investment in this area could have been done but unfortunately could not be done. Quite strong political will is required for that kind of investments because it is the political powers that take the investment decisions. This means that that kind of choice brings about not only economic results, but also political results. I think that by providing an economic, social, cultural development, the GAP can reduce the development imbalance between the regions which is one of the most important political problems of Turkey. And the achievement of this project can be a motivation source for the Eastern Anatolia Project (DAD) as well. But in my opinion first of all, this project should be terminated.

**ORSAM: What should be the socio-economic expectations of the GAP? What**

**were they, what happened? To what extend expectations can be executed?**

**Ahmet ŞAHİNÖZ:** The expectations in terms of energy have been satisfied, I guess. The results in terms of irrigation and socio-economics are at very low levels. The GAP is an integrated regional project. The economic and social progresses can be made along with the irrigation because the irrigation will increase the agricultural production and the agricultural production will both increase the employment and attract the agro- industry to the region. The total income of the region will increase. In this way, the cities will be developed and economic, social and cultural developments will be enabled. The economic development will make the region a center of attraction. But all these can be concluded with the termination of the projects in relation with the irrigation.

**ORSAM: With the irrigation, salinization has also started in some areas. This had started years ago in Kızıltepe, Mardin. Is this problem because of the education inadequacy of the irrigation units and the farmers?**

**Ahmet ŞAHİNÖZ:** The state is responsible for the biggest problem of the GAP. Namely, it is the state itself who should bring into question the technical problems such as salinization and find solutions for them. Why is it the state itself? The people of the region have met for the first time with water and are not informed much about it. As they are not informed enough, they may ask to increase immediately their production and increase their income. This is a very normal desire for the farmers. It is the state power who can prevent this, that is, the state itself. Some researches have been done before in this region. The Çukurova University has prepared a product range for this region. Namely, it has produced

a changing, alternative production plan. According to this plan, if cotton is planted one year, the next year cotton will not be planted, instead of it, a different product, something that requires less water will be planted. I give the example of cotton because it is cotton which is the most produced product of the region and according to the results of the researches the cotton is going to cover one third of the irrigated areas. This means that cotton can be planted only once every three years. But nobody obeyed to this condition because it is the cotton that provides the most income. The state, maybe not to discourage the people or because of political concerns, have not dealt much with the problem and everybody has started to produce cotton. This is why salinization etc. has come out. However, the state should fulfill the deficiencies not only by means of advice but also sometimes by means of mandatory mechanisms with the help of its irrigation units. Because there is a risk for eternal disappearance of the natural resources such as water and soil.

**ORSAM: The GAP has not been terminated at the time planned. The GAP administration has been moved from Ankara to Urfa. Has it had any effect in favor of a more rapid progress of the Project?**

**Ahmet ŞAHİNÖZ:** I think that it was a right decision to move it because it is a Project of the region. Thus, the administration body must be in the region. However, the objective might be also that: from this move, it can be inferred that there is no hope for this Project any more, and for this reason it might be pushed aside. We will understand the truth from the amount of the investments that will be done in 2011 for the GAP, for the irrigation. In terms of efficiency, moving to the region and conducting the project on the place was a right decision. In order to eradicate the problems related to the GAP, the state must follow an active policy. By means of an active policy, you can increase both the economic and social efficiency of the region.

**THE REGIONAL PROCESS  
COORDINATOR OF THE FIFTH  
WORLD WATER FORUM HAMZA  
ÖZGÜLER: "THE 2011 ISTANBUL  
INTERNATIONAL WATER FORUM  
IS ONE OF THE MOST SIGNIFICANT  
FORMATIONS OF OUR REGION"**

**25 March 2011**

*Turkey having hosting the 5th World Water Forum in 2009 have been preparing now for the Istanbul International Water Forum to be held on May 3-5, 2011. Hamza Özgüler, the Regional Process Coordinator for "Turkey and its Region" in the General Directorate of State Hydraulic Works (DSI) that carried out a successful organization in 2009, told that the meeting in Istanbul is one of the most significant formations on the domain of water in Turkey and the region. Currently working as the branch chief of the International Hydraulic Activities Department of Investigation and Planning in the DSI, Özgüler said that it has been envisaged that the Istanbul Forum focuses on the regional water priorities and organized in a form of international organization like Stockholm World Water Week and the Singapore Water Days in connection with the regional component of the World Water Forums.*

**ORSAM:** Could you please tell us briefly about yourself?

**Hamza ÖZGÜLER:** I will try to answer your questions as a member of the Steering Committee of the Istanbul International Water Forum, besides as being the responsible person of the Thematic and Regional Process of the Fifth World Water Forum.

After graduating in 1984 from Istanbul Technical University Department of Meteorological Engineering, I started my professional



career in the DSI. During the period of 1988-1989, I received the diploma from IHE-Delft Hydrologic Training Program. In 2001, I gained my master degree in Hacettepe University Ecological Sciences. Presently, I have been working as the Branch Chief in the International Hydrologic Activities which was founded within the DSI Department of Surveying and Planning. As a requirement of my work, I'm always in close contacts with the UN institutions and international organizations related to water. I participated in the preparation process of the Fifth World Water Forum as the coordinator of the thematic communication point and of the region.

**ORSAM:** Could you please talk about your Branch Office that plays a role in the preparation process of both the World Water Forum and Istanbul International Water Forum?

**Hamza ÖZGÜLER:** Carrying out various works in relation with the observation, development and administration of the underground and overground resources of our country, the General Directorate of DSI has undertaken a very important role at the organization and representation of the international hydrologic activities in relation with the water resources. In this framework, the Section of International Hydrologic Activities, in

2003 as a unit and in 2007 as a section within the DSI General Directorate Department of Investigation and Planning, was included into the organization chart of the DSI. The said unit is in close contacts with the international water institutions.

**ORSAM: Could you please tell us briefly the designation process of Turkey as the host country of the 5th World Water Forum and the efforts made on the purpose of that objective?**

**Hamza ÖZGÜLER:** The designation of our country as the host of the Fifth World Water Forum is a project that is constituted of the extended, successive and complementary stages. The DSI became a member of the World Water Council in 2000. The Turkish group under the leadership of the DSI has undertaken effective positions in the World Water Council. The DSI General Directorial Authorities gave maximum importance to the issue and provided in this connection the necessary coordination among the national related institutions. The candidacy of our country to the Forum came up first in 2003; however the election at that time did not end up in favor of Turkey. In spite of that, the DSI have not interrupted its contacts with the World Water Council. The process of candidacy and preparation was followed very efficiently by the related institutions under the leadership of Prof. Dr. Veysel Eroğlu, the General Director of that time and current minister. As a result of this, our candidacy in 2006 received a great support from the Board of Governors of the World Water Council.

**ORSAM: What kind of a contribution made the Istanbul 5th World Water Forum at the issue of informing the other countries about the water policy of Turkey, did it have any effect on the relations of Turkey with its riparian neighbours in relation with the transboundary waters?**

**Hamza ÖZGÜLER:** As it is known, the policies of transboundary waters of Turkey have been evaluated and developed recently in the framework of the general foreign policy principles of Turkey. In this framework, close contacts and cooperation activities have been developed with the neighbour countries and various projects have been put into practice. The Fifth World Water Forum has actually a quality of being an occasion in order to consolidate this dialogue and cooperation ground led by our country

**ORSAM: Could you please evaluate the Istanbul 5th World Water Forum by comparing it with the other Water Forums?**

**Hamza ÖZGÜLER:** The main theme of the Fifth World Water Forum was to be a “bridge” between the challenges and the solutions. In this very successful activity, we witnessed during the Forum week that the water itself is a bridge. We, as Turkey, could introduce to the World water public-opinion with the unifying aspect of the water. As the historical Gold Horn Bridge combines the two sides of the estuaries, Sütlüce and Feshane, the Fifth World Water Forum has combined the continents, people, thoughts, experiences; it has gathered together all the people in the World who has an idea about the water; it has united the problems and the solutions for the water, for the protection of the water. Briefly stated, the fact that the water is our common language and the future of the World has been reconfirmed in the Fifth World Water Forum Week. The water problem all over the World has been placed near the top in the political agenda. The Water Forum, with the participation of the Heads of State and Government, gave the necessary messages to the World on the highest level.

**ORSAM: Could you tell us about the preparations for the 6th World Water Forum**

**which is going to take place in Marseille, France?**

**Hamza ÖZGÜLER:** The Sixth World Water Forum is going to be held on March 12-17, 2012 in the city of Marseille of France. The main statement of the 6th Forum has been determined as “Time for Solutions”. The activities to be done during the 6th World Water Forum are going to be combined under the 4 titles of main processes such as the Political Process, Thematic Process, Regional Process, and Local Administrations-Citizens Process. The presidency of the Thematic Process Commission is being held by Prof. Dr. Doğan Altınbilek.

**ORSAM: How did the idea of the May 3-5, 2011 Istanbul International Water Forum emerge, what is its aim and will it be repeated?**

**Hamza ÖZGÜLER:** The Istanbul International Water Forum has been constituted de facto in the preparation process of the 5th World Water Forum, and its first meeting was done on February, 2009. The idea of the Is-

tanbul International Water Forum with the aim of making the knowledge obtained in the Fifth World Water Forum durable in a more comprehensive and institutional framework by raising it to a further level has been developed by the DSI General Directorate and put into practice under the guidance of the Ministry of Environment and Forestry. The Istanbul International Water Forum which is held one year before the World Water Forums and every other three years is seen as one of the most significant formations of our country and region on the domain of water. It has been envisaged that the Istanbul Forum focuses on the regional water priorities and is organized in a form of international organization like Stockholm World Water Week and the Singapore Water Days in connection with the regional component of the World Water Forums. In this framework, the 2nd Istanbul International World Forum is going to be held in the Golden Horn Congress Centre in İstanbul on May 3-5, 2011 by the DSI General Directorate.

**ORSAM: We would like to thank you for taking your time to answer these questions.**

**HYDROPOLITICS SPECIALIST**  
**DUR SUN YILDIZ: “TURKEY SHOULD**  
**GUIDE HER NEIGHBORS ON WATER**  
**MANAGEMENT TECHNIQUES AND**  
**PLANNING”**

**27 April 2011**

*Hydropolitics specialist Dursun Yıldız, who answered the questions of ORSAM Water Research Programme, made some evaluations on the issues related with the Turkey’s trans boundary water policy, the water transfer projects, the disputes on Ilisu Dam, the relationship between EU Water Framework Directive and water management in Turkey, the water-based cooperation in Middle East and conflict potentials. Yıldız underlined the fact that Turkey never used her transboundary waters for peaceful and cooperative objectives. He told that “But Turkey should do something beyond this. She should guide the neighboring countries in terms of the techniques and planning.”*

**ORSAM: Could you please tell us briefly about yourself?**

**Dursun YILDIZ:** I was born in Samsun in 1958. I am civil engineer and also expert of hydro politics. I had worked in the various departments of DSI General Director for 25 years as an engineer, a branch director and a head of department then I retired in 2007. In this duration, I joined to the postgraduate technical education and application programs on the scope of water engineering in Holland and USA. Also, I got the master’s degree on Hydropolitics in Hacettepe University Hydropolitics Strategic Research Centre. In addition, I completed a certificate program on EU Specialty and International Relations in Ankara University European Union Research and Application Center. In some periods, I became the member of management board



and secondary director in TMMOB and the Chamber of Civil Engineering. I gave lectures as a part-time instructor in Hacettepe University Hydropolitics and Strategic Research Center and Gazi University Engineering and Architecture Faculty. I still continue to work on water resource and politics and keep on implementing my own engineering and consulting firm.

**ORSAM: What is hydropolitics?**

**Dursun YILDIZ:** As you know, although water is seen as a globally unending source, it is such a finite one in terms of qualitative and regional. Also, it spreads around the world unequally in time and space. Especially fresh water resources became as not fulfilling the needs of people in some parts of the world after the second part of the 20th century with the increase in population and pollution. Through the 20th century, number of the independent states had increased so transboundary rivers also increased too. Therefore, 145 countries began to stay in those transboundary river basins and %40 of the population began to live in these transboundary river basins. After these events, pressures on water issues began to cause serious problems both internal and international affairs of the states.

By the beginning of 20th century, problems emerged in terms of supply and allocate of international and transboundary water resources. These events resulted in the emergence of "Hydro politics" as a new international political concept and discipline.

After this introduction, we can define hydropolitics as an interdisciplinary scientific branch which analyzes the relationship based on interest on use of transboundary water resources and assess the implications on water to take socio-economic, political and judicial precautions.

**ORSAM: Within this context, how do you evaluate hydropolitics of Turkey?**

**Dursun YILDIZ:** This issue can be analyzed in two parts as before and after Cold War periods. We can say that Turkey's hydropolitics as related with Turkish Foreign Policy was stable in Cold War era as compared with current situation. Her foreign policy was based on security issues especially in the relations with neighbors because of her geopolitical position in the so called rigid circumstances of Cold War's bipolar system. In this period, Turkey had been far away from Middle Eastern countries especially from Syria and Iraq. Her hydropolitics was more undemonstrative but a reasonable policy. This time coincided with the construction of dams over Euphrates and Tigris rivers. After Cold War, it is seen that emerging new world order affected Turkish Foreign Policy too. After the end of Cold War in 1990s, Turkey had faced serious problems in understanding dynamic and fluxional international system. For a while, she could not get rid of old routines of the Cold War period and she accepted that her regional and international activities were restrained with the role of global powers in terms of framework drawn by global forces. It showed that lots of things had changed in international

system and also Middle East began to be designed on the framework of The Greater Middle East Initiative. In the end of the 90s, it became clear that New World Order is the sign of the division of international system into two as USA and others. This system, in which US wanted to implement the strategy of "being empire", provided an opportunity for the countries, which were in the position of regional force, to increase their activities by reasonable political activities and regional cooperation because of the disadvantage of the hegemonic power, USA. By the utilization of this circumstance, Turkey has modified her foreign policy in respect of relations with her neighbors and began to implement her policy based on zero problem strategy.

Especially by the beginning of the 21th century, Turkey began to use active and flexible foreign policy to increase her global and regional efficiency. Specialists see that policy as "Pragmatic Multilateral Foreign Policy". First purpose of this policy has been to keep uncertain and conflict areas away from Turkey's living and interest areas as possible as. In this way, as a first step, it was necessary to decrease the problems with board neighbors to the lower level and establish political, economic and cultural relations and co operations based on trust and collaboration.

In other word, this policy depends on "good neighborhood and forming reciprocal common interest". In this approach, transboundary water resources should take place. Especially for the Middle Eastern neighbors, Euphrates and Tigris were utilized by more active hydropolitics in respect of zero problem policy. In addition to variation in international system, the completion of some parts of dams over Euphrates and Tigris and technical and strategic advantage has been very effective.

As a result, while the bilateral relations had been given importance, water demand of Syria and Iraq was supplied immediately. In this period, the dams on the Euphrates and Tigris were operated reasonable and Turkey pursued a more active and self confident hydro policy. However, will this dynamic hydro politics result in positive conclusions in the long term? To accomplish that, it is simply necessary for Turkey to increase her economic power and stability. However, the risk of instability can increase by moving away from the role drawn by international system. For that reason, it is essential to preserve stability and to be much more powerful.

**ORSAM: What is the possibility of Three Stage Plan to become into the current agenda, which occupied agenda in 1980s, when regional political process was thought?**

**Dursun YILDIZ:** As you know, Turkey, China and Burundi gave rejective vote to Convention on non-navigational uses of international watercourses in 1997. She could give an abstention vote instead of rejective one by making strategically prediction because Turkey has a very strategic position which is too hard to be given up.

In 1980, a Joint Technical Committee, composed of experts from three countries, came to together to determine equitable usage of Euphrates and Tigris waters. In that commission, a mission was formed on transboundary waters by Mixed Economic Commission in 1980 and this mission was given to Common Technical Committee. To realize this aim, first meeting was held in 1982 with the participation of Turkey and Iraq, then, in 1983, Syria was joined. These trilateral meetings had continued almost seven years until the beginning of the Gulf War in 1990. Conditions of war period had restrained next meetings.

In the first years of that Joint Technical Committee, main subjects were about short term issues like hydrological data exchange and new building plants over Euphrates and Tigris rivers. Main objective of the committee, which was regulating equitable utilization of Euphrates and Tigris water sources, was set to the table by Turkey at 1984 in the fifth meeting. In that meeting, Turkey presented an applicable plan which was “Three Stage Plan for Euphrates and Tigris Waters”.

Turkey presented this Three Stage Plan as an option again at 26 June 1990 in trilateral meeting and continued to repeat it in other conversations at 1993. In the first phase of that plan, inventory studies of water resources, in the second phase, determination of soil layers and drainage criteria then in the third phase, evaluation of water and land resources were presented to the admitting countries. Turkey demanded a common investigation for existing water and soil capacities of these three countries but it was rejected by Syria and Iraq.

I think the plan was more extensive than the one done in 1997 in which optimum and equitable utilization of water conditions determined because even the common management plan of water plan had been presented in addition. Turkey’s important plan had been ineffective because of existing Cold War conditions, mutual mistrust among countries, irrational Middle East thinking and global political conditions.

During that period, it became to be known that renewal and changing efforts on plan were useless and invalid.

After the Cold War, increasing dependency among countries and technological innovations began to change countries’ foreign policies.

After 15 years, at 2010, Turkey, Syria and Iraq ministers, who are related with management of water sources came together in Ankara and reached an agreement on implementing first article of that plan. Unfortunately, it has passed 15 years without any real action on implementing the plan.

I want to add something at this point. Role of the technical committee meetings on hydro-political relations shouldn't be underestimated. Although a further progress couldn't be achieved in redistribution of the water, this Joint Technical Committee functioned as a beneficial communication channel in those meetings.

**ORSAM: During that period, Turkey made another attack by Manavgat Water's Sale Project. How do you evaluate it?**

**Dursun YILDIZ:** In Manavgat Water Supply Project, Turkey told "We would be arbiter in Mediterranean" and it was mostly an exaggerated argument. As I mentioned in my books, East Mediterranean is an attraction center for global powers that are willing to hold energy corridors. Because of that reason, security in East Mediterranean is a global issue rather than regional. East Mediterranean has been a strategically object any more. I think that East Mediterranean will be a quarrel arena among states in future. For that reason, hydro political role depending on Manavgat Water Supply Project is not so easy to play. The result of project has proved it. Turkey couldn't obtain the strategically advantage she planned it from Manavgat because neighboring countries did not want to be depended on water coming from abroad. Moreover, every country seeks larger maneuver areas to accommodate her power eventually confronts with global powers.

A water dependent foreign policy attack became to be seen as not so much easy. So, I think Turkey needs more strategically developed objectives in Mediterranean.

**ORSAM: In the water sale projects to outside, especially Manavgat and Bariş waters were important. At that point, there is a criticism against Turkey. Turkey is saying I 'm not water rich country, while aiming to sell waters. How can we explain it?**

**Dursun YILDIZ:** Turkey advocated herself rightfully as saying "I am not a water rich country". Actually it is true but when compared with the Middle East countries which live water scarcity, it is assumed that Turkey is a water rich country accordingly. Even if you explain your good intentioned plan which presents better water services to those countries, you eventually will be faced with some powers who oppose your advantageous position. Actually, there is no correlation between Turkey's expression "I am not a water rich country" and her sale waters outside. It should be named water transfer rather than water sale because Manavgat and Bariş water projects were mostly strategically aimed projects rather than economic aimed ones. Both of them have such amount of water which is extremely under yearly renewable water capacity of Turkey. Manavgat Water Project was a strategically maneuver in the East Mediterranean. However, we can clearly see that increasing geopolitical and hydro political importance of the region restrains Turkey's well aimed efforts. Although Turkey constructed a plant which costs 160 million dollars, she couldn't find a possibility to use it in the Middle East geography for peaceful aims. As we see in other water supplying agreements in the world, water related agreements do not happen in the short-run and these failed water projects of Turkey became the examples of it. However, Turkey must keep her peaceful and trustworthy position in her hydro politics.

**ORSAM: If we go away from Mediterranean, what kind of threats and opportunities Çoruh basin carries?**

**Dursun YILDIZ:** Çoruh (Ch'orokhi) River reaches to Black Sea by taking 30km after entering Georgia borders. Turkey became successful in preventing the formation any other hydro political problematic area by keeping her relations with Georgia well. If we take both completed and incomplete dam plants on Çoruh River, it was possible for other countries to oppose problems related with river even if those plants are not designed for irrigation. However, Turkey never faced a hydro political problem in Çoruh River. Carried sands and pebbles in that river are being kept in our dams so possible problems in Georgian coastline are prevented by both countries' mutual cooperation and well-intentioned efforts.

**ORSAM: In Aras Basin, there are the co-operations especially between the EU and the US but Turkey is not involved in it. They try to get Georgia, Armenia, Azerbaijan and Iran into but it is a little bit difficult to ensure this cooperation. By scheduled Eastern Anatolia Project, what would develop in that area?**

**Dursun YILDIZ:** Although Eastern Anatolia Project is not as big as Southeastern Anatolia Project (GAP), with its some part, it is a water-based development project. Under this project, initially an area of 120 thousand hectares of land would be irrigated. It may be said that the recharge of Aras may be partially affected as this project is furthered. However, by irrigations, its effects may be on The Euphrates's water more than Aras'. Fulfillment of Eastern Anatolia Project which is in the upper basin of the Euphrates may cause a decrease in the waters which will go down the Euphrates' down basin in a certain extent.

**ORSAM: Do you want to make some statements about Ilisu dam, which is much on the agenda in recent times?**

**Dursun YILDIZ:** If Ilisu Dam had not been politicized, there could have been created an environment in which much more beneficial results for not only the historical heritage and the people of the region but also Turkey would be discussed at the table. But as the issue was politicized, people who are against this issue started to have a political attitude rather than rational one.

It is possible to understand people from Turkey who concern the protection of the historical heritage of Hasankeyf but it is not valid for Iraq which is against for the project technically. At the beginning of July in this year, Ali El-Dabbagh said to journalists that "building Ilisu Dam will affect the river and farmers. The Iraqi government demands from the countries which support the project to stop this." In addition to the causes of opposition inside Turkey like technical, sociological, socio-economic cultural heritage, it is also added a technical opposition from outside the country. The statement made by Iraq came just one day before the announcement which declared that the international credit support for Ilisu Dam is stopped.

An upstream country could have important political, hydropolitical, hydrostrategic causes to stand against the dam. However, to be technical opposed, it is necessary that the water which will be collected when the dam is built is used for irrigation in portion, that is, given down water has to decrease or during filling the dam that country has to undergo very large losses whose compensation is impossible. Because of the fact that there is no irrigation purpose of Ilisu Dam, stored water will be given to the riverbed without any loss except evaporation by a third.

I admit that the oppositions to Ilisu Dam have right on protection of the historical and cultural heritage in Hasankeyf and its surrounding area. The subject must have been discussed in terms of this sensibility and regional problems but the size of opposition reached to level of being against large dams and politicized. Thus, it was moved away from the point of actual sensibility and had negative impact on efforts to protect historical and cultural heritage in project area.

When we consider the subject technically, we see that the General Directorate of State Hydraulic Works (DSI) works over 11 different alternatives for where the dam will be constructed but the most appropriate place was found here. It is difficult to produce energy with other sources instead of this dam by easily and economically viable manner and to meet demand especially for peak hours when take into consideration that it can be derived 3.83 billion kWh of energy on average per year. The rentability of Ilisu Dam is high in terms of Turkey's energy needs. In addition, it is strategically key dam for the Tigris River. In brief, the Ilisu Dam is insurance for the Tigris Basin and thus it has also another importance.

**ORSAM: What are the problems of re-placements in the Ilisu Dam? The public does not know too much about this issue. Is there a problem about this re-placement? How can the problem be solved?**

**Dursun YILDIZ:** In my opinion, the most important point in re-placement is cultural sensibility rather than the physical creation of housing opportunities. In other words, it is initially necessary that local people who are subjected to re-placement in the Ilisu Dam cannot be separated from their own culture. This is the most important issue. It was essential to be done very detailed studies and

related institutions made them. However, there had troubles with people in the region in terms of explaining this and the realization of the project by a participatory approach. It failed to start these studies early enough. The things which were necessary to be done are being done but are made late and inadequate. Therefore, the project done in such a historical and cultural sensitive region is subjected to some legitimate criticism.

**ORSAM: Will this project finish in 2014?**

**Dursun YILDIZ:** No. It is not possible for Ilisu Dam to be completed in 2014. While these dates are given, it must be careful. It was announced that all irrigations areas would be opened to irrigation in 2013. It is not a realistic date, too. The completion of the GAP is being delayed for the third time. It is necessary to decide these dates in much more realistic way to avoid disappointment for expectations. I think that the completion of the GAP with its all components is not possible before 2023.

**ORSAM: What are your suggestions for Turkey to create more comprehensive water policy and to satisfy lack of experts in this field?**

**Dursun YILDIZ:** Turkey primarily needs a quick renovation on water resources management policy. Our country's water resources management policy can no longer respond to rapidly growing demands in a rational manner. Therefore, we have to renew this structure legally and institutionally as soon as possible. Our country's water resources management is multi-headed, multi-part and in lacks of coordination so it is necessary to renew this structure as soon as possible so as a most appropriate institutional structure, Ministry of Water Resources hosting all existing structures should be set.

The image of multi-headed and multi-part water must be collected under one umbrella of this ministry. On the other hand, there were some studies related to international and strategic importance of water by the rapidly growing strategic research centers in the last 10 years. However, it would be more important for these studies to be done by hydro-politics and strategic research center or institute which would be opened within one or several universities. In this context, the developments in the field of water policy in both domestic and regional as well as in global scale would be examined by scientific methods and within integrated and multi-disciplinary perspective. The Hydro-politics Strategic Research Center within Hacettepe was closed in the past and it is understood day by day how much this decision to be wrong. These structures would allow the issue to be addressed more scientific and far from speculation by meeting the need for experts.

**ORSAM: What is the relationship between EU Water Framework Directive and the configuration of water management in Turkey?**

**Dursun YILDIZ:** Turkey as a country which is a candidate to become EU membership and began negotiations has to adopt its water resources management to the understanding of EU Water Framework Directive's. In this context, Turkey has to enact a Water Framework Act until 2013 and organize water resources management. However, a very large portion of these regulations have to be carried out as soon as possible not because of EU but the need of Turkey.

For this reason, I do not believe that we will suffer from EU's Water Framework Directive. Of course, it is known the prominence of environmental sensitivity by taking into account of the EU's original conditions and

to be suggested the common river basin management in trans boundary waters with this directive. Moreover, there is flexibility in the article of the common management. Many EU countries have not already prepared the basin management plans on time. Among these countries, there are countries which have trans boundary rivers. Therefore, if the position of Turkey in negotiations on this issue were defined well, some restrictive effects of EU Water Framework Directive could be reduced.

Turkey is not a country to lead whole Euphrates-Tigris basin by her alone. Turkey initiates that situation in the beginning of the 1980s. However, it is disturbing at that point the joining other Middle Eastern countries to the problem like Israel. This situation disturbed Turkey. It is essential to underline that basic water problem in Middle East is not a problem of the utilization of Euphrates and Tigris among Turkey, Iraq and Syria. The main problem in Middle East is that water of Euphrates and Tigris is tried to be related to the problem of the Middle Eastern countries like Israel, Jordan, and Lebanon which tries to attach themselves to the water balances some times. This situation is impossible not only from the perspective of the Euphrates-Tigris's water capacity but also the international law. They are two main rivers to be able to supply the countries they pass on. Unless these two rivers are tried to be related to the other countries' problem of water, it is easier to resolve the water problem in Middle East, otherwise, it would be hard to solve.

**ORSAM: Your "War of Waters" book was published. What is the possibility of water wars in the 21st century?**

**Dursun YILDIZ:** Water will become the most strategic resource of the 21. century. For this reason, there may be tensions between water scared countries.

These tensions may result in small conflicts but it is hard to presume an absolute water war. If such a war can be presumed, it is also necessary to redefine that war. In this way, whether this war will be in regional or global level must be defined. In addition, military purpose and concrete gains of such a war be explained. If such a war will happen in the future, it will be required to analyze whether the only reason of war had been water or not.

Because of all these reasons, I think that water issue will not be only reason in the emergence of hot conflicts. I think that there is a high possibility for the implication of water as a reason for conflict and tension because a hot conflict for water will not bring sustainable and practical gains for the countries.

In fact, there have been wars since a long time locally to share water, nationally as a hot conflict and globally in economic way.

On the other hand, if war is accepted as a tragedy, there has been already such a tragedy since a long time. Throughout the world, 15000 people, most of them under 5 years old child, lost their life because of water and related illnesses. In which war there is this amount of death? International system should work to prevent this continuing tragedy instead of presenting scenarios for possible water war.

**ORSAM: Although there are continuing wars and possibilities of future wars, is there any effort to prevent the conditions assumed as a prospective reason of water wars?**

**Dursun YILDIZ:** This issue covered in lots of international meetings and platforms. Agreements are made about this issue in UN. However, these programs are inadequate for

healthy results. In some areas of the world, tensions are increasing and a chaos environment is tried to be formed with excess arming.

In the last 10 years, military spending in the world have increased %45 and it is argued that it costed 1,5 billion dollar in 2008. This amount is just the 2,4 % of the World GDP. This military spending is much more than the budget of water and sanitation in the world. This ratio is 8 times in India, 40 times in Pakistan, 10 times in Ethiopia. Even in Yemen, Uganda and Mexico, this ratio is too high. So, in the countries in which more than 1 billion 700 million people live, military spending is much more than water and sanitation spending.

**ORSAM: Voices of excess arming and “Water Wars” concept are increasing together. In such situation, is “Water War” concept a rising hegemonic concept?**

**Dursun YILDIZ:** Such a source like water is an applicable argument to open wars and this makes it easy for war scenarists to produce wider calculations on wars. Advancement in communication technologies increased illusions in our perceptions. We accept lots of concepts without thinking about too much. Or we are accepted. For this reason, we must be careful in making some analyses.

Actually, thought that water is used by countries to legitimize their wars among themselves cannot be rejected directly. It is also confusing that keeping “Water Wars” is on agenda despite not taking any steps for solution. It shows us that “Water Wars” concept is a tool for imperial states to continue their political and cultural hegemonies.

When we look at the academic workings, we can clearly see that the realization of “Water Wars” thesis seem almost impossible. This

concept mostly comes out in popular magazines and newspapers. Actually, it is unnecessary to wait water wars then put an end to it. I have already mentioned; this tragedy is alive even if there is no hot conflict. So, does any possible water war contribute to this tragedy? Of course, yes. But it may be seen that total amount of people died from water shortage will be eventually higher than the amount of people died in these water wars. For this reason, “Water War” concept easily remains in memories but at the same time it undermines the existing water related problems. Therefore, I do not think that comprehensive analyses must be done on this issue.

**ORSAM: Do the Middle East need to a water war? Is water war at the door, instead of oil war?**

**Dursun YILDIZ:** Whereas the Middle East is a geography where 5% of the world population lives, it has 1% of the fresh water resources. Moreover, 90% of the water resources are transboundary. When oil and other geo-strategic advantages as well as Israel are taken into consideration, it seems to be difficult to maintain stability. However, we should address the water problem in two areas. There is water in Turkey, Syria and Iraq in the basin of the Tigris and the Euphrates but water cannot be used in a rational, planned and efficiently ways.

The last developments are positive in this region where the scenarios necessitate a water war in a sense. In the last period, Syria began to respond the positive policies of Turkey which put forward peace and co-operation by asserting her insistence on not to use water as a weapon. This is a positive development. The only problem for this region is the future of Iraq. However, Israel, Jordan, Palestine, South Lebanon is a region where water shortage

may intensify. Hot conflicts about water had taken place in this region so far. In this region, the extraction of Jordanian fossil water and Israeli’s construction of facilities for desalination of sea water in the last period may provide a partial relief. Instead of oil, in my opinion, in the subject of water war, it is not correct to address global strategies on water and oil similarly. Whereas water is a renewable source, this is not the case for oil. This is a very important difference. Water is more regional-oriented resources and this is the aspect leaving from the oil.

**ORSAM: Finally, is there anything you want to add?**

**Dursun YILDIZ:** The global policy and strategies on water will increase in the 21st century. Therefore, this issue will be on the agenda more and this also increases the importance of hydropolitics studies and assessments.

This situation compels Turkey in hydro politics. Turkey is a country having water boundary with all the neighboring countries. One fourth of her boundaries are composed of rivers and 36% of flowing water arises from trans boundary water basins. Turkey hasn’t used her trans boundary waters for the wrong purposes except for the peace and cooperative objectives. Therefore, our country acts in accordance with the principle of optimal, equitable and reasonable using of these waters. But Turkey should do something beyond this. She should guide the neighboring countries in terms of technique and planning. For this reason, water resources management in Turkey, has great importance in regard of the change and progress according to prevailing conditions.

**ORSAM: Thank you very much for sharing your time and views with us.**

**AKİF ÖZKALDI DEPUTY DIRECTOR GENERAL OF STATE HYDRAULIC WORKS (DSİ):** “THE SECOND İSTANBUL INTERNATIONAL WATER FORUM IS THE INDICATOR OF TURKEY’S REPUTATION ON THE WORLD”

**3 May 2011**

*Akif Özkaldı Deputy Director General of State Hydraulic Works (DSİ), answered the questions of ORSAM Water Research Programme. Highlighting the fact that Turkey’s great success in organizing the 5th World Water Forum created a remarkable effect on the global water community Özkaldı mentioned that the 2nd İstanbul International Water Forum to be organized in May would consolidate the positive image about Turkey. Özkaldı stated that the Forum contributed to all of the countries to a large extent in terms of acting in parallel with the common goals related to water.*

**ORSAM: Could you tell us about yourself?**

**Akif ÖZKALDI:** I graduated from İstanbul Technical University Faculty of Civil Engineering in 1986. Within the same year I started to work as an engineer within the General Directorate of DSİ Project and Construction Department. During my post as an Engineer, I went to the United States of America by the scholarship that I won, and in 1991 I got a master’s degree from Utah State University Department of Irrigation Engineering. Between 1992 and 1993 I completed my military service as a reserve officer in the Turkish Air Force Command, in NATO Inf. Office. In 1998 I was appointed to the DSİ General Directorate Office in Ankara as a Project Department Manager. In 2002 I worked as a Project Department Manager in the Head of Department of Water Supply and Sewage Disposal. In 2003 I was appointed as the co-head of Design and Construction Department, and



in 2004 I became the Head of Department. On November 2007 I became the Deputy General Director of DSİ and I still continue this task. I worked in the process of the 5th World Water Forum by actively participating in the process. I am the General Coordinator of DSİ of the İstanbul International Water Forum, and also I am the CO-Chair of the Steering Committee

**ORSAM: How was the idea of May 3rd-5th May 2011, the 2nd İstanbul International Water Forum brought forward? What was the reason of requirement for such a forum?**

**Akif ÖZKALDI:** We successfully carried out the 1st İstanbul International Water Forum on February 2009, right before the Fifth World Water Forum. The goal of our international Forum is both to lay the groundwork for the World Water Forum, to exchange information; and also to organize an international activity with a great participation that we could turn it into a brand in order to find a solution for the global water problems. Thanks to the outstanding success and effort in the Fifth World Water Forum, Turkey’s important role related to water was seen again on the international platform, and the continuance of the efforts became indispensable in order not to lose this gained role. Therefore, these information and experiences that were gained from the World Water Forum under-

pinned the 2nd İstanbul International Water Forum. The İstanbul International Water Forum is going to be organized a year before each World Water Forum.

**ORSAM: When and where was the First İstanbul International Water Forum, held? Could you inform us on this subject?**

**Akif ÖZKALDI:** The first of the İstanbul International Water Forum, whose second will be organized on May 3rd-5th 2011 in İstanbul Haliç Congress Center, was carried out on February 14th-15th 2009 in İstanbul as preliminary for the Fifth World Water Forum. In the course of this Forum, which was a preliminary meeting for the Fifth World Water Forum, the participants were informed on which extent the participants could assume an effective role during the thematic period of the Fifth World Water Forum. They also gave information to the coordinators of the Fifth Forum about the activities carried out within the scope of the regional process. Besides, during the 1st İstanbul International Water Forum, the representatives of the non-governmental organizations participating from Turkey exchanged opinions upon what kind of method they are going to follow in the course of the Fifth World Water Forum.

**ORSAM: What has been the contribution of the 1st İstanbul International Water Forum to the 5th İstanbul Water Forum?**

**Akif ÖZKALDI:** As mentioned in the answer of the previous question, in fact the 1st İstanbul International Water Forum took place as a coordination, opinion exchange conference among the stakeholders between the components in the regional and thematic processes of the Fifth World Water Forum. Thanks to the conference, the participants were informed about the process and this conference contributed to the fluency of the 5th World Water Forum.

**ORSAM: The İstanbul Water Forum is demanded to be turned into a traditional event, has any bounding structure been created to make the Forum perpetual yet?**

**Akif ÖZKALDI:** The 1st İstanbul International Water Forum was mainly agreed to be triennially carried out a year before the World Water Forum. Its administrative structure is ready, and the legal infrastructure has still been worked on.

**ORSAM: What are the themes that are going to be handled in the Forum in May, and what are the criterium on the designation of these themes?**

**Akif ÖZKALDI:** The İstanbul International Water Forum, whose main theme is “İstanbul Perspective on Regional Water Challenges and Solutions”, is going to take place on May 3rd-5th 2011. The Forum is composed of political, thematic and regional processes. While the political process is estimated to be composed of the minister-level meetings; the thematic process is aimed to be composed of 26 meetings that will be assessed under 6 sub-headings. As for the regional process, closed private meetings are going to be held as a follow-up of the preliminary meetings that were carried out on Turkey and her surrounding regions. The subjects, which the İstanbul International Water Forum will deal with, are primarily the existing water problems in Turkey and in her neighborhood; and their solutions. The outputs of the Forum would constitute a regional input for the Sixth World Water Forum as well.

**ORSAM: Could you inform us about the “İstanbul water agreement”, which was signed in the 5th World Water Forum?**

**Akif ÖZKALDI:** The “İstanbul Water Agreement”, which was signed by the mayors of 52

countries during the Local and Regional Administrations conference of the İstanbul 5th World Water Forum, demands the signatory provinces to develop their water management strategies in parallel with the Millennium Development Goals; and to handle urbanization, climate change and the other global pressures on local level. The İstanbul Water Agreement, which has already been signed by more than 700 provinces, is a written contract which argues that accessing to quality water is one of the most fundamental rights of every human being as water is a public property; and which brings urban and rural water problems up to the local, national and global agenda. This agreement aims at inviting mayors and local authorities to a common commitment related to urban water resources management by underlining the fact that cooperations are needed on a state level in order to enable the equal distribution of the resources, and the fact that greater missions fall to municipalities because of the climate change.

**ORSAM: Is this Agreement going to be included in the 2nd İstanbul International Water Forum, which is going to be carried out in May, as well?**

**Akif ÖZKALDI:** The İstanbul Water Agreement, which is a new agreement composed upon the action planning of the local and regional administrations to analyze and to be able to deal with the problems, is still open to signature. The 2nd İstanbul International Water Forum is also going to be an opportunity to reevaluate the İstanbul Water Agreement and the İstanbul Water Guide. A special session entitled “İstanbul Water Agreement” is going to be carried out during the 2nd İstanbul International Water Forum and under the responsibility and coordination of the İstanbul Metropolitan Municipality.

**ORSAM: Which countries are going to participate in the Minister level meeting in the course of the Forum, and what is going to be the content of the meeting?**

**Akif ÖZKALDI:** The participant Ministers, who are related to water and environment issues, invited from the neighbor countries of Turkey are also going to be hosted in the Inter-ministerial Meeting that is going to be held in Conrad İstanbul Hotel, on May 3rd 2011. More than 30 Ministers were invited to the Inter-ministerial meeting entitled “Regional Cooperation for Water”. Among the invited Ministers, there exists the Ministers coming from the countries such as Uzbekistan, Bosnia-Herzegovina, Albania, France, Kazakhstan, Bulgaria, Morocco, Greece, Algeria, Syria, Qatar, Kyrgyzstan, Tajikistan, Jordan, Macedonia, Libya, Iran, Russia, Kosovo, Azerbaijan, Turkmenistan, Saudi Arabia, Iraq, Georgia, Armenia, Lebanon, Mongolia, Republic of Korea, Niger, Djibouti, Burkina Faso, Turkish Republic of Northern Cyprus (TRNC) and Australia.

**ORSAM: To which extent are the other countries and the water organizations interested in and supporting the 2nd İstanbul International Water Forum?**

**Akif ÖZKALDI:** The 2nd İstanbul International Water Forum is going to provide an environment of platform where international organizations and local authorities from the Middle East, Central Asia, Eastern European regions and Turkey could come together in order to find solutions to the aforesaid problems by focusing on the water related problems of these regions. Thanks to the Water Expo to be organized as well, the global water companies will find a chance to introduce themselves. During the Forum in parallel with thematic sessions, panels and other activities; a range of extra activities are going to be car-

ried out both by various national and international organizations. The participation of the other countries and the other international water organizations in the components of the Forum is on a quite satisfying level.

**ORSAM: What is going to be the effect of this Forum on Turkey's water policies?**

**Akif ÖZKALDI:** The 5th World Water Forum's great success created a great effect on the global water community, and it pointed out the position of Turkey among the leading countries in terms of water again. In the 2nd İstanbul International Water Forum that

is going to be held on May 2011, Turkey is going to use the approaching feature of water once again; and she will consolidate the understanding of acting in parallel with the common goals by positively influencing all of the countries' both their own water policies and also the other countries' water policies. No doubt that this entity is going to contribute to the development of Turkey's own water policies to a large-extent as a think-tank organization.

**ORSAM: Thank you for your answers. We wish you success with your studies.**

**UN JOINT PROGRAM MANAGERS:**  
 “THE SUCCESS OF TURKEY AT THE CLIMATE CHANGE WORKS ON THE SEYHAN BASIN WILL SET AN EXAMPLE.”

**30 May 2011**

*ORSAM Water Research Program carried out an interview with United Nations Joint Program Director Atila Uras and United Nations Joint Program Regional Project Coordinator Alper Acar. The subject of the interview was “MDG-F 1680 the Program of Enhancing the Capacity of Turkey to Adapt to Climate Change” which has been developed in order to be integrated into the national, regional and local policies within the frame of Turkey’s works to adapt to the climate change, sustainability and the development objectives of Turkey and the aspect of this program regarding the water resources. Two managers indicated that the applications on the Seyhan Basin which has been chosen as the sample basin have been successfully completed and that this success will set an example for the other basins.*

**ORSAM: Could you please briefly tell us about yourself?**

**Atila URAS:** I was graduated from civil engineering, and then I received a master degree in the fields of coastal engineering and coastal management. After working in the private sector, I had the chance of performing some works with some non-governmental organizations in some fields such as nature conservation, sustainable development, and environmental management. Both in the Foundation for Nature Conservation in Turkey and in the WWF Mediterranean Program by deploying in Rome, I have worked in some projects of nature conservation, rural development and coastal management in



Croatia, Tunis and Turkey. After working for one year as the nature conservation director of the WWF Turkey, I worked as a consultant in respect to environment, sea and coast. I performed in 2006 the management of the Project of sector-policy integration of the sustainable development of the UNDP and since 2008 I have been directing the UN Joint Program of Enhancing the Capacity of Turkey to Adapt to Climate Change. We have been working as a team in the UN for about 5 years. At the same time, I have been giving the lecture of coastal management in METU.

**Alper ACAR:** I’m an environmental engineer (m.sc). I started my career in the private sector. I worked especially within the scope of the Projects of solid waste management. Later, I worked in the fields of nature conservation, rural development affairs in the Foundation for Nature Conservation. For a while, I worked as a freelance consultant. After supplying international consultancy for the projects such as reinforcement of civil society, waste management, nature conservation, rural development and the improvement of the infrastructure of the conserved areas, I worked for a while in the Istanbul Metropolitan Planning Centre for the integration of the sustainability concept into the environmental order planning. Afterwards, I worked in the Project of Integration of Sustainable

Development into the Sector Policies of the UN. And now, I have been working especially in regards to the coordination of the applications done on the Seyhan Basin in the frame of adaptation Project to the Climate Change.

**ORSAM: Which country does the Project of Capacity to Adapt to Climate Change choose and according to which criteria? Is this Project a program which is applied for each country? Why has been Turkey chosen?**

**Atila URAS:** The Spanish Government has supplied in the first stage a global fund of 580 million euro to the UN Development Program and then of 100 Million Euro. As understood from the name of the fund, the final objective here is to reach to the Millennium Development Goals. The Fund for reaching to the Millennium Development Goals has supported projects in 59 countries under different titles in order to reach to 8 development objectives. We call them as projects but in fact they are each a great program. The side-expectation beyond this approach is to constitute a platform for the aim that the UN institutions do not operate independently like different institutions from each other, but rather as a unique UN. In other words, each supported-one was in fact a joint program. For example, our joint programs are the UNDR, UNEP, FAO and UNIDO. Among the priorities, the climate change and adaptation are important subjects. On this subject, there are 17 similar programs in different countries of the world. The adaptation subject concerns issues such as disaster and water management which are globally common problems. In the nearby geography (Jordan and Egypt), there are two joint projects. Why has been Turkey chosen? Because considering the climate change effects, it is one of the countries which have the risk to be highly affected. On the other hand, it is a country having high struggle capacity.

**ORSAM: Which public institutions in Turkey have been integrated into this Project?**

**Atila URAS:** The UN institutions operate in accordance with the principle of supporting the countries' development objectives and international agreements through the works that they do. And this program has the aim of supporting Turkey's works regarding the adaptation to the climate change. The principal state institution of Turkey in regards to the climate affairs is the Ministry of Environment and Forestry. The main beneficiary of this program is again the Ministry of Environment and Forestry. Considering the extent of the issue and its aspects that concern the other public institutions, the Ministry of Agriculture and Rural Affairs and the Ministry of Industry and Trade primarily participate in this affair. Of course, the State Planning Organization is always the critical partner. They also take part in this program.

**ORSAM: What is exactly the task of the UNDP in this Project?**

**Atila URAS:** We play an executive and vacillating role. The specialists usually undertake the processes of the process tracking and acceleration, the execution of the relevant researches and presenting the reports to the relevant ministries, working directly with the local partners within the scope of the Grant program, following, evaluation and reporting.

**ORSAM: What is the exact place of the water resources in this program?**

**Atila URAS:** In the fourth report of the Intergovernmental Panel on Climate Change, the pressure over the whole Eastern Mediterranean Basin and Turkish water resources had been mentioned. And within the scope of this program, both in the works of National Adaptation Strategy and the priorities of the Grant

program, the fact that the water resources management issue has been distinguished and that the Grant program must be in accordance within scale of the river basin are the most important indicators that constitutes the direct connection to the issue. The works regarding the industry and execution of some incentive pilot works are other indicators. On the other hand, in the participatory affectability evaluations and in the participatory workshops that we have carried out in 11 provinces, the need to manage properly the water resources has turned out as the most relevant issue to the adaptation to the climate change. Water must be handled from different directions; in relation to the agriculture and food safety, utilization rate of water in Turkey which is 70% comes to the fore. In relation to disaster, it is severe drought; in relation to the public health, it is the diseases that are contaminated through water as a result of the climate change; in relation to the biological diversity and ecosystem services, it is again the quality of water and the presence of water which come to the fore. Namely, water aspect exists in all the affectability subjects.

**Alper ACAR:** One of the main subjects of the national adaptation strategy has been determined as the water resources. How adaptation is provided in relation to that; both strategic objectives and the measures which are necessary to be taken for the adaptation and the actions have been described.

**Atila URAS:** Both the water supply and the demand management must be taken into consideration during the process.

**ORSAM: Does this Project have any contribution also for the structuration of the water resources in Turkey?**

**Atila URAS:** We started to obtain important outputs of the program. We contributed

by adding the adaptation strategy and action plan into the process of constitution of the national action plan of Turkey which has been conducted with the cooperation between the UNDP and Ministry of Environment and Forestry. Next year is the preparation period of the 10th Development Plan. It is already known that the climate change is a development problem which necessitates adaptation. We think that the adaptation strategy and action plan for the climate change will be reference to the development plans of Turkey. Further to that, the climate change tried to take part in the sectoral strategies, as well. For example, climate change and water usage exist in the sustainable urbanization strategy; in that, the climate change will take place in a way among the products of this process.

**ORSAM: What was the reason of choosing the Seyhan Basin for this project?**

**Alper ACAR:** As Atila has already mentioned, the Seyhan Basin is on the Eastern Mediterranean region which was described as one of the most vulnerable areas by the Intergovernmental Panel on Climate Change. Secondly, the first research on the affectability from the climate change, primarily for the agriculture, on the scale of basin has been done there. This project was carried out by Çukurova University and a Japan Institute. When you look at the region, you can see that the Seyhan Basin is a different geographical place, a region which has socio-economic differences. There are mountainous areas, areas of high step vegetation and highly fertile areas such as Çukurova; therefore, although the pilot works that we did were in a single basis, you can do your works towards three different geographical areas. And this provides possibility and variety to make it a model. This is why the Seyhan Basin was chosen

**ORSAM: What are the outputs of the Seyhan Basin?**

**Alper ACAR:** On the Seyhan Basin, we have 18 quite nice projects with the budget of 2 million dollar. We have very different pilot projects such as increasing the agricultural fertility, how the water resources and the climate change will change in the next decades, how the forests may be affected by the climate change. In relation to the water issue, if you discuss about agricultural fertility, you can see that your efficiency at using the water affects also the agricultural and product fertility. When we changed the irrigation system from flooding method to drip irrigation, we have seen that there was an increase at the quality, as well as the fertility. When you talk about the climate change, you always visualize a dark image, but actually it provides an opportunity for some areas. For example, agriculture was quite limited in the areas such as Pınarbaşı and Sarız in the province of Kayseri of 1500 altitude. However, the weather has got milder in the last ten years and this has provided that the farmers there can produce various products and reach to different markets. For example, corn, beans, etc. The climate change has such an effect, as well. The projects that we have done have provided a better understanding about it. We executed a quite nice work with the 6th Region Directorate of the DSI (State Hydraulic Works). In this Project, it was researched that in case the climate change brings about different scenarios until 2100, how the surface water resources will change. Besides that, some researches were done about the efficiency of the anti-flood structures at preventing the floods. Within the frame of two different scenarios, when taken into consideration the irrigation areas and the climate change effect, it is seen that water deficits will be both on the high and low basins as long as the practices are not changed. We have seen that increasing the irrigation efficiency and application of drip irrigation have provided that the water deficits have considerably diminished. It has

been turned out that some measures must be taken in relation to the product range, besides the irrigation technique. The DSI Kayseri and Adana Region Directorate have gained a lot of experience through the works they have done. In summary, in whichever sector you are, wherever you live on the basin, a stress factor will continue to exist on the Seyhan Basin until the 2100, the date of water projections. Although it is said that there are plenty of water on the Çukurova, the climate change will cause a pressure on the development for the next 90 years. If the projections are developed for the period after 2100, it can be seen that this pressure will gradually rise.

When we look at water in terms of basic human needs, it is seen that the migrant labors on Çukurova are one of the most vulnerable social groups. In the work that we carried out with the Çukurova University the Center of Research and Application on Tropical Diseases, we have seen that the living conditions of the migrant labors that we chose as the target group and a group of which had settled in this region are quite unsanitary. In terms of public health, not only these people are under a risk of health as they are not used to the conditions of the region, but also they constitute a risk for the ones living there. And with this irrigation, the humid level have increased and thus some contagious microorganisms can be reproduced and grow very easily. This human movement causes that some microorganisms from different places come to Çukurova and that the ones on Çukurova are carried to different areas. This Project has taught us that. Unless the living conditions of these people are ameliorated, not only as a result of the water factor, but also with the influence of other social elements these people will continue to live there as a risk factor both for themselves and also for the peasants from the nearby villages.

**ORSAM: Will the Project of Seyhan Basin be applied for other basins, too? Will the Ministry of Environment use the experience that it has gained there for other basins, too?**

**Alper ACAR:** We have observed that the issue has been adopted more after the Project done by, the Regional Directorate of Adana, DSI. It has made some influence in the other regions, as well. Do not they have any deficiency? Of course. For example, underground water has not been taken into consideration enough, but I hope that in the next period the underground water is as well added with some works to the calculations which are done to determine the influences of the climate change.

**Atila URAS:** This can be added, as well; the meeting where the outputs of this projects were evaluated was held in Ankara like a discussion session in which all the region directorates of the DSI are provided a live broadcast of the meeting and to which other institutions such as the Ministry of Agriculture and Rural Affairs were invited as well. The Regional Directorate has gained appreciation of all the participators for the work that it carried out.

**Alper ACAR:** With the participatory affectability work of analyses that Atila mentioned before, the methodology of dealing with a problem in Seyhan on a systematic and regional basis has been adopted by the Ministry of Environment and Forestry. In the beginning, we had wanted that our works in Seyhan became a model. The Seyhan perspective can be applied to Kızılırmak or Gediz as well and similar works can be done there as well in accordance with this approach. I think that as this approach has been appreciated by the decision making authority, it has been foreseen that it is developed as a continuation project. On the first stage, a project draft was developed which foresaw that not only on the basis

of a basin, but throughout Turkey an affectability analysis would be conducted in the light of certain scientific and social parameters, and then a more detailed work would be done in certain pilot areas, and this draft was presented to the State Planning Organization. In summary, we have developed the model and handed it over; and it seems that in the coming years different institutions will maintain this process.

**Atila URAS:** The fundamental works of the model that we developed, for example the one in relation to the agriculture, were conducted by Çukurova University. Besides that, the sharing analysis, subsistence resources analysis and the ecosystem analysis were executed by the Turkish experts. The workshop of the system analysis was analyzed and reported by a Turkish expert living at abroad. Namely, actually there is a high capacity in Turkey to conduct these works.

**Alper ACAR:** One of the key points of the model is that it is always said that there is no data either in the local or central offices. Because this is a new subject, and we do not know. But you can determine right priorities towards the local by asking the right questions and bringing them into questions and create right projections. This is what we have done in Seyhan. For example, when we visited the women organizations working for gender or reinforcing the status of women in the society, the first reaction that we received was like "what does the climate change have to do with us?". But when we started to tell, we could discuss about these two seemingly irrelevant issues for hours. Why are women important for us? They constitute a group that has little mobility. Namely, in case of a disaster, they have less efficiency, unfortunately, to protect themselves than men or to discuss with others about possible solutions for something by going to the rural coffeehouses

and chatting with some people. Therefore, when we drew attention to this side, they accepted that it was relevant. So when you talk to somebody of a quite different specialty, you can establish the connection provided that you make the subject focus on the same targets and direct the talk to a discussion away from the template. Similarly, when you talk to a health officer or agriculturist, you can take the answers of certain things as long as you follow the agenda and market he connection.

**Atila URAS:** We have had the opportunity of testing the ideal way which is to come from bottom to top, not from top to bottom that we always say. We asked that no expert or bureaucrat came while we were determining the priorities of the problem on this basin. The related institutions accepted this, we called the experts only from Kayseri and Adana to conduct the problem analysis, and thus we could write down the local information and those priorities come out as the subject titles as Alper mentioned as well.

**Alper ACAR:** We had made great effort before the start of this program. For about one year, we visited various institutions in the region, first we told them our perspective, and then listened to their expectations, and thus we prepared the atmosphere in Seyhan. Of course when you go there with a general perspective without any discussion with the local people, you may end up as disconnected from the realities of the region or you may encounter with a reaction. But when we initiate a new grant program at the end of the process based on such a dialogue, we find there a subject which has already started to be discussed by different institutions. With a Grant program which responded to the needs and expectations of the region and in harmony with the realities and priorities of the region, what we would do became much easier. In summary, through the approach of capacity building,

a common language was adopted in relation to the climate change affectability. The next step was to become more concrete and decide the priorities. And then after the execution of the implementations and completing the deficiencies of the experience that has been gained, this cycle may be restarted.

**ORSAM: Is there a new project which will come out later or will there be a sequel of this project?**

**Atila URAS:** This question must be responded within the frame of sustainability of the efforts. In case of such demand from the government agencies, the United Nation institutions can develop new projects and look for new funds, but actually the fact that this fund from the DSI has been evaluated by the Ministry of Environment and Forestry is a continuation of our efforts. On the other hand, we received a great interest at our relations with the development agencies. They lean towards the possibility that the works in harmony with the model that we developed take part in the annual calls for grant of the development agencies. This is a significant improvement for the continuation of the efforts. On the other hand, that kind of programs and projects usually encourage other initiatives. The wish of certain program partners such as FAO and UNIDO to do new projects here enables that this wish is spread by the wave effect. But the climate change issue is on the agenda, which is the most important thing. We have experienced for the first time an adoption thanks to this program. This adoption of the Ministry of Environment and Forestry and this fund from the DSI are the main guarantees of the sustainability.

**Alper ACAR:** Another perspective about it is that not all but most of the eighteen grant project constituted a model among them. We have a joint work with the Adana Region Di-

rectorate of Forestry which aims to find out how the forest lands in Seyhan will be affected. The results that are found there are being integrated into the management plans of the forest lands which are under the responsibility of Adana Region Directorate of Forestry. If you apply this Project over the mountains on the Black Sea Region, you will see that this methodology will work there too. For example, General Directorate of Forestry leans towards such a work. As the works done within the scope of joint program has sustainability, each grant program also can have its own sustainability. For example the models that have been conducted with the General Directorate of State Hydraulic Works, the Adana Region Directorate of Forestry, the Center of Tropical Diseases (because tropical diseases are not only present there, but also in the district of Polatlı in Ankara) are applicable and ready.

As Atila has already mentioned, we both carry out dissemination works for the institutions and also try to share this on different platforms as much as possible. One of the main elements for the dissemination of the experience is the ongoing evaluation process.

The evaluation of eighteen grants projects and taking lessons from our experiences has been continuing. Through the publication that we will establish in the light of the information that we will obtain from this, we aim to reach to different masses. For example, we executed a project of animal husbandry with Çukurova University in the regions whose altitude is over 900 meters. This Project can set an example for the other forest villages whose altitude is also over 900 meters. Maybe not directly, but in terms of point of view, it will be able to set an example. This is what we try to realize; rather than saying that this was obtained and that was done in this way etc, we prefer to describe our works like this was the problem, the issue was dealt in these ways and approaches, and these were obtained. In the next a couple of months, we will have the possibility to say that you can also do good things for your own region by following these ways.

**ORSAM: We would like to thank you so much for sharing with us your valuable time and we wish you good luck for your works.**

**PROF. AYŞEGÜL TANIK FROM ITU FACULTY OF CIVIL ENGINEERING, ENVIRONMENTAL ENGINEERING DEPARTMENT: “FROM NOW ON, WE STARTED TO THINK ON BASIN BASIS AND WE STARTED TO SEARCH OUT SOLUTIONS ON BASIN-SCALE.”**

**1 June 2011**

*Prof. Ayşegül Tanık from ITU, Faculty of Civil Engineering, Environmental Engineering Department told about the development of the integrated water resources management in Turkey, its perception, and its development with the EU Water Framework Directive during the conversation carried out in the 2nd Istanbul International Water Forum held in Istanbul between 3rd- 5th May 2011.*

**ORSAM: Mrs. Tanık, first of all, could you please tell us about yourself?**

**Ayşegül TANIK:** My name is Ayşegül Tanık. I work as a professor in Istanbul Technical University, Environmental Engineering Department. I have practiced my profession in this field for about thirty years.

**ORSAM: What do you say about the implementations of the Integrated Basin Management in Turkey?**

**Ayşegül TANIK:** The implementations have started recently. 25 hydrological basins have been detected. Among these basins, the Ministry has had TÜBİTAK MRC (TÜBİTAK MARMARA RESEARCH CENTER) make preparations of the Basin Protection Action Plans of the primary 11 basins. In this way, we started to know our basins. In the near future, who will carry out the protection action plans of the other basins will be clear. The Ministry itself already made certain basins. By the help of Geographical Information System (GIS),



and by using the same bases; the main problems of each basin in Turkey will be started to be recognized along with all the environmental characteristics in terms of both the pollution, and geography. First of all the protection action plans, and then the management plans will be prepared. These have gained acceleration in the European Union Accession Process. As we are in a candidate country position, we have to launch and complete these practices in a certain period of time. From now on, we started to think on basin basis and we started to search out solutions on basin-scale. And this is a pleasing situation for Turkey.

**ORSAM: The Greater Menderes was made, as an example. Criticisms, claiming the existence of problem in datum, were made.**

**Ayşegül TANIK:** The Greater Menderes Basin is one of the primary 11 basins, which TÜBİTAK MRC has been working on. The foreigner specialists also took part in the similar basin practices, which were launched beforehand by the Ministry. Unfortunately, we have problems with the security of data. The required data could be different in various institutions. It is necessary to create a national-scale database. In this way, the revision and updating of the information in the electronic environment would be much easier. It is quite important to create such a base.

**ORSAM: There is a Floods Directive as well. Will these develop in parallel with each other, or is it going to be launched after all the plannings are completed?**

**Ayşegül TANIK:** I believe that they should be parallel. Otherwise, we will have been late.

**ORSAM: Is there a certain year appointed for Turkey?**

**Ayşegül TANIK:** As Turkey, our goal is to complete the basin protection action plans by the end of 2012. And afterwards, we pass to the preparation of the management plans. In fact, as the basin protection plans are carried out, the management is also launched. In order to make up the difference, we accelerate the practices, which were carried out by Europe, a little. At least, basin mentality has started to be settled. In all of the basins, stakeholder meetings are carried out. In different stages of the practices, both the people and the locality are informed. The most proper scale for this type of practices is basin scale. This kind of perception has started to be settled. You know that the participation of the people in the processes is quite important. Within the practices carried out by the TÜBİTAK MRC, in the provincial organizations, which are in coordinator province position on basin basis, meetings were held within the Ministry of Environment and Forestry. The participation was quite vast. Both institutional stakeholders and the people were tried to be represented. The meetings took place in the local press. These are not such things to happen in a single day, it is a long process.

**ORSAM: Is there a special condition for the transboundary basins?**

**Ayşegül TANIK:** It is a little complicated issue. The basin knows no bounds at all. Within Turkey's boundaries, the coincidence of the

basins with the provincial borders cannot be expected. Sometimes, several provinces can share a basin. One is geographical hydrologic borders, and the other is administrative borders. So that, on the issue of transboundary waters; when we look at the basin integrity, we see that several countries could share a single water basin. However, our current practices are within Turkey's borders. We look at the issue in terms of the basin integrity within Turkey.

**ORSAM: Mrs. Tanık, when the EU Water Framework Directive is at issue, the whole waters include both the surface waters, and the ground waters besides transitionals waters and the other waters as well. Are you dealing with the whole waters in your studies, as well?**

**Ayşegül TANIK:** Yes. We deal with the whole waters. Including sea, we handle the ground waters and surface water altogether. All of them are in interaction with each others; so that they are dynamic and living systems. This issue was also brought into agenda during the "High Level" panels, which were carried out in the morning. Within the dynamic system, both the positions and the problems of the countries change in this astatic environment. On the other hand, there are technological advancements. We carry on our practices by keeping pace with this change and the technological advancements.

**ORSAM: Within the EU Water Framework Directive, the rates of certain chemicals in parallel with the quality characteristics of water are also stipulated. Will these conditions show an modification in each country? Or is there going to be a standard, which is valid for all of the countries?**

**Ayşegül TANIK:** All of the countries accept these figures. There are regions, where we

are going to have problems in coming up to this standard. These could also be generated from the natural resources. The soil structure of each country is different. There are severe problems in the Central Asia. These problems could change from country to country. There are such problems in our country, as well. The water is quite crucial, the problem of a basin does not equal with the problem of another basin. Each basin has its own problems. Here, certain factors such as; climate, soil structure, and land use are effective. Therefore, we say that the most reasonable, and the most appropriate scale to practice is basin. In the future, certain basins could be integrated in terms of management facility. At least, in terms of management, the basins with similar

characteristics could be integrated, instead of 25 different types of management.

**ORSAM: In the project, where the Greater Menderes Basin was the sample study, Turkey has been divided into 6 river basin regions. This structuring was changed in the last stage of the project.**

**Ayşegül TANIK:** Yes. That type of classification never worked. It was the first example. You know that the number of basin in Turkey was 26. Last year, when Tigris-Euphrates were integrated, it fell to 25. The Tigris-Euphrates basin became the largest basin.

**ORSAM: Thank you so much for having your time for us.**

**PROF. DR. H. GONCA COŞKUN:**  
**“WOMEN ASSUME KEY ROLE IN WATER  
 RESOURCES MANAGEMENT”**

**8 June 2011**

*Prof. Dr. H. Gonca Coşkun from ITU Faculty of Civil Engineering, Geomatics Engineering Department answered the questions of ORSAM Water Research Programme during the 2nd Istanbul International Water Forum, which was carried out in Istanbul between the dates May 3rd – 5th, 2011. Coşkun told about the “woman and water resources management” relation, which has recently been brought to agenda in Turkey, and also she told about the studies that have been conducted by Women for Water Platform, whose President is Gonca Coşkun herself.*

**ORSAM: Mrs. Coşkun, could you please introduce yourself in short?**

**H. Gonca COŞKUN:** I graduated from Istanbul Technical University, Faculty of Civil Engineering. Then again, I did my master degree in the same university. I carried on conducting my research in Netherlands for 1,5 year. Afterwards, I turned back to Turkey and I completed my doctorate studies. Right now, I work as a professor. All of my studies are on water quality with Remote Sensing and GIS-Geographic Information Systems, water potential, measurement of flow, on determining the hydroelectric power plant zones, and on how much electric power will be generated. I carry out all my studies in integration with satellite data and geographical information system, and we automate it. Obviously, hydrogeology is considerably important. Here, we reveal various GIS segments. There are many subjects in our studies such as; precipitation, flow, evaporation, leakage. The results change depending on the parameters. Let's get down to our water and woman history.



During the 2009 World Water Forum, I carried out a task. I was assigned as the President under the title of Women for Water. I have studied on many subjects for years. What is water for woman? We can learn it, I said. And I learned that there are organizations, whose names begin with water and woman, all over the world. For instance, “Women for Water Partnership” in Europe, this organization also holds the presidency of Europe. In Asia, there is “Gender Water Alliance”. In the U.S., Italy, France etc. as well; but in Turkey, none. The UN, European Council, UNESCO allocate great deal of funds for the NGO's. When you write a Project and present it as an Academician, it may not be accepted. However, when you present it as NGO, much greater funds could be provided more easily. My Presidency in the Water Forum lasted for 3 –day pre-conference and 2-week studies. I learned from the presentations in the Water Forum that from Africa to India, from the U.S. to Europe this kind of organizations provided great support to the projects, which brought solution to the problems related to water. I learned that they also have activities such as carrying drinking water to households, (we define the tap water in households as drinking water in hydrology) sanitary closet bathroom, transition to organic agriculture, and therefore purification of the ground water quality. The ground water is polluted as a result of the pesticides,

which are resorted to in agriculture, and as a result of the chemical fertilizers. Therefore, if you take control of this situation by organic agriculture, the ground waters will also get cleaned. People will grow their products by the clean water that they use in agriculture. This is a considerably important cycle. I have been working in the Turkish Diabetes Foundation's board of trustees for 15 years. Diseases such as; diabetes, cancer, MS and thyroid cases have increased by 50%. As a result of a research, which was conducted in Children's Hospital Faculty of Medicine Istanbul University, different proportions of pesticides were detected in each 800 breast milk samples. Pesticide contains great amount of carcinogenic substance in itself, which is found within insecticides. We must say 'stop' to this. Clean drinking water is required for the treatment of these diseases, as well. Preserving the quality of water is like completing the rings of a chain. If you complete one and cannot complete the other, you cannot obtain a result. World Water Woman Foundations President was here. She appreciated our organization a lot, and she promised to support our projects. I cannot deceive myself by carrying out little projects. We should combine all these rings altogether. Capacity building, going to region, listening to people, convincing them to pass to organic agriculture, finding places to sell the products are only a single ring of the project. Today, the whole world says organic agriculture. We deal with Esen Çay as an example study. Turtles do not lay their eggs over there as in the past, anymore. Because watercourse flows quite polluted. We have received the water analysis reports of the samples taken from watercourses, tap waters in the region, and from the ground waters. According to the results of the report, the waters are not drinkable. When we go to the region, we say, "How beautiful the environment is, clean nature". Very beautiful places are full of hazard. I believe in this; as women we are mothers,

wives, sisters, and we have a protectionist nature. Therefore we can comprehend the importance of such issues more easily. Women should work on this issue. Of course, there is an establishment such as DSİ (General Directorate of State Hydraulic Works) in this country. Along with DSİ, we are planning to carry out joint studies with them. We have to stand altogether. So that, we are primarily aiming at bringing the International Funds in Turkey.

**ORSAM: You began the cooperation with DSİ. On an International scale, do you have any cooperation with the woman NGO's?**

**H. Gonca COŞKUN:** The European Chairman took part in our panel. She visited our stand. DSİ's support is considerably important for us. We carry out parallel studies with them. Many friends, who work over there, were affiliated. We are going to conduct our forthcoming studies together. If we carry drinking water, it should be recorded to their registers. The projects should be prepared according to the regulations of DSİ. Therefore, we are both solution partners with DSİ and also they are our sponsors. And this shows that they perceive what we do.

**ORSAM: The region, where drought is seen the most in Turkey, is the Southeast, and there is also GAP Project. Especially in GAP, studies related to women were tried to be carried out. Has any study on women's being the direct water consumer been carried out, yet? Are you planning to carry out a study?**

**H. Gonca COŞKUN:** I did not participate in that Project. However, the Project coordinator paid a visit to us. A headquarter will be created in Şanlıurfa. They are going to form a SuKadınDer (WaterWomanFoundation) platform. Thus, we will have started the studies.

**ORSAM: And right now, is there any study on basin basis? Or, do you expect spreading all over Turkey?**

**H. Gonca COŞKUN:** We were established on February 12th, 2011. We are brand new yet. On basin basis, we launched the Esen Watercourse Project studies. For the time being, we would like to purify the surface of many watercourses in İstanbul by organic purification. Because there are quite interesting plants. From one side of these plants the domestic or industrial wastes and waters, which contain polluting hydrochemical elements enter; and on the other side these waters come out very clean.

**ORSAM: The purification is carried out in artificial wetlands...**

**H. Gonca COŞKUN:** The salesman of these plants is in our board of management. We are going to get to work after bringing this project to the ISKI General Directorate. Another Project of ours is Esen Watercourse that is found in Fethiye, of which I already mentioned. Another one is the carrying out organic agriculture in the field, which was granted to us in Zekeriyaköy by the Municipality. With my academician view, I believe that there are lots of things to do in cooperation with NGO's in planning of the basins in this region. I have already carried out many scientific projects, beforehand. I followed water quality of İstanbul's 8 drinking water dam with satellite data. I coordinated many projects in river basin planning in Turkey's different places, or in planning of lake, dam, drinking water. Working with satellite data (with remote sensing) will provide reaching faster and more correct results in a more economical way. Apparently, we do not have a goal such as "we are going to bring drinking water all over Turkey". How-

ever, even a single drop is important. Besides, we are also aiming at informing our people on water saving. It is also quite sorry state that; in many places in Turkey children are not sent to school. They carry water over 5 kilometers away, and as educated women can we say that "We are to blame as well"? If a child is dying of hunger somewhere on the world, all of us are to blame again. People should ask as, "What can I do?" They should be able to say, "Even if just a bit, I should contribute as well". Most of us do not know what the NGO's are. I believe in the common sense of the Turkish women. All of us live in this country and we are paying effort to bring drinking water as everywhere as possible without any discrimination on this issue. UNICEF is saying, "Let these children go to school, I will bring drinking water to your houses." Women from all over the world came to World Water Forum; from countries such as Uzbekistan, Armenia, Tanzania etc. They received great amount of money and supports. And we could not receive even a single lira. In the 5th World Water Forum, I was the President of Water-Woman Preliminary Meeting on behalf of ITU, and various woman NGO's in Turkey gave support in the committee. The first activity of our Women for Water Platform Foundation was the Panel and the stand in the 2nd İstanbul International Water Forum. I would also like to extend my thanks to DSI for providing us this stand, and for their supports. As a principle, I prefer working as sponsors rather than working with donations. For many years, in my career I have said to myself that, "Milk has a stain, but I don't". Henceforwards as well, I believe that we are going to be a foundation, which would be transparent, clean and which could serve to the country.

**ORSAM: Thank you very much for having your time for us.**

**ARZU ÖZYOL, CEO at HYDRA :** “THE PARTICIPATION OF WOMEN IN DECISION-MAKING MECHANISMS RELATED TO WATER AND ENVIRONMENT IN TURKEY IS ALSO QUITE LOW”

**8 August 2011**

*In recent years, women and water resources issue has been brought to agenda on international platforms. Especially in underdeveloped countries, women come to forefront as the primary actor in accessibility and usage of water resources; and the projects that are related to water resources concern women in the first place. Accordingly, we talked to Mrs. Arzu Özyol, CEO at “HYDRA Project and Consulting Co.,” about the relation between “water and development”, and the ongoing works, which have been carried out in axis of women all around the world and in Turkey.*

**ORSAM: Could you tell us about yourself in brief?**

**Arzu ÖZYOL:** I was born in Ankara, in 1960. I graduated from METU, Environmental Engineering Department, in 1983. After giving a quite long break, I did MBA in 2000’s. Right now, I am doing my doctorate in the participation in environmental policies. As the socio-political environment issue grabs my attention more than the environmental technologies, I prefer working within this frame.

**ORSAM: Could you briefly tell us about the projects that you are carrying out, for the time being?**

**Arzu ÖZYOL:** We have been carrying out European Union projects. As we prepare these projects within the concept of sustainable development, our working area includes subjects such as; environment, life-long education, vocational training, and gen-



der mainstreaming. Particularly, the gender mainstreaming stands at a crucial point in my life, because I both include issues related to women in the projects and also I am the founding chairman of the Turkey office of the BPW (International Federation of Business and Professional Women). Besides, I am the Turkish representer of the UNESCO Center for Women and Peace group. At the same time, as my profession requires, I try to analyze water and woman together.

**ORSAM: What kind of studies have you carried out related to the subject, so far? Especially, what is the position of the 2009 World Water Forum it occupied in these studies?**

**Arzu ÖZYOL:** Woman component was created in the 2009 World Water Forum. I suppose that we so much desired the systematical consideration of Water and Woman issue altogether, but unfortunately some problems occurred, as it does whenever the human factor is included. As I took office in the environmental committee of the woman organization, of which I am the member, I followed the environmental policies in international processes. Within the United Nations, I work both in the Commission on the Status of Women, and also in the Commission on Sustainable Development. In this

way, I can find a chance to have an access to brand new information and developments. I also participate in the meetings of the “Woman for Water” platform, as the representer of my corporation. Therefore, I am trying to closely follow the agenda, and I use these fresh information that I obtained from here. Although the issue is neither related to environment nor to water, we place environmental awareness modules into the modules we developed in woman training. (Environmental Competence Module) is a module that I developed within the frame of an EU Project; right now, it is being used by a reference institution, which is called “European Association of Adult Education”, working on the adult education in Europe, by being included in certain vocational training programs.

**ORSAM: Can you tell us about the relation between water and woman?**

**Arzu ÖZYOL:** During the presentation that I made in the 2012 Water Forum on May 3<sup>rd</sup>, I underlined the fact that this relation dates as far back as the beginning of the history of humanity. I believe that the Goddess of Earth Gaia’s turning her body into a water wave form and her dancing; sweat drops’ running down from the body of Gaia and these drops’ merging in the soil and the soil’s turning green and its refreshing the earth is the best scene ever telling the depth of the relation between water and woman. Also the fact that medieval women used water and nature as an instrument in order to heal, and then their setting on fire after having been stigmatized as witch, is also a common story. When looking today, we see that water is wasted with impunity as if it is an everlasting resource -just like wasting the woman effort- because of the fact that 2/3 of the earth is covered with water. Particularly in places, where patriarchal system prevails; women are deprived of education, kept away from the professional life, cornered

to the triangle of home and family, and they meet the requirements of the family by looking after and protecting. Having an access to water, carrying it, providing the household hygiene by using water, or cooking are counted among the responsibilities of woman. Because of this necessity, many women have to struggle with the backbone and joint diseases. In addition to this, women, who are subject to direct fire at home, mostly go through breathing and visual disorders. There are many water originated problems, which come to mind or not, throughout a woman life. The primary reason, why the girls living in rural areas do not keep on their education, is the problem of accessibility to natural resources. Many women cannot take part in the production chain, which would make money, because of the lack of education. Eventually, 70% of 1,6 billion people, who earn less than 1 dollar per day, is composed of women.

One of the most significant criteria that is used in poverty measurements is the daily amounts of water and energy usage. Civilization and prosperity increase in parallel with the use of water; but the overuse of water also leads to a different kind of poverty. This is one of the issues I have been highlighting and trying to solve. I believe that people should think about the role of woman in the management of water in addition to the other factors such as the proper use of water and providing sanitation, in order to solve the vicious circle on this issue.

**ORSAM: What is the first place, where woman and water was first associated with each other, on the world?**

**Arzu ÖZYOL:** It was observed that women, who lived around the basin in the neighborhood of the Ganges river, were extremely and severely affected by the water shortage. We know that many studies were carried out related to the issue. The studies, which were

carried out, showed that the women living around the Ganges valley in India had thoroughly water-indexed lives; and the variety of products they planted, their way of using the soil, and even their working hours were arranged depending on the amounts of precipitation and on the precipitation periods. We know that women, who continue to live by being indexed on water, are not as effective in the water management. While creating water policies, the fact that woman's participation and role is almost zero is a great injustice for both woman and development. Because as a result of this exclusion, the experience of women related to the issue turns into an inactive workforce.

**ORSAM: What is the overall situation in Turkey?**

**Arzu ÖZYOL:** As all around the world, in Turkey as well, 90% of the population occupying with agriculture is woman and most of them work as unpaid family workers without insurance. The Turkish women, who work in the agricultural sector, carry water, walk for miles in order to access to water, use water for cooking, and cannot go to school because of the poverty-related reasons, just like her fellows. On the other hand, as the female participation to the decision-making mechanisms related to water and environment in Turkey is low to a large extent, women cannot make their own choices for their own futures. However, if more women participate in the decision-making processes, they will make their own lives easier within the frame of their experiences, and they will be able to take the decisions that would enable them with increasing their life qualities more easily.

**ORSAM: Has the way how women in the region were affected been evaluated after the projects were completed? Is there any statistical data?**

**Arzu ÖZYOL:** One of the most important problems existing in Turkey is collecting data and creating a data bank. The issue of collecting sex-based data, which has been carried out in the developed countries for years, started to be mentioned in Turkey's agenda quite recently. Therefore, it is not possible for us to understand the influences of the public work projects, social transformation projects, which were carried out within the concept of the GAP and the Baku-Tbilisi-Ceyhan Project, on the women's lives in the region. Maybe the first breaking point of the social transformation turned out to be negative unlike the expectations, or maybe the underlying reason of the women deaths, which is on the agenda, is the unprepared social transformation. However, the failure on collecting data prevents developing exact solutions related to the issue. What is mentioned today is a consequence of the pilot studies, which were carried out by the NGO's in the region. We have carried out fieldworks in Şırnak, Konya, and in Urfa. In fact, we also carried out an EU project for Şırnak, we are waiting to see the result. The project came out as a result of the fieldwork in the area. There were a lot of demands coming from Iraq for tomatoes. We prepared a project in order to make the women in the region start doing greenhouse farming. Within the scope of the envisioned training program, both the training of greenhouse farming and also personal development program are provided for women. In addition to this, environmental competence module was also added to the scope of the vocational training program. So that, women who will do greenhouse farming will be taught how to use soil and water as well. Thus, the goal is that the change which was provided with the project creates a multilateral and positive effect on the woman life. We can see the change in the lives of women, who could be employed thanks to the projects. Feeling the pleasure of earning money (even if only a small amount), woman

does not have to wait for her husband to come home anymore when her child wants to buy something. Of course, the woman, who becomes self-sufficient and who could meet the needs of her child, is more self-confident and happier. Nevertheless, all of them remain only at an observation level. Unfortunately, within the unity you asked, it is not possible for us to evaluate the status of women by comparing 5 years before the GAP project and 5 years later.

**ORSAM: During the meeting, which was held in Istanbul in the beginning of May 2011, what kind of activity you took part in?**

**Arzu ÖZYOL:** I took part in the activity of 'woman in water policies'. That was a good one. Among the participants were Women for Water Chair Alice Bouman, and Lesha Witmer. The European Secretary General of Soropmisits came from Switzerland. They also told about what kind of projects they carried out related to woman, especially in underdeveloped regions. Mainly, certain advices and sample works, which are related to the requirements for increasing the participation of women in the water policies, were mentioned.

**ORSAM: Is there any place from Turkey as a sample work?**

**Arzu ÖZYOL:** No. Most of the examples were given from Africa and Ganges. In other words, there is not that much project, which was carried out related to water, in Turkey. For instance, there is a BPW Project, which has been conducted by the countries having coast to the Danube river in the Eastern Europe. Besides, I know another project, which was carried out to provide a sanitation training for women living in rural areas in Russia by the Women for Water Platform. There are so many projects, which are conducted in In-

dia and African countries with Woman and Water themes, but as far as I know, there is no any project directly related to the issue in Turkey.

**ORSAM: In Turkey, studies have been carried out related to woman, but its association with water has recently been started.**

**Arzu ÖZYOL:** That's right. Small scale local studies on building healthy infrastructure mainly in residences, or on providing the sanitation of water have been carried out since 2008.

**ORSAM: As a matter of fact, sanitation is one of the most important instruments for the management of water. In this way, you both preserve water and also you use it properly.**

**Arzu ÖZYOL:** You also use at a normal level. I believe that trainings on how to use water in agriculture should also be provided, in addition to sanitation. Because the major part of the work force in agricultural field in Turkey is composed of women. Therefore, raising awareness among women on this subject, would bring a solution to certain problems threatening the agriculture; such as the salinization of soil.

**ORSAM: There is no competence in giving the training, for instance irrigation unions.**

**Arzu ÖZYOL:** Right. Maybe in-house training could be necessary for the concerning institutions. Thus, training should be provided not only directly to the target group, but also to the ones who would provide training to the target group as well. We implement this method for every issue related to Gender Mainstreaming. For example, when domestic violence against women is mentioned, we argue for providing training for the ones causing the violence or for the ones the victims ask for help in the first place such as; doctors, po-

licemen, prosecutors and judges rather than victims of domestic violence. Therefore, providing the ones working in the related public institutions with training would be useful to raise the awareness among women to water.

**ORSAM: Do you receive any support from the public institutions on “water and woman”?**

**Arzu ÖZYOL:** No. Even the General Directorate for Status of Women, which carries out studies on woman in Turkey, has difficulty in finding data on Water and Woman. In fact, this situation is problematic not only in Turkey but all around the world. As it happens on every subject that is grounded from all of the third generation rights, unfortunately it is quite difficult and limited to have an access to the related data, as the research on “Woman and Environment” only dates back to some ten years ago. In early 1980’s, woman was also listed among the exploited resources just like the natural resources, and the underlying cause of the exploitation of both of them was claimed to be man. This approach remained on the agenda for a short period of time under the title of eco-feminism. When the environmental problems attained an uncontrollable level in 2000’s, the issue started to be handled in a multidimensional way. Right now, mainly, the role of participation in creating environmental policies is being examined. As woman is an important part of the environmental management, woman is included in the subject as well.

**ORSAM: Are you planning to take part in the World Water Forum to be held in France in 2012?**

**Arzu ÖZYOL:** Yes, I do. However, it is not certain yet if this participation will be individual or are we going to organize an activity for BPW. But the fact that I am going to represent BPW in Rio+20, excites me so much.

**ORSAM: Following the Second Istanbul International Water Forum, what did the Global Summit of Women consist?**

**Arzu ÖZYOL:** I believe that May 2011 was quite important for Turkey. Water Forum took place on May 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup>. We hosted some 20 foreign guests on an activity we carried out for BPW-Turkey on May 4<sup>th</sup>. We introduced the UN’s Women Empowerment Principles to Turkey. The Global Summit of Women began on May 5<sup>th</sup>. One of the sessions in that summit was the environment and woman session. Right after the Global Summit of Women, Conference on the Least Developed Countries began. In this conference, I delivered a speech entitled, “The Place of Woman in the Tourism Offer Chain”. In my speech, I emphasized on the importance of Environment for Tourism. The last international activity of May was the conference of EU Council.

**ORSAM: Are the EU and UNESCO the groups, which support your work?**

**Arzu ÖZYOL:** If the Projects we prepare for the EU are approved, we can receive grant. However, there is no any financial help that we directly receive. Nevertheless, I think that participating in the processes, which are carried out especially in the United Nations, is the greatest fortune. Because in this way, you can follow each talk, and you can have an immediate access to the recent materials, documentations, and links. Therefore, we provide the most part of the in-kind aid from various groups of the United Nations and from the European Union, even if it is not monetary.

**ORSAM: Some articles, which criticize the European Union Water Framework Directive, do not touch on the gender issue at all.**

**Arzu ÖZYOL:** Yes, you are right. However, the common usage of “Gender Mainstreaming Strategy” reduces the problems taking place in the field.

It was also criticized a lot, but the European Union is slowly completing the lacking parts on the Directive.

The only relief is that there is no any bad intention. There are right things in terms of phi-

losophy and priorities. It can be compensated the moment, when there are missing parts. It comes to mean that it is overlooked, not avoided it with bad intentions. The problems, which are encountered in the field, are tried to be eliminated by the additional documents in the first place, then its legal infrastructure is completed.

**ORSAM: Thank you for making time for us.**

**DR. GÜLAY YAŞIN, GIZ TURKEY DIRECTOR: “THE WETLANDS IN TURKEY SHOULD BE PRESERVED IN A BETTER WAY”**

**15 August 2011**

*We talked to Dr. Gülay Yaşın, GIZ (the German Society for International Cooperation) Turkey Director, on GIZ Turkey’s water resources management, on the rehabilitation of wetland areas, and on the other projects they carried out in other countries. Dr. Gülay Yaşın pointed out that it is necessary to preserve the wetlands in a better way in order to fight against climate change and to protect the ecosystem; but also in order to preserve the water resources as well.*

**ORSAM: Could you tell us about yourself?**

**Gülay YAŞIN:** I was born in 1968, in Konya-Ereğli. When I was three months old, we moved to Antalya with my parents. And when I was three years old, we moved to Germany, I am the child of a guest-worker family. After I graduated from high-school in Germany, I came back to Turkey. In İstanbul, I studied in university and I worked in TEMA (Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats) for 13 years. I worked in TEMA during the establishment years of the foundation, besides we carried out campaigns and environment projects in combatting soil erosion. During those years, I was responsible for the promotion and public relations. Then again, I went to Cologne in Germany, and I worked as the Secretary-General of the Turkish-German Chamber of Industry and Commerce. Afterwards, I came back to Ankara and now I am the GIZ (the German Society for International Cooperation) Turkey Director.

**ORSAM: What is the working area of GIZ, and for how long has it been active in Turkey?**



**Gülay YAŞIN:** The German Society for International Cooperation has been active in Turkey for 50 years, and in total we have 30.000 employees all over the world. We are a development organization under the administration of German government, and our area of expertise is project implementation. We are responsible for capacity management in field of training, for rural development, regional development, in other words we are responsible for each and every subject, from a to z, related to development, implementation and control of project. Mainly, we offer our project implementation service for the German government. What I mean is, the German Federal Ministry for Economic Development and Cooperation is our client, and we also work for the German Federal Ministry for the Environment. However, in certain situations, we also offer this specialty of ours for different governments and for the other donors such as; the World Bank, the European Union, Ethiopian Government etc. Ethiopia hired us (GIZ) for the establishment of 30 universities. The German government granted 275 million euros to Turkey within 50 years, and we carried out 300 projects with this grant. Although counting all of them is not possible, we have carried out many works and projects in many different fields such as the arrival of VAT (value added tax) implementation in Turkey during the Özal period, TRT’s colour transmission, and besides many other projects in the Directorate of National Educa-

tion, and in TİKA (The Turkish International Cooperation and Development Agency). In a sense, we can say that, today in the European Union preparation process, indeed, Turkish-German cooperation projects lie at the bottom of the significant projects that Turkey carried out.

**ORSAM: What is the frequency of project designing of the “Water and environment” subjects in GIZ projects?**

**Gülay YAŞIN:** GIZ is quite assertive on “Environment and water” issues. We have a lot of environment projects. Of course, here, it is not possible to give a concrete percentage; but I could say that issues such as; biological diversity, environment and water management is found among our area of expertise. In the past, we carried out some works in Turkey. For instance, we can count the reconstruction of the water supply network. And nowadays, we have had a cooperation with Diyarbakır and with ISKI (Istanbul Waste and Sewerage Administration). In addition to this, we have also been active in various projects, rural development projects. For instance, we established environment training center and consulting center for the industrial organizations in Bursa. Within this scope, these consulting centers have been very useful in terms of showing them how to work on waste water. Thus, I could say that environment and the underlying water issue are quite important components. Right at this point, we have been working both on waste water and on water management. Right now, there are 2000 GIZ projects that have been handled all over the world. Generally, these are the projects, whose 60% is handled in terms of woman. However, I could say that 30% of them are the projects that have environment components.

**ORSAM: GIZ has had projects related to the rehabilitation of wetlands in the recent years. When did these projects, which are related to wetlands, started?**

**Gülay YAŞIN:** As I have just indicated, GIZ works for different German Ministries. The donor ministry in our “Wetlands and Climate Change” project is the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. There is a fund called, ‘International Climate Initiative Fund’, which was created by this ministry. There is a 120-million-euro fund, which is allocated for combatting climate change, and which is collected each year from the industrial sector in Germany. Climate-change-related projects are supported with this fund in different countries. These projects both contain the measures of combatting climate change, and also they suggest the projects of adaptation to the new climate conditions. We call it ‘adaptation and mitigation’. It exists in many countries, including China, Malaysia, and Russia as well. As GIZ Turkey, within this scope, we launched projects related to wetlands and climate projects in Turkey as well. Of course, the origin of these climate projects in Turkey is based on a protocol signed by Turkish-German Ministries. The legal basis is also formed by this protocol. The climate and wetland project is the first project that we carried out within this ministry.

**ORSAM: With which institutions do you carry out this project from Turkey?**

**Gülay YAŞIN:** We carry out this project in cooperation with the Ministry of Environment and Forestry, and the General Directorate of Nature Conservation and National Parks. The goal of this project is to point out how especially wetlands are affected by the climate change, thus we have been working on which measures we need to take in order to preserve the wetlands. This project has two dimensions, and two different pilot zones. One of these pilot zones is Bolu/Lake Yeniçağa, and the other one is Konya/Lake Akgöl. In Bolu Yeniçağa, the subject we mainly deal with is

the peatlands. Turkey's one of the major peatlands is found around the Lake Yeniçağa, and it is also the first area, where the first commercial peat in Turkey was extracted. Besides being a material having a very significant economic value, peat's carbon preserving capacity is 10-15 times larger than even forests. So that, even only because of this characteristics, peats should be protected. Nevertheless, of course, in order for the Ministry to take these decisions on how much of these peats could be extracted or how much of them cannot be extracted in terms of socio-economic balance, the Ministry needs certain criterium. And in our project, we develop these criterium. We try to develop the capacity of the Ministry in this particular. Thus, within the scope of this project, we aim at establishing the dialogue between the international institutions and organizations working on peats and the ministry. Within the compass of the project, we have sent many employees working in the Ministry to the training on peats. And in the second project component, we have been trying to save and restore the Lake Akgöl, which is found in the neighbourhood of Konya and of Yunak and Çeltik provinces. We want to take certain measures that would provide water saving. What is more important is that, we want to take Akgöl into the scope of wetland in order to provide the protection of Akgöl.

**ORSAM: When the pond is completed, will Akgöl be recognized as a wetland?**

**Gülay YAŞIN:** It is too early to tell, but according to what we have just heard, indeed, the authorities indicated that they could officially recognize the area as wetland area when the projects that we have been carrying out with DSI are completed, and when the water saving is completed.

**ORSAM: When was the Akgöl project launched?**

**Gülay YAŞIN:** The wetland and climate change project was launched in 2009, but our Akgöl projects, which are the second project sites, were launched in autumn 2010.

**ORSAM: Did your project in Bolu, related to Lake Yeniçağ finish?**

**Gülay YAŞIN:** The one in Bolu still continues, but it will have been completed by the end of this year.

**ORSAM: Are there also other projects related to other wetlands after these experiences that you have gained from these projects?**

**Gülay YAŞIN:** What is important here is the well-evaluation of the ministerial units, which would follow the result obtained from the project and this work. The ministry will include the knowledge and background obtained here in the management plans of the other wetlands. We believe that it would make use of these, while managing the other wetlands.

As you also know, both the DSI (Directorate of Hydraulic Works) and the General Directorate of Nature Conservation and National Parks are two different General Directorates under the administration of the Ministry of Environment and Forestry. While one of them includes the management of wetlands and the protection of wetlands; the other one includes the assessment of State's water resources from an investor's point of view. However, one thing is for sure that, great missions fall to the both institutions in wetland management. Because in order to fight against climate change, to preserve the ecosystem and also in order to protect the water resources; it is necessary to protect wetland. Hence, as this task is in the area of responsibil-

ity of the two general directorates, we wanted to put forward a concrete sample in Akgöl in a sense of cooperation. And it worked quite well, especially the 4th Regional Directorate of DSI in Konya, and the Provincial Directorate of the Ministry of Forestry worked in a great harmony. Of course, while carrying out these, we also try to create a public opinion on climate. Documentaries have been carried out on these fields, these programmes have been broadcast on every channel. We organized a painting contest on climate and wetland among the Bolu-Yeniçağa primary school students. Today, we reorganized the same contest for Akgöl as well.

**ORSAM: What is the scope of these projects?**

**Gülay YAŞIN:** Collecting the climate datum is so important. Thus, when you collect the background data, it means that you also create your activities on scenario basis. And we try to do this, in other words, we prepare a climate scenario for both Akgöl and Yeniçağa. This scenario is not such a bright scenario. Indeed, not for Turkey-wide. We are in a pilot site. Turkey is a country, whose production mainly relies on agricultural production, and more than 45% of whose population lives in rural area; and different balances to appear after the climate change, limited water budget, very serious changes in the current agricultural production, and many factors, which maybe we cannot see right now, will play a major role in Turkey's destiny. Thus, we can say that rather than northern countries, the southern countries will be affected from this climate change. Therefore, as it is a concrete and positive sample for us, we preferred Akgöl. Because Akgöl was a dried lake and it was left to its destiny. At least right now, the water regime of the lake is not interfered. For that reason that it is a quite proper area as a pi-

lot lake. If it were used for irrigation purposes or if there were various external factors, then our carrying out a project over there would not be so sensible.

**ORSAM: And these peatlands are required to be covered with water in order to be able to stop the carbon-dioxide emission, aren't they?**

**Gülay YAŞIN:** According to what is told, if there is no water and if the vegetation dries up, peat is oxidized and it burns. At the same time, peat is a material that can burn itself up. Hence, that mentioned area is completely covered with smoke, and it is secretly mentioned that peat is burning. And this situation leads to CO2 emission.

**ORSAM: What is the usage area of peat?**

**Gülay YAŞIN:** Peat is generally known as the plant soil. It is used to grow plants, and it is used in gardens. Thus, it is used in every landscape projects, where meadow is found; and also it is a major economic resource. They extract and sell it, and they earn a great deal of money from this. It does not only go for Turkey, but also for the whole planet. However, in the first place, in Europe they gave a permission of limitless use to this, but now there are very severe restrictions. I mean, now, you cannot extract as much as you want, it has certain criterium and they are extracted accordingly. You should extract soil from a certain depth, after all, the goal in doing this is both to extract peat from here and also to keep it at a level that nature could renew itself.

**ORSAM: Is Akgöl project aimed at being completed by the end of 2011?**

**Gülay YAŞIN:** The "Wetlands and Climate Change" project and the activities in the pilot working areas will have been completed in

the beginning of 2012. After the activities are completed, those targeted results or the influences will take place. Such as water saving of the lake...

**ORSAM: Does GIZ have big projects related to water resources in other countries, other than Turkey?**

**Gülay YAŞIN:** Primarily, we carry out projects such as the fertility of waters, effective management of water resources, and restoration of certain wetlands that are on the verge of drying up. For instance, we have a project in the Central Asia on the water management. We have been conducting water projects in 50 countries in total such as; the United Arab Emirates, Afghanistan, Indonesia, Kazakhstan, Turkmenistan, and Yemen. Because we are trying to put forward the technique, about which the most productive way of using water both in agricultural, industrial, and domestic usage, as it is a poor region in terms of water; and we are also trying to accompany the implementation.

**ORSAM: Which Middle Eastern countries are included in this project?**

**Gülay YAŞIN:** We are carrying out the project in Kyrgyzstan and in Kazakhstan, right now. However, we have other different projects that we have been carrying out on water world-wide.

**ORSAM: What is Turkey's situation related to the management of water resources?**

**Gülay YAŞIN:** Water resources are quite important for Turkey, because as it has always been mentioned, water wars are alleged to outbreak. Of course, within the busy agenda, people say that this problem adds to the cost of living in daily life, but I believe that the water management will seal the countries' fates in the future rather than it did in the past. Therefore, Turkey should take very effective precautions right now. So, it should renew all of the agricultural technologies as much as possible, and it should regulate the water in most productive way as possible. It is necessary to prevent digging illegal wells, I mean, I believe that maybe we can save the groundwaters from their increasing decline, we cannot completely prevent it though.

Because Turkey is not a water-poor country, but rather it is a country, which wastes water generously. Thus, I believe that Turkey should adopt a very serious water management understanding and she should implement it; but I think that there is going to be certain initiatives on this subject in the presence of government as well.

**ORSAM: Thank you for your assessments.**

**ASSOC. PROF. BOĞAÇHAN BENLİ:**  
“WE HAVE TO INCREASE THE  
PRODUCTIVITY AND EFFICIENCY OF  
WATER USE IN THE MIDDLE EAST”

**23 September 2011**

*ORSAM Water Research Programme carried out an interview with the United Nations Development Programme (UNDP) Global Programme Manager Assoc. Prof. Boğaçhan Benli, during the World Water Week in Stockholm. During the interview, Benli made assessments about the project conducted within the framework of the United Nations Development Programme and about the efficient usage of water. Benli explained that there is a quite low rate of water productivity in the whole Northern Africa and in the Middle East, and that primarily this problem should be eliminated*

**ORSAM: Mr. Benli, first of all, could you tell us about yourself?**

**Boğaçhan BENLİ:** My name is Boğaçhan Benli. I have been managing a water project, which was firstly launched as a regional project of the United Nations Development Programme and which has provided service for the Eastern Europe and the Turkic Republics, approximately for the last six years. And I have been the manager of this project, which has become global since last year, in Sweden. The goal of our project: is to provide people with clean drinking water, to carry out activities within the framework of the climate change adaptation, and to carry out activities aiming at conscious usage of water. Our project is as I indicated above. I work as the General Manager of this project.

**ORSAM: This project has most probably been carried out in pilot regions in Turkey; where exactly have these projects been carried out?**



**Boğaçhan BENLİ:** We have had two local activities in Turkey, but Turkey has been included in regional projects as pilot country. One of our projects in Turkey was a drinking-water purpose project in Ankara Saray Region. Unfortunately the main pipeline in Saray region was made of asbestos-cement pipes, and this pipeline had exploded only for 52 times last year, during the period before we carried out this activity; and we saved 30 thousand tons of water in a year by changing that project. At the same time, we provided people with clean drinking water as well. Another one, which is more interesting, was rainwater harvesting project we carried out in Beypazarı. The goal of that project was to create; to supply a water resource, which would be completely sustainable in a village in a dry zone in Beypazarı – a village having no access to water in economic terms, and also a village starting to disappear –, and to bring this water resource into use of villagers. We provided a continuous water resource for 12 months by collecting the rain-water in this way, filtering the water, and by connecting them to households.

**ORSAM: They used it as drinking water, didn't they?**

**Boğaçhan BENLİ:** Yes, of course, as drinking water.

**ORSAM: How the collected water is purified? Is the water only filtered, or are chemical treatments implemented as well?**

**Boğaçhan BENLİ:** There is a very simple sand-gravel filter. Beforehand, this system was used in agriculture; then it started to be used in households, it was simplified and got cheaper as technology developed. We healthily carried out this project by installing sand-gravel filters in each household's tank. However, these tanks should be cleaned up anyway, and hundred percent clean water can be provided by adding chlorine tablets. However, there is also something else; there is no pesticide in this kind of water projects, in other words in rain water. There is no agricultural fertilizer. There is no canalization mixture. Therefore, cleaning of mossing in tank or dropping of a leaf or insects, which are your only pollution materials. Thus, rain water is clean water.

**ORSAM: Are there certain climate conditions to apply this method? What are their conditions?**

**Boğaçhan BENLİ:** Yes, there are. If you want to take advantage of rain water, at least 300 mm rain fall is needed. Ankara region receives 400 mm rain fall. If you imagine that 400 mm rain fall is collected in a 100 square meter roof; you will collect approximately 40 tons of water. If you consider it as a drinking water, this figure is quite serious. As a result, we can easily apply this system in regions, which receive at least 300-350 mm rain water, and this system is economical and sustainable as well.

**ORSAM: What kind of studies have you had, except for this project?**

**Boğaçhan BENLİ:** We have had contributions to pilot, regional projects. One of these projects is a project of ours carried out in Black Sea. Above all, I would like to indicate that October 31st is World Black Sea Day, but it has not been celebrated enough because of

misfortune of its history, up until today. This decision was taken in 1966 and October 31st is a date, when Black Sea will certainly receive rain. Therefore people have not been able to carry out celebration on October 31st. We even thought of postponing this date, but it was not possible as the protocol was signed on October 31st. However, we launched a programme in 2006, and in 2007 we carried out Black Sea celebrations day in all the Black Sea countries with the active participation of 40 thousand people on October 31st. What we saw there is as follows: The Black Sea is under serious threat, and carrying out an activity related to this is essential; in other words, it is necessary to raise awareness. For this purpose, we launched a project called "Blacksea-box". Blacksea-box is an education kit which is composed of six sections, and which collects information such as cultural fauna and geographic flora of Black Sea embodying various information; and which explains what poses threat to Black Sea. The Ministry of National Education also supported us, and as we carried out this project, we prepared such an education kit by launching it in Turkey as pilot, and by gathering the international consultants. We distributed 2000 of these kits in Turkey. This year these kits have been distributed to approximately some 600 schools. Right now, I cannot remember the exact number; but this education kit called "Blacksea-box" has been distributed across the Blacksea coastline including villages, and it was also included in education in curriculum. We have been carrying out the repetition of the education kit in Russia and Ukraine for the time being.

**ORSAM: But, of course, these are countries resembling each others in terms of climate, and being above a certain level of precipitation. Is there a problem in terms of quality?**

**Boğaçhan BENLİ:** The main problem of Black Sea is the fact that wastes, garbage, canalization and other pollutions of one third

of the whole Europe coming from the Danube river are emptied into Black Sea through Romania. In fact, the country polluting Black Sea the most is considered to be Romania. However, Romania does not have such an activity; but such a consequence comes out as the Danube river empties into the Black Sea through Romania. On the other hand, Black Sea's only outlet is Bosphorus. The pollution in Black Sea has attained such a level that H<sub>2</sub>O started to turn into H<sub>2</sub>S. There is no water below the level of 200 meters, there is hydrogen sulphide, and this pollution continues in the same way. It should not continue so. People should become aware of this situation. And its starting point is children. If you drop litter from Romania, it affects the life of child in Georgia and in Crimea. WE launched an education kit, which would deliver this message. This is a regional project, but it is pleasing that this project was launched in Turkey.

**ORSAM: In Turkey, there is a perception of wasting water resources a lot; has any educational process related to this perception been carried out in Turkey, or has it been planned to carry out such a process? Because there is an overuse of water in Turkey.**

**Boğaçhan BENLİ:** In schools that I know, unfortunately, there is no such an educational activity. However, I am not hundred per cent sure on this issue either. Nevertheless, I know the subject as follows; as we carried out the project in Saray Region, we wanted to provide training in the region as well. Children voluntarily become inspector in this kind of projects, and they provide a real good assistance. We checked the curriculum in the school and we could not see such a thing, only then we felt the need for offering education. Because, if there is no education within the school, awareness on this subject is not raised in society either. This is the same not only in Turkey, but also all around the world. For in-

stance, right now, we live in Sweden; and people think that water is unlimited in Sweden. Because Sweden is a country, which receives more than 1500 mm of rain water in a year, and where it rains almost 200 days in 365 days of a year. And how people think of water as a resource? It is almost the same situation in Jordan. Even in the most arid area, you see that people hose their cars. This problem exists even in places where water is not free. This is a worldwide problem, in Turkey, it is thought that water is an unlimited resource in Western Anatolia and in Northern regions.

**ORSAM: Does the United Nations Development Programme have other projects in order to create alternative water resources? For example, do you also have other projects such as collecting rain water on the roof and using it as drinking water?**

**Boğaçhan BENLİ:** As the United Nations Development Programme across the globe, we give priority to provide people with clean drinking water. What United Nations Development Programme, "Water and Ocean Governance" programme particularly carries out as an activity is this. As a matter of fact, creating alternative water resource is not that possible. Including rain water as water resource, or feeding aquifer by collecting rain water has become more and more widespread all around the globe, right now. For instance, if you go to India, or to Pakistan; you can see the samples of this system everywhere.

**ORSAM: They feed aquifer with rain water, right?**

**Boğaçhan BENLİ:** Of course. Rain water's reaching aquifer could last a year or two years. And they inject it in some way. It stores rain water, and as all the cost is caused by storing, it feeds aquifer with the rest it cannot store. Today, it is tried to be expanded a little.

**ORSAM: In fact, feeding aquifer is a suggested method for the Middle East, isn't it?**

**Boğaçhan BENLİ:** As a matter of fact, it culturally exists. Underground, there is a storing method in balloon form resembling well called "cistern". You can see it in many countries in the Middle East. All in all, people have stored rain water underground for centuries. In fact, if you go to the ruins of Petra in Jordan from Roman period, you can see this type of storing mechanisms. This actually exists. However, nowadays, feeding aquifer through drilling is carried out more efficiently.

**ORSAM: You have just indicated that you have been to the Middle East. What is your observation in the Middle East. Although the approach towards water is not much different over there either, there is a problem of transboundary waters; especially between Turkey, Syria and Iraq?**

**Boğaçhan BENLİ:** Before Turkey, Syria, and Iraq; what I have observed in the Middle East is the issue of water productivity. Not only in our neighbouring countries, but also wherever you go in Morocco, in Sudan, and in Algeria; unfortunately, there is a quite low level of water productivity in all the countries. As poverty is the main problem in these countries, and as people's alimentation is important; feeding people has become more significant rather than providing people with drinking water, on the water issue. And the only way of being engaged in agriculture is doing it through irrigation. In Turkey, we have large amount of areas for rain-fed ecoculture. However, in other countries, there is not this much area. For instance, in Egypt, the total amount of irrigation area is 2.5 Million hectares and the whole country provides its income through agriculture that is done for three times on these territories. The moment water is cut, Egypt goes hungry. The same

situation goes for our country as well. For example, in the Southeastern Anatolia, the moment you cut water, you can only cultivate barley; the productivity is low even for wheat. The same situation also goes for the north of Syria: In these regions, olive or wheat is cultivated, and this agriculture is done through water provided from Euphrates River. I do not know what I can tell about the water sharing in the region, but my general opinion on this issue is that I believe the efficiency and productivity of water usage should be increased.

**ORSAM: The majority of the water is already used for agricultural use. However, mostly traditional methods are used.**

**Boğaçhan BENLİ:** Yes. Traditional methods are used, and farmers do not have enough conscious. As a matter of fact, the problems we can list for the whole world exist in this region as well. The only that could be told is the fact that water efficiency/productivity is low.

**ORSAM: Is it more expensive to adopt modern agriculture not only in the Middle East, but in general?**

**Boğaçhan BENLİ:** It is not the only thing. The general point of view across the globe is "let's get rid of all the problems by adopting drip irrigation method". When we pass to drip irrigation, the plant does not say that, "This man provided me with drip irrigation, thus I should provide him with more productivity". It has a technique. You can have a very low rate of water productivity even if you adopt drip irrigation method. This could lead you to do an irrigation close to traditional irrigation. At this very point, it is necessary to raise enough awareness. There are certain implementations: Changing crop harvesting date, choosing the seed come to mean that when to irrigate is known. These should be all known. And, this is generally under the responsibil-

ity of states. In Turkey, this responsibility has been given to irrigation unions. It is a very successful system. Across the world, irrigations made by irrigation unions are sample. In time, irrigation unions developed themselves, and now they control irrigation.

**ORSAM: Could they implement this system on GAP Project as well? Because it was criticized a lot, as well...**

**Boğaçhan BENLİ:** Of course, it is also implemented on GAP. In fact, there is a considerable development in Turkey. In GAP, cotton was produced at a rate of 90 %. And it was not enough. I believe that, right now, it is different. And we have heard that drip irrigation is encouraged in Turkey.

**ORSAM: Yes. That is right, it is supported even by banks...**

**Boğaçhan BENLİ:** Right. In the world, there are new companies now. For example, they do not give pipe to farmer for him to do only drip irrigation. These companies have sales representatives just like pharmaceutical companies. They go and purchase farmer's products, and a certain irrigation programme is carried out. Technically this is a programme, a solution. All the problem is raising awareness. It is necessary to organize farmer days and to inform farmers on certain issues. It is necessary to show farmer in practice how to save water without giving damage. Let me give you an example: I carried out a project in Egypt delta. Furrow irrigation method is used in order to irrigate wheat in Egypt delta. I carried out a study in order to automatically save water and to increase productivity, when I change the furrow distance; and it was successful. Before I did anything, the following year I introduced this project, we detected that more than 1130 farmers copied me. Can you imagine the water saving? It is necessary to carry this kind of

studies across the world; it should be totally implemented by explaining them in examples and by showing them successfully.

**ORSAM: There is a salinization problem in soil, and this situation is shown as the destiny of the Middle East. Could this problem be overcome by drip irrigation? Is this a legend, or real? Could this become successful when it is put into practice?**

**Boğaçhan BENLİ:** Yes, it is real. The salinization problem is caused by giving extreme amount of water, and by evaporation of water table as a result of an increase. Of course evaporation is quite high in regions such as the Middle East, and of course there is a certain amount of salt in each water. Even if this amount is 1 mm., the amount of salt accumulated as a result of evaporation gives damage to soil, and leads to drought. When you give it through drip irrigation, water shows a distribution in onion form. And as water is slowly distributed, it pushes salt. Then the rate of salt declines in root top of the plant, and the plant can breath. And nutrients start to include water in its system. Drip irrigation shows an ideal result in saline soils. It is a suggested method. When I used to give lecture in University, I used to explain this in the first course. Of course, what should be done before this is to prevent giving extreme amount of water. I have seen it couple of times in GAP basin, the drainage problem attained such a level that, lakes came out in the middle of the field. This kills soil, as it did in Çukurova, in the past.

**ORSAM: As far as I know, those irrigation channels can be broken into pieces by the people as well, in order to obtain more amount of water.**

**Boğaçhan BENLİ:** Unfortunately, this kind of things exist in practice. In fact, DSI (Gener-

al Directorate of State Hydraulic Waters) did a good job by transferring all these to irrigation unions. Now, for instance, you break the goods of the state. And you benefit yourself. The public officers are informed of this situation, and you lose water until it is repaired, and everybody is affected. However, we create an irrigation union; you me and some fellows. If I break the channel, you catch me. Because we live together, side by side. Our fields are side by side and you operate it, and I pay due to you. The following year, I operate it, and you pay the due. Therefore, it is a successful system, and this system is expanded in Turkey and it achieved success. In the past, water

was free, now it is not. There is a problem in Turkey, and I will criticize it; according to our system, payment depends on hectare, in other words, if you have a hectare of field and if you cultivate cotton, its price is definite. No matter how much water you give, this price does not change. This should be measured. Then, the concept of economy could be included.

**ORSAM: Mr. Benli, thank you so much for your valuable information and for making time for us.**

**Boğaçhan BENLİ:** And I wish success to ORSAM Water Research Programme.

**IRANIAN WATER EXPERT  
AZARANFAR: "WATER RESOURCES  
MANAGEMENT IN IRAN"**

**2 November 2011**

*ORSAM - ORSAM Water Research Programme carried out an interview with the Iranian Water Expert Arash Azaranfar within the framework of SIDA Training Programme held in Istanbul. Azaranfar indicated that the management of water resources in Iran is under the authority of each province.*

**ORSAM: Mr. Azaranfar, first of all, could you tell us about yourself?**

**Arash AZARANFAR:** I am a Water Resources Management Expert, and I work in an engineering consultancy company.

**ORSAM: What is the water problem in Iran? And what are the reasons of the water problem?**

**Arash AZARANFAR:** Problems of water in all countries (such as Turkey) are almost similar. Water shortage, increasing demand for drinking and irrigation water, and the fact that many regions are going through problems related to drinking water can be counted as some of the water problems. Developments in river basin are under the authority of the provinces in Iran. A major company, Water Resources Management Company, which is affiliated to Deputy of Water and Waste Water affairs of Iranian Ministry of Energy, governs provinces related water authorities.

Under governance and regulation of Water Resources Management Company, certain provinces consider the water transfer to another basin as extra water after considering all demands in donor basin. So it isn't easily gave permission to water transfer from donor



basin. On the other hand, in certain basins; such as in Euphrates-Tigris basins in Turkey, Iran, Syria and Iraq, down stream riparian develop some projects for irrigation, in advance. And the up stream riparian wants to develop projects in order to achieve economic benefit. In my individual study, the example is Zohreh River basin, and I will investigate this process in four provinces of Iran.

**ORSAM: Is this river your national water?**

**Arash AZARANFAR:** Yes, I have studied my IP for Iran interior waters.

**ORSAM: The aforesaid water resource is located within the borders of more than a single province, isn't it?**

**Arash AZARANFAR:** Yes.

**ORSAM: What is the extent of the pollution problem, especially salinity, in rivers in Iran?**

**Arash AZARANFAR:** Each river basin has its own geomorphologic characteristics, if the river passes through saline lands, concentration of saline will increase, and for example in center of Iran we have some saline rivers. Another main subject is rate of precipitation, any decreasing in precipitation cause changes in concentration of other materials in river flows.

**ORSAM: Is Markazi (Central) province the region, where water problem takes place at highest rates?**

**Arash AZARANFAR:** The climate conditions and low precipitation especially prevailing at central Iran are the primary causes of the water deficiency. However, the same condition also goes for Yazd and Isfahan provinces. So we carried out some water transfer projects to these regions.

**ORSAM: On press, it is said that Iran has been planning to construct dam on Karun River, right?**

**Arash AZARANFAR:** Iran dam construction industry has been developed after Islamic Revolution since 1978, and just now Iranian Ministry of Energy (Water and Electricity) has developed dam construction to several countries in Africa, Central Asia, Afghanistan and other countries. So Iran has developed dam construction in all of the provinces which have capacity for dam construction. Because of Iran wide arid and semi arid regions, construction of dams are very necessary for managing and programming water master plans in droughts for potable, agriculture, industry and environment consumptions. Most of the dams on Karun River were built in order to generate power.

**ORSAM: Is the salinity problem in Karun River resulted from the problem solving projects, or from the natural structure of the river?**

**Arash AZARANFAR:** As I referred in previous questions, Salinity according to geographic and hydrologic condition of basin, drought and precipitation, changes in rivers. Construction of a dam could not be considered as main reason of salinity.

**ORSAM: What could you say about the Helmad River? Do you have any agreement with Afghanistan?**

**Arash AZARANFAR:** A good question, in your website you have a page about Iran and a statement about Iran and Afghanistan which are completely false. Iran and Afghanistan have signed a water treaty about Hirmand (Helmand) River since 1973. Iran's water right in Hirmand (Helmand) River is 26 m<sup>3</sup>/s (Annual Average) which changes monthly from 2.32 m<sup>3</sup>/s to 78 m<sup>3</sup>/s. After Falling of Taliban, Iran and Afghanistan confirmed another time the treaty and have participated 13 common sessions (yearly) in their countries.

**ORSAM: What is the situation on Aras River?**

**Arash AZARANFAR:** The Aras transboundary basin is shared between Turkey, Iran, Armenia and Azerbaijan. The river gets its main water from Turkey and Armenia (upstream) and discharges to Azerbaijan. Iran and former USSR had some agreements for Aras River which are valid and confirmed by newly independent states (Azerbaijan and Armenia). According the above agreements, Iran and Azerbaijan and Armenia have developed their common water works such as flood control, river engineering, dam and hydropowers and river pollution monitoring. The Aras Dam has been constructed 40 years ago over Aras Transboundary River by Iran and Former USSR. Iran and Azerbaijan will have a celebrating ceremony of 40<sup>th</sup> anniversary of Aras Dam Operation. Also Iran and Azerbaijan has constructed Khoda Afarin Dam since 2007.

**ORSAM: Is the appropriation of water between the two countries at the rate of 50 per cent – 50 percent?**

**Arash AZARANFAR:** Yes, the appropriation of water is at the rate of 50 per cent – 50 percent. On Aras River, both Armenia and Azerbaijan are riparian to Iran. And Iran has bilateral agreements separately with both countries.

**ORSAM: Were the agreements with Armenia and Azerbaijan, both having borders to Aras River, signed bilaterally? Is there any agreement the three countries signed?**

**Arash AZARANFAR:** Yes, all the agreements are bilateral.

**ORSAM: What can you tell about the water resources management? All provinces manage the waters, which are located within their borders, under their authorities.**

**Arash AZARANFAR:** Iran Water resources Management Company governs provincial

water authorities and as our water authorities are provincial, they have to cooperate on their river basins. So according the laws and criteria of Ministry of Energy and Deputy of Water and Waste Water Affairs, Iran Water resources Management Company controls relations and plans of provincial water authorities

**ORSAM: Mr. Azaranfar, thank you for taking your valuable time for us.**

**Arash AZARANFAR:** You are welcome

**DR. AL-MOSSAVI: “FEDERAL GOVERNMENT CAN MAKE THE WATER RESOURCES MANAGEMENT DIFFICULT IN IRAQ”**

**19 December 2011**

*ORSAM Water Research Programme made an interview with Dr. Betül Al-Mossavi, Councilor of the Iraqi Cultural Office in Stockholm, on water problems in Iraq. Al-Mossavi, who wrote a book entitled “The Turkish Policy Towards the Arabian Gulf Since 1991 and its Future Doctrine”, stated that Iraq tries to put certain projects into practice as soon as possible in order to lessen the water problem of the country. Al-Mossavi indicated that the federal system structure could lead to new problems in terms of the management of water resources in Iraq in the future.*

**ORSAM: First of all, thank you for having us as guest in Baghdad, on behalf of the Iraqi people. Could you interpret the State of Iraq’s viewpoint on the water problem between Iraq and Turkey? And how do you think could the water problem be solved?**

**Betül Al-MOSSAVİ:** The Iraqi government, academicians and politicians think that sometimes Turkey use this problem for her political gains. And she turns the issue into “water instead of oil”. Therefore, we need to come to an agreement as soon as possible. Is this a transboundary river, or an international river?

**ORSAM: Turkey had a three stage plan she suggested for the solution of this issue. This plan proposed assessment of water and land resources of the Euphrates and Tigris Basin, and allocating waters accordingly. Nevertheless, this plan had been rejected by the Iraqi and Syrian governments. There is a problem on the completion of the Eu-**



**phrates and Tigris basin datum and then allocating the waters between countries. How do you interpret this?**

**Betül Al-MOSSAVİ:** Iraq has come out of war and has been going through political problems. Turkey carried out projects within this process and constructed dams. The quantity of water reaching Iraq has decreased and this situation has caused damage to us to a large extent. Agriculture is about to come to an end in Iraq. Many places have become desert, and deprived of clean water. These problems have drawn a bad image for Turkey in political aspect. The fact that Turkey carried out this kind of projects instead of helping us in that period caused her to be perceived as an opportunist country.

**ORSAM: Is this the general opinion in Iraq?**

**Betül Al-MOSSAVİ:** Both political circles and academic circles share the same opinion. When you ask people the reason underlying behind the water problem, you hear the answer that “Turkey cut the water”. The Iraqis think that Turkey took advantage of Iraq’s weakness, and that she tried to cut the water

in that period. People say that she would not dare, if Iraq still had her old power. And this situation leads people to consider Turkey, as an enemy who takes advantage of Iraq's weakness.

**ORSAM: Don't the Iraqi academicians know that these projects date back to very old times, and in fact that some of them have been planned since 1950's?**

**Betül Al-MOSSAVİ:** Even if it is known that such a project existed 50 years ago, some circumstances have changed. Most of the agricultural regions in Iraq depend on rainfall, not on rivers. However, the rainfall has declined in recent years, because of the global warming, and people started to need rivers. At first, people were afraid of the possibility of floods. Nobody ever thought of decrease in rainfall. And Turkey's decreasing water coincided with Iran. The Karun River was completely cut. People went through major water problems. The Iraqi expected a total support from Turkey in such a period. There was an expectation from the new government to be with us. This expectation still exists. We want Turkey's to support and help.

Iraq had always been in war since 1980. The possibility that a country, which was in war, thinks about water and carries out projects related to its usage was quite low. It is much easier for Turkey, which has not been going through war, to carry out this kind of projects.

**ORSAM: After Iraq gains her stability with the new Iraqi government, what kind of projects does Iraq plan to carry out in order to**

**develop the country's water infrastructure?**

**Betül Al-MOSSAVİ:** As far as I know, the Ministry of Water Resources allocated large amount of money from the budget for projects in order to use water as best as possible.

**ORSAM: As a political scientist, how do you think the federal system in Iraq affects the water management?**

**Betül Al-MOSSAVİ:** This issue could be a major problem in the future. Just like Turkey cuts the water today, in future the Kurdish region could also cut it. This problem should already be worked on, and certain agreements should be made. I would like to indicate that in our Constitution, it is written that the federations have to share their rights and assets with the whole Iraqi nation.

**ORSAM: What can the Iraqi and Turkish academicians do independently of the politicians, in order to solve this problem?**

**Betül Al-MOSSAVİ:** This problem can only be solved by an international agreement. Academicians should primarily agree on the concepts. Is this an international water? Is that a transboundary river between Turkey, Syria, and Iraq? This river does not belong to a country. This river belongs to all the countries, through which the river passes. Everyone should take its share with the agreement to be signed. In addition to this, an international commission should be created through academicians. The problem could only be solved in this way.

**ORSAM: Thank you for your time.**

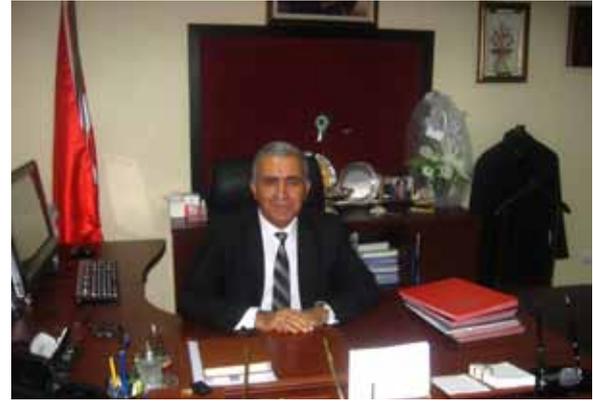
**PROF. DR. CUMALI KINACI,  
DIRECTOR GENERAL OF WATER  
MANAGEMENT OF THE MINISTRY  
OF FORESTRY AND WATER AFFAIRS:  
“WE AIM AT OVERCOMING LACK  
OF COORDINATION IN WATER  
MANAGEMENT”**

**21 December 2011**

*Prof. Dr. Cumali Kinaci, Director General of Water Management of the Ministry of Forestry and Water Affairs stated that many Turkish institutions and organizations on water management have tasks and responsibilities on water; and he also indicated that at least seven ministries have authority on this subject, and that they do not work in coordination while exercising these authorities. Prof. Dr. Kinaci, who stated that General Directorate of Water Management (SYGM) which was established on July 6<sup>th</sup> 2011 started to carry out its activities in order to overcome the lack on this field, highlighted that as a new institution, they aim at establishing a national policy by trying to gather many institutions and organizations in a more productive way.*

**ORSAM: First of all, could you tell us about yourself?**

**Cumali KINACI:** I graduated from Istanbul Technical University as a civil engineer in 1980. I have been working in the Department of Environmental Engineering of Istanbul Technical University (ITU) since January 26<sup>th</sup> 1981. I also served as Head of the Department of Environmental Engineering, besides working as faculty member. I worked as Director General of Environmental Management from October 22<sup>nd</sup> 2010 to July 11<sup>th</sup> 2011. During the restructuring process in water sector, General Directorate of Water Management under the Ministry of Forestry and Water Affairs was established on July 6<sup>th</sup> 2011, with the



Decree-Law No. 645, which entered into force after having promulgated in Official Journal dated 04.07.2011. I am the first personnel of this General Directorate, and I was appointed as Director General of Water Management on July 14<sup>th</sup> 2011. For a while, I was the only personnel of the Directorate. Therefore, I consider the General Directorate of Water Management as my own child. I have an academic career in Environmental Engineering on subjects such as; water management, treatment technologies, and environmental economics. I serve as Director General of Water Management having permission from ITU on duty basis.

**ORSAM: What is the objective of establishment of the Directorate General of Water Management?**

**Cumali KINACI:** As the name implies, the General Directorate of Water Management was established to provide the management of water. Currently, many institutions and organizations in Turkey have duty and authority on water. At least seven ministries have authority on this subject, and that they do not work in coordination while exercising these authorities. Conflicts and overlaps take place while exercising the authority. Back in time, certain duties and authorities were assigned to different institutions in line with the requirements. Then, it was required to establish water management as a general direc-

torate. Similarly, one of the primary requests of the EU Water Framework Directive is the establishment of General Directorate of Water Management (SYGM) as an organization, separate from investment organizations. In the current situation, General Directorate of State Hydraulic Works (DSI) is structured for investment, and it is also a party as it serves for investment. Water can be used for purposes of drinking and domestic, irrigation, energy generation, industrial, maintenance of wildlife, transportation, aquaculture, recreation, and touristic. Each of these consumers is found in separate places. Because a water resource could have a different priority when looked from DSI's point of view, a different priority when looked from an institution/organization's point of view, and again a different priority when looked from a citizen's point of view. An institution to evaluate all these purposes together, to put forward general principles, to coordinate, to develop legislation, and to set standard and criteria is required. Up till now, institutions/organizations have worked on the basis of separate projects. For instance, DSI built a dam, and it only worked on the issues related to the management of this dam's basin. However, this project should be assessed as a whole on the basis on river basin. As for Sakarya Basin; it begins from Ankara and Kütahya and covers an area encompassing Adapazarı, Bilecik, and even a part of Bursa. Ankara creek, which passes through Ankara, flows from Adapazarı into the Black Sea through Sakarya River. In this basin, everyone uses water for different purposes. Some of them decrease the amount of water flowing to the downstream by drawing water from river for different purposes such as drinking, domestic, irrigation and industrial needs; on the other hand others negatively affect the water use of people, who live in lower part of the basin, by pouring their wastewater into Sakarya River. Therefore, it is necessary to consider and manage a basin as

a whole. In line with all these objectives, the General Directorate of Water Management was established.

**ORSAM: What are the cooperative institutions of the General Directorate of Water Management?**

**Cumali KINACI:** The General Directorate of Water Management have started to work in cooperation with many institutions and organizations such as General Directorate of State Hydraulic Works (DSI), Turkish State Meteorological Service, General Directorate of Forestry, General Directorate of Combating Desertification and Erosion, General Directorate of Nature Conservation and National Parks, General Directorate of Environmental Management, General Directorate of EIA and Planning, Bank of Provinces, Ministry of Food, Agriculture and Livestock, Ministry of Health, Ministry of Interior which municipalities are affiliated to, Ministry of Foreign Affairs (on transboundary waters), Ministry of Culture and Tourism, Disaster and Emergency Management Presidency (AFAD) in particular. In addition to this, institutions and organizations such as the Water Institute and ORSAM are among other cooperative organizations.

**ORSAM: Turkey has an experience on water management dating back to many years ago. And today, where do we stand in terms of plans related to agricultural, domestic and industrial use of all our basins?**

**Cumali KINACI:** It is hard to say that Turkey has a long-term experience on basin management. The water management on the basis of basin has entered in Turkey's agenda for the last ten years. Currently, "Basin Protection Action Plans" have been prepared. There are 25 basins in Turkey. And basin protection action plans of 11 basins out of these 25 have been

prepared. And the protection action plans of the remaining 14 basins were contracted out to the Scientific and Technological Research Council of Turkey Marmara Research Center (TUBITAK-MAM), on December 7<sup>th</sup> 2011. These aforesaid plans will have been completed by December 2013. The next level is to put the Basin Protection Action Plans into practice. Right after, beginning from 2013, the preparations of Basin Management Plans for the basins, of which basin protection action plans completed, will be launched.

When the Basin Protection Plans are prepared, a new structuring, in which basins are considered as a whole, will be launched. This situation brings along radical and fundamental changes both for Ministry of Interior, and for other General Directorates and institutions. Both the central organization will be established in Ankara, and also their extensions will be established in basins. For example, Kızılırmak Basin Organization will be created. And many stakeholders, including the users of water, will have a say in the administration of this organization. Right now, I cannot give more details on it, as the subject has not grown mature yet. It is necessary to discuss a lot and to make fundamental legal changes on the subject. The preparations on this issue will be launched in the forthcoming years.

**ORSAM: What kind of projects has been conducted by the General Directorate of Water Management, right now?**

**Cumali KINACI:** As I have already mentioned, General Directorate of Water Management (SYGM) is a unit, which was established from scratch, only six months ago. The administrative structure was created by transferring personnel from many different general directorates, and on the other hand, newly graduates were recruited and they started to

be trained on what they will work on. SYGM is not a structure, which was created upon division of another institution or organization. The majority of its duties are defined for the first time, and they are all new subjects also for bureaucracy. In brief, majority of our duties will be carried out for the first time. On the other hand, our organizational studies also continue. Therefore, it is possible to say that we have newly started to carry out activities.

Right now, we are trying to complete basin protection action plans for all the basins. Studies on determination of special provision for the protection of drinking water basins still continue. Imagine a dam lake, from which drinking water is provided. Implementing the regulation, which is implemented across Turkey, on that dam lake could lead to problems in terms of quality and quantity of water. The General Directorate of Water Management is aware of the fact that it is necessary to evaluate water not only in terms of quantity but also in terms of quality. This year, preparations to determine special provision on Lake Eğirdir, Porsuk Dam Lake, and on Atatürk Dam Lake have been completed; and currently, studies on determination of special provision on totally 13 drinking waters have been completed. Preparations to determine special provision for approximately 30 drinking water basins will be launched in the forthcoming period. With the protocol, which was signed with TUBITAK-MAM on December 7<sup>th</sup> 2011, the preparations to determine special provision on Lake Beyşehir and Karacaören Dam Lake were launched.

In addition to these activities, we also carry out activities on effective use of water. We attach importance to reuse of waste waters. For example, we have launched activities on reuse of domestic waste waters in irrigation. Firstly, we are launching a project on the usability of domestic waste waters in irrigation on Akar-

çay Closed Basin by receiving a 750.000 Euro fund from the government of the Netherlands. We also have a project to establish two networks, to reuse treated wastewaters, and to establish separate networks for drinking and domestic waters starting from big tourist facilities.

In which city in Turkey there is a water leakage, how much water leakage they have, and how these leakages could be controlled are very important issues. To this end, we have launched an inventory study on water leakages. At the same time, we are starting the study of water footprint, which means amount of water per units such as person, product, institution, settlement, and country. Water footprint encompasses all waters used, including the amount of water we drink, and water used for our needs such as clothes and food. We will also launch the study to determine water footprint of person, country, and products.

In addition to this, we carry on our studies on water law. Although we have engineers, who know the water legislation very well, in Turkey; we need to increase our capacity of qualified lawyers on national and international water law. We are forming a structure, which will carry out works on this subject, audit and monitor activities, and follow the international developments. We are trying to create an expert group on water law, and to train them on this subject. We also established a separate structure on transboundary waters, and started to carry out activities. We want to develop policies, to coordinate relevant institutions and organizations, and to create a technical infrastructure. Different non-governmental organizations and government agencies work on this subject. We are aiming at a structure, which could coordinate these institutions and could assess in a way that contributes to development of government policy by being in contact with these institutions. Besides, a

structure, which will both follow international relations and also develop water policy, has been created; and these units have started to carry out activities. As you see, these are difficult and challenging issues. Right now in Turkey, both non-governmental organizations and public institutions have lack of communication with one another, and both of them carry out works without any coordination. And our objective is to contribute to the formation of a national water policy by bringing these works together.

Another objective is to follow the water quality. In Turkey, many institutions and organizations try to follow the water quality in line with their objectives. However, these activities sometimes conflict with one another. We need a central structure to decide on which one of the pollution, hydrologic and hydro-morphologic parameters will be measured in which stations and by whom. We aim at decreasing the cost of monitoring by carrying out activities together, and also we aim at reaching data that could be used more effectively. After having these datum, establishment of a water information system is required. Every institution has different information, and this information is used in line with the objectives of each institution, and the institutions do not want to share these data. In accordance with the establishment law of our General Directorate, all the institutions and organizations are obliged to give this information, in case we request. We are going to gather this information and we will present them to requirers except for strategic ones. We need to make a new inventory study, and to collect raw information and to assess data and to save them into database. Hydrologic and statistical evaluations should be made on these data. Hydrologic models should be set up, and applicability of the current models to our basins should be analysed. We also requested for a new structuring on

statistics and hydrology, and our request was approved by esteemed Minister.

One of our major problems is allocation of water. Individual allocations of water are currently provided by the General Directorate of State Hydraulic Works (DSI). For instance, if we handle groundwater, individuals personally submit their applications asking “Can I drill here?”. DSI assess that application, and either approves or rejects. As these applications are not evaluated as a whole on basin basis, ground water could be overused and the water level could rapidly decline. The sectoral allocations of water on basin basis gain importance for these and similar reasons. In a water basin, it is not known within the framework of which principles the water will be used at which level for drinking water, at which level for irrigation water, at which level for energy generation, and at which level for the protection of nature. We launched a new structuring related to this, but carrying out this activity is quite difficult, because this evaluation should be made separately for each basin. Right now, we are trying to build its infrastructure. For example, it is quite difficult to answer the question, “At which level, and for what purposes will Kızılırmak be used?”; because it requires working on that basin for many years. Related to this subject, a new provision will be inserted into the Water Law. As you know, Water Law was introduced in 1926, and it was prepared within the framework of requirements of that period. Back then, the drinking and domestic water was the priority. Today, the requirements have been varied, and demands have increased. In the beginning, the quantity was calculated without quality of water. Now, the Water Law needs to be rearranged in terms of both quantity and quality. We carry on works on this subject. As SYGM, we also assumed the responsibility of coordination on developing legislation. Right now, we are working on the revision of more than 10

by-laws. Besides, we also work on many new regulations. In brief, one of the important duties of SYGM is to develop water legislation.

One of the important issues for our General Directorate is the management of water in case flood or drought takes place. We created a new structuring related to this. Firstly, we are going to make an implementation on a basin in Black Sea Region. Within this scope, measurements will be carried out under various climate conditions and at different durations of rain fall. For instance, if it rains 50 kilogram in 10 minutes, how much water will pass through different areas and cross-sections? We are going to carry out studies by changing durations and amount of rainfalls. Thus, we will prepare risk maps for that basin, and we will be able to detect measures that could be taken, thanks to these maps. We will prepare hazard maps that could come out if measures are not taken. And we will also carry out studies on dry period, which is the exact opposite of flood. For example, there is a group, working on dry periods, within the Ministry of Food, Agriculture and Livestock. However, this aforesaid group handles the subject only in terms of irrigation. As far as defined up till now, water has 12 different sectoral utilization purposes. And our unit to work on this subject is about to be established, and preparations of dry period water management plans, which will consider all the sectoral water uses, will be launched.

In addition to this, development of water quality is also under the tasks and responsibilities of our General Directorate. What should be the level of water quality for each water resource according to their intended uses in drinking-water basins? Water quality should be classified in accordance with regulations. Within this scope, hazardous substances, currently found in drinking waters, will be detected; it will be decided which one

of them will be monitored with which method and at which intervals, and a regulation will be prepared accordingly. A new project was launched on this subject.

**ORSAM: How are the relations of your institution with the abroad?**

**Cumali KINACI:** One of the main objectives of the establishment of our General Directorate is to follow international relations. Turkey needs to establish national water policy, to follow a domestic policy in accordance with this policy, to follow the international developments and these developments should be transferred to relevant institutions and organizations. Please don't get my statements as "We are the only one in Turkey, and there is no need for other institutions". We are just trying to gather many institutions and organizations in a more effective way, and aiming at forming a national policy. For instance, we are always in cooperation with the Ministry of Foreign Affairs. We technically support this aforesaid Ministry, and take opinions on how to act in terms of international relations. We have started to work in cooperation with national institutions and organizations in order to cooperate with international institutions and organizations on technical issues. In addition to this, we have also started to follow international developments on water law and water policy. In the forthcoming periods, these developments will be reported and presented to relevant authorities.

**ORSAM: Is there any subject you would like to add?**

**Cumali KINACI:** I've tried to explain very quickly the current situation, duties, and plans of our General Directorate. I might have skipped some essential points. With the establishment of a new general directorate, it could take some time for the society to understand what tasks and responsibilities are. For the productivity of our General Direc-

torate, we need to cooperate with other institutions and organizations. We may not be always successful in introducing our institution. In this sense, the support of organizations such as ORSAM is important for us. It is required to carry out activities on what should be the national water policy of Turkey, and how different institutions could come together. There are many notable think-tanks in foreign countries. Our country needs similar think-tanks as well. In this respect, ORSAM and the establishment of new organizations are quite important. It is non-governmental organizations' responsibility to assess many alternatives, to produce opinions, and to share these opinions with government agencies. The public also needs to support them. It is very important for State institutions and organizations and non-governmental organizations such as ORSAM to exchange ideas with one another.

Lastly, I would like to add another point. As I have already mentioned, our General Directorate has just been established and it is an institution which has been trying to be organized from scratch. Considerable amount of its duties are quite new for the public opinion and for bureaucracy, and it is not quite possible to find qualified man power on some of these issues. For instance, this is the case in sectoral allocation of water on basin basis. It could take some time for our General Directorate to organize with qualified man power and to complete its infrastructure. Tolerance, patience and cooperation with other institutions/organizations on these issues are quite important for performance and motivation of personnel. I believe that what our General Directorate has made, will make and its importance for our country will be seen and understood much better within a short period of time like 2-3 years.

**ORSAM: Thank you very much for your time.**

## ORSAM REPORTS

- ORSAM Report No: 1**  
 March 2009  
 The Struggle Against Piracy: The Somalia Case and Turkey's Position  
 (Tr - Eng)
- ORSAM Report No: 2**  
 April 2009  
 60 Years of Alliance: NATO and Turkey  
 (Tr - Eng)
- ORSAM Report No: 3**  
 May 2009  
 Iraq's Pivotal Point: Talafar  
 (Tr - Eng)
- ORSAM Report No: 4**  
 July 2009  
 2009 Lübnan Seçimleri: Kazananlar, Kaybedenler ve Türkiye  
 (Tr)
- ORSAM Report No: 5**  
 August 2009  
 Turkey-Lebanon Relations: Perceptions of Turkey Among the Religious and Sectarian Factions in Lebanon  
 (Tr - Eng)
- ORSAM Report No: 6**  
 November 2009  
 The Tuzhurmatu Turkmens: A Success Story  
 (Tr - Eng - Ar)
- ORSAM Report No: 7**  
 November 2009  
 The Forgotten Turkmen Land: Diyala  
 (Tr - Eng - Ar)
- ORSAM Report No: 8**  
 BLACK SEA INTERNATIONAL  
 Report No: 1  
 December 2009  
 Abkhazia for the Integration of the Black Sea  
 (Tr - Eng)
- ORSAM Report No: 9**  
 January 2010  
 The Yemen Issue: A Step Toward Regional War?  
 (Tr - Eng)
- ORSAM Report No: 10**  
 January 2010  
 Civil War in Yemen: The Power Struggle, Regional Influences and Relations With Turkey  
 (Tr - Eng)
- ORSAM Report No: 11**  
 February 2010  
 The Forgotten Turks: Turkmens of Lebanon  
 (Tr - Eng - Ar)
- ORSAM Report No: 12**  
 BLACK SEA INTERNATIONAL  
 Report No: 2  
 February 2010  
 Russian Perspective: The Influence of the Factor of Iraq on Turkey's Middle East Policies (1990-2008)  
 (Tr - Rus)
- ORSAM Report No: 13**  
 February 2010  
 7 March 2010 Irak Seçimleri Öncesi Şii Kökenli Parti ve Seçmenlerin Politik Davranışlarının Analizi  
 (Tr)
- ORSAM Report No: 14**  
 February 2010  
 Seçim Öncesi Irak'ta Siyasal Durum ve Seçime İlişkin Beklentiler  
 (Tr)
- ORSAM Report No: 15**  
 March 2010  
 Orsam Heyetinin 7 March 2010 Irak Seçimlerine İlişkin Gözlem Raporu  
 (Tr)
- ORSAM Report No: 16**  
 April 2010  
 Sultanate of Oman: An Arab State Between Tradition and Modernity in the Arabian Peninsula  
 (Tr)
- ORSAM Report No: 17**  
 April 2010  
 Evaluation of Iraqi Parliamentary Elections of March 7, 2010 and the New Political Equation  
 (Tr)
- ORSAM Report No: 18**  
 BLACK SEA INTERNATIONAL  
 Report No: 3  
 May 2010  
 Turkish-Russian Relations: From Neighborhood to Strategic Cooperation  
 (Tr - Rus)
- ORSAM Report No: 19**  
 September 2010  
 Turkmens' Migration Towards Turkey and Turkmen Population in Turkey  
 (Tr)
- ORSAM Report No: 20**  
 BLACK SEA INTERNATIONAL  
 Report No: 4  
 October 2010  
 Current Situation in Kyrgyzstan, the Reasons of Change in Government and Short Term Foresights  
 (Tr)
- ORSAM Report No: 21**  
 November 2010  
 Away From Iraq: Post 2003 Iraqi Migration to Neighboring Countries and to Turkey  
 (Tr - Eng)
- ORSAM Report No: 22**  
 January 2011  
 Turkey-Yemen Relations and the Perception of Turkey in Yemen  
 (Tr - Eng - Ar)
- ORSAM Report No: 23**  
 January 2011  
 Is the Qatar-Iraq-Turkey-Europe Natural Gas Pipeline Project Feasible?  
 (Tr - Eng)
- ORSAM Report No: 24**  
 January 2011  
 The State of Kuwait: Relations with Turkey, War and Peace and the Al-Sabah Government in Between  
 (Tr)
- ORSAM Report No: 25**  
 January 2011  
 Embargo on Iran by the Security Council in Legal and Political Aspects  
 (Tr)
- ORSAM Report No: 26**  
 BLACK SEA INTERNATIONAL  
 Report No: 5  
 February 2011  
 The Recent Developments in Kyrgyzstan: Past, Present and Future  
 (Tr - Rus)
- ORSAM Report No: 27**  
 February 2011  
 The Steps of the Egyptian Revolution: Is That the End of an Era?  
 (Tr)
- ORSAM Report No: 28**  
 BLACK SEA INTERNATIONAL  
 Report No: 6  
 February 2011  
 The Limits of Power in Distraint on Ships by a Coast State on the International Law of the Sea -Georgia's Distraint on the Ships Navigating Around the Black Sea-  
 (Tr)
- ORSAM Report No: 29**  
 February 2011  
 Tunisia, Popular Revolution and Turkey's Experience  
 (Tr)
- ORSAM Report No: 30**  
 February 2011  
 Property Disagreements in Kirkuk: A Study Based on the Field Search  
 (Tr)
- ORSAM Report No: 31**  
 BLACK SEA INTERNATIONAL  
 Report No: 7  
 March 2011  
 The Developments in Afghanistan and Pakistan and Their Effects on International Security  
 (Tr)
- ORSAM Report No: 32**  
 March 2011  
 Shiite Opposition Question in Saudi Arabia and Its Impacts  
 (Tr)
- ORSAM Report No: 33**  
 March 2011  
 Turkmen Existence in Iraq  
 (Tr)
- ORSAM Report No: 34**  
 March 2011  
 Turkmen Press in Iraq  
 (Tr - Ar)
- ORSAM Report No: 35**  
 March 2011  
 Current Situation and Important Political Developments in Iraq  
 (Tr)
- ORSAM Report No: 36**  
 ORSAM Water Research Programme Report No: 1  
 March 2011  
 Eu's Water Framework Directive Implementation in Turkey: The Draft National Implementation Plan  
 (Eng)
- ORSAM Report No: 37**  
 March 2011  
 Popular Revolt in Tunisia and Its Aftermath  
 (Tr)
- ORSAM Report No: 38**  
 March 2011  
 Libyan War, International Intervention and Turkey  
 (Tr)
- ORSAM Report No: 39**  
 March 2011  
 From Past to Present Libya  
 (Tr)
- ORSAM Report No: 40**  
 ORSAM Water Research Programme Report No: 2  
 March 2011  
 Climate Change From a Security Perspective and Its Effects on Middle East  
 (Tr)
- ORSAM Report No: 41**  
 March 2011  
 Understanding Iraq Through Cartoons - 1  
 (Tr)
- ORSAM Report No: 42**  
 ORSAM Water Research Programme Report No: 3  
 April 2011  
 Hydropolitical History of Nile River Basin and Recent Developments  
 (Tr)
- ORSAM Report No: 43**  
 April 2011  
 Social-Political Structure of the Northern Iraq and Kurdish Regional Government's Relations with Turkey  
 (Tr)
- ORSAM Report No: 44**  
 ORSAM Water Research Programme Report No: 4  
 April 2011  
 The Obligation of "International Cooperation" in Meriç (Maritz-Evros) Basin Water Management  
 (Tr)
- ORSAM Report No: 45**  
 April 2011  
 Syria Towards Democracy or Civil War?: Social and Political Structure, Prospects For Change and Its Impacts on Turkey  
 (Tr)
- ORSAM Report No: 46**  
 May 2011  
 Power Struggle in Syria, Reaction of the International Community and Turkey's Position  
 (Tr)

- ORSAM Report No: 47  
ORSAM Water Research Programme Report No: 5  
May 2011  
Turkey-Syria Relations: Asi (Orontes) Friendship Dam As An Example Of Cooperation In Transboundary Waters (Tr)
- ORSAM Report No: 48  
May 2011  
Orsam Interviews - 1  
Iraqi Arabs, Minorities & Academics - 1 (Tr)
- ORSAM Report No: 49  
May 2011  
Orsam Interviews - 2  
Iraqi Turkmens - 1 (Tr)
- ORSAM Report No: 50  
May 2011  
Orsam Interviews - 3  
Iraqi Kurdish Officials, Academics & Journalists - 1 (Tr)
- ORSAM Report No: 51  
BLACK SEA INTERNATIONAL Report No: 8  
May 2011  
The 75th Anniversary of Montreux Convention Regarding the Regime of Turkish Straits (In the Framework of the Changing Geopolitics of the Black Sea) (Tr)
- ORSAM Report No: 52  
BLACK SEA INTERNATIONAL Report No: 9  
May 2011  
Afghanistan and Regional Security (Middle East, Central and South Asia, Russian Federation) (Tr - Rus)
- ORSAM Report No: 53  
May 2011  
Madagascar: Gains, Missing Opportunities, and Relations with Turkey in the 50th Year of Independence (Tr)
- ORSAM Report No: 54  
May 2011  
Iraqi Groups' Approach Towards Main Political Problems and Relations With Turkey: A Study Based On Field Research (Tr)
- ORSAM Report No: 55  
June 2011  
Antalya Conference of Syrian Opposition: Results, Outlook on Basic Problems and Expectations from Turkey (Tr)
- ORSAM Report No: 56  
June 2011  
Elections and Experience of Justice and Development Party (Tr - Ar)
- ORSAM Report No: 57  
June 2011  
Reflections Of 12 June 2011 Turkey Parliamentary Elections in the Middle Eastern Countries (Tr - Eng)
- ORSAM Report No: 58  
July 2011  
Reflections of 12 June 2011 Turkey Parliamentary Elections in the Middle East Through Cartoons (Tr)
- ORSAM Report No: 59  
July 2011  
Understanding Iraq Through Cartoons - 2 (Tr)
- ORSAM Report No: 60  
ORSAM Water Research Programme Report No: 6  
July 2011  
Cooperation and Conflict on the Mekong River Waters (Tr-Eng)
- ORSAM Report No: 61  
July 2011  
The Complete Decipher of the "Chance in Syria Conference", Carried Out in Antalya Between June 1-2 2011 (Tr - Eng)
- ORSAM Report No: 62  
August 2011  
Understanding Iraq Through Cartoons - 3 (Tr)
- ORSAM Report No: 63  
ORSAM Water Research Programme Report No: 7  
August 2011  
The Invisible Strategic Resource: Transboundary Ground Waters (Tr)
- ORSAM Report No: 64  
August 2011  
Victory of Justice and Development Party in 12 June 2011 Turkey's General Elections (Tr - Ar)
- ORSAM Report No: 65  
August 2011  
Arab Spring Through Cartoons - 1 (Tr)
- ORSAM Report No: 66  
August 2011  
Civil War in Libya and International Intervention Through Cartoons - 1 (Tr)
- ORSAM Report No: 67  
August 2011  
Somalia: A Nation's Peril and Turkey's Humanitarian Aid (Tr)
- ORSAM Report No: 68  
September 2011  
The Operaton Against Osama Bin Laden and Its Reflections in Cartoons (Tr)
- ORSAM Report No: 69  
September 2011  
Understanding Iraq Through Cartoons - 4 (Tr)
- ORSAM Report No: 70  
BLACK SEA INTERNATIONAL Report No: 10  
September 2011  
Russia's and Turkey's Iran Policies in the XXI. Century (Tr - Rus)
- ORSAM Report No: 71  
September 2011  
Gaza Problem: Israel's Blocade, International Law, Palmer Report and Turkey's Approach (Tr)
- ORSAM Report No: 72  
September 2011  
Statistics of the Middle Eastern Countries (Tr)
- ORSAM Report No: 73  
BLACK SEA INTERNATIONAL Report No: 11  
October 2011  
Anatolian Sphere of Influence (Tr-Eng)
- ORSAM Report No: 74  
BLACK SEA INTERNATIONAL Report No: 12  
October 2011  
Ukraine in Regress: The Tymoshenko Trial (Eng)
- ORSAM Report No: 75  
BLACK SEA INTERNATIONAL Report No: 13  
October 2011  
Kazaks and Kazakistanis (Tr - Rus)
- ORSAM Report No: 76  
BLACK SEA INTERNATIONAL Report No: 14  
October 2011  
The Forgotten Turks in Italy: Moena Turks (Tr - It)
- ORSAM Report No: 77  
October 2011  
The Regional and Global Effects of the Us Post-Withdrawal Policy Towards Iraq and Its Reflections on Turkey (Tr)
- ORSAM Report No: 78  
ORSAM Water Research Programme Report No: 8  
October 2011  
Constructed Wetlands and Re-Use of Waste Water for the Irrigation in Turkey and Israel (Tr)
- ORSAM Report No: 79  
October 2011  
The Political Balance in Pre-Election Period in Tunisia (Tr)
- ORSAM Report No: 80  
October 2011  
Understanding Iraq Through Cartoons - 5 (Tr)
- ORSAM Report No: 81  
BLACK SEA INTERNATIONAL Report No: 15  
October 2011  
Great Power Politics on Afghanistan (Tr-Eng)
- ORSAM Report No: 82  
BLACK SEA INTERNATIONAL Report No: 16  
October 2011  
Afghanistan in the Perspective of Neighboring Countries (Tr-Eng)
- ORSAM Report No: 83  
November 2011  
The Community Brought up to Agenda upon the Transition in Syria: The Turkmens of Syria (Tr)
- ORSAM Report No: 84  
ORSAM Water Research Programme Report No: 9  
November 2011  
Somalia's Catastrophic Famine: Political Drought or Natural One? (Tr-Eng)
- ORSAM Report No: 85  
November 2011  
Historical Pragmatism in Syrian Political Culture. Syrian Foreign Policy Under Bashar Al-Assad and Turkish-Syrian Relations (Tr)
- ORSAM Report No: 86  
November 2011  
From Past to Present: The Iraqi Turkmen Front's Structure and Administration (Tr)
- ORSAM Report No: 87  
November 2011  
Turkmen in Iraq and Their Flight: A Demographic Question? (Eng)
- ORSAM Report No: 88  
November 2011  
Bektashism in Iraq (Turkmens - Shabaks - Kakais) (Tr)
- ORSAM Report No: 89  
November 2011  
Morocco Monarchy in Transformation Process: Evolution or Revolution? (Tr)
- ORSAM Report No: 90  
November 2011  
The Efforts of Democratization in the Hashemite Kingdom of Jordan Within the Context of Local Actors and Regional Challenges (Tr-Eng)
- ORSAM Report No: 91  
December 2011  
The Arab League's and Turkey's Decisions to Impose Sanction Against Syria, and Possible Consequences (Tr)
- ORSAM Report No: 92  
December 2011  
Current Situation of Disputed Areas in Iraq (Tr)
- ORSAM Report No: 93  
ORSAM Water Research Programme Report: 10  
December 2011  
Turkey and Wfd Harmonization: A Silent, But Significant Process (Eng)
- ORSAM Report No: 94  
December 2011  
The Role of Perception in Turkey-France Crisis: French Perception on Turkey (Tr)
- ORSAM Report No: 95  
December 2012  
Arab Spring Through Cartoons - 2 (Tr)

- ORSAM Report No: 96  
 December 2011  
 Understanding Iraq Through  
 Cartoons – 6  
 (Tr)
- ORSAM Report No: 97  
 January 2012  
 Understanding Iraq Through  
 Cartoons – 7  
 (Tr)
- ORSAM Report No: 98  
 BLACK SEA INTERNATIONAL  
 Report No: 17  
 January 2012  
 Presidential Election in Kyrgyz-  
 stan and Its Effects on Kyrgyz-  
 stan-Turkey Relations  
 (Tr)
- ORSAM Report No: 99  
 January 2012  
 Turkish Political Parties' State-  
 ments on Syrian Refugees in Ha-  
 tay, and Approaches of Political  
 Party Representatives and Move-  
 ments in Hatay Towards Syrian  
 Developments (March-December  
 2011)  
 (Tr)
- ORSAM Report No: 100  
 January 2012  
 Statistics of Iraq  
 (Tr)
- ORSAM Report No: 101  
 ORSAM Water Research Pro-  
 gramme Report No: 11  
 January 2012  
 Right to Safe Drinking Water and  
 Sanitation  
 (Tr)
- ORSAM Report No: 102  
 January 2012  
 How and Under What Circum-  
 stances Could Iraq Be Split Up?  
 Being Ready for the Worst  
 (Tr - Eng)
- ORSAM Report No: 103  
 January 2012  
 The Struggle for Oil in Iraq: An  
 Analysis in the Light of Multi-  
 National Companies,  
 International Contracts and Con-  
 stitutional Debates  
 (Tr)
- ORSAM Report No: 104  
 ORSAM Water Research Pro-  
 gramme Report No: 12  
 February 2012  
 An Evaluation on the Draft Ar-  
 ticles on the Law of Transbound-  
 ary Aquifers  
 (Tr - Eng)
- ORSAM Report No: 105  
 February 2012  
 Political Rights of Minorities in  
 Iraqi Legislation  
 (Tr)
- ORSAM Report No: 106  
 February 2012  
 Social Rights of Minorities in Iraqi  
 Legislation  
 (Tr)
- ORSAM Report No: 107  
 February 2012  
 Human Rights of Minorities in  
 Terms of International Law And  
 Iraqi Constitution  
 (Tr)
- ORSAM Report No: 108  
 February 2012  
 The Future of the Economic Co-  
 operation Organization (ECO)  
 (Tr - Eng)
- ORSAM Report No: 109  
 February 2012  
 The Missing Letter: The Rise of  
 Turkey and the "Bric" Area  
 (It)
- ORSAM Report No: 110  
 ORSAM Water Research Pro-  
 gramme Report No: 13  
 March 2012  
 Water Resources and Manage-  
 ment in Iran  
 (Tr)
- ORSAM Report No: 111  
 March 2012  
 A Critical Look at the Syrian  
 Kurdish Opposition  
 (Tr)
- ORSAM Report No: 112  
 March 2012  
 Constitutional System and Poli-  
 tical Parties in Islamic Republic  
 of Iran  
 (Tr)
- ORSAM Report No: 113  
 BLACK SEA INTERNATIONAL  
 Report No: 18  
 April 2012  
 Mongolia: A Developing Democ-  
 racy and a Magnet for Mining  
 (Eng)
- ORSAM Report No: 114  
 April 2012  
 Understanding the Syrian Prob-  
 lem Through Comics - 8  
 (Tr)
- ORSAM Report No: 115  
 April 2012  
 Arguments on Safe Havens in  
 Syria: Risks, Opportunities and  
 Scenarios for Turkey  
 (Tr - Eng)
- ORSAM Report No: 116  
 ORSAM Water Research Pro-  
 gramme Report No: 14  
 April 2012  
 The Concept of "Benefit-Shar-  
 ing", Its Theoretical Background  
 and Practical Reflections  
 (Tr - Eng)
- ORSAM Report No: 117  
 April 2012  
 Invest to Mosul Invest to Future  
 (Tr - Eng)
- ORSAM Report No: 118  
 BLACK SEA INTERNATIONAL  
 Report No: 19  
 May 2012  
 The Analysis of Trade-Economic  
 Relations  
 Between Ukraine and Turkey  
 (Tr - Rus)
- ORSAM Report No: 119  
 BLACK SEA INTERNATIONAL  
 Report No: 20  
 May 2012  
 Geopolitical Dynamics as an  
 Instrument of Investigation of  
 Trends and Scenarios of Re-  
 gional Development  
 (Tr - Rus)
- ORSAM Report No: 120  
 BLACK SEA INTERNATIONAL  
 Report No: 21  
 May 2012  
 Development of Political System  
 in Kazakhstan: 2012 Parliamen-  
 tary Elections  
 (Tr)
- ORSAM Report No: 121  
 May 2012  
 New Dynamics in Local and Iraqi  
 Politics in Mosul (Field Study)  
 (Tr - Eng - Ger)
- ORSAM Bericht Nr. 121  
 Mai 2012  
 Kommunalpolitik in Mosul und  
 Neue Dynamiken in Der Irakisch-  
 en Politik (Feldarbeit)  
 (Ger)
- ORSAM Report No: 122  
 ORSAM Water Research Pro-  
 gramme Report No: 15  
 May 2012  
 Water Resources Management  
 in Iraq  
 (Tr - Eng)
- ORSAM Report No: 123  
 BLACK SEA INTERNATIONAL  
 Report No: 22  
 June 2012  
 Global Migration and Develop-  
 ment of Migration Policies  
 of Turkey and European Union  
 (Tr)
- ORSAM Report No: 124  
 July 2012  
 Turkey in Africa: The Implemen-  
 tation of the Action Plan and an  
 Evaluation  
 After Fifteen Years  
 (Tr - Eng - Fr)
- ORSAM Rapport No 124  
 Juillet 2012  
 La Turquie en Afrique: Un Bilan  
 de la Mise en Oeuvre du Plan  
 D'action  
 Quinze Ans Apres  
 (Tr - Eng - Fr)
- ORSAM Report No: 125  
 BLACK SEA INTERNATIONAL  
 Report No: 23  
 July 2012  
 Middle East Policy of Russia  
 (Tr - Eng)
- ORSAM Report No: 126  
 ORSAM Water Research Pro-  
 gramme Report No: 16  
 July 2012  
 Towards the New Water Frame-  
 work Directive: Notes on Water  
 Draft Law  
 (Tr)
- ORSAM Report No: 127  
 August 2012  
 Kurdish Movements in Syria  
 (Tr - Eng)
- ORSAM Report No: 128  
 BLACK SEA INTERNATIONAL  
 Report No: 24  
 September 2012  
 The Development of Belarus -  
 Turkey Economic Cooperation in  
 Modern Conditions  
 (Tr - Rus - Eng)
- ORSAM Report No: 129  
 BLACK SEA INTERNATIONAL  
 Report No: 25  
 September 2012  
 Belarus-Turkey: Positive Dy-  
 namics of Intergovernmental  
 Cooperation  
 (Tr - Rus - Eng)
- ORSAM Report No: 130  
 November 2012  
 Syrian Circassians  
 (Tr - Eng)
- ORSAM Report No: 131  
 BLACK SEA INTERNATIONAL  
 Report No: 26  
 November 2012  
 "The Third Wave": Geopolitics of  
 Postmodernism  
 (Tur - Eng)
- ORSAM Report No: 132  
 November 2012  
 Foreign Minister Ahmet  
 Davutoğlu's Visit to Kirkuk  
 (Tr - Eng)
- ORSAM Report No: 133  
 November 2012  
 The Rise and Future of Opposi-  
 tion in Iraqi Kurdistan Region  
 (Tr)
- ORSAM Report No: 134  
 November 2012  
 Iraqi Circassians  
 (Tr - Eng)
- ORSAM Report No: 135  
 BLACK SEA INTERNATIONAL  
 Report No: 27  
 November 2012  
 The Peculiarities of Turkey's  
 Foreign Policy towards the Post-  
 Soviet States  
 (Tur - Eng - Rus)
- ORSAM Report No: 136  
 BLACK SEA INTERNATIONAL  
 Report No: 28  
 November 2012  
 Turkish-Crimean Relationship as  
 an Integration  
 Factor in Turkish-Ukrainian Re-  
 lations  
 (Tur - Rus)
- ORSAM Report No: 137  
 BLACK SEA INTERNATIONAL  
 Report No: 29  
 December 2012  
 Energy Policy of Belarus and the  
 Cooperation Belarus Developed  
 With Russia and the EU on En-  
 ergy (1991-2011)  
 (Tur - Rus)
- ORSAM Report No: 138  
 December 2012  
 "Unity or Pyd Power Play? Syrian  
 Kurdish Dynamics After the Erbil  
 Agreement"  
 (Tr)
- ORSAM Report No: 139  
 December 2012  
 Balances among Kurds in Syria,  
 Regime Opponents and Turkey:  
 Relations Pattern at the Cross-  
 roads of Conflict-Stability  
 (Tr - Eng)
- ORSAM Report No: 140  
 December 2012  
 Internal Political Balances in  
 North Iraq and Future of the Stra-  
 tegic Alliance  
 (Tr - Eng)
- ORSAM Report No: 141  
 December 2012  
 The State of Turkmen Education  
 in Iraq  
 (Tr - Eng)
- ORSAM Report No: 142  
 January 2013  
 President Obama's Second Term:  
 Domestic and Foreign Challenges  
 (Eng)
- ORSAM Report No: 143  
 January 2013  
 2012 Iraq Assessment and Iraq  
 Chronology  
 (Tr)
- ORSAM Report No: 144  
 ORSAM Water Research Pro-  
 gramme Report No: 17  
 January 2013  
 Orsam Water Interviews 2011  
 (Tr - Eng)

## ACADEMIC STAFF

Hasan Kanbolat	ORSAM Director
Prof. Dr. Meliha Benli Altunışık	ORSAM Advisor, Middle East, METU Director of Institute of Social Sciences
Assoc. Prof. Dr. Hasan Ali Karasar	ORSAM Advisor, ORSAM Eurasian Strategies Coordinator - Bilkent University
Assoc. Prof. Dr. Tank Oğuzlu	ORSAM Advisor, Middle East-Antalya International University
Assoc. Prof. Dr. Harun Öztürkler	ORSAM Advisor, Middle East Economies - Afyon Kocatepe University, Department of Economics
Assoc. Prof. Dr. Mehmet Şahin	ORSAM Advisor, Middle East - Gazi University, Department of IR
Assoc. Prof. Dr. Özlem Tür	ORSAM Advisor, Middle East - METU, Department of IR
Habib Hümmüzlü	ORSAM Advisor, Middle East
Asst. Prof. Dr. Serhat Erkmen	ORSAM Advisor, Middle East -Ahi Evran University, Department of IR
Asst. Prof. Dr. Canat Mominkulov	ORSAM Researcher, Eurasia, Al Farabi Kazakh National University
Elmira Cheremisova	ORSAM Advisor, Middle East - St. Petersburg University
Assoc. Prof. Dr. Didem Daniş	ORSAM Advisor, Middle East - Galatasaray University, Department of Sociology
Dr. Jale Nur Ece	ORSAM Advisor, Maritime Safety and Security
Assoc. Prof. Dr. İlyas Kemaloğlu (Kamalov)	ORSAM Advisor, Eurasia
Assoc. Prof. Dr. Yaşar Sarı	ORSAM Advisor, Eurasia - Kyrgyzstan-Turkey Manas University
Asst. Prof. Dr. Bayram Sinkaya	ORSAM Advisor, Middle East - Yıldırım Beyazıt University Department of International Relations
Dr. Süreyya Yiğit	ORSAM Advisor, Eurasia
Att. Aslihan Erbaş Açık	ORSAM Advisor, Energy-Maritime Law
Pınar Arıkan Sinkaya	ORSAM Advisor, Middle East - METU Department of International Relations
Volkan Çakır	ORSAM Advisor, Africa - ORSAM Antananarivo (Madagascar) Representative
Bilgay Duman	ORSAM Researcher, Middle East
Tamer Koparan	ORSAM Managing Editor
Noyan Gürel	ORSAM İzmir Representative
Oytun Orhan	ORSAM Researcher, Middle East
Sercan Doğan	ORSAM Research Assistant, Middle East
Nebahat Tanrıverdi	ORSAM Research Assistant, Middle East
Seval Kök	ORSAM Research Assistant, Middle East
Uğur Çil	ORSAM, Middle East
Gökniil Erbaş	ORSAM, Black Sea
Shalaw Fatah	ORSAM Research Assistant, Middle East
Tuğçe Kayıtmaz	Interpreter

## ORSAM Water Research Programme

Dr. Tuğba Evrim Maden	ORSAM Water Research Programme Hydropolitics Researcher
Dr. Seyfi Kılıç	ORSAM Water Research Programme Hydropolitics Researcher

## ORSAM ADVISORY BOARD

Dr. İsmet Abdulmecid	Former President of Iraqi Council of State
Prof. Dr. Ramazan Daurov	Assistant Director, Russian Academy of Sciences Institute of Oriental Studies
Prof. Dr. Vitaly Naumkin	Director, Russian Academy of Sciences Institute of Oriental Studies
Hasan Alsancak	İhlas Holding CEO
Prof. Dr. Meliha Benli Altunışık	ORSAM Advisor Middle East, METU Director of Institute of Social Sciences
Prof. Dr. Ahat Andıcan	Former Minister & Istanbul University
Prof. Dorayd A. Noori	Vice-Undersecretary in Iraq's Embassy in Ankara
Prof. Dr. Tayyar Arı	Uludağ University, Head of Department of International Relations
Prof. Dr. Ali Arslan	Istanbul University, Department of History
Dr. Farhan Ahmad Nizami	The Director of Centre for Islamic Studies at Oxford University
Başar Ay	General Secretary, Turkish Textile Employers' Association
Prof. Aftab Kamal Pasha	The Director of The Centre for West Asian Studies in India
Prof. Dr. Mustafa Aydın	President of Kadir Has University
Ambassador Shaban Murati	Albanian Institute for International Studies
Dr. Ersel Aydınli	Vice-President of Bilkent University, Fulbright Executive Director
Safarov Sayfullo Sadullaevich	Strategic Research Center Under The President of Tajikistan
Mohamed Nouredine	Specialist in Turkish Affairs, Prof. at Lebanese University - History
Prof. Dr. Hüseyin Bağcı	METU, Head of Department of International Relations
İtr Bağdađı	İzmir Economy University, Department of International Relations and European Union
Prof. Dr. İdris Bal	Member of Parliament in the 24th Legislative Term of Grand National Assembly of Turkey
Assist. Prof. Dr. Ersan Başar	Karadeniz Technical University, Maritime Transportation and Management Engineering
Kemal Beyatlı	Head of Iraqi Turkman Press Council
Yaşar Yakış	Ambassador, Former Minister of Foreign Affairs
Barbaros Binicioğlu	ORSAM Advisor, Middle Eastern Economies
Prof. Dr. Ali Birinci	Polis Akademisi
Patrick Seale	Well-Known Middle East and Syria Specialist
Assoc. Prof. Dr. Mustafa Budak	Deputy Director General in Prime Ministerial State Archives
Assoc. Prof. Dr. Hasan Canpolat	Turkish Ministry of Defense Advisor
Ret. (Air) Gen. Ergin Celasin	23rd Commander of Air Forces
Dr. Sami Al Taqi	General Manager of Orient Research Center
Assoc. Prof. Dr. Mitat Çelikpala	Kadir Has University, Head of Department of International Relations
Çetiner Çetin	Journalist, Iraq
Prof. Dr. Gökhan Çetinsaya	President of The Council of Higher Education
Assoc. Prof. Dr. Didem Daniş	ORSAM Advisor, Immigration Studies & Iraqi Refugees, Galatasaray University, Department of Sociology

Prof. Dr. Volkan Ediger	İzmir Economy University, Department of Economics
Prof. Dr. Cezmi Eraslan	President of Atatürk Research Center, Istanbul University, Department of History
Prof. Dr. Çağrı Erhan	Ankara University, Faculty of Political Science, Department of IR & Director ATAUM
Asst. Prof. Dr. Serhat Erkmen	ORSAM Middle East Advisor, Ahi Evran University, Head of the Department of International Relations
Dr. Amer Hasan Fayyadh	Baghdad University, Dean of Political Sciences Faculty (Iraq)
Att. Aslihan Erbaş Açikel	ORSAM Advisor, Energy-Maritime Law
Cevat Gök	Manager of Iraq El FIRAT TV - Turkey
Metem Göknel	Former Director of Petroleum Pipeline Corporation (BOTAŞ)
Osman Göksele	BTC & NABUCCO Coordinator
Timur Göksele	Beirut American University (Lebanon)
Prof. Muhamad Al Hamdani	Cultural Undersecretary in Iraq's Embassy in Ankara
Numan Hazar	Retired Ambassador
Habib Hümmüzlü	ORSAM Middle East Advisor
Assoc. Prof. Dr. Pınar İpek	Bilkent University, Department of International Relations
Dr. Tuğrul İsmail	TOBB University of Economics & Technology, Department of International Relations
Assoc. Prof. Dr. İlyas Kemaloğlu (Kamalov)	ORSAM Eurasia Advisor
Assoc. Prof. Dr. Hasan Ali Karasar	Bilkent University, Department of International Relations
Assoc. Prof. Dr. Şenol Kantarcı	Kırıkkale University, Department of International Relations
Selçuk Karaçay	Deputy Director, Vodafone (Turkey)
Assoc. Prof. Dr. Nilüfer Karacasulu	Dokuz Eylül University, Department of International Relations
Prof. Dr. M. Lütfullah Karaman	Fatih University, Head of the Department of International Relations
Assoc. Prof. Dr. Şaban Kardeş	TOBB Economy and Technology University, Department of International Relations
Assoc. Prof. Dr. Elif Hatun Kılıçbeyli	Çukurova University, Head of the Department of International Relations
Prof. Dr. Aleksandr Knyazev	Kyrgyz Slavic University (Bishkek)
Prof. Dr. Erol Kurubaş	Kırıkkale University, Head of the Department of International Relations
Prof. Dr. Talip Küçükcan	Director of Marmara University, Institute of Middle East Studies
Arslan Kaya	KPMG, Sworn-in Certified Financial Accountant
Dr. Hicran Kazancı	Iraqi Turkman Front Turkey Representative
İzzettin Kerküklü	President of Kirkuk Foundation
Prof. Dr. Mustafa Kibaroğlu	Okan University, Head of Department of International Relations
Prof. Dr. Alexandr Koleşnikov	Diplomat
Dr. Max Georg Meier	Hanns Seidel Foundation, Projects Director (Bishkek)
Prof. Dr. Mosa Aziz Al-Mosawa	President of Baghdad University (Iraq)
Prof. Dr. Mahir Nakip	Erciyes University, Faculty of Economic and Administrative Sciences
Assoc. Prof. Dr. Tarık Oğuzlu	ORSAM Advisor, Middle East-Antalya International University
Hediye İevant	Journalist, Syria
Prof. Dr. Çınar Özen	Ankara University, Faculty of Political Science, Department of International Relations
Murat Özçelik	Ambassador
Assoc. Prof. Dr. Harun Öztürkler	ORSAM Middle East Economies Advisor, Afyon Kocatepe University, Department of Economics
Dr. Bahadır Pehlivan Türk	TOBB Economy and Technology University, Department of International Relations
Prof. Dr. Victor Panin	Pyatigorsk University (Pyatigorsk, Russian Federation)
Assoc. Prof. Dr. Fırat Purtaş	Gazi University Department of International Relations, Deputy Secretary General of TÜRKSOY
Prof. Suphi Saatçı	Secretary-General of Kirkuk Foundation
Assoc. Prof. Dr. Yaşar Sarı	ORSAM Advisor, Eurasia - Kyrgyzstan-Turkey Manas University
Ersan Sankaya	Türkmeneli TV (Kirkuk, Iraq)
Dr. Bayram Sinkaya	ORSAM Middle East Advisor, Atatürk University
Assoc. Prof. Dr. İbrahim Sirkeci	Reader in Demography and Marketing Regent's College, (London, UK)
Dr. Aleksandr Sotnichenko	St. Petersburg University (Russian Federation)
Semir Yorulmaz	Journalist, Egypt
Zaher Sultan	President of Lebanon Turkish Association
Dr. Irina Svistunova	Russia Strategic Research Center, Turkey-Middle East Studies Expert (Russian Federation)
Asst. Prof. Dr. Mehmet Şahin	ORSAM Advisor, Middle East, Gazi University, Department of International Relations
Prof. Dr. Türel Yılmaz Şahin	Gazi University, Department of International Relations
Mehmet Şüküroğlu	Energy Expert
Assoc. Prof. Dr. Oktay Tanrısever	METU, Department of International Relations
Prof. Erol Taymaz	Vice President of the METU North Cyprus Campus (TRNC)
Prof. Sabri Tekir	Dean of İzmir University, Faculty of Economics and Administrative Sciences
Dr. Gönül Tol	Director of Middle East Institute Turkish Studies (USA)
Adv. Niyazi Güney	Press Group, Vice Chairman
Asst. Prof. Dr. Özlem Tür	ORSAM Advisor, Middle East, METU, Department of International Relations
M. Ragıp Vural	General Coordinator of 2023 (Magazine)
Dr. Ermanno Visintainer	Director of Vox Populi (Rome, Italy)
Dr. Umut Uzer	Istanbul Technical University, Humanities and Social Sciences
Prof. Dr. Vatanyar Yagya	St. Petersburg City Council Member, St. Petersburg University (Russian Federation)
Dr. Süreyya Yiğit	ORSAM Eurasia Advisor

## EDITORIAL BOARD OF MIDDLE EAST STUDIES

---

Meliha Benli Altunışık	ODTÜ
Bülent Aras	Dışişleri Bakanlığı Stratejik Araştırmalar Merkezi Başkanı
Tayyar An	Uludağ Üniversitesi
İlker Aytürk	Bilkent Üniversitesi
Recep Boztemur	ODTÜ
Katerina Dalacoura	Londra Ekonomi Üniversitesi (Birleşik Krallık)
F. Gregory Gause	Vermont Üniversitesi (ABD)
Fawaz Gerges	Londra Ekonomi Üniversitesi (Birleşik Krallık)
Ahmet K. Han	Kadir Has Üniversitesi
Raymond Hinnebusch	St. Andrews Üniversitesi (Birleşik Krallık)
Rosemary Hollis	City Üniversitesi (Birleşik Krallık)
Bahgat Korany	Durham Üniversitesi (Birleşik Krallık)
Peter Mandaville	George Mason Üniversitesi (ABD)
Emma Murphy	Durham Üniversitesi (Birleşik Krallık)

## MIDDLE EAST ANALYSIS EDITORIAL BOARD

---

Prof. Dr. Meliha Altunışık	Middle East Technical University , Director of Institute of Social Sciences
Hasan Kanbolat	ORSAM Director
Assoc. Prof. Dr. Hasan Ali Karasar	Bilkent University, Department of International Relations
Asst. Prof. Dr. Serhat Erkmen	ORSAM Middle East Advisor, Ahi Evran University, Head of Department of International Relations



*Mithatpaşa Caddesi 46/4 Kızılay-ANKARA*  
*Tel: 0 (312) 430 26 09 Fax: 0 (312) 430 39 48*  
*[www.orsam.org.tr](http://www.orsam.org.tr), [orsam@orsam.org.tr](mailto:orsam@orsam.org.tr)*