

**WATER &
PEACE**

**4th Istanbul
International
Water Forum**

**ISTANBUL
INTERNATIONAL
WATER FORUM**

Outcomes of **4th Istanbul International Water Forum**



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Outcomes of
4th Istanbul International
Water Forum



10-11 May 2017
Istanbul Lutfi Kırdar ICEC

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| Abbreviations

ACF	Action Against Hunger
AFAD	Disaster and Emergency Management Presidency
DSİ	General Directorate of State Hydraulic Works
EU	European Union
GAP	Southeastern Anatolia Project
GASKİ	Gaziantep Water and Sewerage Administration
İHH	Humanitarian Relief Foundation
IIWF	Istanbul International Water Forum
İSKİ	Istanbul Water and Sewerage Administration
MDG	Millennium Development Goal
MGM	Turkish State Meteorological Service
NGO	Non-governmental organisation
OECD	Organisation for Economic Cooperation and Development
SDG	Sustainable Development Goal
SIWI	Stockholm International Water Institute
SUEN	Turkish Water Institute
SYGM	General Directorate of Water Management
UN	United Nations
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHCR	United Nations High Commissioner for Refugees
WASH	Water, Sanitation and Hygiene
WWAP	World Water Assessment Programme
WWC	World Water Council

OVERVIEW

The Istanbul International Water Forum (IIWF) brings together the global water community in Istanbul every three years one year prior to the World Water Fora to discuss current international water-related issues. The last decade has brought along a significant increase in the number of people fleeing wars and conflict zones. The impacts of population mobility are felt both in conflict zones and in host countries. Mass population mobility not only carries water issues to the global humanitarian agenda but also affects how water is used and managed. From this point on, the 4th Istanbul International Water Forum (IIWF), co-organised by the Turkish Water Institute (SUEN) and State Hydraulic Works (DSİ) both under the Ministry of Forestry and Water Affairs of the Republic of Turkey on May 10-11, 2017 in Istanbul, focused on the current refugee issue under the central theme of “*Water and Peace*”. The Forum addressed the water-related issues that have arisen by demographic pressures resulting from forced displacement with their humanitarian, theoretical, financial and legal aspects.

4 thematic panels were held under the central theme of “Water and Peace”:

Panel 1 Water for Peace

Panel 2 Implementing and Monitoring Water-Related SDGs in Turbulent Times and Areas

Panel 3 Getting the Best Out of Water Relief Actions: Case Studies and the Legal Basis

Panel 4 Urban Water Management in Response to Demographic Pressures

A special session that focused on water and sanitation needs of Syrians under temporary protection in Turkey was held with the participation of local administration representatives:

Special Session Syrians under Temporary Protection in Turkey and Water Management

11 side events were also held as part of the Forum:

Side Event 1 Urban Water Management in Istanbul

Side Event 2 More Than a Dam: Ilisu Carries through Hasankeyf’s Cultural Heritage over the Future

Side Event 3 Wastewater Management in Turkey

Side Event 4 Sustainable Development Goals and Turkey

Side Event 5 Water for the Refugees

Side Event 6 Euphrates and Tigris: Future Collaboration (Closed Meeting)

Side Event 7 Wastewater: The Untapped Resource for Socio-Economic Development

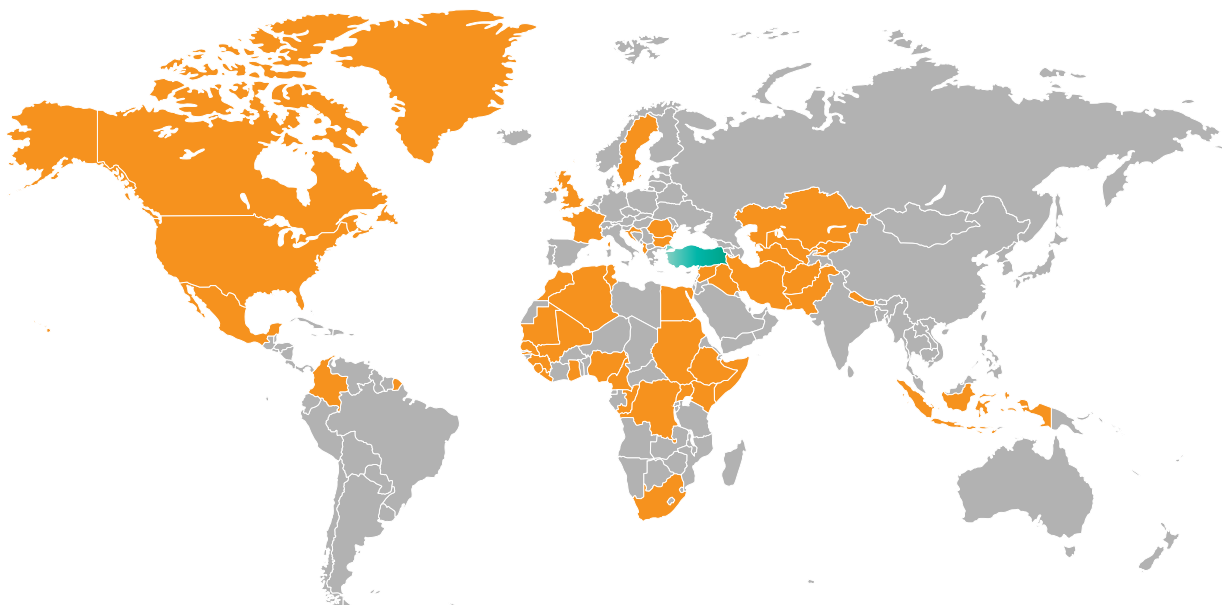
Side Event 8 Water Management Practices in Water and Peace Axis

Side Event 9 Global Wastewater Initiative: Actions Needed for Successful Wastewater Management

Side Event 10 Studies of the Expertise Committees Working on Water Related Topics under the Ministry of Forestry and Water Affairs of Turkey

Side Event 11 1st Meeting of Director Generals of the National Meteorological Services of Islamic Countries (Closed Meeting)

Within the context of the Forum there was an exhibition area where the Ministerial institutions showcased their projects and activities.



The 4th IIWF welcomed 1,700 registered participants from 64 countries all over the world. The participant profile included a wide spectrum of water professionals ranging from academics to representatives of government agencies, local authorities, NGOs and the private sector.

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The Forum enabled ample exchange of experiences and success stories on the challenge of providing water and sanitation services to refugees among refugee hosting countries.

Organizations including the World Water Council (WWC), UNESCO-IHE Institute for Water Education, Stockholm International Water Institute (SIWI), UN Environment Programme-Global Programme of Action (UNEP-GPA), United Nations World Water Assessment Programme (WWAP), United Nations Water (UN Water), United Nations High Commissioner for Refugees (UNCHR), Organisation for Economic Co-operation and Development (OECD), Platform for International Water Law, the Geneva Water Hub, Action Against Hunger (ACF), Inter-Islamic Network on Water Resources Development and Management (INWRDAM), Ministry of Water and Forestry of Romanian Government, Ministry of Development of the Republic of Turkey, Republic of Turkey Prime Ministry Disaster and Emergency Management Presidency (AFAD), General Directorate of Water Management (SYGM), Turkish State Meteorological Service (MGM), Hatay Metropolitan Municipality, Gaziantep Water and Sewerage Administration (GASKİ), Istanbul Water and Sewerage Administration (İSKİ), Türkiye Diyanet Foundation, Charity and Social Services, Humanitarian Relief Foundation (İHH) contributed to the Forum by either actively participating in the thematic panels or holding side and special events.

Videos of thematic panels are available on SUEN's official YouTube page.

For further information about the Forum please visit the website: <http://www.iusf.org.tr>

Forum Programme

10 th May, Wednesday	10:00-12:30	Opening Ceremony			
	Lunch Break				
	14:00-15:45	Panel 1: Water for Peace	Side Event 1: Urban Water Management in Istanbul	1 st Meeting of Director Generals of the National Meterological Services of Islamic Countries (Closed Meeting)-MGM	
	Coffee Break				
	16:00-17:45	Panel 2: Implementing and Monitoring Water-related SDGs in Turbulent Times and Areas	Side Event 2: More Than a Dam: Ilisu Carries through Hasankeyf's Cultural Heritage over the Future	Side Event 3: Wastewater Management in Turkey	1 st Meeting of Director Generals of the National Meterological Services of Islamic Countries (Closed Meeting)-MGM

11 th May, Thursday	09:00-10:45	Panel 3: Getting the Best Out of Water Relief Actions: Case Studies and the Legal Basis	Side Event 4: Sustainable Development Goals and Turkey	Side Event 5: Water for the Refugees	1 st Meeting of Director Generals of the National Meterological Services of Islamic Countries (Closed Meeting)-MGM
	Coffee Break				
	11:00-12:45	Special Session: Syrians Under Temporary Protection In Turkey And Water Management	Side Event 6: Euphrates and Tigris: Future Collaboration (Closed Meeting)	Side Event 7: Wastewater: The Untapped Resource for Socio-Economic Development	1 st Meeting of Director Generals of the National Meterological Services of Islamic Countries (Closed Meeting)-MGM
	12:45-14:00	Side Event 8: Water Management Practices in Water and Peace Axis	Side Event 9: Global Wastewater Initiative: Actions Needed for Successful Wastewater Management		
	14:00-15:45	Panel 4: Urban Water Management in Response to Demographic Pressures			
	Coffee Break				
	16:00-17:45	Wrap Up Session and Closing			

Opening Ceremony

SPEAKERS

Prof. Dr. Doğan ALTINBİLEK, *Vice President, WWC*

Dr. Blanca Jimenez CISNEROS, *Director, Division of Water Sciences of UNESCO*

Olimpia NEGRU, *Secretary of State, Ministry of Water and Forestry of Romania*

Vasip ŞAHİN, *Governor of Istanbul*

Prof. Dr. Danilo TURK, *Chairman, Global High Level Panel on Water and Peace*
- *Former President of Slovenia*

Prof. Dr. Veysel EROĞLU, *Minister, Ministry of Forestry and Water Affairs of the Republic of Turkey*

The 4th Istanbul International Water Forum was inaugurated by the opening ceremony with the participation of distinguished speakers from the regional and global water spheres.



Prof. Doğan Altınbilek, Vice President of the WWC, emphasized the increasing pressure put on water resources and reminded attendees that the global water crisis is one of the most pressing political, environmental and social issues of the 21st century. Prof. Altınbilek noted that extreme weather events and water crises are positioned in second and third place by the World Economic Forum 2017 Global Risk Report in terms of their adverse impacts. He added that most affected by the water crisis are refugees from the war zones as they are

the most vulnerable. He underlined that the fragmentation of responsibilities for necessary actions in various aspects of water management in most countries suffers from insufficient coordination among the concerned organisations. Additionally, massive investments are needed if the governments are to reach the aspirational sustainable development goals and gave the South Eastern Anatolia Project of Turkey (GAP) as one of the most prominent examples of this infrastructure development phase: a multisector integrated regional development project based on concept of Sustainable Development for 9 million people living in the South Eastern Anatolia region of Turkey. This Project contributed to the national development targets in terms of economic growth and social stability in the areas where it is completed.



Dr. Blanca Jimenez Cisneros, Director of the Division of the Water Sciences of UNESCO noted in her speech that this was the first time that an international event is exclusively dedicated to water and refugees' situation from a practical perspective. She added that starting this exchange of information and experience is the flagship contribution of the 4th IIWF to the international discourse and agenda, a contribution that will be useful not only for Turkey but for many other countries and cities in the world with similar problems. Dr. Cisneros underlined that

the effects of population mobility are felt both in conflict zones and in host countries. She drew attention to the relevance of Turkey choosing such an important topic as the country that hosts the largest population of refugees in the world, currently over 3 million. She underlined that challenges are numerous and it is impossible to ignore that the provision of water to refugees or displaced people in camps goes beyond the mere supply of water for human consumption. Dr. Cisneros emphasized that although the problems are urgent and evident, still little effort has been made to address them in a structured manner. Therefore she designated the 4th IIWF as “a sign of hope” as the Forum constitutes a chance for sharing experiences amongst refugee hosting countries, local administrations, IGOs and NGOs working in this field. She ended her speech by stating that UNESCO not only applauds this initiative, but offers its full support, hence it is time to act and engage in a struggle that by its very nature appeals to universal values.

“ *This was the first time that an international event is exclusively dedicated to water and refugees.* ”



Olimpia Negru, Secretary of State of the Ministry of Water and Forestry of Romania stated that the Forum is a good opportunity to exchange information, to create necessary synergy and political consensus for promotion of concrete action. Recalling the previous speeches, Ms. Negru also stressed the role of water as a matter of national security. However, the role of water in this equation is highly related to other determinants. For instance, climate conditions is an unneglectable catalyst that alters relations between water users either

positively or negatively. Despite this, the human factor is the ultimate determinant because only the dialogue among competing water users can bring peace, regional and political stability, and economic growth. The Danube River is a case in point that reveals the need for dialogue with its 19 riparian countries cooperating to achieve good water status as overseen by the European Water Framework Directive. Ms. Negru also emphasized that upon Romania's EU Membership in 2007, the Black Sea has become a European Union shore where the Danube River meets the sea, thus riparian countries should pay more attention to environmental concerns including marine ecosystems.



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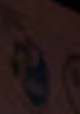
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DSİ

10-11 May 2017
WATER & PEACE
4th Istanbul International

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10-11 May



H.E. Prof. Danilo Turk, Chairman of the Global High Level Panel on Water and Peace - Former President of Slovenia stated that integrating water issues into international cooperation, conflict prevention and peace building is a security imperative. Water is increasingly important for the maintenance of international peace and security. Prof. Turk noted that the future may not look like the past. Therefore a deliberate effort is needed to leverage the role of water and water cooperation as a driver of peace.

Prof. Turk distinguished between immediate and long term arrangements for solutions. The immediate solutions, such as creating safe zones and enabling access to safe water for civilians, is a duty of humanitarian organizations. Long lasting solutions are more complex and are composed of different measures. Echoing from the UN High Commissioner for the Refugees, the right to work for refugees is an important instrument to enable refugees to pay for water services, and as a means for them to integrate into the host communities in long term. Besides developing integration policies in host communities, special attention should be devoted to negotiating water arrangements to envision a durable peace in conflict zones.

Before leaving the floor for the final opening speech, **Governor of Istanbul, Mr. Vasip Şahin** took the floor and welcomed all participants to the historic city of Istanbul.



H.E. Prof. Veysel Eroğlu, Minister of the Forestry and Water Affairs of the Republic of Turkey, as the host of the Forum warmly welcomed all the participants and reaffirmed that today over 3 million Syrian and Iraqi refugees live in Turkey. Turkey provides all necessary services for refugees in 22 temporary protection centres and cities. Turkey additionally ranks at top amongst the countries delivering international aid based on the share of humanitarian aid in gross domestic product (GDP). Since 2011, Turkey has allocated 25 billion USD for aid

activities. Amount of money spent only by the Ministry of Forestry and Water Affairs of Turkey to meet the needs of refugees including construction of camps and the safe zone, exceeds 5 billion USD. H.E. Prof. Eroğlu called all countries and the participants to initiate a “Water Fund” together to supply water to refugees and people in water scarce areas like Africa and added that Turkey is ready to contribute.

“Turkey additionally ranks at top amongst the countries delivering international aid based on the share of humanitarian aid in gross domestic product (GDP).”

Panel 1

Water for Peace

Moderator İltir TURAN, *President, International Political Science Association (IPSA)*

Panellists Danilo TURK, *Chairman, Global High Level Panel on Water and Peace*
Hakkı Emre YUNT, *Ambassador, Director General for Multilateral Economic Affairs, Energy and Environment, Ministry of Foreign Affairs of the Republic of Turkey*
Murad Jabay BINO, *Executive Director, Inter-Islamic Network on Water Resources Development and Management (INWRDAM)*
Therese SJÖMANDER MAGNUSSON, *Director, Transboundary Water Management Department, SIWI*

Rapporteurs Ayşe AYDIN, *Turkish Water Institute (SUEN)*
Burcu ÇALLI, *Turkish Water Institute (SUEN)*
Ülfet ÜNAL, *Turkish Water Institute (SUEN)*

In 2016, the water crisis was listed as the third most impactful risk, ahead of the large-scale involuntary migration ranking fourth in the Global Risks Report by the World Economic Forum. These two issues have been at the top of both the regional and global agenda in recent years. *Panel 1. Water for Peace* covered these two major issues with their various dimensions in the context of recent global and regional developments.

The Panel had a key message at its core: There is an urgency to address the nexus between water and peace more directly within the efforts for the maintenance of international peace and security. To reach this end, a multi-level and multitrack approach is needed to identify cooperation and solution spaces to extend peace at the transboundary, regional and international levels. Communicating the broader benefits of cooperation on water and linking it to the interdependencies that exist in a region would help to attract the attention of the international community and decision makers. Priority has to be given to immediate tasks such as WASH assistance to refugees and other populations in vulnerable situations as well as protection of water resources and installations from being targets for attacks. Longer term tasks have to be steadily pursued with a vision of their importance for the strengthening of international stability and peace.



Priority has to be given to immediate tasks such as WASH assistance to refugees, and other groups in vulnerable situations and protection of water resources and installations against being targets for attacks. Longer term tasks have to be pursued steadily and with a vision of their importance for the strengthening of international stability and peace.

Danilo Turk

As stated by the panellists, although the international humanitarian law provides a robust framework for protection of civilians during the armed conflicts, the international system has



Multi-track approach to find ways to collaborate is key and then you need to anchor these decisions at different levels.

Therese Magnusson Sjömander

failed in recent cases. Water resources and water installations were under severe threat and even appeared to be used as strategic element and weapons of war. A major criticism regarding the international community and its institutions was that building consensus and providing solutions for problems which advance at a faster pace takes

an inordinately long period of time. This fact recalls the necessity of prioritizing meeting the WASH needs of people in both times of conflict and post-conflict.

The world faces the largest humanitarian crisis since the end of the Second World War. There are 65.6 million forcibly displaced people worldwide, 95 per cent of whom are displaced in their respective region of origin. Millions of families are forced to flee their homes due to conflict, persecution and poverty in countries including Syria, Afghanistan, Iraq, Somalia, Yemen and Sudan. The panel also reflected the perspective of host countries with the participation of speakers from Turkey and Jordan. This emergency context inevitably intensifies the stress on already scarce water resources; both in crisis zones and refugee hosting countries.

Most of the host countries are countries facing water-related problems themselves. It is emphasized that supplying water for rapidly increasing populations due to refugee flows is not an easy task for the governments and local administrations of these host countries. The panellists from Turkey, which hosts the greatest number of refugees in the world with over 3 million registered Syrians as of May 2017, and Jordan, which hosts over 1.5 million refugees, of whom 650 thousands are registered, underlined that meeting WASH needs of the refugees requires strong policies, cooperation and financing. The UN Refugee Convention of 1951 requires host countries to provide refuge and not expel people who face genuine threat of prosecution in their home countries and yet the international community has no legal regulations or commitment to finance and support the host countries of the refugees. Developments in conflict zones and protracted refugee situations increase the existing WASH needs and reveal that long term needs will increase in complication. It was reiterated that the refugee crisis is not an issue to be dealt with alone by the host countries, responsibility should be shared by the international community as well.



Syrian refugees fled their country and the receiving countries helped them best with a humanitarian understanding. But when the situation goes for years, it becomes a problem of resources. I think there's some sort of lack of responsibility of the international community to support the receiving countries.

Murad Bino

- Priority has to be given to immediate tasks such as WASH assistance to refugees and other groups in vulnerable situations, and water resources and installations must be protected from becoming targets for attacks.
- Longer term tasks have to be pursued steadily and with a vision of their importance for the strengthening of international stability and peace.
- A multi-level and multitrack approach is needed to identify cooperation and solution spaces to extend peace at different levels.
- Access to water is not easy under the conditions of war and the water supply for rapidly increasing populations in host countries is also not an easy task for governments and local administrations.
- The refugee crisis is not an issue to be dealt alone by the host countries. The burden should be shared by the international community.

Panel 2

Implementing and Monitoring Water Related SDGs in Turbulent Times and Areas

Moderator Ashhan KERÇ, *Coordinator, Turkish Water Institute (SUEN)*

Panellists Birguyl LAMIZANA DIALLO, *Program Officer, United Nations Environment Programme (UNEP)*
Cumali KINACI, *Director General, General Directorate of Water Management*
Delphine CLAVREUL, *Policy Analyst, Organisation for Economic Cooperation and Development (OECD)*
Sema BAYAZIT, *Head of Development Research Unit, Ministry of Development of the Republic of Turkey*
Stefan UHLENBROOK, *Coordinator, UNESCO World Water Assessment Programme (WWAP)*

Rapporteurs Burcu YAZICI, *Turkish Water Institute (SUEN)*
Meltem DELİBAŞ, *Turkish Water Institute (SUEN)*
Tuğba Evrim MADEN, *Turkish Water Institute (SUEN)*

The panel tackled the issue of the Sustainable Development Goals (SDGs) in terms of their global applicability and monitoring, referring to the gaps and challenges faced by the countries, and feasible recommendations were debated in order to achieve the goals. The panel also targeted a roadmap and recommendations for incorporating migrants, refugees and displaced persons affected by conflict and occupation into related SDG strategies.

During the panel, it has been pointed out that the SDGs, contrary to the Millennium Development Goals (MDGs), address the whole world, taking into account the differences between developed and developing countries. Countries gained experience during the MDG period and the lessons learnt for the past 15 years sparked off a broad and ambitious agenda for the next 20 years. The SDGs are, therefore, well embraced as they provide a more comprehensive roadmap, thereby making it easier to implement. That being said, the SDGs are not a tailor-made cloth, it is an umbrella agenda. Hence, countries need to deal with the integrative nature of the SDGs as they offer a very holistic framework, whereas governments tend to be fragmented. This presents a challenge when dealing with different policy issues covered by the SDGs.

“The SDGs are not a tailor-made cloth, it is an umbrella agenda.

Sema Bayazit

The SDGs put more emphasis on defining a performance management system with indicators to provide some insight on how far the countries have come, what needs to be done and which objectives need to be reached. Nonetheless, many of the indicators still need methodological and conceptual work in order to ensure that a robust system is set up. Accordingly, monitoring is non-negligible to follow the progress in terms of implementation and whether the steps are taken in the right direction, since what is not measured cannot be managed either.

We can build on the existing structure by identifying what is lacking and enhancing successful achievements.

The other critical issue is the development of partnerships. Implementing the SDGs is a question of cooperation and it's a shared responsibility, not only across stakeholders, but also across different levels of government, thus coordination and support between all these different actors need to be enhanced to succeed in achieving the targets.

Furthermore, the importance of financial mechanisms in the implementation phase cannot be overlooked. Nonetheless, the actual challenge is to direct the funding to projects where it makes the most value, but also come up with ideas to diversify the sources of revenues, facilitate new sources of finance and help countries reach out to financiers.

International migration issue has been included in the UN Summits for decades, however it was not included in the Millennium Development Goals. The declaration of the 2030 Agenda now calls on Member States to strengthen international cooperation to ensure safe, orderly and regular migration with full respect for human rights of migrants, refugees and internally displaced persons.

Within the scope of the SDG objectives, concrete measures on migrants are addressed in Goal 17 and Goals 3, 4, 5, 8, 10 & 16 also address the issue of migration in their targets. Out of the 169 targets of the 17 goals, 10 are directly related with migration. This issue will be continuing in the upcoming years because the number of refugees has increased drastically in the past 15 years. According to the International Migration Report 2017, the international migrant population is 258 million.

Water scarcity and distribution of fresh water affected jobs in water-dependent sectors. 78% of the global workforce is based on water-dependent jobs. Investments in the water sector are good for the environment but are therefore also good for people because being employed is absolutely critical for sustainable livelihoods. It also prevents the root cause of migration and improves the economy.

Key Messages

- What is not measured cannot be managed either. Hence, a performance evaluation system with indicators is crucial to successfully implement the SDGs.
- Every job in the water sector creates three to four jobs outside the water sector. It fuels the economy paving the way to much more sustainable development conditions in countries.
- We need to shift from crisis management to risk management, as prevention is less costly than recovery.
- The SDGs, contrary to the MDGs, address the whole world, taking into account the differences between developed and developing countries, and setting a framework for implementation to which all countries agreed. Therefore, implementation tools and building partnerships and cooperation among sectors have a significant role for the global applicability of SDGs.
- The 2030 Agenda calls Member States to strengthen international cooperation to ensure safe, orderly and regular migration with full respect for human rights for migrants, refugees and displaced persons. In order to tackle this with potential unforeseen challenges, implementation mechanisms need to be flexible.



Panel 3

Getting the Best Out of Water Relief Actions: Case Studies and the Legal Basis

Moderator Doğan ALTINBİLEK, *Vice President, World Water Council (WWC)*

Panellists Akif ÖZKALDI, *Undersecretary, Ministry of Forestry and Water Affairs of the Republic of Turkey*
Ayhan IŞIK, *Leader of Spatial Planning Group, Disaster and Emergency Management Presidency (AFAD)*
Jean LEPAGUE, *Senior WASH Advisor, Action Against Hunger (ACF-France)*
Mara TIGNINO, *Coordinator of the Platform for International Water Law, the Geneva Water Hub*
Murray BURT, *Senior WASH Officer, United Nations High Commissioner for Refugees*

Rapporteurs Ashı BEKDİK, *Turkish Water Institute (SUEN)*
Elif OKUMUŞ ÖKSÜZ, *Turkish Water Institute (SUEN)*
Osman TIKANSAK, *Turkish Water Institute (SUEN)*

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International water conventions, bilateral agreements and customary law provide a group of norms and principles on how to jointly manage water in transboundary basins. Such instruments can be regarded as guidelines to prevent conflict and promote cooperation during times of peace. Yet, once an armed conflict breaks out, protection of water infrastructure and humans' access to water goes under severe threat.

International Humanitarian Law sets the framework for how to enact law in such times. The panel addressed the strengths and weaknesses of International Humanitarian Law in terms of its capacity to protect water infrastructure and the environment. It was not until 1977 with the additional protocol to the Geneva Conventions that we had explicit provision on water in International Humanitarian Law's inventory. Accordingly, the protocol prohibits harming infrastructure that are indispensable to the survival of civilian population, such as water installations, dams and irrigation facilities. Thus, having such a solid legal framework to protect vital infrastructure can be regarded as a strength.

However, environmental protection during non-international armed conflict is not covered adequately in humanitarian law. The existing framework indicates that damage must be widespread, long-term and severe to be considered as legally significant. In other words, the criteria is very high to meet this definition of environmental damage.

During the panel, operational principles of humanitarian relief organizations in conflict zones were discussed. In a world where needs for urgent action abound, but resources are limited, humanitarian relief organizations must make sound plans before taking action.

The principles of *humanity, impartiality, neutrality* and *independence* are guiding principles for relief organizations to help the most desperate civilians in conflict zones without discrimination. By relying on these principles and backed with enough capacity, relief organizations can save thousands of lives in emergency situations. Yet, besides humanitarian relief organizations' self-capacity to take action, some external factors also play a vital role for the success of operations. Especially the locals' support appears as a facilitative factor for fulfilling humanitarian missions.



In the first phases of a refugee crisis, UNHCR focus on physical protection. So the basic needs of water, food, shelter and health care are taken care of. Then there is different needs for legal protection of refugees, which are about right to documentation, right to work, and other obligations clarified under the 1951 Refugee Convention.

Murray Burt

The panel was abundant with hands-on experience sharing. Four out of five panellists presented their affiliations' WASH activities in distant parts of the globe. The Action Against Hunger (ACF), has been actively engaging in emergency relief actions over 15 major conflict zones across the globe for almost 40 years. Likewise, UNHCR acts as umbrella organization that collaborates effectively with local partners in 125 countries currently and oversee the effectiveness of WASH actions. The State Hydraulic Works of Turkey (DSİ) was distinguished as being a national institution to engage in international WASH activities with its own means. DSİ has been constructing water and sanitation infrastructure in over twenty Sub-



We developed a software system called AFCAM. All detailed demographic information of the refugee population are recorded on this system. With this system we can follow age, health status, number of family members and other data we need. We cooperate with public institutions in order to develop better policy options. Thanks to AFCAM, we can provide info on the refugee population on a daily basis.

Ayhan Işık

Saharan countries, just to transfer the operational mandate to local staff upon completion of necessary hands on training. Another noticeable Turkish institution represented in the panel was the Disaster and Emergency Management Presidency of Turkey (AFAD) that is responsible for the management of 23 refugee camps constructed for the use of Syrian war victims.

The largest challenge with refugees is not only to keep them safe in refugee camps, but to provide them a life worth living. It is stressed that globally only 25% of refugees are hosted in camps, whereas 75% are actually living within urban communities, villages and towns. Furthermore, the refugee conditions are far from being temporary in many

cases. The "protracted refugee situation" is becoming a harsh reality as the conflicts around the world are not lasting one or two years, but they seem to be continuing. Average protective refugee situation around the world is now exceeding 20 years, with exceptions that last up to 40 years.

This is why we have to think of the refugee crisis within a "development context", which is about enabling refugees to be able to work and pay for the services as the citizens of the country would. There is an urgent need to integrate refugees into the development planning process. So, the burden on the international community and humanitarian funding agencies would be reduced.

- The principles of humanitarian law provides a framework for ensuring protection of water facilities and people.
- Governments should consider social, economic and environmental impacts of displaced people when making long-term water management strategies and collaborate with civil society and private sector.
- Water relief actions in the form of water infrastructure development should be supplemented with capacity building programs designed for local technicians.
- Meeting WASH needs of people in long term is not solely a technical challenge. Enabling proper education opportunities, especially for younger generations is a real challenge for meeting future needs.



Panel 4

Urban Water Management in Response to Demographic Pressures

Moderator

Hasan Zuhuri SARIKAYA, *International University of Sarajevo, Bosnia-Herzegovina, Former Undersecretary, Former Ministry of Environment and Forestry of the Republic of Turkey*

Panellists

Bert DIPHOORN, *Advisor, Urban WaterS Hub & Former Vice Chair, UN Water*

Blanca JIMENEZ-CISNEROS, *Director, Division of Water Sciences, UNESCO*

Hüseyin SÖNMEZLER, *Director General, Gaziantep Water and Sewerage Administration*

İzzet ÖZTÜRK, *Professor of Environmental Engineering, Istanbul Technical University*

Mutasem EL-FADEL, *Professor of Environmental Engineering, American University of Beirut*

Olimpia NEGRU, *Secretary of State of the Ministry of Water and Forestry of Romania*

Rapporteur

Mustafa S. SARIKAYA, *Turkish Water Institute (SUEN)*

Rapid urbanization is one of the main challenges in the face of water supply, as 70% of the world population is expected to live in cities by 2050. Population growth is more prevalent in urban areas, where better education, employment and health facilities are available. Currently, more than eighty countries, corresponding to 40% of the global population, suffer from severe water shortages. Primary challenges concerning water resources are depletion and degradation stemming from population growth and anthropogenic activities.

The rise in water demand induced by migration inevitably puts more stress on already scarce water resources. The situation is further exacerbated as investment requirements surge both for the maintenance of the existing infrastructures and wastewater management. Thus, cities are continually being challenged to develop practical integrated urban water management paradigms to fulfil the expectations, as current management models are not always sufficient in terms of cost effectiveness, technical performance, social equity and environmental sustainability.

Not only is water scarcity a critical factor in driving migration, migration itself can impact how water is used and managed. Migration-induced changes thus need to be integrated into the planning processes to achieve sustainable water management.

Within this context, the panel focused on existing issues in urban water management and discussed efficient water management solutions in urban areas particularly affected by mass migration.

The first topic addressed in the panel was the causes and effects of demographic pressure. It was stated that mass migration poses a major risk in providing critical urban municipal services. The city of Gaziantep was presented as an example in this regard. The city had to absorb a refugee population of 450 thousand in addition to the existing population of 2 million, corresponding to a rise in population of more than 20%. In managing the sudden population increase, interprovincial and inter-institutional cooperation was required in addition to the immense infrastructural investments undertaken by the municipality. In the Gaziantep case, lending was imperative as self-financing was not sufficient to cover the massive investments. It was pointed out that the same is valid for metropolitan municipalities in the case of mass migration as contribution and assistance is needed at national or even at international level.



When it comes to international immigration, I believe there is responsibility to be borne by the international community to make them happy in their host country.

Hasan Z. Sarıkaya

The effectiveness of no-regret solutions (e.g. water loss control, scaling back groundwater use to sustainable levels, full cost recovery) in urban water management was raised as these can be undertaken in a highly cost-effective manner. Interbasin water transfers was also brought up as a major option in the light of climate change and demographic pressures with examples provided for Istanbul and Lebanon.

The importance of economies of scale was pointed out given that large-scale water operators, in general, not only perform relatively effectively in regular times but also enjoy higher capacities to absorb sudden population increases. It was once again put forward that the cost recovery principle is imperative in ensuring the sustainability of water and wastewater services. However, as implemented in Istanbul, gradual block tariffing systems rendering the water bills do not exceed 5% of the household income was proposed as environmentally sustainable and socially acceptable. An optimal balance was stated as a must among the four major stakeholders: water service providers, economic regulators, environmental regulators and consumer unions. The efficiency of public-private partnership (PPP) models was discussed as well and it was concluded that finding the best model is case-specific and a matter of good contracting.

It was highlighted that the focus should not be only on providing water services and carrying out the necessary investments but a wider perspective is needed to safeguard sustainable income generation of refugees through their rapid integration to the society. This was mentioned as critical as water services are to be sustainable provided that immigrants are capable of covering their water bills.

- Given their higher absorption capacities, large-scale water utilities perform relatively effective not only in regular times, but also in the event of sudden population increases driven by mass immigration.
- As in the Gaziantep case, municipalities experience difficulty coping with mass immigration that increase to 50% of the existing population. Interprovincial and inter-institutional cooperation as well as contribution and assistance at the national and international level is required.
- The integration of immigrants and refugees is a must to ensure they generate their own incomes to eventually pay for water and wastewater services so that these services are provided in a sustainable manner.



Special Session:

Syrians under Temporary Protection in Turkey and Water Management

- Moderator** **Osman ÇAKMAK**, *Advisor, Ministry of Forestry and Water Affairs of the Republic of Turkey*
- Panellists**
- Ergün ÜZÜCEK**, *Deputy Director General, DSI*
Hüseyin SÖNMEZLER, *Director General, Gaziantep Water and Sewerage Administration*
Dr. Lütfü SAVAŞ, *Mayor, Hatay Metropolitan Municipality*
Orhan ŞEFİK, *Member of the Board of Directors, IHH Humanitarian Relief Foundation*
Sadrettin KARAHOCAGIL, *President, Southeastern Anatolia Project (GAP) Administration*
Selçuk ÖZTÜRK, *Expert, Türkiye Diyanet Foundation, Charity and Social Services*
- Rapporteurs** **Merve KUZU**, *Turkish Water Institute (SUEN)*
Tuncay KURT, *Turkish Water Institute (SUEN)*

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According to official records, Turkey is hosting over three million Syrians. Nearly half of the Syrian population in Turkey, reside in six provinces having a border with Syria (Hatay, Kilis, Gaziantep, Şanlıurfa, Mardin, Şırnak) and 263 thousands of this population live in the 23 temporary refuge centres established in 10 provinces. All necessary works are being carried out by the Republic of Turkey to enable the Syrians, who have settled in different provinces of Turkey, to live in a healthy environment and meet their basic needs.

This special session examined the water and sanitation services provided to the Syrians who are in temporary protection status in Turkey and evaluated the implemented practices. In this context, the results of SUEN's preliminary study for analysing the current situation in camps and refugee hosting cities were presented. One of the remarkable observations in the refugee receiving cities was that, the newly arrived refugees increased the cities' population to the levels that normally would be reached in 13 to 15 years. Despite this unexpected increase in population, no significant water shortage or waterborne disease was detected in these cities, thanks to the immediate action taken by the authorities. Representatives of related institutions such as municipalities, water and sewerage administrations, Southeastern Anatolia Project (GAP) Administration, State Hydraulic Works (DSI), Disaster and Relief Agency (AFAD) and humanitarian organizations took part in the session as speakers. The activity summaries of each institution are presented in following pages.

| State Hydraulic Works (DSİ)

Turkey's "open door policy", which facilitates Syrian war victim civilians' mobilization into Turkey, was covered thoroughly in the session. The State Hydraulic Works (DSİ) of Turkey as the lead institution in planning, improving and operating water resources has dual function in the implementation of the open door policy. The DSİ works for increasing water supply and sanitation capacities of the cities that host growing numbers of refugees, without neglecting the infrastructure needs in new refugee camps. Unexpected population boom in relatively smaller cities close to the Turkish-Syrian border requires smart solutions coupled with urgent action.

One significant case is Kilis; the city that received refugees doubling the city's population in a couple of years. In order to meet the surged domestic water needs of the city, DSİ has contracted out a dam project in 2015 by aiming to make it operational by 2018. DSİ also provides basic engineering solutions for the refugee camps such as drinking water supply, rainwater and wastewater discharge, and ground levelling. The DSİ has been active not only in Turkey, but in Syrian towns of Azaz, Jarabulus, Çobanbey (Al Rai), Al-Bab and Mari as well, through emergency water provision activities such as water well drilling, maintenance and repair of water distribution infrastructure.

A Success Story at Local Level:

Hatay Metropolitan Municipality

Hatay has been one of the most multicultural cities of Turkey. For many years city has been a gateway for trade and culture between Turkey and Syria. But also, Hatay is one of the most severely affected cities by the massive refugee flow. Since 2012, the following projects have been implemented to maintain water service provisions effectively.

- 131 new boreholes made operational,
- 31 new water tanks provided,
- 1,059 km new water pipelines built,
- 11 new elevation centres constructed,
- 2,500 additional water users subscribed,
- 4 new domestic wastewater treatment facilities under construction.



Suruç Tent City

Türkiye Diyanet Foundation (TDF)

Turkish institutions' water aid activities are not restricted with national borders. "A Drop of Life", a project of "Türkiye Diyanet Foundation" (TDF), cooperates with civil society and philanthropists to build water wells in African and Asian countries with urgent water needs.

In most of these countries, access to water is limited not because of scarcity, but because of shortage of investments. Through "A Drop of Life" project, the TDF collaborates with local partners to analyse the local water needs at the first step. Then feasibility and investment studies are carried out to bring water to the maximum number of people in a cost-efficient way. Finally, the available projects are announced through the project web page to get financial support from philanthropists on a voluntary basis. Once the financial competence is achieved, the construction of artesian wells are initiated immediately. By November 2017, 69 wells have been put into service and 16 other were under construction.

The Southeastern Anatolia Project (GAP) and Syrians under Temporary Protection

The Regional Development Administration of the Southeastern Anatolia Project (GAP) is the regional development organization that coordinates, monitors and evaluates the accomplishment and implementation of the regional development plans and programs, provides funds for the projects, develops innovative projects to be modelled, empowers local capacity and transfers knowledge to the national and international arena in order to ensure human-oriented sustainable regional development through a participatory approach.

During the session it was declared that due to the Syrian crisis, the GAP Region hosted 1,063,424 Syrians of 9 provinces which corresponds to 35.6% of Turkey's total refugee population. The impacts of the Syrian crisis in the region were mentioned and the projects and activities implemented by the GAP Administration in order to reduce the effects of the crisis were addressed.

GAP is a project with multiple facets. Through the GAP Administration, several smaller projects with joint ventures have been integrated into the process. To ensure that Syrian refugees are minimally affected from the crisis and to raise the regional administrations' crisis management capacity, GAP Administration initiated a joint project with the United Nations Development Programme (UNDP). With a budget of 5.3 million Euros, the project includes capacity building activities to improve the water and wastewater management of municipalities in the region. The following projects were also highlighted briefly as supportive to the refugee situation in the GAP region:

- "Strengthening Social Stability in Southeastern Anatolia Project" with support of the UNDP,
- "Adaptation to Social and Economic Life of Syrian Women Living in the Southeastern Anatolia Region Project" with financing from the Kuwaiti Government Fund and technical support of the UNDP,
- "Strengthening of Syrian Children and Youth Work Plan" in cooperation with the UNICEF,
- "Improving Livelihood Opportunities for Syrians and Host Communities Project" funded by the US government and in collaboration with the International Labour Organization (ILO).

| Gaziantep Water and Sewerage Administration (GASKİ)

In the special session, it was informed by the Gaziantep Water and Sewerage Administration (GASKİ) that Gaziantep city has a higher number of Syrian population than the population of 26 provinces of Turkey.

It was declared that the number of refugees in Gaziantep is 450,000, and the existing facilities fell short in responding to the needs of people much earlier than expected. Due to the addition of the new refugee population, Gaziantep -also the poorest city in the region in terms of water availability- encountered many problems related to water infrastructure capacity. It was mentioned that, in order to overcome these concerns, more investments are being made for the operation, maintenance and repair of the existing facilities, which cause unexpected costs. For these new investments, GASKİ had to borrow a loan amounting to 275 million TL (~75M \$).

The Governorship of Gaziantep assigned GASKİ to provide water supply to Jarabulus city of Syria. It was stated that the detection works were carried out for water supply to Jarabulus, but it couldn't be implemented at the first stage due to the security risks from ISIS.

Once the security was ensured, necessary steps were taken. As the first step, Jarabulus drinking water network was activated through determination of new water supply points to be utilized in due course. Following this, the additional well connections were enabled and a subtle amount of chlorination was applied in order to increase the quality of water. The necessary conditions were also provided for regular measuring residual chlorine. Once the necessary conditions for constant access to safe water was established by GASKİ, the operation and maintenance responsibility of the facilities in Jarabulus was transferred to the local water experts.



Activities for the Syrian Refugees Performed by the GAP Administration

- 21 vocational courses for 2,182 people,
- Turkish language courses for 4,490 Syrians,
- Income-generating activities for women,
- Supporting 13 Multi-Purpose Community Centres (ÇATOM) and Cooperatives in 4 cities,
- Arabic Turkish education for 700 households,
- Awareness raising activities for 7,500 people.

Humanitarian Relief Foundation (İHH)

The Humanitarian Relief Foundation (İHH) is another Turkish humanitarian relief organization being globally active in various fields. It was highlighted that particularly in Africa and in many countries like Lebanon and Iraq, the İHH has made significant steps in terms of humanitarian assistance as well as bringing water to people. Since 2000, the İHH has met clean water needs of more than 3 million people by drilling 6,000 water wells in 33 countries. The İHH representative shared his observations on the field by stating that “Today, especially in the Middle East and Africa there have been many incidents where water is instrumentalized as a cause of war. Therefore meeting water needs is an important factor for the realization of peace. The WASH activities of NGOs –such as drilling water wells for local people- play an important role in solving water based disputes at the local level”. It was underlined that all the work of the İHH serves peace either directly or indirectly.



Activities for the Syrian Refugees Performed by İHH

- 8 container cities and 22 tent cities were established. 150,000 refugees live in these facilities.
- 11 thousand truckloads of aid were sent. In 2016, food and clothing aid of 147 million TL was delivered.
- Nearly 7 thousand orphans have been cared for.
- 25 trucks of medication were delivered.

In the container cities and the tent cities;

- 21 water wells, • 2 mobile water treatment plants, • 2 reservoirs of 150 tons and various small reservoirs were constructed,
- Over 4 thousand toilet and bath batteries with necessary infrastructure were delivered,
- With the fountains built in the camps, potable water needs of the Syrian guests are met.

Key Messages

- Of all countries, Turkey sheltered the greatest number of refugees, hosting more than 3 million Syrians as of May 2017.
- All the necessary works are being carried out by the Republic of Turkey to enable the Syrians, who have settled in different provinces of Turkey, to live in a healthy environment and meet their basic needs including water and sanitation.
- With the extensive infrastructural investments, every Syrian in Turkey has access to water and sanitation in equal conditions with the Turkish citizens.

About SUEN

Who we are

Turkish Water Institute (SUEN) is a national think tank with the goal to develop short and long-term strategies and national policies for the good governance of water. Established in 2011 under the Ministry of Forestry and Water Affairs of Turkey, SUEN works in close collaboration with national and international organisations on sustainable water management, development of water policies, sustainable energy issues and capacity building to address local and global water problems.

Our history

SUEN was founded as a think tank with the purpose of realizing the scientific experience and water vision of the team brought together as the 5th World Water Forum Secretariat, in 2007. The great success of the 5th World Water Forum (March 2009), which hosted more than 30.000 participants from 192 countries, awarded Turkey a new status, as a country with an important principal voice on water on a global scale. The multifaceted knowledge gained by the Forum became the basis of SUEN.

Our vision

To provide significant contributions for making Turkey a leader country both in her region and around the world with regard to sustainable water policies and strategies as well as water education.

Our mission

To contribute to the development of global-scale water policies and strategies, promote global water cooperation through interdisciplinary scientific research, organize international water events and carry out national and international projects related to water.





Libadiye Caddesi No:54

Küçükçamlıca Üsküdar

Postal Code: 34696

Istanbul Turkey

T: +90 216 325 4992 | F: +90 216 428 0992

www.suen.gov.tr