
TURKISH WATER INSTITUTE
SUEN
TÜRKİYE SU ENSTİTÜSÜ
TURKEY
and
WATER

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 Agriculture and Forestry 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.

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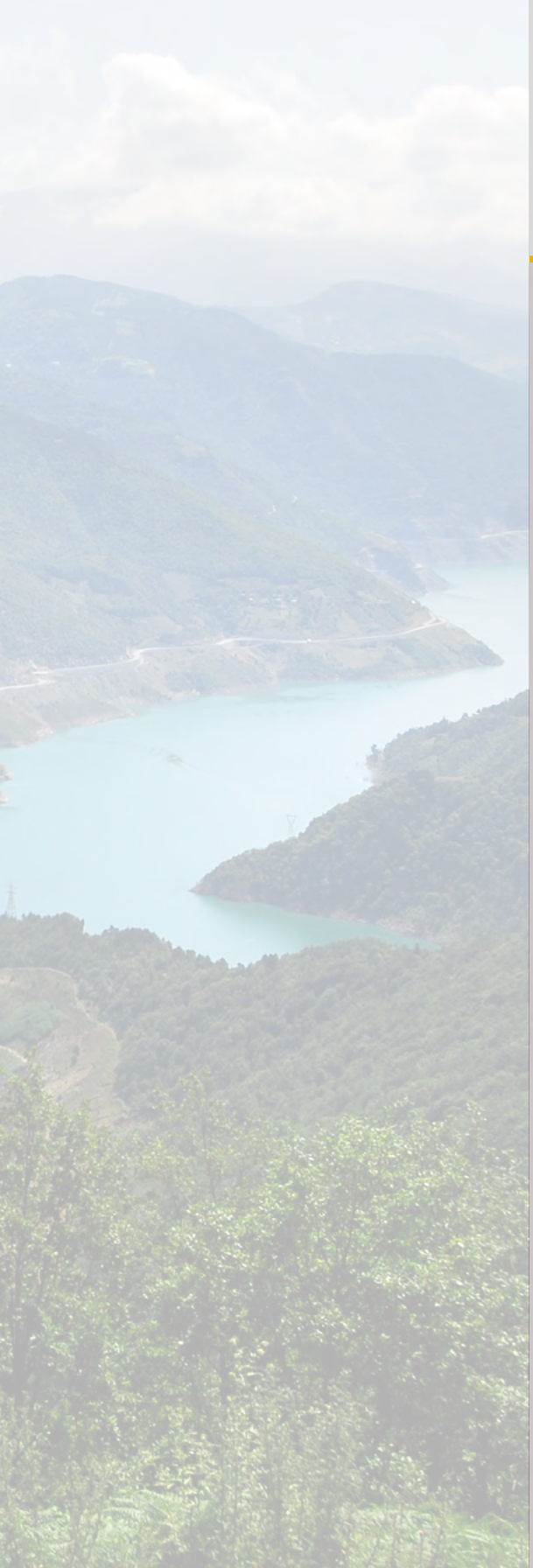
Cover Photo: Artvin Borçka Dam
Photos Courtesy of Turkish State Hydraulic Works (DSI)



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1. Introduction

Geography and Climate

The Republic of Turkey, being at the crossroads of Europe and Asia, enjoys a unique geographical position. The country, extending for around 1.650 km from west to the east and 650 km from north to the south, has a total surface area of 780.000 km^2. It is bounded by the Black Sea to the north, Iran, Georgia and Armenia to the east, Syria and Iraq to the southeast, Bulgaria and Greece to the northwest, and on the south and west is surrounded by the Mediterranean and Aegean Seas.

Turkey's climate is, in general, defined as semi-arid, whereas nine different types of climate are observed. The average annual rainfall is 574 mm. Annual precipitation reaches to a range of 1.000-2.500 mm in the mountainous coastal regions, while the Black Sea region receives the highest rainfall of 1.250-2.500 mm per year. Central Anatolia receives the lowest rainfall (300-600 mm) which, combined with high temperatures and high evaporation rates, causes drought during summer months.

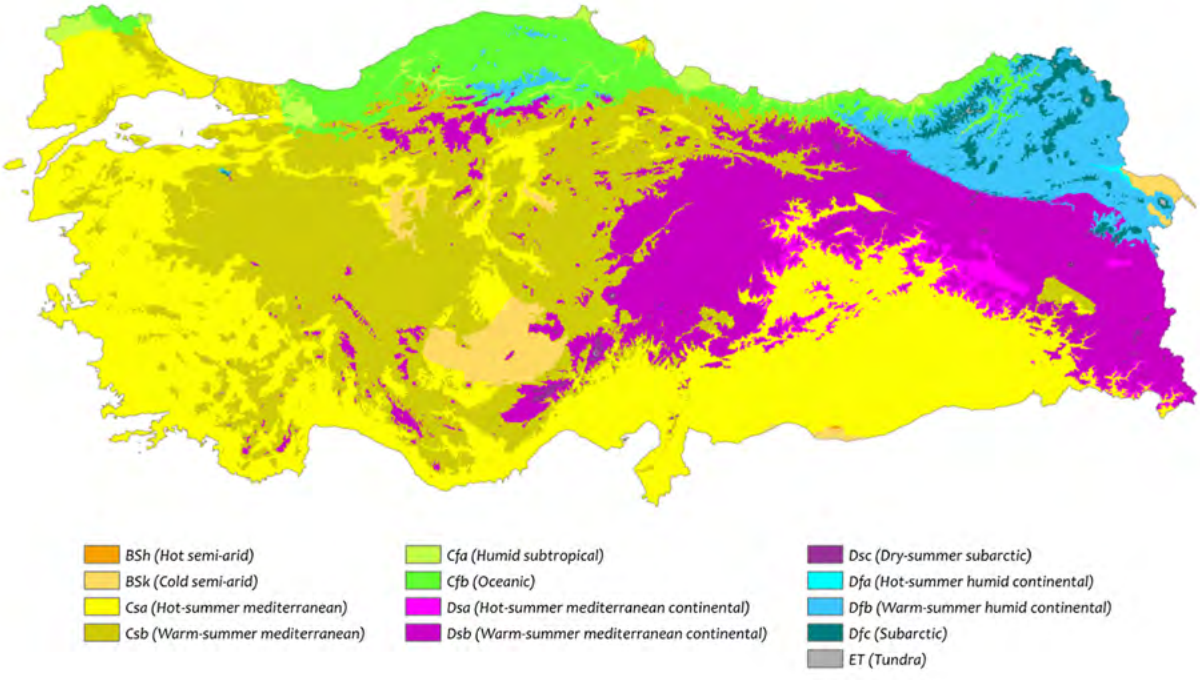


Figure 1. Köppen Climate Types of Turkey

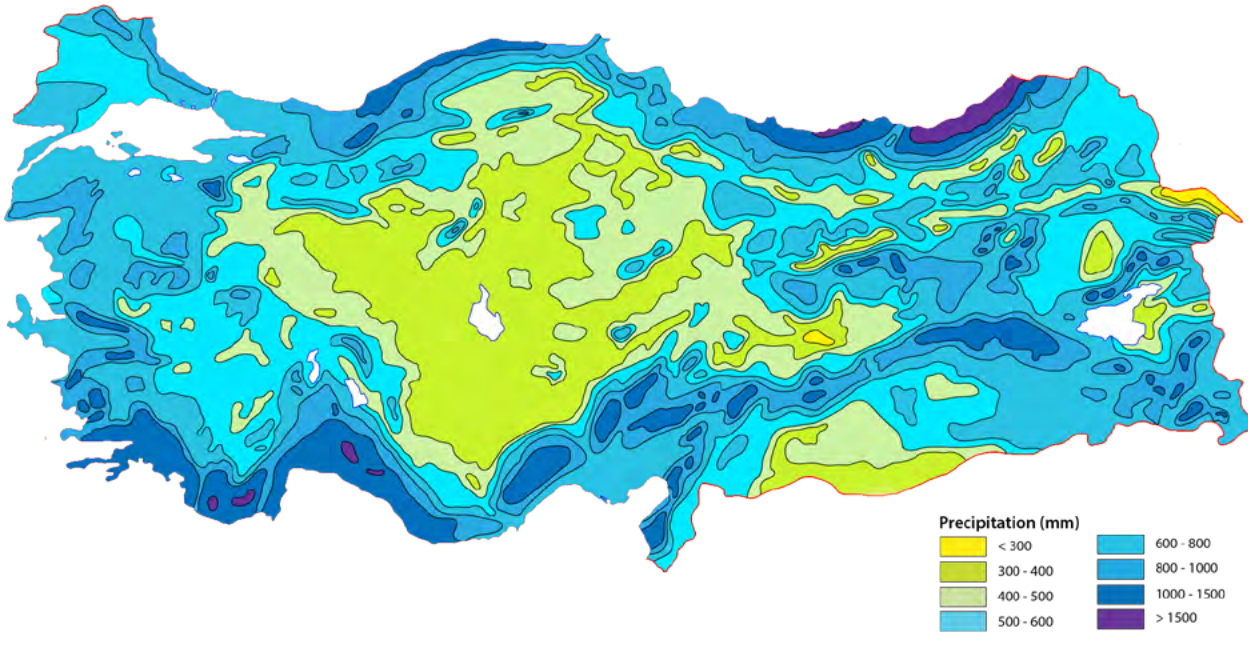
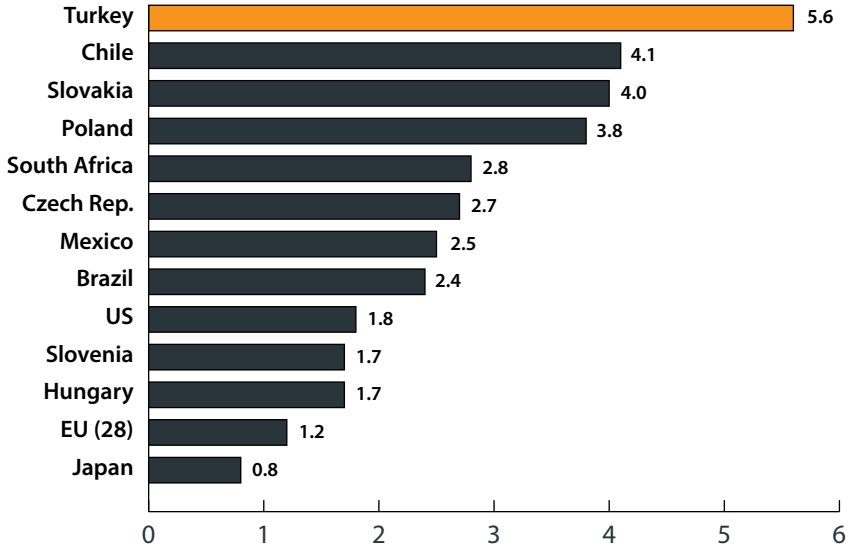


Figure 2. Turkey Precipitation Map

Economy

A sound macroeconomic strategy, prudent fiscal policies and major structural reforms in the recent past contributed to the steady growth of the Turkish economy.



Graph 1. Annual Average Real GDP Growth Rates (%) (2003-2016)

Turkey's Gross Domestic Product (GDP) in 2016 was estimated as 860 billion USD being the 17th largest economy in the world. Per capita income has exceeded 10.850 USD and total unemployment rate by the end of 2016 was slightly over 10%.

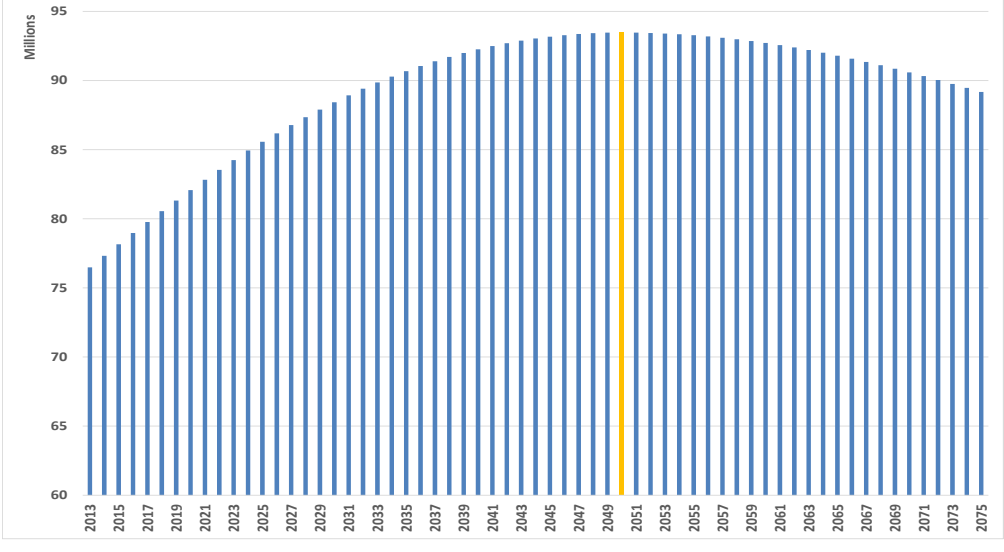
Table 1. Main Economic Indicators

GDP (2016, $)	860 billion
GDP Per Capita (2016, $)	10.850
Unemployment Rate (2016)	10,9%
Inflation (Consumer prices, 2016)	8,5%
Total Exports (2016, $)	142,5 billion
Total Imports (2016, $)	198,6 billion

In 2016, the contribution of agricultural sector to the GDP of Turkey was around 7% while 32% of the economic value was generated by the industry and 61% by the service sectors.

Population

Turkey is demographically a young and dynamic country. The population was 20,95 million in 1950. The country's population has been growing at an average annual rate of 1,2% since 1990. By 2018, it reached 82 million leading to a country-wide population density of 105 persons/km^2. It is forecasted that the population will top 84 million in 2023 and peak at 93,5 million in 2050.



Graph 2. Population Projections 2013-2075 (TurkStat, 2017)

Life expectancy at birth has exceeded 75 years in virtue of the higher living standards. As birth rates are in decline and the average age of the population is on the rise, the population growth is projected to drop in the coming decades.

2. Availability and Use of Water Resources

Turkey's mean annual precipitation is 574 millimeters, amounting to 450 billion cubic meters of water. Of this amount, 219 billion cubic meters evaporate, while 45 billion cubic meters leak into aquifers. 181 billion cubic meters are joined with rivers and lakes as surface water. An additional 6 billion cubic meters come from neighboring countries resulting in Turkey's gross water potential to equal to 231 billion cubic meters.

Considering the economic and pyhsical constraints, the annual exploitable water potential, however, is estimated as 112 billion cubic meters of which 94 billion is surface and 18 billion is groundwater. Turkey uses roughly 50 percent of its exploitable water potential.

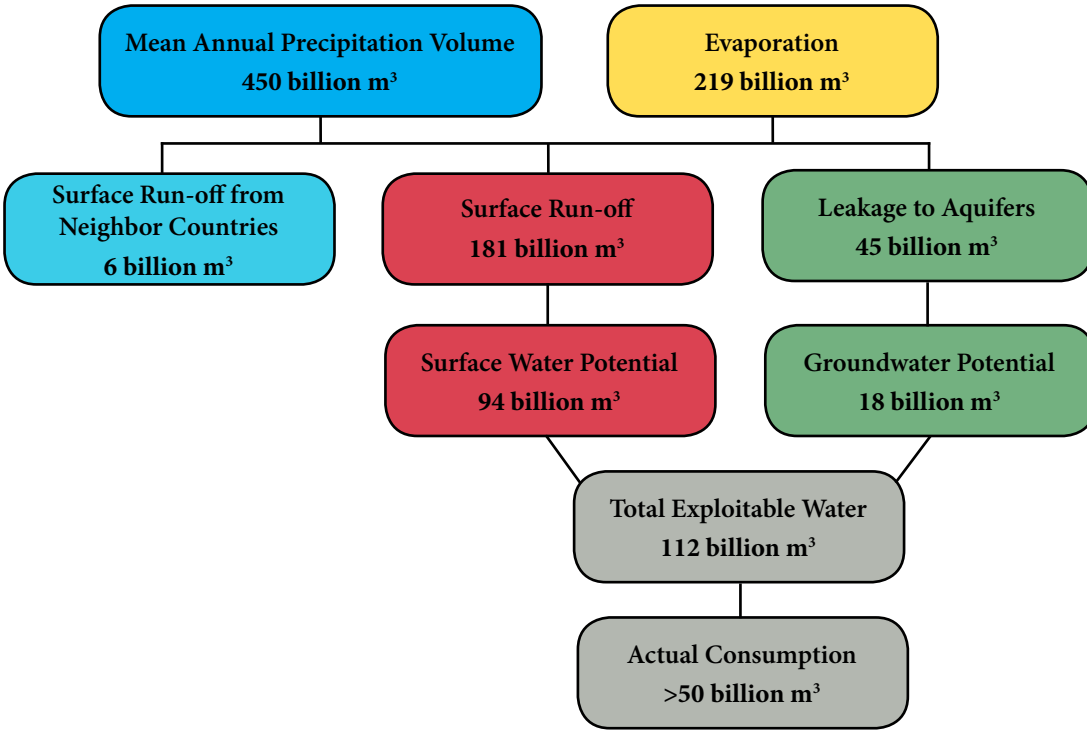
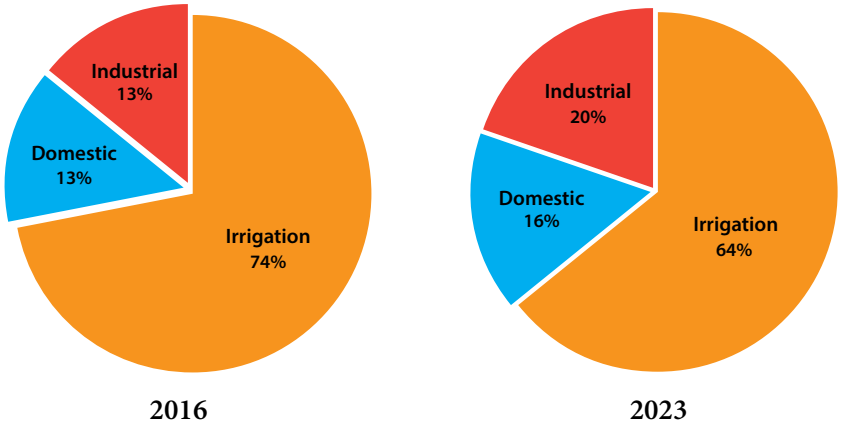


Figure 3. Overall Water Budget of Turkey

Water Consumption

The total water consumption in Turkey, which was 54 billion m^3 in 2016, corresponds to 48% of Turkey's net water potential. 39 billion m^3 of the total use was met from surface waters and 15 billion m^3 from groundwaters. Irrigation has the highest share among the water consuming sectors accounting for 74% of the total water use, while 13% is used for domestic purposes and 13% in the industry. In quantitative terms; 40 billion m^3 of water was used for irrigation, 7 billion m^3 for domestic water, and 7 billion m^3 for industry in the year 2016.

It is projected that the share of water use for irrigation will reduce to 64% by 2023 while the share of industrial use will rise to 20%.



Graph 3. Sectoral Water Consumptions in Turkey

Water Per Capita

It is estimated that total water consumption will be 112 billion m^3 in 2023. According to the projections of the Turkish Statistical Institute (TurkStat), Turkey's population will reach to nearly 90 million in 2030, and the available water will drop from 1.404 m^3 to 1.244 m^3 per capita per year.

In this sense, in contrast to the common belief, **Turkey is not a water-rich country**. According to the Falkenmark Index, classifying countries in terms of the amount of water potential per capita, Turkey is a country with "water stress," as it has 1.000-1.500 cubic meters of water potential per capita per year. Considering the same index, if the country's per capita available water falls below 1.000 cubic meters, the country will enter into a state of water scarcity. In light of this fact, Turkey is under the risk of being a water-scarce country.

Ceylanpınar-Mardin Irrigation Canal within Southeastern Anatolian Project (GAP)

- 221 km long with a capacity of 200 m^3/s
- Water supply for an area of 213.770 hectares
- Additional employment of 400.000 people

Surface Water

Turkey is divided into 25 hydrological basins in line with the EU Water Framework Directive. The total annual average surface flow in the basins between 1981-2010 was 181 billion m^3 while 94 billion m^3 is in fact technically and economically exploitable of which around 39 billion m^3 is utilized. Accounting for 30,7% of the country's total water potential, Euphrates and Tigris River Basin is the largest basin in terms of both surface area and water potential.

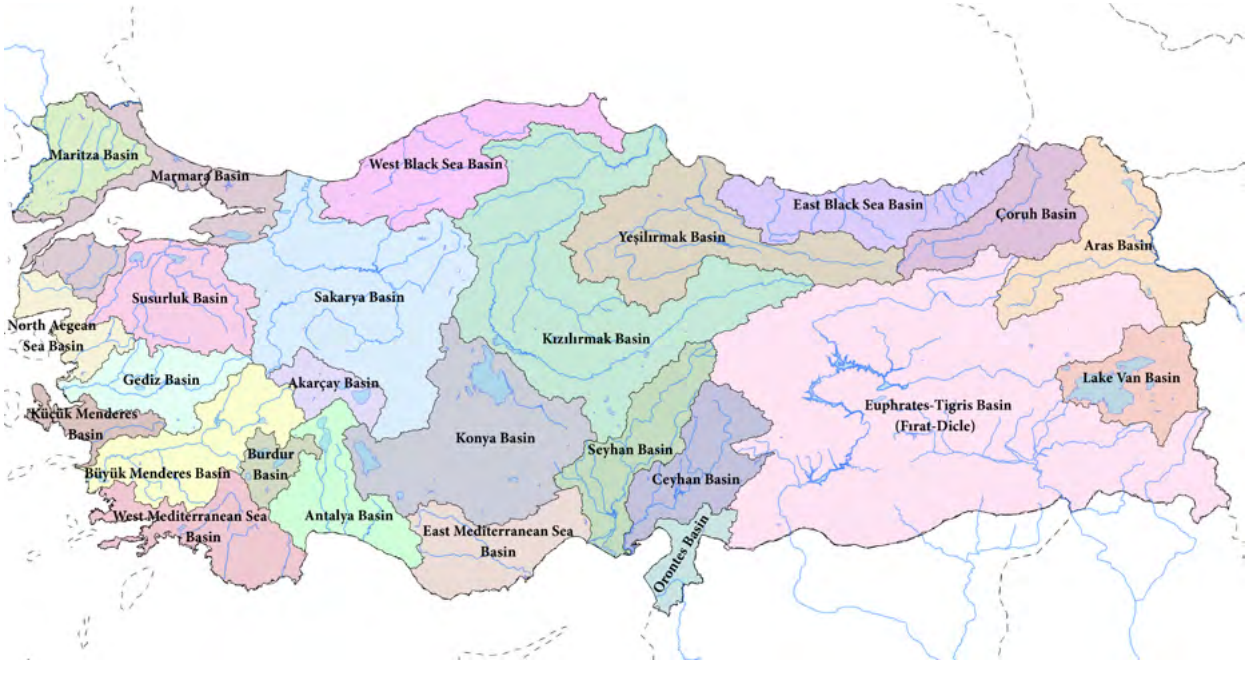


Figure 4. Turkey River Basins Map

There is a downward trend observed in surface water flows. The total annual natural flow was 258 billion m^3 in 1988 whereas this amount dropped to as low as 104 billion m^3 in the dry year of 2011.

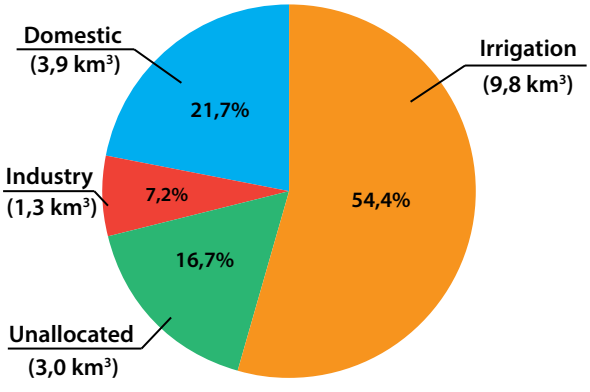
Table 2. Catchment Areas and Annual Flow of Turkey's Hydrological Basins

Name of the Basin	Catchment Area (km^2)	Mean Annual Flow (billion m^3)	Contribution to Total Flow (%)
(01) Meriç Ergene (Maritza)	14.444	1,84	1,0
(02) Marmara	23.107	7,54	4,2
(03) Susurluk	24.332	4,2	2,3
(04) North Aegea	9.974	1,5	0,8
(05) Gediz	17.034	1,5	0,9
(06) Küçük Menderes	7.060	0,5	0,3
(07) Büyük Menderes	26.133	3,0	1,6
(08) West Mediterranean	21.224	7,0	3,9
(09) Antalya	20.331	13,1	7,2
(10) Burdur Lakes	6.306	0,3	0,1
(11) Akarçay	7.983	0,3	0,2
(12) Sakarya	63.358	5,2	2,9
(13) West Black Sea	28.930	9,9	5,5
(14) Yeşilırmak	39.628	6,6	3,6
(15) Kızılırmak	82.197	6,1	3,4
(16) Konya Closed Basin	50.038	2,6	1,5
(17) East Mediterranean	21.807	8,2	4,6
(18) Seyhan	22.242	6,8	3,8
(19) Asi (Orontes)	7.912	1,8	1,0
(20) Ceyhan	21.599	7,4	4,1
(21) Fırat-Dicle (Euphrates-Tigris)	176.143	55,4	30,7
(22) East Black Sea	22.845	16,5	9,1
(23) Çoruh (Chorokhi)	20.249	7,0	3,9
(24) Aras	28.115	4,2	2,3
(25) Van Lake	17.977	2,3	1,3
TOTAL	780.965	180,8	100,0

Groundwater

The total exploitable groundwater water potential of Turkey excluding the discharge of springs feeding surface water resources is 18 billion m^3. Groundwater resources are used in cases where surface water resources are not available in sufficient quantity or not economically feasbile to be utilized. Of the total groundwater reserve, around 83% (15 billion m^3) is allocated and approximately 55% of the allocation is used for irrigation and the rest for domestic and industrial purposes.

The groundwater resources are legislated by the Groundwater Law enacted in 1962. As per the law, the groundwater resources are under the decree and disposition of the State. The protection, research, registration and use of these waters are also under the domain of the State. Any well to be drilled by citizens has to be licensed and registered. Strict regulations concerning groundwater extractions are in effect to prevent overabstraction and existence of unlicensed wells.



Graph 4. Use of Groundwater Resources (2016)

WATER AID ACTIVITIES IN AFRICA

3. Water Infrastructure

Irrigation

Turkey, as one of the few countries self-sufficient in food production, attaches great importance to agricultural investments. As the 4th largest fresh fruits and vegetables producing country, Turkey produces more than 80 kinds of fresh fruits and vegetables out of which 50 kinds are exported.

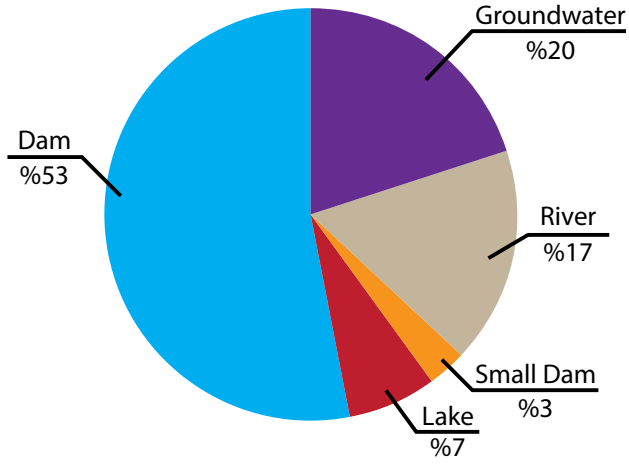
Arable area in the country is about 28 million hectares corresponding to one thirds of total country surface area. Although 25,75 million hectares are irrigable, considering available technology and economic constraints, 8,5 million hectares can actually be irrigated. Of this, 6,4 million hectares are currently in operation. The development plans project full utilization of the economically irrigable land by the end of the 2023.

Table 3. Agricultural Use of Land Resources

	Million Hectares (Mha)
Turkey's Surface Area	78,00
Arable Land	28,00
Irrigable Land	25,75
Rainfed Agriculture	17,25
Economically Irrigable Land	8,50
Irrigated Land (2016)	6,43

The agricultural sector plays a critical role in the economy in terms of contribution to GDP and employment. Turkey's production quantities are over 22 million tons of fruits and 30 million tons of vegetables. The production quantity of other crops (including grains) is over 63 million tons. The Ministry of Agriculture and Forestry is in charge of developing national policies to ensure food security and steer sustainable agricultural production.

State Hydraulic Works (DSI) under the Ministry of Agriculture and Forestry, is the main investment body for the development of irrigation infrastructures. To improve irrigation water use efficiency, DSI has shifted its policy from classical open channel distribution networks to modern pressurized irrigation systems. The share of these modern systems currently built by DSI is over 90%.



Graph 5. Distribution of Water Resources Used for Irrigation Purposes

The operation and maintenance (O&M) of the irrigation systems were carried out by governmental organizations until the early 1990s. In line with the decentralized water management policy, the majority of the systems have been transferred to the Irrigation Unions. In accordance with the Law on Irrigation Unions, these non-governmental organizations supervised by DSI collect money from the farmers primarily for O&M, administrative and investment payback expenditures.

Konya Plain Project (KOP)

Konya Plain Project is an integrated development plan in the Konya Plain region situated in Central Anatolia. As one of the 5 main development axes, "the land and water resources development program" aims to meet the regional irrigation, domestic and industrial water needs, in order to prevent excess groundwater extraction, ensure balance in the groundwater table, raise agricultural yields, introduce modern irrigation systems, promote stock breeding, and protect the environment.

The stock of 3 million ha agricultural land in the region corresponds to 12,4% of that of the total country. The program includes 14 large irrigation network systems, 3 drinking water treatment plants and 1 hydropower plant. 1,1 million ha will be equipped with modern irrigation facilities and 164 million m^3 water will be supplied to 1,5 million residents generating new employment opportunities for nearly 100.000 people.

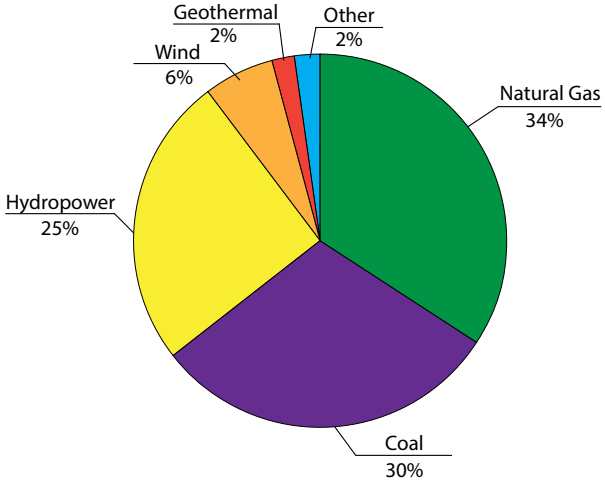
Hydropower

Turkey has the highest rate of growing energy demand among OECD countries over the last 15 years. Driven by the economic development and population growth, demand for electricity is surging, with annual per capita electricity consumption of over 3.500 kWh. Hyrdopower is the most instrumental national source of energy to lower Turkey's foreign-source (primarily natural gas) dependency at the level of 73% by 2016.

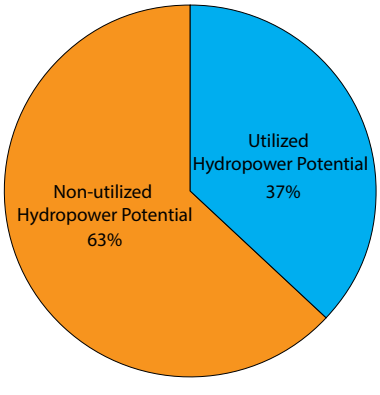
Turkey's gross hydropower potential is 433 billion kWh/year, technical potential is 215 billion kWh/year and economically and socially viable net potential is 158 billion kWh/year. The net potential may rise to 180 billion kWh/year after the completion of river basin master plans.

The current installed hydropower of more than 600 hydroelectric plants in operation is around 27.000 MW and the annual power generation is 67 billion kWh (25% of total electricity production). 37% of the hydropower potential has so far been developed whereas this rate is 86% in USA, 72% in Japan and 60% in Canada. Turkey's Energy Master Plans target full utilization of the economicaly and socially viable potential by the end of 2023.

The hydroelectric power potential is not uniform in terms of topography and hydrology. The highest energy potential is found in Turkey's major transboundary basin, Euphrates-Tigris basin. With the completion of all hydropower projects in the basin, 27 billion kWh/year will be generated, corresponding to roughly 20% of the total country hydropower potential.



Graph 6. Shares of Sources in Energy Generation (2016)



Graph 7. Development of Hydropower Potential (2016)

DERİNER DAM

Urban Water and Wastewater

In parallel to the global urbanization phenomenon, more than 90% of the Turkish population live in cities.

The Law No. 2560 issued for the establishment of the Istanbul Water and Sewerage Administration (ISKI) in 1981 paved the way for the establishment of other Water and Sewerage Administrations to provide water and wastewater services to the citizens in the other metropolitan municipalities. As of 2018, with a total number of 30, these administrations serve more than 75% of the country's population. The remaining populations are served by water departments of the non-metropolitan municipalities and Special Provincial Administrations.

As a government owned bank, the Bank of Provinces (İlbank), affiliated to the Ministry of Environment and Urbanization, meets the financing needs for investments of the local authorities. State Hydraulic Works (DSI) under the Ministry of Agriculture and Forestry plans and constructs large-scale water (e.g. dams, transmission lines) as well as wastewater projects and transfers these to the Water and Sewerage Administrations for operation and maintenance.

99% of the municipal populations are connected to a water network while more than 90% are served with sewage network systems in 2018. With approximately 1000 wastewater treatment plants in the country, more than 75% of the population are served with wastewater treatment facilities.

As semi-autonomous bodies under the 30 Metroplitan Municipalities, Water and Sewerage Administrations have played a critical role in the provision of urban water and wastewater services in the face of the rapid urbanization in the past decades. Given the large success of the administrations there are on-going discussions to form similar organizations in the non-metropolitan cities.

Istanbul Ambarlı WWTP

4. Water Governance

As per Article No.168 of the Turkish Constitution, "natural wealth and resources" are under the control of and at the disposal of the state. The right to explore and exploit the natural resources is vested in the state. The government may, however, delegate its rights to legal and real persons for a certain period of time.

Turkey has taken major steps in the management of water resources. As a result of an institutional reform in 2011, the Ministry of Forestry and Water Affairs (reorganized in 2018 as Ministry of Agriculture and Forestry) was established as the competent authority to develop and coordinate Turkey's water policy including adaptation of Turkish water legislation to the European Union acquis together with tasks as development, management and protection of water resources.

One of the mandates of the Ministry of Agriculture and Forestry, through the GD of Water Management, is to conduct the necessary coordination for the generation and implementation of river basin management plans. Given that water is a cross-cutting issue, the Ministry of Agriculture and Forestry operates in cooperation with different ministries, public bodies and other stakeholders related to water management issues.

To create a platform for coordination at the highest level, the Water Management Coordination Committee was established in 2012 for the coordination and cooperation in water issues with the highest level of participation from relevant institutions. The Committee presided by the Minister of Agriculture and Forestry in which other member ministries' vice ministers participate, plays an important role at the central level and steers national water policies.

The Basin Management Committee and the Provincial Water Management Coordination Committee composed of local bodies of the ministries, water and sewerage administrations, Irrigation Unions and other relevant local stakeholders (including NGO's) ensure coordination for water isssues at the basin and provincial levels.

The transposition of the water-related national legislation pursant to relevant European Union (EU) directives have mostly been completed. The Law on Environment and all relevant by-laws for the protection of water resources have accordingly been issued. With the goal to protect, use, improve and develop water resources in a sustainable manner, manage water resources in a basin-scale approach and clearly clarify responsibilities of relevant institutions, the draft national Water Law is prepared and is due to be enacted by the Grand National Assembly.

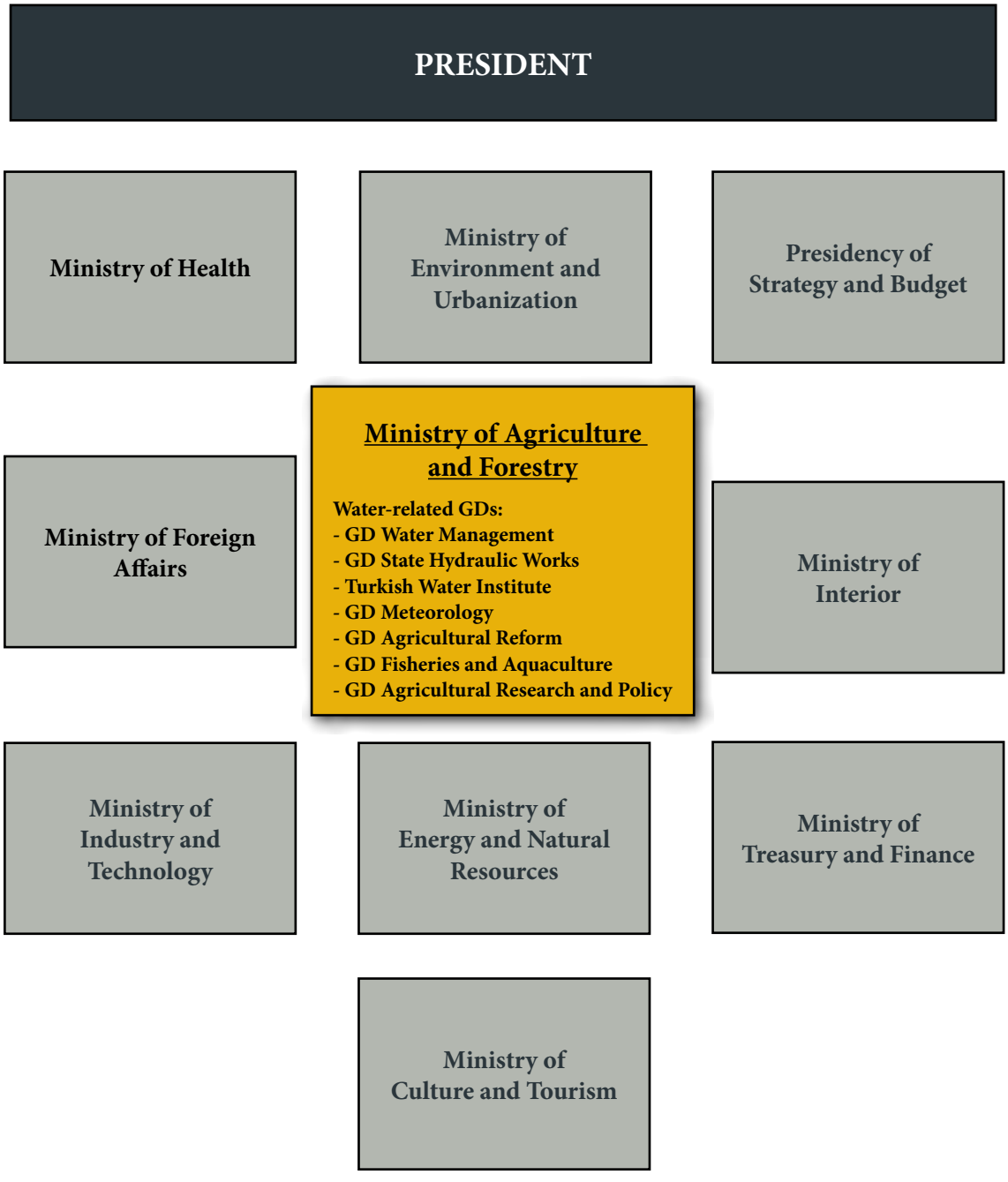


Figure 5. Key Ministries in Water Management

5. Transboundary Waters

Turkey has 5 transboundary river basins. North to the south, these are Çoruh River Basin, Aras River Basin, Euphrates and Tigris Basin, Orontes (Asi) River Basin; and in the west Maritza (Meriç) River Basin. These basins occupy an important position in Turkey's international relations because of their transboundary characteristics. 38,9 per cent of Turkey's water potential is of transboundary nature.

Transboundary Waters: A Source of Cooperation

Turkey's policy regarding the use of Transboundary Rivers is based on the following principles:

- First and foremost, Turkey views water as a catalyst for cooperation.
- Each riparian state of a transboundary river system has the sovereign right to make use of the water in its territory without giving "significant harm" to other riparians.
- Transboundary waters should be used in an equitable, reasonable and optimum manner.
- Equitable use does not mean the equal distribution of waters of a transboundary river among riparian states.
- Economic development and spreading of prosperity to all people in the region will be the most effective means of creating a climate of peace and good neighborly relations in the Middle East.
- The looming water shortage at global level can only be addressed through a holistic approach and with technical and financial support by the developed countries, regional and international organizations and financial institutions.

Euphrates and Tigris (Fırat - Dicle) Rivers

Among the 263 transboundary rivers worldwide, the Euphrates and Tigris Rivers are two of the most outstanding rivers in the world. The combined water potential of the rivers is almost equal to that of the Nile River. Both rise in the high mountains of north-eastern Anatolia and flow down through Turkey, Syria, and Iraq and eventually join to form the Shatt-al-Arab 200 km before they flow into the Persian Gulf.

They account for about one third of Turkey's total water potential. Both rivers cross the south-eastern Anatolia region which receives less precipitation compared with other regions of the country. Turkey contributes to about 90% of the average annual flow of 32 billion cubic meters of the Euphrates; the remaining 10% comes from Syria. As for the Tigris, 52% of the total average flow of 49 billion cubic meters come from Turkey while Iraq contributes to all the rest. There is, however, a declining trend in the natural flows as a result of climate change.

Turkey regards the Euphrates and Tigris Rivers as a single basin of which the combined water potential is deemed sufficient to meet the needs of the three riparian countries, provided that water is used efficiently particularly through modern irrigation technologies with the principle of "more crop per drop".

The other principle of "sharing the benefits at basin level" is urged to be pursued. With respect to the utilization of the basin waters, Turkey has consistently abided by the above principles and continued to release the maximum possible amount from both rivers even during the driest summers owing to the completed dams and reservoirs in south-eastern Anatolia.

Southeastern Anatolian Project (GAP)

The Southeastern Anatolia Project (GAP as Turkish acronym) was at the very outset perceived as a programme to develop land and water resources in the region and was initially planned as a package of projects related to irrigation and energy production on the Euphrates-Tigris basin. Altogether, these projects envisage the construction of 22 dams, 19 hydraulic power plants (HPP) and irrigation networks for an area of circa 1,8 million hectares. The GAP has over the time transformed into an integrated regional development project now also encompassing infrastructure development in industry, transportation, education, health and urban and rural facilities to reduce regional disparities and contribute to the country's economic and social development.

Figure 6. Euphrates-Tigris River Basin

Orontes (Asi) River

Unlike the Euphrates and Tigris rivers, Turkey is a downstream country in the Orontes (Asi) River. The northwards flowing river originates from the Bekaa Valley in Lebanon, and flows into Turkey after forming a border of 22 km between Turkey and Syria. The average annual precipitation and water potential of the basin are estimated to be around 650 mm and 2,4 billion m^3 per annum, respectively. Being located in more than 50% of the basin area, Turkey contributes to about half of the water potential. Turkey and Syria had reached an agreement in 2009 to build a friendship dam on the river to prevent flooding and better utilize the river water potential. Although the foundation was laid down, the project had to be stopped due to the political instability in Syria.

Chorokhi (Çoruh) River

The overall length of the Çoruh River originating from the Mescit Mountain in Turkey is around 450 km of which 430 km is within Turkish borders. After leaving the Turkish territories, the river flows through the Georgian borders along 21 km and reaches the Black Sea in Batum. The river, among the fastest-flowing rivers in the world, has a great hydropower potential. Upper reaches of the river are characterized by strong seasonal fluctuations in discharge and rainfall.

Turkey constructed large-scale dams and hydropower stations on the river, providing billions kWh of electricity annually. One of the major dams among the planned ones is the Yusufeli Dam in the Artvin province. With a total height of 270 m from the foundation, the rock-fill dam will be in its category Turkey's highest and the world's third-highest dam upon completion in 2018. Once all hydropower projects are completed, 8% of Turkey's overall hydroelectric potential will be generated from the basin.

Araks and Kura (Aras - Kura) Rivers

The basin including 5 riparian countries, is the most important basin in the south Caucasian region in terms of surface area, water potential and its socio-economic impacts. The estimated total water potential of the basin is 24 billion m^3 of which Turkey's contribution is 5,7 billion m^3. As the river's flow is of non-uniform nature, navigation is very limited and agriculture and animal husbandry play an important economic role within the Turkish basin borders.

The Aras and Kura Rivers both originate from Turkey. The Aras River provides 45% of the total water flow of the basin, while the remaining 55% is delivered by the Kura River.

The Kura River flows 210 km in Turkey, enters the Georgian territory with a length of 390 and finally flows into the Caspian Sea in Azerbaijan. The Kura River, with a total length of 1.364 km, covers an area of 88.000 km^2. The Aras River flows approximately 300 km in Turkey's territory and then forms several borders between Turkey, Armenia, Azerbaijan and Iran. After forming the border between Azerbaijan and Iran, the Aras River joins the Kura River, and reaches the Caspian Sea. The Arpaçay Dam, situated on the Turkish-Armenian border, is being operated by the two countries since 1985.

Maritza (Meriç) River

The Maritza River forming a border between Turkey and Greece originates from the Rila Mountain ranges in Bulgaria. The river flows 320 km long through the Bulgarian territories, 13 km through Turkish territories and constitutes an approximately 200 km long border between Turkey and Greece eventually flowing into the Aegean Sea. The main reaches of the river are are Arda, Tunca, Kızıldeli Su (Erythropotamos) and Ergene. There are highly fertile lands in the basin where Turkey practices agriculture intensively. The main problems that Turkey face in the Maritza River Basin are floods and pollution as well as droughts during summer periods.

ATATÜRK DAM

TRNC WATER SUPPLY PROJECT

As an island in the Mediterranean Sea, Cyprus has very limited water resources. Nearly all water needs were met with groundwater resources putting grave pressure in terms of water quality and quantity. "The Turkish Republic of Northern Cyprus (TRNC) Water Supply Project" was launched in 2015 to alleviate the long-term water demand of the TRNC by supplying municipal and irrigation water from south Turkey to Northern Cyprus via a suspended pipeline across the Mediterranean Sea.

The project, also coined as "the project of the century", has an annual water supply capacity of 75.000.000 m^3 through a total length of 106,3 km pipeline. With the accomplishment of the project, completed by State Hydraulic Works (DSI) under the Ministry of Agriculture and Forestry of Turkey, TRNC is enabled to meet the water demand for the next 50 years. The transmitted water will be used for drinking, industrial and irrigation purposes and will be a significant contribution to the economic development of the region enabling irrigation of an area of 4.824 ha and increase in crop efficiency by 2,5 times.

The project, opened with a grand ceremony in 2015, is technologically unique in that such a long-distance transmission line with approximately 80 kilometers distance of sea transition is a first in the world. Sea transition was implemented by a very special 1,6 meter diameter polyethylene pipe hanging in 250 meters depth from sea level by tying the pipe with anchoring cables in each 500 meters to the sea bottom.

The project, with a total cost of more than 500 million USD, included 4 main components: Turkish territories, sea crossing, TRNC territories and TRNC distribution networks encompassing the construction of concrete face rock-fill Alaköprü Dam (storage capacity of 130,5 million m^3) in Turkey and Geçitköy Dam (storage capacity of 26,5 million m^3) in TRNC, a water treatment plant in TRNC and pumping stations, balancing tanks and transmission lines in both countries.


TÜRKİYE'DEN KKTC'YE
SU TEMİN PROJESİ
T.C.
Orman ve Su İşleri
Bakanlığı
DSİ
TÜRKİYE'DEN KKTC'YE
SU TEMİN PROJESİ


TURKEY
Alaköprü Dam
Mersin
Antalya
Alanya
80 km suspension system
sea crossing pipeline
Geçitköy Dam
CYPRUS
MEDITERRANEAN SEA

6. International Water Aid Activities

Today's global challenges intensify humanitarian needs worldwide entailing immediate actions. According to the 2017 Global Humanitarian Aid Report, with 6 billion USD of humanitarian assistance, Turkey is the 2nd largest contributor to humanitarian relief and "the most generous country" in terms of humanitarian assistance relative to GNI.

In the water sphere, Turkey has undertaken extensive international aid activities both in-country and abroad. The country hosts the largest number of refugees in the world with over 3,6 million registered Syrians of whom 0,2 million live in 21 government-run temporary protection centres. Water is continuously supplied to refugees thanks to the immense infrastructural investments made. Turkey allocated more than 30 billion USD to humanitarian relief actions for Syrians registered in Turkey of which 4% (~1,2 billion USD) is reckoned to be spent for water related activities.

Through different ministerial bodies and NGO's, water has been supplied to more than 1,5 million people in Africa by means of bore drilling and water treatment works and thousands of water professionals were hosted to be trained in various subjects in water and sanitation. As a result of the "Drinking Water Supply in Africa" project, more than 3 million people will be served by the end of 2020.

Turkey has provided technical assistance (e.g. advisory, investigation, detailed design) and granted technical equipment to many countries, particularly in Africa, for the sustainable development and use of water resources. The Turkish Government has undertaken large-scale hydraulic works as well. The Ambouli Dam in Djibouti, as a recent example is built by the government with a total cost of €11 million.

To join forces at a global level, Turkey has, in different platforms, called for the establishment of an International Water Fund to address urgent global water-related needs.


TEŞEKKÜR
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