

Water resources potential and the factors effected on water consumption

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Abstract: Water is one of the most important vital resources for all lives. It is also used for many purposes including agricultural, industrial, household, recreational and environmental activities. However, the majority of human uses require fresh water which the quantity of potable water is very limited. Only 2.5% of water on the Earth is fresh water, and over two thirds of this is frozen in glaciers and polar ice caps as known. Surface water is in a river, lake or fresh water wetland. It is naturally replenished by precipitation and naturally lost through discharge to the oceans, evaporation, evapotranspiration and groundwater recharge. For instance, rainfall varies according to seasons and regions in Turkey and average annual precipitation is 643 mm. This is equal to 501 billion m³ water for a year. 274 billion m³ of this amount returns to the atmosphere through evaporation from the surfaces of water and land; 41 billion m³ of this amount feeds underground water reserves by seeping into earth from surface; 186 billion m³ of this amount ejaculates into the seas and lakes in closed basins through the stream of rivers in various sizes. In addition, considering that 7 billion m³ water from the rivers arising from our neighbor countries flows into our water supplies, gross total renewable fresh water supply is 234 billion m³ in Turkey. However, human activities can have a large and sometimes devastating impact on these factors. Humans often increase storage capacity by constructing reservoirs and decrease it by draining wetlands. They often increase runoff quantities and velocities by paving areas and channelizing the stream flow. Due to this situation and population increasing and global warming, it is obvious that the quantity of potable water would be more important and valuable. In this context, protection, conscious consumption and management of current water resources are getting importance. Thus, nowadays billions of people are unable to access water of desired quality and quantity. According to the annual amount of water per capita, our country is a country with water shortage. The annual amount of usable water per capita is around 1519 m³ in Turkey. Phenomena and contaminations of current surface and underground waters, consumption, insufficient water supply network, competition in water use and frequent droughts call for development of alternative plans in an integrative policy for management of water resources. One of these plans is to develop water consumption consciousness and awareness through determination of factors that affect water consumption of families and individuals. This study was conducted to determine water resources potential, using of people, quantities of water consumption, their attitudes and behaviours towards water saving methods and factors influencing them and their behaviours and attitudes towards water consumption.

Keywords: Water resources, Water consumption, Water saving