

**WATER BUDGET OF LAKE SAPANCA  
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**EXPERTISE THESIS ABSTRACT**

In this study, water budget of Sapanca Lake for 1977 water year, 1981 March – 1982 February, 2009 water year and 2014 water year is calculated.

Water management, in practice, is a sensitive measure which focus on water supply to user demand and oversee quality. In this study, some screenplays about water budget under this circumstances and probable cases are investigated via Sapanca Lake practice.

In this respect, using Sapanca Lake hydrometeorologic information, water budget is determined an demand focuses about lake is analysed. Parameters that stand for Hydrologic budget components are determined as basic fall and flow parameters. On the other hand, population projection and necessities of single industrial foundations with strategic importance are carefully studied in order to reflect a general perspective about water demand in recent times. Possible effects of these necessities and demands on lake's water level are collected graphically and as table data. When coming up against missing flow data, water budget is calculated by c coefficient (runoff coefficient), and because of lacking adequate studies about relationship between Sapanca Lake and underground water, flow to the Lake from underground water and flow from Lake to underground water are not included to the calculations.

In this frame, effects of sectoral usage on lake water accountancy is remarkable. Sapanca Lake, with its potable water quality, is provide water for a remarkable population. Also important industrial foundations draw water from the lake. As a result of this, from time to time, lake's maintenance in respect of its ecosystemic service can be fragile. In parallel with development policies, for environmental and social reasons, there is a necessity to constitute a protection - usage balance on lake. It seems it's essential to make comprehensive studies in the light of reliable data which would take all the stakeholders' effects totally and which would constitute a basis for a long haul sectoral planning.

**Keywords:** Lake Sapanca, Water Budget, Water Management