



Bir Şehir Bir Katma Değer: Almus Barajı One City One Added Value: Almus Dam

Yasemin ELİK

Assistant Professor, Erzincan Binali Yıldırım University, Department of Economic History, Erzincan, Türkiye
Doç. Dr., Erzincan Binali Yıldırım Üniversitesi İktisat Tarihi Bölümü, Erzincan, Türkiye
Orcid: 0000-0002-7536-6918 / Email: ysmn.ciftci@gmail.com

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Öz

Yaşam birimleri olarak tanımlanan şehirler; coğrafi sınırlılıklarını sahiplendikleri kadar çevreledikleri bu coğrafi alanın pekçok özelliğini topluma aktarabilen önemli oluşumlardır, toplumsal düzlemde yaratmış oldukları katma değerler yadsınamaz. Şehirlerin yarattığı katma değerlerin en önemlilerinden bir tanesi de sosyo ekonomik düzeyde görülen katma değerlerdir. Bu bağlamda çalışma kapsamında şehir olarak Tokat İli seçilmiştir. Tokat İli'nin seçilmiş olma sebebi, Almus İlçesinde kurulmuş olan cumhuriyet dönemi önemli kazanımlarından bir tanesi olan Almus Barajı'nın il düzeyinde yarattığı sosyo ekonomik katma değeri ortaya koyabilmektir. Bu katma değeri ortaya koyabilmek için Başbakanlık Cumhuriyet Arşivi'nden elde edilen orijinal belgeler ile online platformda yer alan gazete haberleri içerik analizi yöntemi ile titizlikle incelenmiş, kendi aralarında derlenerek elde edilen değerli çıktılar okuyucuyla paylaşılmıştır. Çalışma; hem Cumhuriyet dönemi şehir tarihi çalışmalarının nicelik olarak daha az olmasından dolayı ve hem de doğrudan Almus Barajı ile ilgili yapılmış olan çalışmaların sınırlı sayıda olması sebebiyle literatürde önemli bir boşluğu doldurabilecek düzeydedir. Elde edilen sonuçlara göre Almus Barajı faaliyete geçtikten sonra; tarım, balıkçılık, istihdam ve enerji üretimi noktasında yadsınamaz düzeyde sosyo ekonomik katma değer yaratmıştır. Çalışmanın literatüre sağlayacağı katkıyı artırabilmek için Almus Barajı ile ilgili sosyo ekonomik rakamsal çıktılara ulaşabilmek ve bu çıktıları ilçe ve il bazında değerlendirebilmek yapılabilecek en olağan öneridir.

Anahtar Kelimeler: Almus Barajı, elektrik, hidroelektrik santrali (HES), Tokat

Abstract

Cities are defined as living units; They are important formations that can transfer to society many features of this geographical area, which they surround as much as they own their geographical limitations. The added values that cities have created on the social area cannot be denied. One of the most important added values created by cities is the added value seen at the socioeconomic level. In this context, Tokat City was chosen as the city within the scope of the paper. The reason why Tokat was chosen is to present the socioeconomic added value created by the Almus Dam which was one of the important achievements of the republican period and which was established in the Almus District, at the city level. In order to reveal this added value, the original documents obtained from the Republic Archives of the Prime Ministry and the newspaper news on the online platform were studiously examined with the content analysis method, and the valuable outputs obtained by compiling among themselves were shared with the reader. Paper is at a level that can fill an important gap in the literature, both due to the fact that the studies on the city history of the Republican period are less in quantity and because of the limited number of studies directly related to the Almus Dam. According to the results obtained, after the Almus Dam entered into service; it has created an undeniable socio-economic added value in agriculture, fishery industry, employment and energy production. In order to increase the contribution of the paper to the literature, it is the most usual suggestion to reach the socio-economic numerical outputs related to the Almus Dam and to evaluate these outputs on the level of district and city.

Keywords: Almus Dam, electricity, hydroelectric power station (HPP), Tokat

Introduction

The city, which comes from the Persian word “şehir”, is defined as a city, site or large settlement centers where the majority of the working-age population is engaged in trade, industry and administration, generally without agricultural activities (Küçükbaşcı, 2010, p. 441; Akalın, 2010, p. 2211). However, from a general perspective, cities are not only a regional formation but also a settlement unit that can integratively convey many economic, political, cultural, sociological and historical characteristics of the region it frames.

Being a crossroads in various wars and being a settlement that attracts intensive migration, the fact that Mustafa Kemal visited Tokat during the National Struggle, and the fact that a symbolic caravan consisting of camel figures has been placed in the region to revive the route of the historical Silk Road even today can prove that Tokat has a character that preserves its city identity from the past to the present (Açikel, 2012, p. 220 – 221). Tokat Castle, which paved the way for Tokat to be referred to as a castle-city in the literature, Taşhan, an Ottoman architectural structure built in the XVIIth century, Yazmacılar Inn, which is currently being operated as a hotel, Tokat Clock Tower, Tokat Mevlevi Lodge and Latifoğlu Mansion are other undeniable elements that protect Tokat's city identity (Seçgin, 2012, p. 226). Tokat cloth, Tokat leaf, Tokat fenugreek and Tokat kebab and the production areas that still preserve their vitality such as weaving, coppersmith and leather manufacturing are important cultural transfers that still make a name for themselves today. All these cultural heritages, whose historical processes are based on very old times, are the basic elements specific to Tokat, which still preserves its existence today and is the center of attention of tourists, and some of these elements have been given a new life in Sulusokak, one of the oldest settlements and trade centers of Tokat, with the title of 900 histories in 900 steps.

It is possible to come across heritage remains in districts other than Tokat Central District in this respect. One of these and the most important one is the Almus Dam constructed in Almus District of Tokat. Almus Dam, whose history is not very old, is one of the important formations of Tokat in the republican period and it has left positive effects on the economy of Tokat and continues to do so today.

Urban historiography in Turkey cannot be studied as an independent discipline and at the level of detail reached in the West. Instead, studies describing the socio-economic characteristics of cities, such as their institutions, economic and physical structure or population, are preferred (Uğur, 2005, p. 23). In fact, when it comes to urban history in Turkey, the first thing that comes to mind is the studies on Ottoman cities. In other words, the Ottoman period urban history studies are quantitatively more than the Republican period urban history studies. Özer Ergenç's focus on studies on Ottoman period city history in his article titled *Some Thoughts on City History Studies* can be interpreted as an indicator of this situation (Ergenç, 1988; p. 667). It is noticeable that the studies on the cities of the Republican period are more limited in number and mostly focused on urbanization and its results conducted in various social science disciplines, local administrations and urban planning departments (Uğur, 2005, p. 16). Since urban historiography is not an independent field in Turkey, the studies carried out in this regard are both descriptive rather than analytical, and qualified studies written from the perspective of an economic or political historian rather than an urban historian (Uğur, 2005, p. 21).

For the Republican period, it is possible to come across various works made specifically for Tokat. These are as follows; *Research on the City History of Turkey* written by İsmail Özer: Tokat (1923 - 1950), *A Book Draft of the Early Republican Period: Tokat City History Studies / Tokat Museum Example master's thesis* prepared by Çiğdem Bilgen, Doctoral thesis titled *Tokat in the Democrat Party Period (1950 - 1960)* prepared by Betül Karcı within Gaziosmanpaşa University Institute of Social Sciences and the article titled *Floods to which Tokat was exposed in the Republican Period (1934 - 1949)* by İsmet Üzen. Although it is possible to increase the number of studies similar to the mentioned studies, none of the studies are directly related to our subject. Since the study aims to reveal the socio-economic added value created by Almus Dam, the studies that we will use in the literature section should be studies that focus directly on this issue. However, studies on Almus Dam are also very limited. These studies are the article titled *Age Determination and Growth in Alburnus chalcoides Population Living in Almus Dam Lake (Tokat)*, which is a joint publication, the publication titled *Length-Weight Relationship of 9 Fish Species Living in Almus Dam Lake*, which is

also a joint publication, the Effect of Rainbow Trout Farming in Cages on Phosphorus Release from Sediment in Almus Dam Lake (Tokat), which is also a joint publication and the Role of Köklüce Hydroelectric Power Plant in Meeting Niksar's Energy Needs by Zeynep Kızılırmak. These studies are very valuable works written in different disciplines.

The lack of urban history studies in the Republican period can take this study we are conducting one step forward. When the literature was analyzed, it was seen that the studies on Almus Dam Lake were concentrated rather than Almus Dam. This study titled *One City One Added Value: Almus Dam* is important because it is based on analyzing the socio-economic effects of Almus Dam, which was built in Almus District of Tokat Province during the republican period. The claim that the study is the first study on Tokat in the republican period is, of course, an abstract reality. However, the study is important in terms of revealing the socio-economic added value created at the provincial level by Almus Dam, which is an organization with an undeniable contribution to Tokat Province.

In this composition study, content analysis, which is one of the qualitative research methods, was used as a method. The main purpose of content analysis, which allows the use of all visual and written sources such as legal texts, documents, records, materials such as books and newspapers or media sources such as films, documentaries, photographs and video recordings, is to characterize and compare these sources; in other words, it is to analyze written and oral sources in a systematic way (Yaraş, 2019, p. 12; Balcı, 2021, p. 225). The original archival documents obtained from the State Archives Directorate of the Presidency of the Republic of Turkey, online platforms containing newspaper news about Tokat, and academic works previously written by experts on the subject have been utilized for the study. Obtaining summary data that provides clearer statements to the readers in order to characterize and compare these sources and to evaluate them systematically is a concrete indicator of the suitability of the study for content analysis.

Organized in 4 sub-sections, the first section of this study is presented to the readers under the title of the Past and Present of Tokat. The aim of this section is to convey Tokat, which became an independent province in 1920, including the pre-Republican period, to the readers with its past and present, although not with detailed eyes. The second subsection, entitled Almus and Almus Dam, aims to give information about Almus, which was a district of Tokat in 1954 according to official sources, and to introduce Almus Dam by evaluating the archival documents obtained about Almus Dam, the foundation of which was laid in 1957. The title of the next subsection is "Added Value Created by Almus Dam". In this section, which constitutes the main focus of the study, the added value created by Almus Dam in socio-economic terms is tried to be revealed. As a result of the evaluation of all the documents obtained, the final section, Conclusions and Recommendations, has been prepared. In this section, recommendations are made to policy makers regarding the socio-economic potential of Almus Dam.

1. Past and Present of Tokat

The history of Tokat, which has hosted many civilisations in the past, including Hittites, Phrygians, Cimmerians, Scythians, Medes, Persians, Kingdom of Macedonia, Kingdom of Pontus, Roman and Byzantine Empires, dates back to ancient times. The exact date of the city's foundation is not known, but it is clearly stated in the literature that the settlement's history started with the Catholic Age, which corresponds to 5400-3000 BC (Açikel, 2012, p. 219). In addition to the aforementioned civilisations; although the Umayyads and Abbasids made raids to Tokat from time to time; after the 1071 Malazgirt Victory, Tokat came under the rule of Seljuks (Açikel, 2012, p. 219). In 1381, Tokat was captured by Yıldırım Bayezid, who named the city Dârünnasr, and it became an Ottoman city (Açikel, 2012, p. 220). Tokat, which continued its mobility during the Ottoman Empire period as before, managed to enter Republican Turkey as a province (Tuncel, 2012, p. 226).

Located in the Black Sea region, Tokat is neighbored with Samsun in the north, Sivas in the east and south and Amasya in the west. This city, through the center of which the Kızılırmak passes, was established on two slopes of the Behzat stream descending between the mountains in the south of the plain known as Kazova, which extends in the east-west direction (Açikel, 2012, p. 219). In 1920, Tokat was separated from Sivas Province and became an independent province; today Tokat has 11 districts including the central district (Directorate of State Archives

Republic Archives (Istanbul) (BCA), 31.05.1920, p. 2). These districts are shown in Table 1. The table, which shows the administrative division of Tokat Province in detail, also allows us to access information on which districts were included as a district in Tokat Province on which date. As can be seen, Almus became a district of Tokat Province in 1954.

Table 1.

Detailed Administrative Division of Tokat Province

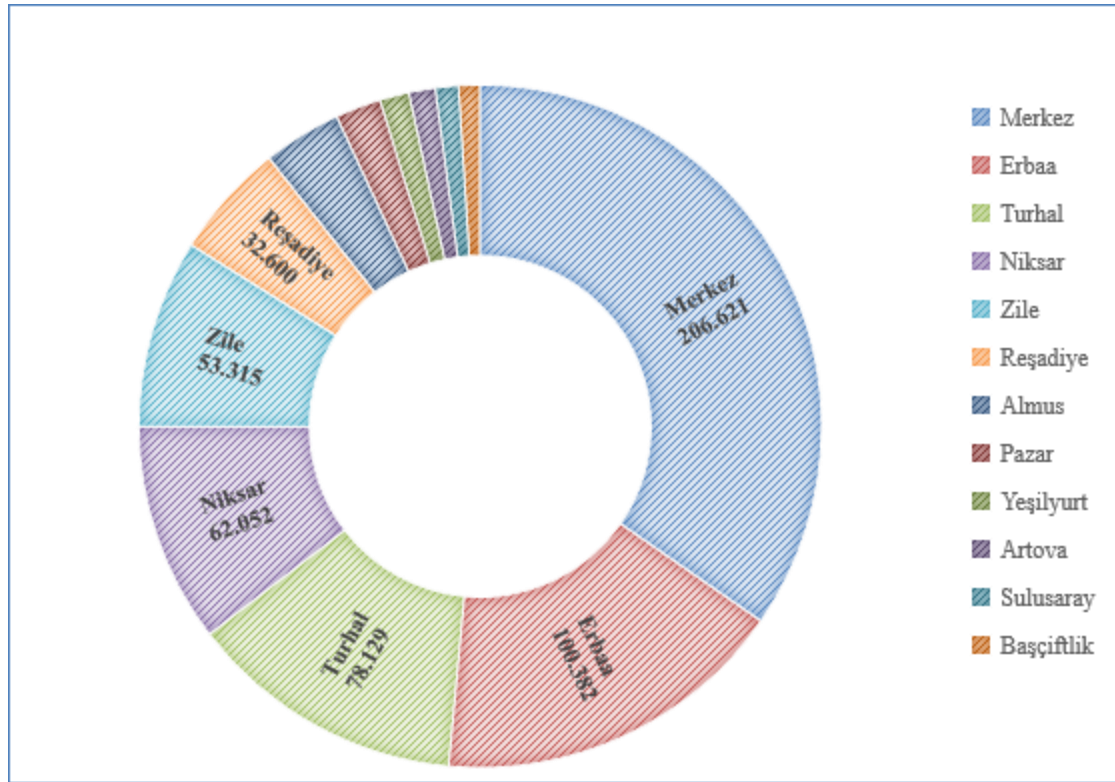
| | Numbers and Names of District | Enterer | Explanation |
|-------------|---|----------------------------------|--|
| 1920 | (5) Tokat, Zile, Erbaa, Niksar, Reşadiye | | |
| 1921 - 1926 | (6) Tokat, Zile, Erbaa, Niksar, Reşadiye, Artıkova | Artıkova | |
| 1927 - 1943 | (6) Tokat, Zile, Erbaa, Niksar, Reşadiye, Artova | | Artıkova changed to Artova. |
| 1944 - 1951 | (8) Tokat, Zile, Erbaa, Niksar, Reşadiye, Artova, Turhal, Taşova | Turhal, Taşova | |
| 1952 - 1953 | (7) Tokat, Reşadiye, Zile, Erbaa, Niksar, Artova, Turhal | | Taşova was transferred to Amasya Province. |
| 1954 - 1986 | (8) Tokat, Reşadiye, Zile, Erbaa, Niksar, Artova, Turhal, Almus | Almus | |
| 1987 - 1989 | (9) Tokat, Reşadiye, Zile, Erbaa, Niksar, Artova, Turhal, Almus, Pazar | Pazar | |
| 1990 - 2013 | (12) Tokat, Reşadiye, Zile, Erbaa, Niksar, Artova, Turhal, Almus, Pazar, Başçiftlik, Yeşilyurt, Sulusaray | Başçiftlik, Yeşilyurt, Sulusaray | |

Source: Musa Şaşmaz, (2014). *Türkiye'nin İdari Taksimatı (1920 - 2013) / Volume: XIV. Türk Tarih Kurumu.*

According to the Address Based Population Registration System, the total population of Tokat, which has 12 districts today, is 602,567 people in 2021; this population will decrease to 596,454 people in 2022. (Turkish Statistical Institute, 2023). As of 2022, the distribution of the total population of 596,454 people by districts is shown in Figure 1 below (nufusu.com, 2023).

Figure 1.

Tokat District Population Data for 2022



Source: Türkiye İstatistik Kurumu (2023, 7 May). Nüfus ve Demografi. <https://data.tuik.gov.tr/Bulten/Index?p=Adrese-Dayali-Nufus-Kayit-Sistemi-Sonuclari-2022-49685>.

One of the districts of Tokat is Almus district where Almus Dam was established in the 1960s. Almus is the seventh most populous district with a population of 22,126 as of 2022.

2. About Almus and Almus Dam

Founded in 1954, the district is connected to Tokat Province and is located in the Central Black Sea Region and 35 km from Tokat. It is neighbored with the Reşadiye District and Hafik District of Sivas Province in the east, Tokat Province in the west, Niksar District in the north and Sivas Province in the south. Its area is approximately 10% (9,959 / 944.69 = 10.54) of its province and is 944.69 km² (Dicle et al., 2018, p. 4). The first application designed by the authorities for the district, where agriculture, animal husbandry and beekeeping were carried out, was to realize the Almus Dam (Grand National Assembly of Turkey Minute Book, 1954, p. 193). The dam, the foundation of which was laid in 1957 for this purpose, was put into operation in 1966 (Karcı, 2019, p. 120).

Almus Dam is located in Almus District of Tokat Province and is 35 km away from the city center. It was established by the State Hydraulic Works (DSİ) in the Yeşilirmak Basin for irrigation and energy purposes (Yılmaz and Suiçmez, 2010, p. 8). The project for the Almus Dam, which was planned to be constructed for the aforementioned purposes, is known as the Yeşilirmak Basin Forest Management Project, as it appears in the original documents obtained from the archive.

Within the main lines of the Yeşilirmak Basin Management Project, the first target was to prevent floods. Thus, it was foreseen that an area of 30,250 hectares would be protected from floods and an annual benefit of 2,400,000 TL would be provided through flood control. The second aim of the project was to meet the need for irrigation. Thus, it was stated that an irrigated area of 24,835 hectares would be added to the existing irrigation facilities in the Yeşilirmak Basin and that there would be a great improvement in transport, trade and industry with the increase in crops. In addition, as a result of the 90 per cent increase in irrigation area, it was reported that the farmer's annual

income would increase by 16,412,000 TL due to irrigation and thus yield increase. Finally, the project aimed to meet the need for cheap and abundant energy. Thus, it was stated that with the development of the industry, production in this field would increase and become cheaper. It was estimated that the direct energy benefit of all the facilities within the scope of the project would be 141,676,000 TL in terms of direct energy when they became operational. (BCA, 07.10.1968; p. 10 – 11).

One of the steps taken for the project to serve its purpose is the commissioning of the Almus Dam and HPP. Technical specifications of the dam and HPP are as follows (BCA, 07.10.1968, p. 14):

***Dam Location:** It is located in the Yeşilirmak Basin, 3.5 kilometres north-east of Almus District, where Yeşilirmak makes a slight bend and enters the Omala Strait.*

***Aim of the Project:** The project aims to prevent floods in Kazova, Turhal and Amasya by collecting the waters of Yeşilirmak, to irrigate these plains and to produce energy.*

Downstream of the dam, there are 13,400 hectares of irrigable land in the plains of Omala, Kazova, Turhal, Gelding and Amasya gardens respectively. Of this, 3,950 hectares are currently irrigated. In terms of energy, since it will be the first energy facility in this region, the annual energy production of the dam hydroelectric facilities of the Yeşilirmak Basin is 184,000,000 KWh and this amount will reach 459,300,000 KWh with the future construction of Köklüce and Kızıldere HPP.

In addition to all these, the floods in Kazova and Amasya gardens do not allow safe agriculture. With the construction of the dam, agricultural safety will be ensured and flood damages of approximately 900,000 liras per year will be prevented.

***Hydrology:** The river's drainage basin at the dam site is 2352 km²; the average elevation is 1200 m. The average annual rainfall is 516 m/m and the annual amount of water passing through the dam varies between 398 million and 923 million m³. The maximum measured flood consumption at this location is = 289m³/sec.*

3. Added Value Created by Almus Dam

Dams are structures that have been created to meet the water needs of people since ancient times and to contribute to the irrigation of agricultural areas. With the opening of the Almus Dam, the flow of Yeşilirmak was taken under control and Kazova was protected from floods. A large part of the region was unable to carry out agricultural activities due to floods, and the dam eliminated this situation and enabled the villagers to continue agricultural activities effectively (Özçağlar, 1988, p. 309).

Hydroelectric power plants are centers that generate electricity with water-powered machines (Akalin, 2010, p. 1099). HPPs are built on rivers to convert the energy of fast-flowing water into electricity and are usually built on dams or rivers to do so (Kızılırmak, 2021, p. 67). In this context, Almus Dam also operates as a HPP and generates electrical energy. However, electricity generation is not the only added value created by the Almus Dam in terms of the question this study seeks to answer. In addition, the added value created in agriculture as a result of protection from floods and elimination of irrigation deficiencies, and the added value created in the fishery and livestock sector, which enables the cultivation of alternative fish species thanks to Almus Dam Lake, are important. The personnel employed within the scope of the Dam, Dam Lake and HPP, the restaurant and children's park built on the land along the shore of Almus Dam Lake, and the equipment and materials such as floating docks, jet skis, canoes or boats purchased to enable visitors to the region to do water sports make the region more attractive and the vitality created in the tourism sector in the region are undeniable contributions (Dicle et. al., 2018, p. 5).

Figure 2.

Final Image of Almus Dam and HPP



Source: <https://avys.omu.edu.tr/storage/app/public/asli.ulke/70344/3.hafta.ppt>, p. 22.

Almus Dam and HPP, with a power capacity of 27 MW, generates 99 GWh of electricity per year. Almus HPP, which is the 342nd largest power plant in Turkey and the 7th largest power plant in Tokat, is capable of meeting all the electrical energy needs of 25,232 people in their daily lives, such as housing, industry, metro transportation, official offices, and environmental lighting. When only residential electricity consumption is taken into account, it has the capacity to meet the electricity demand of 26,513 houses (Enerji Magazin, 14 May 2016).

Table 2.

Contribution of Almus HPP to Tokat Province Electricity Generation

| Almus HPP Annual Average Production | Tokat Annual Consumption | Turkey Annual Consumption |
|-------------------------------------|--------------------------|---------------------------|
| 94,239. Mwh* | 800,128.61 Mwh** | 206,061,275.30 Mwh** |
| Percentage of Need Fulfillment | 8.49 % | 0.00046 % |

Source: * Mehlika Dicle, Emrah Oral ve Hayrul Şen (2018). *Orta Karadeniz Kalkınma Ajansı Almus İlçe Raporu. Orta Karadeniz Kalkınma Ajansı*, p. 5.

** İbrahim Koçak ve Kurtuluş Boran (2019). *Türkiye'deki İllerin Elektrik Tüketim Etkinliklerinin Veri Zarflama Analizi ile Değerlendirilmesi. Politeknik Dergisi* 22(2), 351-36, p. 356.

According to Table 2, the average annual electricity generation of Almus HPP is 94,239 Mwh as of 2016. For the same year, the average annual electricity consumption of Tokat and Turkey is 800,128,128.61 Mwh and 206,061,275.30 Mwh, respectively. Based on these data, we can say that Almus HPP alone meets 8.49% of the annual electricity consumption of Tokat Province and 0.00046% of Turkey's annual electricity consumption. Köklüce HPP operating in Niksar, another district of Tokat, meets 31 per cent of the annual electricity consumption of Tokat Province and 0.11 per cent of the annual electricity consumption of Turkey as of 2016 (Kızılırmak, 2021, p. 71). The figures prove that Almus HPP creates less added value than Köklüce HPP in terms of meeting the annual electricity consumption at both provincial and Turkish levels.

The Almus Dam HPP not only contributes to the province of Tokat by generating electrical energy, but also irrigates the agricultural lands, contributes to the tourism in the region, and is also highly effective in the export of

fishery activities. Within the scope of the aquaculture support project, in which the Ministry of Agriculture and Forestry provides a total of 1 million TL support to trout breeding enterprises in the region annually, it is among the information obtained from internet news that 6 thousand 660 tonnes of fish were produced in 30 trout farms on the dam in 2021 and this production contributed 150 million TL to the national economy (CNN TÜRK.com, 23 November 2021). Apart from trout, different fish species such as carp, catfish, tuna and rockfish are also cultivated in the dam. Its contribution to employment is 56 persons in total based on 2015 data. The power plant employed 2 permanent civil servants, 30 contracted civil servants and 24 laborers, while the number of outsourced services was 51 for the same year (Topgöl, 2015, p. 1342 – 1343).

Conclusion and Recommendations

Electrical energy is an essential element for modern man to sustain his life. In order to obtain this energy, hydroelectric power plants are needed. The study is based on analyzing the socio-economic added value created by the HPP in the Almus District of Tokat Province in the Black Sea region of Turkey and is also planned as an urban history study.

In terms of the socio-economic added value created by the HPP; although Almus HPP, which constitutes the basis of the study, is behind Köklüce HPP as of 2016 data; the fact that it meets 8.49% of Tokat Province's electricity consumption and 0.00046% of Turkey's electricity consumption is ideal data to reveal some of the socio-economic added value created by the mentioned power plant. Electricity generation is not the only socio-economic added value created by the Almus HPP. In addition, socio-economic added values created in agriculture, animal husbandry in terms of enabling the cultivation of different fish species, employment and tourism sector as a result of increasing the attractiveness of the region are also within this scope.

At the point of city history studies; as in other historical fields, the importance of archive documents cannot be denied. The correct reading and effective interpretation of archival documents are very important for the aforementioned studies. In addition, when archival documents are integrated with Geographic Information Systems as a current approach, the resulting studies will open the door to a new and effective method in urban historiography. Both studying cities as an independent settlement units - only a city - and examining them with their unifying qualities that contain interrelated elements will make an undeniable contribution to Turkish history in terms of urban historiography studies and will prepare the ground for the formation of modern studies that can guide researchers who carry out their studies in this direction. In this direction, this study, which we are about to finalize as a Republican period city history research in the nature of a compilation, has been written and shared with the reader in order to be a guide to the Republican period city history studies. The success of the study will be revealed to the extent that it can contribute to the valuable researchers working in this direction. By reaching socio-economic numerical outputs related to Almus Dam Lake and HPP, evaluating these outputs on the basis of district and province can be put forward as a suggestion for studies to be carried out in the following periods and in close context. In addition, with this compilation study, the socio-economic added value created by such a large formation can be increased by determining the situation with more up-to-date data on Almus Dam, and by raising awareness about the lack of urban history studies in the Republican period, researchers can be given an idea to work within this framework. In this way, it will serve to further enrich the literature on urban history studies in the Republican period.

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Publication Ethics

The author declares that all ethical principals and rules were followed in data collection, analyses, and reporting process.

Ratio of Author Contrubition

This article was written by one author.

Conflict of Interest

The author declares no conflict of interest.

Annexes

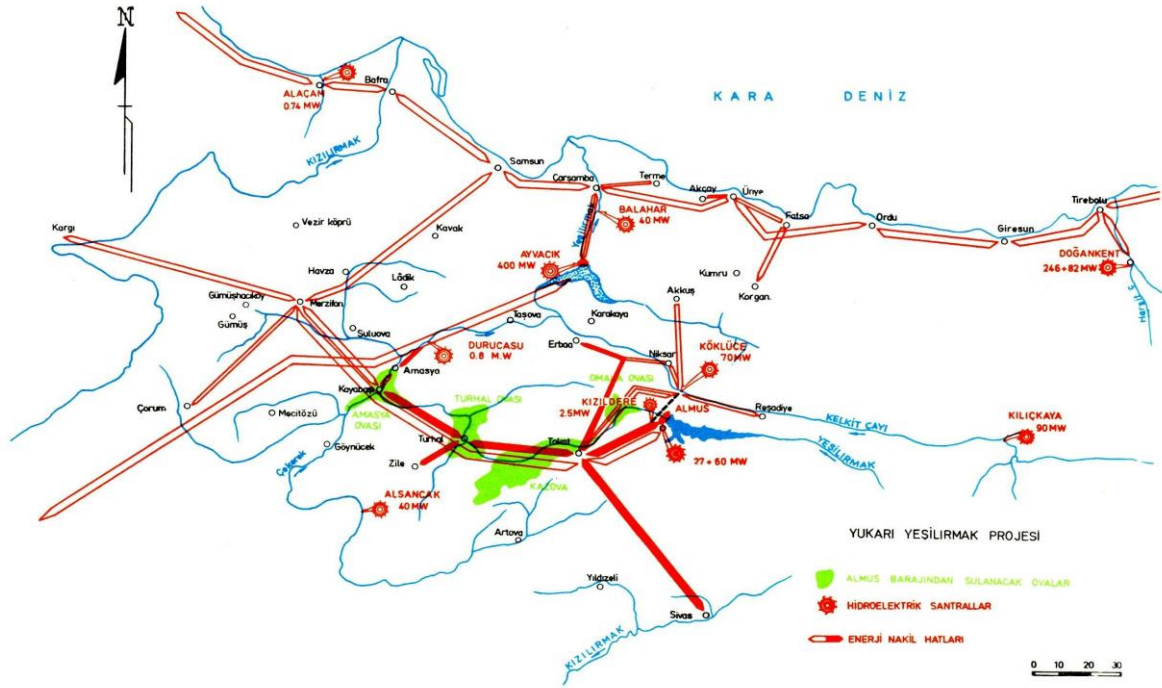
Annex – 1: Characteristics of Almus Dam and HPP

Features of dam and hydroelectric power plant

| | |
|--------------------------------------|---|
| Dam body : | |
| Type | : Zoned earth embankment |
| Height | : 95 m. (from the bottom of the core ditch) |
| Peak length | : 350 m. |
| Peak width | : 12 m. |
| Body filling volume | : 3 500 000 m |
| Dam lake and spillway: | |
| Maximum lake volume | : 950 000 000 m |
| Lake surface | : 3130 Hectares |
| Lake length | : 22 Km. |
| Precipitation area | : 2353 Km |
| Spillway type | : Without cover, side channel. |
| Spillway capacity | : 1550 m/sec. |
| Hydroelectric installations : | |
| Force tunnel type | : Circle cross-section, with well cover at the entrance |
| Force tunnel diameter | : 7.00 m. |
| Force tunnel length | : 519 m |
| Steel coated part | : 50 m |
| Penstock tunnels | : 3 pcs Ø 4.00 m., 1 pcs. Ø 3.30 |
| Number and type of turbines | : Francis with 3 vertical axes, |
| Maximum power of turbines | : 1 4700 Horsepower |
| Maximum power of generators | : 13000 KVA |
| Maximum drawdown | : 72.50 m. |

Source: BCA. (07.10.1968). *Institution: 30-1-0-0 / Prime Ministry Directorate of Private Secretariat, Location Info: 16-90-8, File Annex: A6, p. 22.*

Annex – 2: Map Showing Almus Dam, HPPs and Irrigated Plains



Source: BCA. (07.10.1968). Institution: 30-1-0-0 / Prime Ministry Directorate of Private Secretariat, Location Info: 16-90-8, File Annex: A6, p. 7.