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A Shining Icon of Progress: The Keban Dam as a 'Turning Point' for Infrastructural Development in Turkey

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Shining icons of progress

Sunken Village in Halfeti,
Gaziantep, Turkey.

Since its foundation in 1923, the Turkish Republic has built more than 800 dams across its territory to regulate floods, provide water and produce electricity. Built on the Upper Euphrates in Eastern Turkey between 1965 and 1974, the Keban Dam constitutes a “turning point” in the country’s history of infrastructural development and hydroelectricity production. Laurent Dissard gives more details about the dams that helped to build a nation.

Dams are omnipresent across the geography of Turkey. Every town and village in Anatolia has its story about a local dam. Perhaps more than any other infrastructure, dams have shaped the country’s natural and social landscape, as well as its economic and political life. Put more metaphorically, when a nation builds a dam, the dam also helps to build the nation. As a historian working in the Middle East, it is this relationship over time between infrastructural development and the construction of nation-states that I am interested in learning more about.

There are indeed countless stories to be told about dams in Turkey. Many of them start with Süleyman Demirel (1924-2015), Turkey’s former Prime Minister and its ninth President. An engineer-turned-politician, Demirel built his political vision of a Grand Turkey through hundreds of engineering projects like pipelines, bridges and dams. Nicknamed the “King of Dams,” he traced his dreams of modernisation to a year abroad in the US as a student. During a visit to the Hoover Dam on the Colorado River, young Demirel imagined the day his country would also own such a monument.



Turkey’s first mega dam: Keban Dam immortalised on a postage stamp in 1966.

His dream would come true, a few years later, at Keban in Eastern Turkey.

Keban dam

Built between 1965 and 1974 on the Upper

Euphrates, the Keban Dam brought the collaboration of local and international actors. Financed by global loaning institutions such as the World Bank and European Investment Bank, the project was designed by EBASCO, a

Keban technicians.



well-known industrial firm based in New York. Raised on the ground by foreign experts, it was a learning experience for a young cohort of Turkish engineers working for the relatively new State Water Works (DSI) established in 1954. Last but not least, the project represented temporary work for more than 2000 manual labor, Kurdish for the most part, recruited across Eastern Turkey.

A shining icon of progress, the Keban Dam was to Turkey what Aswan, a few years earlier, was to Egypt: a dream come true for politicians like Demirel and the pride of engineers constructing their nation both literally and figuratively. Once completed Turkey’s first mega-dam accounted for one-fourth of the country’s electricity production. Thanks to another US\$25M World Bank loan for transmission lines, it also became the centerpiece in the reorganisation of the country’s grid, helping to send power from Eastern Turkey to Ankara and Istanbul.

Keban, it was thought at the time, would be more than a technological feat sending electricity west. In the 1960s the hope was that Elazığ, the region’s largest city located just 40km away, would also be transformed.

Included in the project’s budget were the extension of the city’s airport, the construction of a new central boulevard, the expansion of a large cement factory, the relocation of inundated roads and rail tracks, as well as the building of schools, hospitals and other public buildings in the city and the region. A dam would provide an economic opportunity for regional development.

By boosting the local economy, Turkey’s first mega-dam would resonate in space and time beyond its construction site and building schedule. Or so it was expected.

Paving the Route of “Development”

In the still relatively young nation-state of Turkey, Keban represented an experiment in civil as well as in social engineering. Farmers and villagers about to lose their land or home under water were compensated financially by the state. Social scientists undertook extensive studies in the threatened zones to help local people adjust to their new environment. Not least, a salvage project was organised upstream to document and rescue the region’s soon-to-be-submerged ancient monuments and archaeological sites. Despite its 211m height,

Nusret Özgen: Keban’s first technician

Nusret Özgen was born on 16 April 1940 in Günbagı, a small village near the city of Elazığ. He has dedicated his entire life to the Keban Dam, working on the site during and after its construction phase. He was the dam’s first technician, and is today its living memory as well. In July 2015, I had the chance to meet Nusret Özgen in his Elazığ home and ask him about the history of the project, its implications for Turkey, as well as its significance in his own life.

Nusret Özgen was a very dedicated student. He attended local technical schools, quickly learning the crafts of carpentry and metalworking. After completing his military service in 1962, he hears of preparations for a large construction project near his home. The Keban Dam had just entered his life. Eager to learn more and participate in its construction, he applies in 1964 for a position at the nearest branch of the DS (Turkey’s State Water Works). Nusret Özgen is immediately appointed the dam’s first technician.

Nusret was known during the construction phase to write everything down. He recorded information on the Euphrates’ morphology and the region’s geology. He took notes on the building process step-by-step and on every measurement made on site. He also jotted down engineering mistakes made and avoided. Never having trained as an engineer, Nusret observed methodically and learned very quickly. He often describes the experience at Keban as a school and explains how the DSI engineers watched and learned from their foreign colleagues working for Impregilo, Siemens or Alstom. The Keban Dam was built on limestone foundations in an area prone to earthquakes. Nusret Özgen and others quickly realised that “building” the Keban Dam would also involve “fixing” it.

As foreign experts returned home in 1974, Nusret Özgen stayed behind and took the lead in fixing the dam’s various problems, including numerous leaks. His careful observations and painstaking notes had made him indispensable for its future smooth running.

Today Nusret Özgen lives in Elazığ with his family, never too far from the dam. Construction firms still call him for advice about new projects in the region. He has published a book on the Keban Dam, based on his experience, detailing with openness both its successes and failures. Even retired, Nusret continues taking notes, observing the world around him, writing down his thoughts and dreams, as well as hundreds of poems he has composed during his life. As you might have guessed, many of these revolve around the Keban Dam.

making it the tallest dam in the country at the time, Keban was planned at a human scale with a real intent to improve local conditions.

The Keban Dam also paved the way for more ambitious constructions; first on the Euphrates with the Atatürk Dam in the 1980s and Birecik Dam in the 1990s, and later on the Tigris with the Ilisu Dam still under construction. It thus announced what would become full-fledged state-sponsored “development” in its eastern provinces. Initiated in 1984, the Southeast Anatolia Project (or GAP from its Turkish acronym) is a state-financed development scheme intended to alleviate economic and social disparities between East and West. Initially planned around the building of dams, the GAP is perceived by many as Turkey’s economic, as opposed to military, answer to its “Kurdish Question.”

Today construction of mega-dams as well as smaller hydroelectric power plants continues unabated across Anatolia. Following the recent signing of new Public-Private Partnerships, some 2000 of these projects are in their planning or building stage leaving no river in Turkey intact. Once again, much of the enthusiasm to harness the country’s rivers in order to produce electricity can be traced back to the early 1970s and the Keban Dam on the Upper Euphrates.

Keban construction in 1970.



Kaban project site before construction.





Ataturk Dam on the Fırat River, Turkey.



View of Keban Dam.

Dividing a Landscape

Let us for a moment go back to 9 September 1974, the official opening date of the dam. Upon its completion, Keban did not have the immediate “modernising” effect expected in the region. On the contrary its rising waters forced more than 30,000 villagers to relocate, many rushing to the nearest city for jobs and housing. In Elazığ the population quickly swelled causing a housing shortage accompanied by a lack of adequate public infrastructures and municipal services.

Nonetheless, Elazığ today does have the feel of a “developed” and even prosperous city with its high-rise buildings and broad avenues, its airport and university campus. Whether we can affirm that Keban helped “develop” the region, however, seems more problematic. What the reservoir did achieve is the further accentuation of an already existing boundary in the region. What do I mean by this?

South of the Keban Dam reservoir, the city of Elazığ has grown and modernized over the last 40 years since the dam was built. Turkish-speaking, Sunni Muslim for the most part, and politically conservative, the town of half a million inhabitants is connected to the rest of the country thanks to recently built transportation, communication and energy infrastructures. To the north of the lake, however, the exact opposite is true.

Dersim is a mountainous region, difficult to access, located today just above the Keban lake. It is populated almost exclusively by Kurdish-speaking Alevis, a religious minority constituting more than 15% of Turkey’s population. Many in the country consider the mountains and valleys of Dersim, inhabited by the country’s largest ethnic and religious other, “rebellious” and “backward.” In a struggle to establish control over the area, successive waves of government have carried out multiple military operations and state interventions in the area over the past decades. As a result, Dersim has become a place of refuge for different contested political ideologies and social identities.

From an engineering perspective though, the valleys and rivers of Dersim constitute a perfect locale for dams and hydroelectric power plants. Unlike its southern neighbor Elazığ, Dersim to the north did not benefit from Keban’s supposed

“modernization.” Unsurprisingly when Turkey’s DSI later announced the construction of 10 dams and 16 hydroelectric power plants on the rivers and streams of Dersim, all tributaries of the Upper Euphrates leading to Keban, local people reacted very negatively against the project.

If Keban had symbolised the Republican attempt to modernize an underdeveloped part of the country, the dams being built today in Dersim are perceived as unnecessary interventions by the state into local affairs. Despite the numerous Environmental Impact Assessments, citizens the most concerned find that they have very little say in the future of their rivers. Consequently activists accompanied by lawyers, teachers and artists are actively contesting these latest projects north of Keban, six of which were programmed within the supposedly protected Munzur Valley National Park.

Once proud providers of water and electricity to all like the mega-infrastructure at Keban, dams across Turkey have today become incessantly questioned and disputed. Dams no longer seem to be part of the utopian dreams of nation-state building like fifty years ago. Instead they have become associated with the broken hopes of displaced people and the destruction of ecological habitats. What has changed in Turkey since the building of the Keban Dam? And, why have these once shining icons of progress so rapidly become contested infrastructures everywhere across Anatolia? Among many others, it is these two questions that I hope to answer in a book I am currently writing titled *Submerged Stories*. ■

Author information

Laurent Dissard is a Junior Research Fellow at University College London’s Institute of Advanced Studies. He received his PhD in Near Eastern Studies from the University of California, Berkeley. He is currently writing a book manuscript titled *Submerged Stories* on the history and dams and politics of hydroelectricity in Turkey. You can read more about his research and contact him with any questions or comments through his website titled *Past & Present* (www.laurentdissard.com).