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KAJAKAY DAM

KAJAKAY DAM, a dam built on the Helmand River as a part of the multi-faceted projects aimed at the development of the Helmand Valley, which included flood control, land reclamation, producing electric power, introduction of suitable industries, and resettlement of the nomadic and other landless population in the Valley. The development of the Helmand Valley was the largest single public project undertaken in Afghanistan in the post World War II period. Negotiation with Morrison-Knudsen Corporation of Idaho, a major construction company, resulted in the formation of Morrison-Knudsen Afghanistan Inc. (MKA), with headquarters in San Francisco, as the contracting agent for the Afghan government. It was hoped that it would generate high economic growth and sustained development, and would eventually lead to closer ties between the United States and Afghanistan (Ḡobār, II, p. 221). However, the project soon faced a series of problems that cast doubts on the outcome and caused it to yield much less in terms of output than expected. Moreover, extensive salinity of the land made it unsuitable for agricultural development, and, at the same time, the overall cost proved to be much more than the original estimates, raising difficulties in financing the planned developments. Questions were raised concerning MKA's improper surveys, mismanagement, poor implementations of projects, as well as possible corruption, and there was also a demand made by the Afghan Parliament for launching an investigation and calling the Ministers of Planning, Economics, Finance, and Public Works to court for questioning. These difficulties and a series of events damaged the hope that the project would lead to closer relations between Afghanistan and the United States (Ḡobār, pp. 221-24).

The Helmand Valley, covering more than one third of the territory of Afghanistan (see, map), was always a highly significant agricultural basin dating back more than two millenia, where intricate irrigation systems were developed as parts of the agricultural infrastructure in southern Afghanistan. According to ʿAbd-al-Ḥayy Ḥabibi (pp. 458-65), as early as the 7th century CE, water reached urban and rural areas in the valley through a network of canals, dams, and distribution points, whose overall management was the responsibility of a government agent called *mirāb*.

The Helmand River is the longest river in Afghanistan, running about 800 miles, originating from the Kōh-e Bābā in the Hindu Kush mountain range northwest of Kabul. It receives a number of tributaries, including the Arḡandāb River, which joins it, as its largest tributary, near Qalʿa-ye Bost. It runs through the southwestern desert, then flows into the Hāmun-e Helmand, which consists of lagoons and marshes lying between Afghanistan and Persia, inhabited by many water fouls.

The traditional irrigation system consisted of underground channels (*kārēz*) in the southern and southwestern areas of Afghanistan. This system required periodic clearing of silt from the underground waterways. The building of large water reservoirs at the Kajakay and Arḡandāb dams, which regulated water flows through the construction of open surface water system such as the Boḡra and Šāmālān canals that were aimed at supplementing the traditional underground channels and extend irrigated land over larger areas and reclaim desert lands for agriculture and settlements. The construction of the Kajakay and Arḡandāb dams was to fulfill the need for the steady flow of water throughout the seasons.

As early as 1910 and then during the 1930's attempts were made in revitalizing the Helmand Valley's agricultural basin. In 1937 Japanese engineers were hired by the government to help with the expansion of the works, which mainly involved the extension of the Boḡrā Canal. These projects were interrupted by World War II, when the Japanese and German staff had to leave Afghanistan due to pressure from the Allies. The Afghan government restarted the project in 1946 and hired the American construction firm of Morrison-Knudsen, which became involved in several major projects between 1946 and 1959, including building of dams, canals, and the Kandahar (Qandahār) airport. Initially, the Afghan government financed these projects. Afghanistan had accumulated significant amounts of foreign exchange reserves during the war years from its trade surplus, but the costs of the

projects kept rising and at various times the expenditures on the development of the Helmand Valley took up as much as 20 percent of the state budget. As the costs escalated, the Afghan government asked the Export-Import Bank in Washington, D.C., for a $55 million loan, but the bank did not agree until the Afghan government formulated the creation of the Helmand Valley Authority (est. July 1952) to consolidate the various facets of the project. It eventually provided two loans for $21 million (Nov. 1949) and $18 million (Nov. 1953) at 3.5 percent interest, and USAID also provided technical assistance (Dupree, p. 484).

Two large earth-filled dams were built as part of the development of the Helmand Valley. The Kajakay Dam, built in 1954 on the Helmand River about 45 miles above the town of Gereš̄k, is larger than the Arḡandāb Dam which was built on the Arḡandāb River 30 miles north of Kandahar. It also cost twice as much ($12.753 and $6.726, respectively) to build. The Kajakay Dam had 1,495,000 acre feet storage capacity and 28,800 acres of reservoir area at its spillway, whereas the Arḡandāb Dam had a smaller reservoir storage capacity of 388,000 acre feet and only 3,780 acres reservoir area at its spillway (Tudor Engineering Co., pp. 54-55).

The building of these dams provided the means to regulate the flow of water, which was a matter of interest for both Afghanistan and Iran, but with different viewpoints. Afghanistan was interested in the development of the Helmand Valley, whereas Iran wanted access to the water of the Helmand River down stream as it entered Iranian territory. A treaty concerning the division of the flow of water was signed on 13 March 1973, but the overthrow of the Afghan monarchy four months lateron 17 July 1973 threw the status of the treaty in doubt due to strong opposition from Afghan nationalists.

The original project for the Kajakay Dam included feasibilities of raising the gates and enlarging the size of the reservoir and extending the power lines. The Dam was to provide electricity to Kandahar, Laškargāh and Gereš̄k. Years of neglect and disrepair followed due to the Soviet invasion and the civil war for the past three decades. The Taliban (Ṭālebān) government, established in Kabul in 1996, repaired the Kajakay Dam and ran power lines to Kandahar its spiritual base, before the U.S. led coalition bombed the power station in October 2001. The Kajakay Dam wasgenerating electric power in 2007, and the transmission lines from the power station ran to the Valley, where the Taliban were selling electricity to villagers (Economist, pp. 28-30). It is also reported that British soldiers were stationed at the Kajakay Dam to protect it against the

resurging Taliban fighters. The Taliban government was toppled in November 2001, but they, as well as several former mujahideen (*mojāhedin*) groups, have resurged as part of the resistance against foreign occupation and the worsening social and economic conditions.

There are many facets of the Kajakay Dam including the power station and its outdated turbines that require significant investments to upgrade. Many of the issues relating to further developments in the Helmand Valley, including the Kajakay Dam, were discussed as early as 1954-56 and recommendations were made (Tudor Engineering Co., pp. 94-137). It seems, however, that work on repairs and instillations of new turbines were neglected for several years in the post-US led coalition attack on Afghanistan in 2001. A new contract with China has been signed by the USAID for turbines, but the long-term goal of heightening the gate for the dam, an important feature for flood control, faces uncertainty. During Spring 2007 flooding in the Valley caused extensive death and property damage.

The question of the ultimate control of the production and distribution of electric power from the dam remain an unresolved issue that further complicates the problems of high cost. Increasing insecurity and rising resistance to the presence of foreign military in Afghanistan, along with many widespread grievances such as lack of progress in the reconstruction of many areas, high unemployment, rising poverty, income inequality, rampant corruption, and lack of accountability of foreign assistance are part of the prevailing conditions in much of Afghanistan. Helmand Province is a major area of poppy cultivation, which provides another reason for resistance to the presence of foreign military by farmers and traders for whom poppy trade is the main source of livelihood.

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