CHAPTER 1

The Nuclear Program of the Shah (1957–79)

This chapter describes the evolution of the Iranian nuclear program, beginning with the first agreements signed by Shah Mohammad Reza Pahlavi in the 1950s to the outbreak of the Islamic revolution in 1979. Three distinct periods in the early development of Iran’s atomic activities can be discerned: a first experimental stage, with the support of the United States and the United Kingdom, which was marked by several scientific cooperation projects devised with a view to maintaining a strategic balance during the Cold War (1957–73); then a period of significant expansion of nuclear projects launched by the shah himself (1973–76); and finally a relative lull in most nuclear activities (1977–78).

In each of these stages we analyze the political and economic circumstances of the Iranian nuclear investments, in the belief that knowledge of the roots of the country’s nuclear program can assist in understanding the complexity of the issues. The anomaly of the Iranian case, characterized by the political–institutional rupture caused by the Islamic revolution, offers interesting insights to compare administrative structures and decision-making centers that have distinguished the nuclear decisions taken in the pre- and postrevolutionary period. It is of particular interest to note, for example, that the dispute with the United States on the full recognition of Iran’s fuel cycle, including dual-use activities, had begun long before the birth of the Islamic Republic of Iran, when, in 1974, Washington decided to drastically curb the spread of nuclear technology that had potential military use.

1.1 Early Nuclear Research (1953–73)

On December 8, 1953, US president Dwight D. Eisenhower presented the “Atoms for Peace” program to the General Assembly of the United Nations to support, on a global scale, the spread of nuclear technology for civilian use.
This program implied the US relinquishment of the rationale for secrecy in favor of a new strategy that aimed at sharing peaceful nuclear technology with countries politically close to Washington, as later defined in the US Atomic Energy Act of 1954.\(^1\) Realizing that the United States had lost the scientific monopoly on this technology, Eisenhower attempted to shrink the predominant military connotation of atomic energy to revamp the image of the United States and strengthen its influence on the delicate balance of power of the Cold War.

American competition with the Soviet Union was moving away from the iron logic of deterrence to the issue of nuclear cooperation as a “psychological weapon” that could attract new countries into the superpower’s sphere of influence, thus harnessing their potential nuclear ambitions.\(^2\) As proof of the growing interest of recently independent countries for nuclear energy, Homi Bhabha—the Indian physicist considered the father of the atomic program of his country—chaired the International Conference on the Peaceful Uses of Atomic Energy that was held in Geneva from August 8 to 20, 1955.\(^3\)

The United States came to this conference having already signed several nuclear agreements.\(^4\) Among these, on March 5, 1957, the proposed agreement for cooperation in research in the peaceful uses of atomic energy between Iran and the United States was laid down by the Iranian ambassador to the United States, Amil Amini, the director of the US Atomic Energy Commission, Lewis L. Strauss, and the assistant secretary of state, William M. Rountree.\(^5\) The very next day in Tehran, during the opening ceremony of the exhibition for Atoms for Peace, the shah officially introduced the agreement that established a framework of scientific cooperation and technical assistance from public and private American entities for the building and operating of research reactors in Iran, which would be fueled with enriched uranium provided by the US Atomic Energy Commission.\(^6\)

Very soon, however, nuclear cooperation between Iran and the United States branched out beyond this agreement as bilateral relations grew following the full expression of the January 1957 Eisenhower Doctrine at the regional level. With this doctrine the United States intended to redefine the strategic balance of the *Pax Britannica* in the Persian Gulf by strengthening a system of political and military alliances that would ensure the independence and integrity of Middle Eastern states threatened by Soviet Union expansionism. Although the United States was not directly involved, the strategic priorities of the Eisenhower Doctrine had already inspired the Baghdad Pact, which was an extension of the 1955 Turkish–Iraqi Pact of Mutual Cooperation to Great Britain, Pakistan, and Iran.\(^7\)

It is interesting to note that the key countries of this regional framework benefited from nuclear assistance from both Washington, with the Atoms for Peace program, and London, through the Baghdad Pact. Indeed, since 1955