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Not peer-reviewed version

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[Mohammad Gholi Majid](#) *

Posted Date: 9 June 2025

doi: 10.20944/preprints202403.1562.v3

Keywords: Iran; Famines; 1869-73; World War I; World War II



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Article

Historiography and Death Toll of World War I and World War II Famines in Iran

Mohammad Gholi Majd

Independent Researcher

Abstract. Iran experienced three devastating famines during 1869-1945. Its population of 11-12 million in 1944 was nearly the same as the 12 million reported in 1900, and about the same as in 1850, a classic case of a Malthusian catastrophe. Despite the centrality of these famines in Iran's history, they have been subject to neglect and controversy. In particular, the World War II famine has been completely neglected in the historiography of Iran and World War II, and this study attempts to partially compensate the neglect. It re-examines the toll of the famines by using overlooked and neglected primary sources and in ways not previously done. It is established that the Great Famine of 1917-19 was even more deadly than previously estimated and likely the greatest calamity in Iran's modern history. It is also found that the nearly forgotten 1941-45 famine and two typhus epidemics had killed 5-7 million Iranians compared to 4 million previously estimated by the author. At least 15 million Iranians died in the two world wars, a fact not reflected in the history of Iran and that of the conflicts.

Keywords: Iran; Famines; 1869-73; World War I; World War II

The modern history of Iran has been shaped by three catastrophic famines that occurred during a 76-year period (1869-1945). The famines that occurred during the two World Wars were particularly devastating. Despite the centrality of these famines in determining the demographic, social, economic and political developments, the death toll of each famine has continued to be subject to debate and controversy. While the Great Famines of 1869-73 and 1917-19 have been the subjects of books and scholarly articles, that of 1941-45 has remained relatively unexplored. This study aims to provide clarity on the scope and the toll of the wartime famines, especially that of the understudied and neglected World War II famine.

In order to determine the toll of each famine in the absence of a population census prior to 1956, this study investigates demographic developments before and after each calamity using an array of overlooked and neglected primary sources, and constructs a trajectory of demographic developments from 1810 to 1944, and derives each famine's death toll. In addition, the demonstrated consistency of the data provides a check on the accuracy of the results. It is found that the death toll of the two wartime famines exceeded the prior estimates, and World War I was doubtless the deadliest. The largely forgotten famine of World War II had claimed 5-7 million victims. Eighty years later, they remain absent from the pages of history. At least 15 million Iranians perished in the two wars.

Demographic Background, 1810-1869

Sir John Chardin (1643-1713) gave Iran's population in the 1670s at 40 million, and that of Isfahan at 1 million which exceeded London's population (Curzon, 1892, vol. 1: 9). Population plummeted in the 18th century and Sir John Malcolm (1769-1833) estimated the population in 1810 near the end of the first Russian-Persian War (1803-1812) at a mere 6 million and Isfahan at 100,000 (Balfour, 1922: 22-23; Issawi, 1971: 25-26).

The population in the 1840s is given at 10 million by Justin Perkins (1805-1869), the first American missionary to Iran (Perkins, 1843: 144). Sir Henry Rawlinson (1810-1895) estimated the 1850

population at 10 million (Curzon, 1892, vol. 2: 492), while the *Weimar Almanac* gave the 1850 population at 11 million (McCulloch, 1854: 493). Similarly, Perkins places the population in the early 1850s at 12 million (Perkins, 1861: 18). It turns out that the 12 million is a pivotal number to which the population returned in 1900, 1926, and 1944. Eugène Flandin (1809-1889) and Pascal Coste (1787-1879) attachés at the French Legation, had placed the 1854 population at 13 million “while noting that it is on the low rather than the high side” (Flandin and Coste, 1854: 407-8). From the concurrence of these sources it can be concluded that population had grown at 1.7% annually: at 6 million in 1810, as predicted, it stood at 10 million in 1840, and at 13 million in 1854. Furthermore, growing at 1.7%, it should have reached 17 million in 1869, and this indeed is indicated in at least two sources.

Iranians placed the 1865 population at 16 million (Ussher, 1865: 643). In the 1850s and 1860s, the Iranian government spent much effort and money in unsuccessful attempts at setting up large scale modern factories (Gilbar, 1979: 199-200). In his 1867 book, published under the auspices of the French government, Julien de Rochechouart (1831-1879) wrote that “in a country that possesses a population of 16 to 20 million souls,” there was sufficient demand for the output of a proposed steel mill in Mazandaran (de Rochechouart, 1867: 233). To repeat, based on the data, the population had grown by 1.7% per year during 1810-1869, that is from 6 million in 1810 to 13 million in 1854 and stood at 17 million in 1869 at the onset of the Great Famine.

Tabriz, Tehran and Isfahan were the largest cities. A house census in Tabriz in the 1860s had enumerated 32,000 Moslem households, 3,000 Armenian inhabitants and 2,000 soldiers (Gilbar, 1979: 181). Given an average household of 7.67 persons (Houtum-Schindler, 1897: 120), Tabriz’s population circa 1865 was 250,000, and was the hub of trade with Russia and Europe.

Tehran’s population in the 1850s is given at 70-80,000 (Gilbar, 1979: 181). Its 1865-1866 population was given at 100-120,000 (Ussher, 1865: 614; Mounsey, 1872: 96). Tehran in 1865 was “a place of considerable trade, of which we had evidence in its bazaars” (Ussher, 1865: 614). Similarly, returning to Tehran in 1862 after an absence of four years, the French envoy, Arthur de Gobineau (1816-1882), had commented on the economic and construction boom: “To sum up, the country is not in the same state as before... very evident progress has been made and nothing leads one to predict that this ascending movement has to stop” (Issawi, 1971: 18). In contrast, Isfahan whose population was given at 100,000 in 1810, had declined. An official Persian report in 1868 gave its population at 75,000 (Gilbar, 1979: 182).

Historiography of the Great Famine of 1869-1873

The death and devastation in the Great Famine of 1869-73 is considered by Iranian historians to be comparable to the Mongol invasions of the 13th century. It was a precursor to the famines of 1876-79 in China, India, North Africa and Brazil, said to be “the worst ever to afflict the human species” (Davis, 2002: 1-8). The Iran famine was well documented by contemporaries (Brittlebank, 1873; Bellew, 1874; von Thielmann, 1875; St. John et al, 1876; Bassett, 1886). There were extensive reports in British, Indian, and American newspapers. The Iranian government, however, had denied the famine for two years and had subsequently downplayed its severity (Majd, 2017: 17-23). There is no mention of the calamity in the writings of Albert Houtum-Schindler (1846-1916, hereafter Schindler) who was in the employ of the Iranian government and a resident from 1868 to 1909. It was forgotten until publication of scholarly articles more than a century later (Gilbar, 1976; Okazaki, 1986; Melville, 1988; Seyf, 2010). But still Davis (2002) makes no reference to it and it is not included in his list of nineteenth century famines.

British members of the Persia-Afghan Boundary Commission of 1870-72 gave widely varying estimates of the toll. Sir Frederick J. Goldsmid (1818-1908), head of the Commission, placed the toll at 200-300,000 (Goldsmid, 1873: 65-82), while some other members placed the toll at 500,000 and gave the post-famine population at 10 million (St John et al, 1876, vol 1: 98). Henry Walter Bellew (1834-1892) provided a detailed account of the famine. In his travel log of April 14, 1872, he stated that the toll “cannot be less than a million and a half” (Bellew, 1874: 336-37), and the famine had continued at least until the end of 1873. In a letter dated December 31, 1873, American Missionary James Bassett

had reported that despite the bitter cold the streets of Tehran “are filled with half naked and wretched crowd” (Majd, 2017: 87). Bassett and American missionaries initially put the death toll at 3 million but in 1873 raised it to 3.5 million. Several contemporary Iranian estimates varied from 2 to 5 million (Majd, 2017: 121-22). Other Iranian sources in the 1870s stated that half of the population starved, and a quarter immigrated and implied that Iran lost three quarters of its population (Gurney and Safatgol, 2013: 155-56). Majd (2017: 124) placed the toll at over 10 million or two-thirds of the population.

In resuscitating the famine, Gilbar declared that “only Sir Henry C. Rawlinson, for the 1850s and 1860s, and Albert Houtum-Schindler, for the remaining years of the nineteenth century, had the necessary knowledge and the opportunity to make fairly reliable estimates” (Gilbar, 1976: 128). Seemingly citing Bellew, he put the toll at 1.5 million out of 10 million, and the 1872 population at 8.5 million. But, as noted, 10 million was the reported population in the 1840s and it cannot be assumed that it had remained unchanged until 1869. Moreover, his post-famine population of 8.5 million differs from Rawlinson and Schindler whom he praises. Rawlinson placed the 1873 population at 6 million, and Schindler gave 7.65 million for 1884 (Curzon, 1892, vol 2: 492-94). As below described, Schindler had adopted a growth rate of 0.75%, so that his implied estimate for 1873 was 7 million. Finally, as noted, Bellew’s statement that the toll cannot be less than a million and a half was from his travel log of April 14, 1872, and the famine had continued long after he wrote it.

Toll of The Great Famine of 1869-1873

Iran’s 1869 population was 17 million. Its post-famine population is given at no more than 5-7 million. For instance, the *New York Herald* of July 29, 1871, refers to the “unparalleled mortality” of the famine and declares “Persia already half depopulated” and the famine lasted two more years. On Iran’s population in 1872, Augustus H. Mounsey (1834-1882) wrote that: “a gentleman, who has been long a resident in the country and has traversed it in every direction, states that the total number of inhabitants falls short of 5,000,000 souls” (Mounsey, 1872: 96-97). Rawlinson gave the 1873 population at 6 million and Schindler implied a population of 7 million. Taking Rawlinson at the mid-point of 5-7 million, it can be stated that population had declined by 11 million, nearly 65%.

The population of Tabriz fell 60%. Its population in the 1860s was 250,000. An Austrian diplomat based in Russia who visited Tabriz in October 1873 reported that although the city was the size of St Petersburg and Moscow, “the population is only estimated at 100,000 souls... The misery inflicted during the last famine appears to have been fearful... newly built cemeteries gave evidence of the multitude of victims” (von Thielmann, 1875: 44-55). Tehran’s population fell from 120,000 in 1866 to 70,000 in 1873 (Mounsey, 1872: 96; Gilbar, 1976: 149). Curzon stated that the population of Sabzevar in Khorasan fell from 30,000 in 1869 to 10,000 in 1873. Its 1891 population he put at 18,000 and added that Sabzevar “is only now beginning to raise its head again” (Curzon, 1892, vol 1: 268).

The heavy toll is confirmed by the proportion of uninhabited houses. The British agent in Mashad had informed the Goldsmid Mission in May 1872 that “not half” of the 9,000 houses in Mashad remained occupied (Majd, 2017: 57). Traveling in South Iran in 1875, Charles M. MacGregore (1840-1887) had reported that of the 2,700 houses in Kazerun, only 1,000 (37%) were inhabited, and adds that this occupancy rate “is about the usual proportion throughout Persia” (MacGregore, 1879, vol 1: 15-21).

There was considerable immigration to Russia, India and Turkey during the famine. Quoting the *Bombay Gazette* of October 28 1871, the *New York Times* of December 4, 1871, reported that “more starving Zoroastrians have left for Bombay.” Quoting the *Times of India*, the *Times* of December 19, 1871, wrote: “Large parties arrive in Bombay from Persia by every vessel from the Persian Gulf... Some 500 attenuated Zoroastrians had reached Bunder Abbas but, as they were nearly all sick, the Persian authorities placed them in quarantine”.

In north Iran during the 1860-61 food shortages, British diplomat E.B. Eastwick had reported that the road between Kazvin and Rasht was “lined” with migrants heading north presumably to Russia (Seyf, 2010: 294). In August 1871, an American missionary in Tabriz reported that “the rush to Russia was by thousands” (Majd, 2017: 102). A three-day quarantine at the Russian and Turkish

borders instituted in August 1871 had not deterred the exodus. The missionaries had been besieged by “Multitudes ask(ing) enough to get a passport and a crust of bread in order to get to Russia” (Majd, 2017: 106). The missionaries had responded: “A large number of famishing refugees from other provinces were assisted with food, and some were helped on their way to Russia” (Bassett, 1886: 54). Even in the harsh winter of 1872, “The roads were known to be thronged with refugees who were endeavoring to get to Russia and Turkey” (Bassett, 1886: 57). Sheikh Ibrahim Zanjani (1853-1934) had witnessed the famine near Zanjan: “Without exaggeration, half of the population of Iran died because of starvation during the famine ... Those who could emigrated to Gilan and Russia” (Majd, 2017: 93). Similarly, Seyed Ibrahim Zeinol-ol-Abedin Isfahani, writing on May 13, 1873, stated that half the population had starved, and half of the survivors had emigrated to neighboring countries and beyond (Guernsey and Safatgol, 2013: 155).

It may be concluded that of the 17 million in 1869, at least 8.5 million perished, at most 2.5 million emigrated, and 6 million remained in 1873. To the extent that immigration is overstated, the death toll is understated. The famine had restored the 1810 population and wiped out 60 years of population growth.

Demographic Developments, 1873-1914

Schindler gave the 1884 population at 7.65 million and declared that for the last decades of the 19th century “the population increases $\frac{3}{4}$ per cent per annum, which I have found elsewhere to be the usual ratio”, and he raised his estimated growth rate to 1% for the beginning of the 20th century (Schindler, 1897: 120; Gilbar, 1976: 133). The unambiguous statement notwithstanding, the 0.75% growth rate was nevertheless attributed to Curzon by Sobotsinskii and by Issawi (1971: 20 and 33), despite Curzon’s rejection of Schindler’s population estimate and adopted growth rate. Curzon points out that the greatest challenge in deriving Iran’s population in the absence of a census was estimating its rural population. He shows that Schindler had systematically undercounted the rural and hence the total population and that his suggested growth rate of 0.75% was far too low. He rejected Schindler’s implied 1891 population of 8 million and places the 1891 population at *at least* 9 million (Curzon, 1892, vol 2: 492-494).

Despite Curzon’s criticism, Schindler had placed the 1900 population at 9.925 million and that of 1910 at 10 million (Gilbar, 1976: 127). His numbers had been adopted by Russian geographers Medvedev and Sobotsinskii who extended Medvedev’s 10 million total population and 2.5 million urban population (25%) to 1913 (Issawi, 1971: 33). But Sobotsinskii next declared that given the low level of development “in Persia the urban population does not exceed 12 percent of the total” (Issawi 1971, 34). He thus undermines his own argument because an urban population of 2.5 million and 12% ratio imply a population of 21 million, which, interestingly, is given below by other Russian sources.

The accuracy of Rawlinson’s 6 million in 1873 is shown by its consistency with subsequent figures. Samuel Benjamin (1837-1914), the first American envoy to Tehran, gave the 1886 population at “not far from nine millions” (Benjamin, 1886: 128). Curzon gave the 1891 population at at least 9 million (Curzon, 1892, vol 2: 492-494). In January 1900, the Department of State had instructed its envoy in Tehran to report the population of the country. The reply reads in part: “I... beg to state that hitherto no census of the population of Persia has ever been taken, consequently no authentic statistics exist on the subject. It appears, however, from the observations of travelers, surveyors and others, whose estimates on the whole fairly agree, that the population at the present time is about twelve millions” (Bowen, March 15, 1900). Iran had just recovered its 1840s population. Moreover, contrary to Gilbar’s claim, 12 million was not Bowen’s “guess” (Gilbar, 1976: 128-29). It is a consensus figure by those deemed knowledgeable.

Population had grown from 6 million in 1873 to 12 million in 1900, an average annual growth rate of 2.6%. Growing at 2.6%, it stood at 9.5 million in 1891, justifying Curzon’s figure of *at least* 9 million. At 12 million in 1900 and growing at 2.6% annually, the population would have been 16 million in 1910, justifying several contemporary estimates. Morgan Shuster, chief of finance: “The population of Persia has been singularly misrepresented... Europeans who are familiar with the

situation estimate the population at from 13,000,000 to 15,000,000 inhabitants" (Shuster, 1912: lx). The American Minister on population in 1910: "The Persians think the population of the country has been much understated, one intelligent acquaintance of mine putting it at 17,000,000" (Russell, May 11, 1910).

American, Russian, French and Iranian contemporary sources placed the 1914 population at 20-21 million. From the American Minister's report on Russo-Persian relations: "Persia is as large as Austria, France and Germany combined with a population of 20,000,000" (Russell, March 11, 1914). He next refers to "the present revolutionary struggle of 20,000,000 Aryans in Persia" (Russell, June 14, 1914). On the population prior to World War I, economist Hossein Moschar-Ghadimy wrote: "The population of Persia has been given at 12 to 15 million inhabitants, but the figure given by Tchernazoubof, a member of the Russian geographic mission to Persia, is 21 million. This number has the concurrence of Monsieur Lampre, head of the French archaeological mission to Persia" (Moschar-Ghadimy, 1922: 8).

Growth of Tehran and Tabriz, 1873-1914

After falling to 70,000 in 1873, by 1887 Tehran had become "one of the most flourishing and active cities of the East, with a growing population of nearly two hundred thousand souls" (Benjamin, 1887: 56). One can place confidence in Curzon's estimate of Tehran's 1891 population: "I was informed, however, that the most reliable computation, determined upon a joint reckoning of the births and deaths in the city and of the amount of food brought for consumption into its bazaars, fixed the present (1891) total at from 200,000 to 220,000" (Curzon, 1892, vol 1: 303). The next reliable figure, also based on food consumption, is given by the American envoy in May 1910: "Our English clerk-interpreter... estimates the population at 300,000... From another foreigner I get the estimate of between 350,000 and 400,000, based on the amount of bread consumed, the bakeries being more or less under government supervision" (Russell, May 11, 1910). During 1873 to 1891, Tehran grew at an annual rate of 6.6%. Growth slowed to 3.2% during 1892 to 1910. Growing at 3.2% yearly, Tehran's 1917 population would have been 500,000. This is confirmed by the elections to the Fourth Majlis in October 1917 (Caldwell, October 10, 1917). It is also the figure given in Iranian diplomatic reports (Zoka-ed-Dowleh, December 6, 1920).

Tabriz was reported at 100,000 in 1873. Its 1884 population is reported at 200,000 by an American missionary who observes that "The city has been much larger and more populous than it now is" (Bassett, 1886: 65). Its 1913 population is reported at 300,000 by Sobotsinskii (Issawi, 1971: 34). In the 40-year period 1873-1913, the population of Tabriz had tripled, an annual growth rate of 2.8%.

Migration and Foreign Trade

During the 1880s and continuing up to World War I, a massive flow of labor from all parts of Iran to southern Russia and the Volga region, documented by Z.Z. Abdullaev (Issawi, 1971: 51-52), indicated a robust population growth. Iranians had flocked to southern Russia: "Baku is even more a Persian city to-day than formerly, for every other person one meets wears the sheepskin cap of Persia" (Benjamin, 1886: 18-20). Baku quadrupled in twenty years: "When I passed through Baku in 1884 its population was about 60,000 or 70,000. To-day it is getting on for a quarter of a million" (Chirol, 1903: 23).

Foreign commerce also grew rapidly. In 1857, Iran's merchandize imports were \$14.6 million and its exports \$14.7 million. Imports were dominated by cloth (63.2%), tea and sugar (11%), and drugs (6.3%). Main exports were raw silk (31%); wheat, tobacco, and livestock (33.5%); and textiles (27.2%). Raw cotton was 1% of exports and opium had not yet entered the picture (Gilbar, 1979: 210; Shahbazi, 1991).

In 1913 imports were \$50.0 million and exports \$38.3 million and a trade gap had opened (Wadsworth, March 12, 1914). Raw silk had disappeared and recorded exports were dominated by raw cotton, rice, opium, animal products, and carpets. Of the imports in 1913, 70% consisted of 4 mass

consumption goods: cotton textiles, sugar and tea, flour and kerosene. Russia supplied two-thirds of imports and took one-half of exports. The 1901 customs treaty with Russia had consolidated Russian trade dominance (Issawi, 1971: 148). The trade deficit with Russia was \$17 million in 1913. Worker remittances helped meet the deficit and maintain a stable exchange rate. Issawi (1971: 131-32) estimated that Iran's foreign trade in real terms had quadrupled between 1860 and 1913.

The relative magnitude of the trade sums is indicated by the fact that the daily wage of a laborer in 1913 was 2 krans, equivalent to 17.5 cents. Staple food products were inexpensive and 2 krans constituted a subsistence wage (Wadsworth, February 16, 1914).

Historiography of World War I Famine

Soon after the outbreak of World War I in August 1914, Iran's neutrality was violated by Russia, Great Britain and Turkey (Majd, 2013: 13-32). Unlike World War II, Tehran was not occupied by the invaders in World War I and there was no press and mail censorship. Consequently, the famine received extensive press coverage and was widely reported by American missionaries, as in 1869-73 famine. Memoirs of British officers also contain much on the famine (Donohoe, 1919; Dunsterville, 1920; Sykes, 1921, vol 2; Dickson, 1924; Forbes-Leith, 1927). Usually referred to as the Great Famine of 1917-19, extreme food shortage was already rampant in 1916, and more accurately it should be called the Great Famine of 1916-19 (Cronin, 2021: 9-10).

An early indication of the toll is given by Frances Packard, wife of an American missionary in Urumia, Azerbaijan (emphasis added): "Her villages are for the most part deserted... Her fields and vineyards lie waste and uncultivated, and in the city streets are full of starving beggars, while the formerly well-to-do Moslems are reduced to poverty. The Christian population are all in exile, while the Moslems have been reduced 50 per cent by war, sickness and famine" (Packard, 1920: 44).

Arthur C. Millspaugh (1878-1955) who arrived in Tehran in the fall of 1922 as Administrator General of Finance, makes just two very brief references to the famine (Millspaugh, 1925: 77 and 114). He does not cite Balfour's 1922 book and only quotes from a speech of little substance that Balfour had given in the House of Lords on May 19, 1925 (Millspaugh, 1925: 116). But he provides useful figures on rural devastation in Azerbaijan: "About six months after my arrival in Persia, the financial agent of Garrous in northwest Persia, reported that of the two hundred and forty villages in his district, one hundred and six were ruined and without inhabitants, while the remainder were partly ruined and partly tenantless" (Millspaugh, 1925: 251). Thus, 44% of the villages had been totally depopulated, and the remaining 56% had been partially depopulated and ruined. The rural population had fallen by at least 50 percent. Millspaugh (1926: 3) stated that the government planned to conduct a census of the country. Instead, he was dismissed in 1927 and not until 1956 was a census conducted and it took five additional years to "tabulate" the results (Bharier, 1968). Clearly, the two Pahlavis were in no haste to conduct and publish a census which would have provided clarity on famine losses in World War I and World War II. Similarly, it took ten years to "tabulate" the 1960 census of agriculture, and even then it was devoid of data on landownership (Majd, 2000: 128)

Mostafa Fateh (1896-1978) of the Anglo-Persian Oil Company also does not cite Balfour: "A Persian statistician, who took the estimated census of three large cities as the basis and compared them with the estimates of other writers, finds in his calculations that the population of Persia in 1914 was approximately 15,000,000... I am inclined to believe that the present (1926) population of Persia is about 10,000,000" (Fateh, 1926: 2-3). He implied that at least 5-6 million had perished during World War I. He downplayed the famine and instead emphasized "Early marriage and premature aging, the great length of the nursing period and the consequent impaired fertility of the female sex, can be mentioned in the first place. Secondly, the public sanitation and the consequent ravages of typhus, cholera, malaria and plague, can be mentioned. The most important reason, however, is war... and, above all, the violation of Persian neutrality during the Great War, followed by the invasion of the greater part of the country, coupled with famines, have contributed to the diminution of human resources of Persia" (Fateh, 1926: 2-3). A 1927 League of Nations report on opium production in Iran also gives the 1926 population at 10 million and notes its drastic decline without any mention that

Iran had suffered a catastrophic famine during the occupation of the country in World War I (League of Nations, 1927: 2).

Julian Bharier (1941-2017) used retrogression, also known as backward progression, method and the 1956 census as base to estimate the population of Iran during 1900-1966 (Bharier, 1968: 273-79). Applying Schindler's 0.75% growth to 1900-25, and declaring his findings "the nearest one can get to the truth", he placed the 1900 population at 9.86 million, and that of 1914 at 10.89 million (Bharier, 1968: 275). But there is no mention of the World War I and World War II famines. Bharier cites works in which World War I famine is discussed (Balfour, 1922; Fateh, 1926), and he briefly acknowledges (in a footnote) that "some publications" had reported a large decline in population, but he dismisses them because they "give the usual Malthusian reasons for sudden declines in population" (Bharier, 1968: 279). Another study on "demographic developments in late Qajar Persia," is similarly devoid of a mention of World War I famine. Although Qajar era had lasted until 1925, Gilbar avoids any mention of the World War I famine, and for no declared reason stops at 1906, and declines to extend his analysis to the end of the Qajar period using Bharier's results. Given that Issawi (1971) is cited by Gilbar (1976: 130), he was aware of the World War I famine and displays it when he writes (emphasis added): "It seems that the ravages of the great famine were more severe than at any other period in the 19th and early 20th century Persia" (Gilbar, 1976: 144).

Charles P. Issawi (1916-2000) devoted a paragraph to the famine, including two brief quotes from Sir Percy Sykes (1867-1945) and a short one from Balfour (Issawi, 1971: 373). He refrains from mentioning the claim given in Balfour that 2 million out of 7 million had perished because, as above noted, his own population figure for 1914 was 10 million. He compared the 1956 population of Egypt (23.5 million) with Iran (18.9 million) and assumes a stable ratio of 0.8. The 1907 population of Egypt he gives at 11.3 million, from which he concludes that the 1907 population of Iran was about 9 million and that "the figure of 10,000,000 for 1914 does not seem unreasonable". However, a stable ratio over time implies similar growth rates, and given that Iran suffered two catastrophic wars and famines in the space of 30 years (1914-45), Iran and Egypt did not have similar population growth and Issawi undermines his own argument by admitting that "it is highly unlikely that in 1907 to 1956 the Iranian rate of growth was as high as the Egyptian" (Issawi, 1971: 20).

Matters rested for another decade until Nikki Keddie and Yann Richard, citing Balfour (1922), wrote: "Adding to the discontent was a severe famine in 1918-19, which may have killed as much as one-quarter of the population in the north" (Keddie and Richard, 1981: 81; 2006: 75). The writers seemed to imply that the rest of the country had been spared.

Following the publication of a book that placed the toll at 8-10 million (Majd, 2003), two authors citing Balfour (1922) gave the toll at 2 out of 10 million (Pollack, 2004: 25; Ward, 2014: 123). Several had retained the 2 million but dispensed with the 10 million (Rubin, 2012: 508; Katouzian, 2013: 193; Abrahamian, 2008: 205). Some even substituted "epidemic" for "famine" in an apparent attempt to blame unsanitary conditions and inadequate healthcare (Matthee, 2019: 181-84; Abrahamian, 2013: 26-27). Recent studies of World War I famine in Lebanon and Syria do not even mention the contemporaneous famine in Iran (Fawaz, 2014; Tanielian, 2018).

Balfour's Statement on the Famine

James M. Balfour (1878-1960), presumably the son of Lord Arthur James Balfour (1847-1930), was the Chief Assistant to the British Financial Adviser in Persia during 1919-20. Upon publication in 1922, Balfour's book was seized by the British government and an expurgated version published (Majd, 2008: 63-65). Since the expurgated version has been cited as the source for the claim that 2 million out of a population of 10 million perished in the famine, its relevant part is quoted. Commenting on the estimates of Iran's population, Balfour writes (added emphasis):

In 1810 Sir John Malcolm placed the population at approximately six millions and since that date published estimates have ranged from six to ten millions. In 1884 General Schindler considered that something over seven millions was the correct figure, while five years later Lord Curzon put it at nine millions. To-day reference books usually give ten millions, but

this cannot be regarded as more than a conjectural figure somewhere between the two extremes. These vary as widely to-day as in former times. For example, a high official put the population at something under fifteen millions, probably about thirteen, while at the *other extreme* a European of long residence, who in addition had had opportunities of gaining an insight into the question in the north during the famine of 1918, considered that prior to that disaster the total population was *seven millions*, and that two millions had died at that time. This estimate was admittedly based on experiences in the north-west, but the extent of the mortality at least was borne out by my own experiences when inquiring into the affairs of the Province of Teheran, when I found that approximately a quarter of the agricultural population had died during the famine (Balfour, 1922: 22-23).

Balfour's claim that published estimates since 1810 "have ranged from six to ten millions" is untrue. His estimate of the rural death toll is significantly lower than that given by Packard (1920) and Millspaugh (1925). Moreover, the 7 million for 1914 was even below the 7.65 million given by Schindler in 1884. In addition, the implied 1920 population of 5 million is less than the population (6 million) given by Malcolm for 1810. Balfour makes clear that he does not subscribe to a 1914 population of 7 million and a 1920 population of 5 million. Nor had he "estimated" a famine death toll of 2 million. In short, Balfour has been inappropriately cited as the source for the claim that 2 million out of 10 million perished, or the claim that a quarter of the population of northern Iran perished. There is no valid source for these claims.

Toll of World War I Famine

Unlike 1869-73, migration was not possible during World War I and World War II. Military operations by belligerents aside, wartime transportation scarcity was such that even Iranian government officials lacked travel to their provincial posts (Majd, 2013: 101-2). In the absence of immigration, the decline in population provides a good measure of the toll. At 20-21 million in 1914, Iran's population exceeded the 17 million in 1869.

In a report of February 1, 1919, on commerce and industry in the Tehran consular district, comprising all of Iran except Azerbaijan which constituted the Tabriz consular district, the American vice consul wrote: "The Teheran consular district embraces central and southern Persia, a vast but sparsely populated region, having not more than 6,000,000 or 7,000,000 inhabitants" (Bader, February 1, 1919). Adding the population of Azerbaijan, the vice consul's figures indicate that Iran's post-famine population was 8-9 million. The American minister and Sir Percy Sykes both placed the 1920 population at 10 million (Caldwell, April 10, 1920; Sykes 1921, vol 1: 13). An Iranian author wrote: "Without a census count, it is difficult to obtain an exact measure of the population of Persia. Geographers place it at 9 to 12 million souls" (Hechmet es Saltaneh, 1920: 10). Given that 12 million was assigned for 1926 by Millspaugh (1926: 3), and given the cited consular and diplomatic reports, the 1920 population was at most 9 to 10 million.

With a pre-famine population of 20 to 21 million and a post-famine population of at most 9 to 10 million, a death toll of *at least* 10 million, amounting to 50% of the population is determined. This contrasts with a prior estimate of 8-10 million (Majd, 2013; Edalati and Imani, 2024). Neutral Iran had suffered by far the highest absolute and relative death toll of World War I. The 1920 population was similar to that given by Curzon for 1891. Population growth of the preceding thirty years had been wiped out in three years. The population decline had "ended" the famine by making food more plentiful for the surviving population, a fact also observed in 1945.

World War I famine also killed at a higher rate than the preceding one. It killed at least 10 million in three years, whereas the 1869-73 famine had killed 8.5 million over five years, and 2.5 million had escaped death by immigrating. The World War I famine was the greatest calamity in the recorded history of modern Iran.

Toll in Tehran, Tabriz and Shiraz and Other Indicators

Tehran's population in 1917 was 500,000. Its 1920 population was given at 200,000 (Caldwell, April 10, 1920), and it was confirmed in 1922 when "the first census of the city of Tehran was attempted which showed that the population was 210,000" (Fateh, 1926: 4). The population of Tehran fell 60% to the 1891 level reported by Curzon.

In Tehran in March of 1918, the daily death toll from typhus was reported at 1,000 (Golshani et al, 2022: 764). As below reported, a similar daily death toll from typhus is recorded for Tehran during March-April 1943.

Tabriz also suffered catastrophic losses. An American missionary indicated that "about 90,000 have died in Tabriz of hunger and disease... Dr. Vanneman says he thinks typhus is killing more than any one of our cholera epidemics" (Jessup to Speer, August 9, 1918). The letter's date was prior to the outbreak of the influenza pandemic which had killed additional tens of thousands. Moreover, famine and disorders in Azerbaijan had lasted until 1920. Shiraz's population fell from 50,000 to 20,000-25,000, a 50-60% decline (Golshani et al, 2023).

Abdullaev wrote that before World War I, "the streets and bazaars of Iranian towns, especially the large commercial centers, were overcrowded with poor and unemployed persons, ready to sell their labor for a piece of bread" (Issawi, 1971: 50). An acute labor shortage developed after the famine: "Unskilled laborers are hard to find, for they constitute the class which was especially affected by famine. At present farm laborers and unskilled workers of various kinds receive 4 to 4 ½ krans per day, as compared with the pre-war wage of 2 krans. The increase in wages paid masons and other skilled workers has not been so marked. Formerly a skilled laborer received 5 krans per day, as compared with 7 krans to 8 krans, the amount now being paid" (Bader, February 1, 1919). At the pre-war exchange rate of \$1=11.36 krans, the unskilled wage was 17.5 cents; at the post-war exchange rate of \$1=5.25 krans, the unskilled wage was 86 cents, near five-fold increase.

Carpet weaving was the most important industry: "This industry has been greatly affected by the famine of 1917-1918 which caused the death of many of the best weavers. The Chief of Public Works at Kashan reports that the number of looms at that place was reduced from 968 to 255" (Bader, September 14, 1918). Sultanabad (present day Arak) was another important center: "Speaking of the Sultanabad market the rug trade is absolutely at a standstill... (and) most of the able weavers have died of hunger last year and consequently the production is very limited. The same could be said in a general way about all kinds of rugs" (Tirakiyan to Bader, July 12, 1919).

The 28 brick kilns in Tehran produced 30 million bricks a year before the war: "On account of the economic situation, building operations are practically at a standstill, and not a single brick was burned in Teheran during the past year. The... owners of brick-kilns state that many skilled workers died of starvation last winter" (Bader, September 9, 1918).

Historiography of World War II Famine

Despite its declared neutrality, Iran was occupied by Anglo-Russian forces in August 1941 (Majd, 2011; 2012). By the Anglo-Soviet-Iranian Tripartite Treaty of Alliance, January 29, 1942, the Allies imposed strict censorship in Iran (Majd, 2016: 27-41) which may explain the absence of memoirs by British officers after the war. Under censorship, offending foreign-bound private letters were seized by the British and Russian censors. Some of these letters, translated or paraphrased by the British censor, were found in the American archives, describing the dire conditions during 1942-43 (Majd, 2016: 527-77).

In his 1946 book, Millspaugh who had served as Administrator General of Iran's finances during 1942-45, declared 1942 as the onset of the famine and downplayed its severity: "Finally in 1942 a partial crop failure brought Teheran and other cities for a short time to actual famine and for months to semi-famine... For several months the quantity of bread distributed to the people was insufficient and the quality bad. Isolated cases of starvation occurred; and a portion of the population, whose large numbers can only be guessed at, suffered from undernutrition as well as malnutrition" (Millspaugh, 1946: 45).

Thereafter, the famine was forgotten until a brief mention by Pollack (2004: 43). An acclaimed book on food in World War II (Collingham, 2012) discusses the famines in India, Indo-China and China, but Iran is not even mentioned. Jackson (2018) discusses food shortages but gives no indication of a famine or loss of life in Iran. Majd (2016) refers to the famine of 1942-43, and some Iranian sources have referred to the Great Famine of 1941-45 (Dehghannejad and Lotfi, 2013: 45-68). It is shown here that the longer period is a more accurate depiction of the famine. A study of prenatally exposed persons in Tehran to famine in World War II showed a significant reduction in height compared with those born before or after, long term adverse health consequences, and most likely shortened lifespans (Dadgar et al, 2020).

While the importance of Iran's oil as the principal source of fuel for the Allied forces in Asia and Africa, and the importance of the "Persian Corridor" as the main supply route to Russia is well known in the historiography of World War II, the importance of Iran as a source of food for the Russian war effort has been completely neglected in the historiography of World War II and of the Iranian famine of 1941-45.

The food producing regions of western Russia and Ukraine were quickly occupied by Germany in 1941. In response, the occupation of the five northern provinces of Iran consisting of Azerbaijan, Gilan, Mazandaran, Gorgan and Khorasan had enabled the Soviet Union to partially compensate for the loss of its western farmlands. The five provinces occupied by the Russians produced 75 percent of Iran's wheat and 95 percent of its rice, and constituted the country's breadbasket. It is also interesting to note that in World War II the Russians had only occupied the food producing regions of north Iran, whereas in World War I they had occupied as far south as Isfahan and Yazd.

The food sources of northern Iran were of enormous strategic significance. The Russian armies fighting in the Caucasus and southern Russia could be fed with food from north Iran, a short distance, instead of having to be shipped from north America. The saving in shipping space had enabled greater delivery of weapons through the Persian Corridor. The diversion of Iran's food resources to the "war effort", similar to World War I, had resulted in a catastrophic famine.

Conditions in Iran on the Eve of Allied Invasion

American diplomatic and intelligence records indicate that food shortage had prevailed at least from the fall of 1940, a year before the Allied occupation, and that it had persisted until 1945. In the spring of 1940, the American consul in Tehran had traveled to Azerbaijan, northern and western Iran, the most productive agricultural regions: "To my mind, the outstanding feature observed on the trips was the condition of the peasants... For example, a peasant in the Sultanabad area now receives from the monopoly 140 rials a kharvar (300 kilograms) of wheat. Twenty years ago he received the same price." With inflation, the real price of wheat received by peasants was one-seventh of that received in 1920. He adds: "There has been a shortage of bread, flour and sugar in Tehran for several months past, and the further I traveled from the capital, the more acute the shortage became... A plausible and commonly accepted explanation for the shortage is that the grain monopoly has contracted for exports based on the surplus available in 1938 above domestic needs. With fixed quantities of grain set aside for export, any deficiency must be made good by reducing domestic consumption. It now appears that the 1938 harvest was better than average, so that in a normal year there will be a deficiency and in bad crop years a serious shortage... Many trucks were seen on the roads of Azerbaijan hauling to Trebizond cotton and other goods intended for Germany" (Moose to Murray, July 20, 1940).

The American Minister on January 30, 1941: "The severe shortage of wheat which has prevailed in Iran since the fall of 1940... has been partially alleviated and a serious crisis averted by the importation of wheat from India... The mere fact of importation shows that the situation is acute, for Iran is self sufficient in wheat and does not import except during famines... Tehran has suffered also, bread in recent months having been of very inferior quality." Disorders and bread riots had ensued in Tehran in January 1941, resulting in the dismissal of Tehran's mayor (Dreyfus, January 30, 1941).

By the spring of 1941, severe scarcity of bread, the staple of the masses, had become a regular occurrence and Iranians were getting a taste of what was to come. In a report entitled, "Report on Iran (April 13, 1940 – July 29, 1941)", Philip D. Pancheha, the representative of the United States Steel Export Company who had spent 15 months in Tehran wrote: "In March and April 1941 the bread could be obtained only after standing in a long line, and at the end of April for about ten days there was no bread at all. The provinces, of course, were in a still less fortunate situation" (Pancheha, 1941).

In April 1941, the American consul had traveled in eastern, central and southern Iran: "I think the most striking feature of the trip was the scarcity of food throughout the country. With one unimportant exception, every place on the route was short of food, and in many, no bread whatever was available... The Iranian authorities did not restrict the exportation of foodstuffs after a severe shortage in 1940; and there is slight reason to believe that the shortage now will make them more prudent in the future. In fact, grain monopoly agents were collecting grain in the region about Bojnord when I passed through, for export to Germany via the Soviet Union" (Moose to Murray, May 23, 1941).

In August 1941, on the eve of the Allied invasion, the average wage was 8 rials (30-40 cents) per day: "Thus it will be seen that the wage is insufficient even for food for a family and most workers have a starvation diet... It is not possible to buy adequate clothing or even to dream of luxuries such as education of the children" (Minor, August 9, 1941).

Pancheha's report on the condition of the people: "The great mass of the people are so oppressed by the Government and so burdened by taxation that they are practically in a state of slavery and serfdom... The degree of poverty of these people is astounding and appalling... The upper and wealthy classes of people are being steadily eliminated by the King who takes care of this process by "purchasing" their properties and depriving them of all privileges" (Pancheha, 1941).

Two reasons for Iran's shortage of bread and food during 1940-41 are thus identified. First was the exploitation of the peasantry by paying 140 rials (\$6) for a kharvar of wheat and a mere \$18 a ton (1.8 cents a kilo) in 1941, thus severely discouraging wheat cultivation. The other was the unfettered exports of wheat that had depleted Iran's wheat stocks.

Anglo-Soviet Occupation of Iran

Soviet and British forces invaded Iran on August 25, 1941, and quickly occupied the country. "British Declared Carrying Food for Iranians," headlines an AP report: "Simla, India. Aug. 25 (AP)—The British troops entering Iran are carrying food supplies for the populace, British sources said today, because the country is reported in a state of near-famine from heavy German food requisitioning, presumably for storage." The *Washington Post* of September 15, 1941, published excerpts of an aerial pamphlet dropped by the Royal Air Force at the time of the invasion: "We don't want your food: we will bring food to all who need it, as we are doing in Syria. We don't want your goods: we will open our ports to trade as we are doing in Iraq. We come as friends, armed only against a common enemy... We are saving you, as we saved Iraq and Syria."

Immediately after the Anglo-Russian invasion food scarcity had reached crisis levels: "The food situation continues unimproved and near riots are developing in food and kerosene cues" (Dreyfus, August 27, 1941). The London *Times* of August 30, 1941: "Food Scarce in Teheran. Food and other commodities are scarce in Teheran (says Reuters). Bread is almost impossible to obtain, and crowds wait for hours outside the bakers' shops... The capital was completely blacked-out for the first time on Wednesday night, when the population fully expected an air raid."

The Russians had wasted no time in seizing food and vehicles. "British Pained over the Behavior of Reds in Iran. Soviet Seizure of Food and Vehicles Reported," is the headline of a report by E.R. Noderer in the *Chicago Tribune* of September 5, 1941:

Teheran, Iran, Sept. 2 [Delayed]. The behavior of their Russian allies in the occupied districts of Iran shocks and pains the British, if it does not surprise them. Even the British oil company [probably the Anglo-Iranian firm] is worried now about sending its trucks thru the area occupied by the Russians, lest they be seized.

Arrivals from Kazvin, in the Russian zone 100 miles northwest of Teheran, say that as soon as the Russians took over the town they seized every serviceable motor vehicle. Then they seized stocks of foodstuffs, particularly tea and sugar. Within 24 hours all the shops had closed, some because they had no stocks left and others because they hoped to protect their stocks by hiding them.

Food had become unobtainable: "Bread, the most important item in the diet of the underfed masses, was simply not to be had, rice was short, charcoal and kerosene for cooking were scarce. The poor people spent a great deal of their time in food queues where fighting and near rioting developed" (Minor, November 1, 1941). Dreyfus indicates that by November 1941, "the burden on common people, low wages, high taxes and increased living costs was reaching the breaking point" (Dreyfus, November 4, 1941).

Allied Policies in Iran

The five northern provinces consisting of Azerbaijan, Guilan, Mazandaran, Gorgan and Khorasan occupied by the Soviet Union were Iran's "bread basket". As noted, they produced 75 percent of wheat and barley and 95 percent of rice, while containing 40-50 percent of the population. The surplus grain from these regions ordinarily made up the shortfall in the rest of the country. Following the Russian occupation, the Iranian government lost control and access to the northern grain production, and could not prevent food exports from the northern and western regions of the country. To compensate for the loss of its food resources, Russia had blocked food transfers from the northern occupied provinces to the rest of Iran while purchasing and exporting massive amounts of wheat and livestock. The British had also purchased large amounts of food for their army and the tens of thousands of workers employed on military projects. They had also brought in at least 100 thousand Polish refugees from Russia. A few documents will establish the point.

An Office of Strategic Services (OSS) report "received from an entirely reliable source," reports on Russian food purchases in Azerbaijan: "I have just come back from a trip to Tabriz, the capital of the province of Azerbaijan, now under Russian occupation... There is no doubt that large quantities of foodstuffs have recently been bought in the entire Russian occupied sections of the country for shipment to Russia. With the enormous Russian needs continuing, and the prospect of a reduction of shipments from India, the food situation here is likely to become serious" (OSS report 16705, April 20, 1942).

One year later, the American vice-consul in Tabriz, Rudolph W. Hefti, reported that "Russian commission agents were buying up all the available food supplies in Azerbaijan, which of course we have known and reported to you from time to time. Meat, vegetables, cheese, and dried fruits have been shipped across the Soviet frontier in sealed cars, which Marzaban, the local Director of Customs says he has been powerless to prevent. The resulting scarcity of food has sent the cost of living sky-high. Meat, for example, has doubled in price, just since Kuniholm's departure some three weeks ago. I have also heard that a certain amount of wheat outside the Grain Treaty has been slipping across the frontier" (OSS report 35898, April 15, 1943).

Reporting on Russian wheat purchases in Azerbaijan, Hefti had not minced words: "To the Soviets, however, the starvation of the public is but a minor consideration. What they principally want at the present time is wheat, and they have no particular scruples as to the manner of obtaining it" (OSS report 34466, April 2, 1943).

A sampling of Russian food purchases in Khorasan in an OSS report of November 1, 1943: "Russian Iranian agents buy up a great part of the dried fruit output. Also horses and some firewood, which is scarce. They pay good prices, and the chief complaint of the inhabitants was that their buying jacked up prices, as well as cutting down the supply." (OSS report 11008, November 1, 1943). More on Russian food purchases in Khorasan: "It is reliably reported that in the region of Quchan the Russians purchased during a period of six months, ending six months ago, 70,000 head of sheep, 8,000 head of cattle, and 700 horses" (OSS report 51787, November 19, 1943).

The Russians had also facilitated food acquisition by their British ally. An OSS report of December 8, 1942, writes: "Definitely reliable reports come through government officials sent to purchase rice in Mazanderan that the British trucks come by night to these towns and take away rice. Even if one has no desire to blame everything on the British the fact remains that the country faces a very serious problem this winter; even under peace time conditions there have been many years when local stocks have proved insufficient and grain has been imported. Now there are all the added demands of war to complicate the situation" (OSS report 25064, December 8, 1942).

In addition to the Soviet-occupied zone, other parts of Iran were also denuded of food by the British. The situation in the villages near Isfahan is described in an OSS report of May 22, 1943: "Meat, chickens and eggs are rare in the small villages because such items are assiduously collected for sale in Isfahan. Also large quantities of these items and of fat and butter are bought up for the Polish refugees in Isfahan and for the British troops in Erak and elsewhere." The report describes the bread situation in rural Isfahan and indicates that by April 1943 some villages were subsisting on barley and millet "bread", in competition with livestock: "A dozen small villages located between 15 and 40 kilometers from Isfahan were visited... The collection of grain from these villages seem to have been quite thoroughly carried out and the villagers are eating a bread composed of one third wheat and two thirds barley. Often this bread contains a percentage of ground millet seed. One village mill was visited and the miller reported that he was no longer grinding wheat; that only millet seed was brought in by the peasants. (OSS report 35167, May 22, 1943, date of origin April 1943)

The Armenians of Isfahan greatly resented the presence of the Polish refugees. An unnamed Armenian in Julfa to Garegin Johannes, Armenian Church, Calcutta, in a letter (in Armenian) dated April 28, 1943: "We see plenty of Polish immigrants; their arrival has caused a typhus epidemic and has created a crisis. Since their arrival in Isfahan we are deprived of eggs, milk and butter. They have much money and can afford to buy everything at any price. We see them always in the shops, eating with greediness." (Military Intelligence Division, hereafter MID-Iran, File 2020, April 28, 1942).

On British food purchases in the region north of Arak: "During the present war the British in Iran have bought up not only stocks of grain but large quantities of sheep and cattle to feed their troops. Thus, in this plain, villages which normally had 3,000 head of sheep now have only 200 or 300 and this situation has drastically affected the village economy. The sheep were sold to get cash to cope with the abnormally high prices; the money has now been spent and the normal revenue from the flocks cannot now be replaced or built up again for a number of years" (OSS report 38227, July 6, 1943).

In addition to taking food, the Allies had commandeered the means of transport, restricted imports, sequestered farm labor for military projects, and compelled the government to print money thereby causing hyperinflation. The Allies also brought some 100 thousand or more starving typhus-infested Polish and Jewish refugees from Russia (Majd, 2016: 206-221; Sternfeld, 2018), and then refused to provide the desperately needed typhus vaccine (Majd, 2016: 168-82).

Describing the conditions in Tehran in March 1943 during a typhus epidemic, the American Minister did not mince words: "Iranians dwell in the same miserable mud huts... (and) still wear the same ragged clothing that breeds typhus bearing lice in the winter. In the south of Tehran, people live like animals in the cellars, hovels and chicken houses or sleep in the streets with the dogs... Bread, their only staple food and the only one their limited funds can buy, has been scarce and at present not to be had. Due to Allied exploitation of the railways for aid to Russia, the vital commodity kerosene is so scarce that women and children wait in block-long queues for hours to get it and then are often disappointed. This in a country that exports petroleum and in a world that talks of Atlantic Charters, and a better world order."

Dreyfus also provides a sampling of Iranian press reports. The *Eqdam* of March 1, 1943: "No bread, no kerosene and widows crying in the dark of the night over their dead husbands. Hungry children are moaning. Look at the orphans and parents who have lost their children. Cold, hunger, sickness, disaster, distress! Everything in the country has a high price except human life" (Dreyfus, March 8, 1943).

Dreyfus blamed the Allies for the catastrophic conditions: "There is no reason to think that the picture is in the slightest degree overpainted. With the cost of living, recently increased more than 1,000%, in large measure owing to the inroads on food and necessities of life by Allied armed forces, Poles and others for whom Iran cannot properly be held responsible, as well as the rigid control by the Allies of foreign imports to replace these necessities of which the country has been denuded, conditions for the poor have become indeed tragic" (Dreyfus, June 30, 1943).

The culpability of the Allies does not absolve the regime of Reza Shah Pahlavi. The "astounding and appalling" poverty of the masses reported in 1941 was the result of twenty years (1921-41) of misrule under Reza Shah (Majd, 2011). The massive inflation after 1941 had increased the cost of living many times in just two years for a people who were already below, or at best, on the margins of poverty, leaving them to die of starvation and disease.

Famine and Typhus Epidemic, 1942-43

An OSS report entitled "Southern Supply Route to the U.S.S.R.", describes conditions in 1942: "During 1942 the food conditions in many districts in Iran were lamentable due to the heavy demands made upon existing food supplies by the occupying armies and hoarding of cereals by the Iranians themselves. In some districts, especially Kerman, Lur and Teheran itself, many people died of starvation and during that winter deaths from typhus were at a rate of 4,000 per months, a direct result of lowered vitality on account of malnutrition" (OSS report 49526, November 23, 1943).

By the winter of 1943, the situation had further deteriorated: "The price of foodstuffs have steadily been rising, and the people are becoming desperate which may result in riots. At Shiraz and Isfahan minor riots have already broken out. The shortage and the quality of bread in Tehran is causing great discontent. Often bread queues of 300 impatient people are seen, and many have been seen waiting at 0330 hours" (OSS report 34511, February 22, 1943).

In February 1943, people were dying in the streets: "The streets of the town (Kermanshah) during February have been full of hungry and half-naked beggars of whom 15 die each day of starvation and typhus among the people have been common" (MID-Iran, File 5970, March 13, 1943). Conditions in Tehran in April 1943 are described in letters from contemporary observers, courtesy of the British Censor.

In a letter dated April 5, 1943, from Charles E. Bailey, American Red Cross, Tehran, to Ralph Bain, American Red Cross, Cairo, Egypt, Bailey writes: "Of immediate importance is the fact that there is a Typhus epidemic in town which is increasing in magnitude daily. There are 11,000 known cases at the moment and in the "Caves" are many unknown cases. I went through the hovels and mud dug-outs yesterday and witnessed scores of cases of Typhus, lying around on the ground without care or without sufficient food. In one small enclosure not even ten feet square were three cases of Typhus, one active case of Small-pox, two cases of advanced Malaria and one case of starvation – all living together and sharing each others rags that were being used for blankets" (MID-Iran, File 2400, April 5, 1943).

Other letters provide an indication of the death toll in Tehran. Alireza Sobhani, Tehran, to Ahmad Sobhani, Baghdad, letter dated April 13, 1943, translation by the British Censor: "As regards typhus, Teheran's average deaths were 5 a day, now they have increased to 1000 a day. The corpses are bound with rope into bundles of 100 corpses, then carried by trucks and emptied into pits. Every day several persons die of hunger in the streets" (MID-Iran, File 5970, April 13, 1943).

Mohammad Ali Ehsani, Tehran, to Mohammad Hossein Ehsani, Kerbala, letter dated April 18, 1943, translation by the British Censor: "The situation in Persia is critical. Prices of all foodstuffs, provisions, clothing etc. have increased. Typhoid and typhus reign in Tehran and the people fall victims to these diseases. The microbes of the epidemic spread in buses, cars and carriages. People die from hunger and typhoid by thousands every day... May God bless the poor people who suffer and die from this famine" (MID-Iran, File 5970, April 18, 1943).

A correspondent styled "Mother of Ishmael" writing from Abadan to Haji Kandar Ali Ansari, Karachi, on April 25 1943, says that those in India cannot imagine the pitiable conditions in Persia.

"Disease, misery and famine stare in the face everywhere". She says that in Tehran about 1,000 die every day and in Abadan, the death rate is between 80-90 a day, and that the majority of these deaths are due to hunger. The letter adds that typhus and typhoid are also playing havoc among the people (MID-Iran, File 5970, April 25, 1943).

Dr. Ali Dehkan, Shiraz to Mrs. M.G. Naqi, London, on June 8, 1943 (letter in English): "There is not much to write about general conditions. Times are very bad and hard. On the one hand the cost of living is so high that it can easily be said that Shiraz is even more expensive than New York. Everything is scarce and disease is raging furiously in most places. In our city typhoid is in full swing inflicting heavy casualty on the population" (MID-Iran, File 5970, June 8, 1943).

Dr. H. Jamieson, Abadan, on June 11, 1943, to Major E. Jamieson, Nairn, Scotland: "We have had two very bad epidemics this year, first small-pox, and lately typhus, which was of course practically unknown here before. We have had about a thousand cases in Abadan in the last two months..." (MID-Iran, File 2400, June 11, 1943)

In rural Khorasan, at least 25% of the typhus cases were fatal. In March 1943, G. Bowles, an official with the Bureau of Economic Warfare (BEW) and Office of Lend Lease Administration (OLLA), had traveled by road from Zahidan to Mashad and back and reports on the incidence of typhus among road maintenance laborers: "Actually there is a serious epidemic of typhus on the road and medical care is far from adequate. I travelled on the medical truck which goes up to Meshed and back about every fortnight. On this trip we saw eight cases of typhus, two of which were dead on the return journey" (MID-Iran, File 4600, March 19, 1943). In Mashad the fatality rate appears to have been lower. W. Stocken, Mashad, on June 15, 1943, to M.J. Stocken, Pretoria, South Africa: "Even in Meshed they had plenty of typhus this year amongst the poor people. But strangely enough only 17 to 20% are fatal" (MID-Iran, File 2400, June 15 1943).

The Famine Continues, 1943-44

The records reveal that the bumper 1943 grain crop, in excess of 3 million tons, was the best in living memory. The bumper crop following the sizable population loss to starvation and disease during 1942-43, above documented, should have ended the famine. But the same appalling conditions had continued during 1943-44. The main reason was the continued acquisition and export of Iranian foodstuffs by the Russians and the British. The evidence is incontrovertible and convincing.

In a letter dated, August 26, 1943, from G. Lynn Browning, American Mission, Rasht, to George Browning, College Park, Parkville, Missouri, the writer declares that "Rice crop in region of Resht expected to be largest ever produced here... Prices, instead of dropping a bit when the new crop comes in, have actually gone up and are now twice what they were five months ago. Since rice is almost the sole food of the people in this region, I don't see how people are going to live through the winter" (MID-Iran, File 4220, August 26, 1943).

The manager of the Imperial Bank of Iran, Rasht, to the Imperial Bank of Iran, London: "Resht is a clean and attractive town and, to the casual observer, modern... The lower classes appear to be extremely poor and there are hundreds of beggars on the streets. Discontent with the present cost of foodstuffs and commodities is voiced by all sections of the community. Prices of goods are fantastic and bear little relations to the cost of production" (MID-Iran, File 5060, September 20, 1943).

Alinaghi Mortazi, Tehran, to Mohammad Fakhr Rojai Gilani, Karbala, in a letter dated September 18, 1943, translation by British Censor: "It is now so difficult to live that one is never in a mood to write letters to one's friends... Although this year the harvest was wonderfully rich as it has not been seen for the last 30 years, and although it is the beginning of the year there are so many people crowded in front of the bakers' shops every day that it is impossible to buy any bread. Those who have a big family of ten can obtain bread for four members after hours of waiting and shouting and take their bitter tears for the rest of the family. And the winter has not come yet. There are still fruits to satisfy the people's hunger. Typhus has not started yet. Still the poor people can live without fuel. But imagine the winter. Everybody has prepared for death and such a death without any

wrapping and campher. Never think of coming here. Stay where you are and be happy" (MID-Iran, File 5970, September 18, 1943).

The manager of the Imperial Bank of Iran, Isfahan, to the Imperial Bank of Iran, London, letter dated October 9, 1943: "The harvest this year has been exceptionally good. The grain crop, including rice, was well above the average... The living conditions of the people have become worse. Efforts to collect the bumper harvest into the Government anbars have not been very successful and requirements for the coming year are by no means assured. Bread has been reduced in price but the quality varies and supplies often unobtainable. Adequate supplies of fats, sugar, tea and many other necessities are beyond the reach of all but the well-to-do" (MID-Iran, File 5200, October 9, 1943).

Conditions in Tabriz described in a letter of October 30, 1943, from G.L. McKimney, Tabriz to L. McKimney, Wingate, Indiana: "When war started inflation came to Iran. Also she has been drained of vast quantities of needed staples. Living cost has risen over 500%. When I returned from furlough six years ago 1000 lb. of wood for fuel was 80 Rl, it is now 700 Rl. A meter of calico 2 Rl. now 70 Rl. (that is more than \$2 per meter), food prices also go continually higher. The Board has been generous with us. How the really poor exist I know not. We pray for a mild winter. Suffering is great now and will increase greatly with the winter. Fuel a prohibitive price for the poor." 10/30/43, (MID-Iran, File 5070, October 30, 1943).

On Russian food acquisition: "As to the food supply in Tabriz, the Soviets are taking out a large part of the raisin and molasses output, and their control points turn back outbound cars found with raisins and molasses in the loads" (OSS report 11008, November 1, 1943).

Samuel G. Ebling, American Consul, Tabriz, on November 10, 1943: "By the end of October, 1943 Tabriz, from the Iranian viewpoint, represented a picture of depression and desperation... Fear is expressed by officials that there will be much suffering during the coming winter on account of the high cost of fuel and the threatened shortage of food. The mere ability to exist by obtaining sufficient food and fuel appears to be the principal concern of most people at Tabriz... It is alleged that the high cost of meat (in Tabriz) is due to the large number of animals being shipped to the Soviet Union. Iranian contractors arrange for delivery of the animals to Soviet representatives at Julfa and Ardabil. One visitor to the neighborhood of Julfa recently estimated that he saw as many as 15,000 sheep being exported across the Soviet frontier" (OSS report 51590, November 10, 1943).

Similar conditions, not surprisingly, are reported in Khorasan, also part of Iran's bread basket, in an OSS report dated November 19, 1943: "According to the American Mission doctors in Meshed, there is a large increase this year in the number of sick people and several cases of typhus have already appeared. The explanation is general under-nourishment and exposure last winter to the cold. The doctors expect a large number of deaths in the area this winter due to the fact that the large majority of the people cannot afford to buy either adequate food or clothing; nor can they buy fuel. The result will be overcrowding and the spread of disease. The explanation for the high price of fuel is lack of transportation and heavy Russian purchases of wood for cooking and heating purposes of their troops in the area. The high price of food is partly attributed to large Russian purchases, though the country-wide increases of prices also plays a large role" (OSS report 51787, November 19, 1943).

An OSS report of December 16, 1943, on food prices in Tehran: "It is said that the cost of foodstuffs has dropped, but experience has not borne that out... White bread remains 30 cents for a half pound loaf. The very high cost of charcoal, largely used by the poorer people for heating in the winter, has made its use prohibitive. It is likely that this winter will see intense suffering among the poor (most of the population) and an increase in sickness" (OSS report 51595, December 16, 1943). Another OSS report dated January 10, 1944: "The bulk of the population is uneducated and lives in abject poverty which has been heightened by the serious inflation now existing. Many classes of goods are scarce and fetch prices several times higher than normal. Mortality of infants in first five years is 80%" (OSS report 58428, January 10, 1944).

Reappearance of Typhus, 1943-44

By late October 1943, the dreaded typhus had reappeared: "The first of the fall typhus cases have appeared in Tehran. The outlook for the coming winter is not good... Conditions causing last winter's cases remain, such as undernourishment, crowded bread and kerosene lines, and inadequate clothing" (OSS report 49320, October 28, 1943).

The initial outbreak in Kermanshah appears to have been mild: "The spread of the typhus epidemic in Kermanshah is, according to good sources, at the rate of fifteen new sources per week. There is an epidemic of typhus now in Baghdad also." (OSS report 57618, January 4, 1944). By March 1944, there was a full-blown epidemic in Semnan: "(Typhus) cases having appeared in Semnan the Ministry of Hygiene has sent a group of doctors with medicines to help the population" (OSS report 64124, March 7, 1944).

Fortunately, having developed some measure of immunity, the 1944 outbreak was less severe than that of 1943: "Statistics published by the Iranian Ministry of Health have shown a sharp rise in the number of typhus cases reported over the past two weeks. In Tabriz there is little typhus, but appeals for medical assistance have come from Isfahan, Damghan, Semnan, and Saveh. Nevertheless the number of cases is small in comparison with the number at this time last year, and it is felt that the unusually mild winter, better economic conditions, and preventive measures will combine to make the attack much less serious than last year" (OSS report 63844, March 7, 1944).

Continued Famine and Typhus in South Iran, 1944-45

The Allied landings in Normandy in June 1944 and the opening of a second front, and the recovery of Russia's western agricultural regions, had coincided with a good harvest in northern Iran. An OSS report of August 19, 1944, describes the state of the 1944 harvest: "In spite of a poor yield in most southern and in some central regions, the new 1944 grain crop is a good one, on the whole. In Azerbaijan the crop is even better than that of last year, while in Kurdistan, in northern Khorasan, and in the Zabol area it is at least as good as last year. In Kermanshah and Hamadan provinces, and in the Tehran area it is about normal" (OSS report 93064, August 19, 1944).

The harvest combined with a nearly one-third decline in the population of the country, as well as reduced Russian purchases, had eased pressure on the food supply. Pointing to the "improved" conditions and the priority of supplying the newly liberated European countries, the Allied governments had quickly reneged on their obligation to supply Iran with wheat and in late 1944 notified the Iranian government that no grain imports would be forthcoming in 1945 (Majd, 2016: 678-88). However, documentary evidence indicates that in regions where the 1944 harvest was "normal", such as Kermanshah-Hamadan, economic distress had prevailed. And in southern regions such as Shiraz, famine and typhus had continued.

An OSS report on conditions in Kermanshah-Hamadan region, dated July 24, 1944, contains the following: "Extreme shortage of cloth goods is apparent everywhere throughout the remote regions. In some villages the people are dressed largely in rags. In certain tribal areas, accompanying flocks of sheep and goats, are boys as old as 15 years or more who are completely naked, and girls of the same age who have only the scantiest rags. The distribution system set up in Tehran is simply not reaching the parts of the country off the main highways. This is also the reason why tea and sugar are scarce" (OSS report 89245, July 24, 1944). It was reminiscent of Francis White's classic description of naked children by the roadside in April 1918 (Majd, 2013: 48).

An OSS report dated January 19, 1945, states: "An Englishman who has long been a resident of Shiraz claims that 6000 died in the Shiraz district last year of pneumonia and typhus, due largely to malnutrition. Conditions are now slightly better, but food stocks and clothing are still below that needed" (OSS report 113593, January 19, 1945).

An OSS report of June 12, 1945, indicates little improvement in conditions in Shiraz: "There is little industry in Shiraz and the lack of adequate employment is everywhere apparent. There are a distressing number of beggars to be seen, many times the number in Isfahan. The general poverty of the people is readily apparent from the numbers living in the ruins of collapsed houses... The Anglo-Persian Relief Society has helped the poor and a local women's group has provided shelter for a

number of orphans... Prices of such food items as eggs, cooking oil, butter, etc., are about the same as in Tehran. In normal times prices would be much lower in the provinces" (OSS report 134384, June 12, 1945).

From Qajar to Pahlavi: Royal Response to the Famines

A history of the two wartime famines would be incomplete without recording the response of the reigning shahs to the famines. According to American and Iranian sources, during the Great Famine of 1917-19, the reigning Shah at time, Ahmad Shah Qajar (1909-25), had refused to sell his wheat crop for 100 tomans a kharvar, and had held out until he received 200 tomans a kharvar. Eventually, the Shah's wheat was used to feed the population of Tehran at 200 instead 100 tomans a kharvar. Ahmad Shah was widely criticized by contemporaries as a heartless and "greedy young man who was exceedingly fond of money" (Majd 2013: 113-114). While the 21-year-old Ahmad Shah Qajar in 1918 had haggled over the price of his wheat, the 24-year-old Mohammad Reza Shah Pahlavi in March 1943, at the height of the famine and typhus epidemic, had transferred \$1 million (equivalent to \$19 million in 2025) from Tehran to the Guaranty Trust Company of New York instead of using the money to help his people. The story is revealed in the archives of the Department of State.

On March 10, 1943, just two days after his report on the plight and suffering of the Iranian masses, Dreyfus had sent a "strictly confidential" telegram to the State Department. This important document is given in its entirety:

I have been requested to transmit in pouch a letter addressed by Imperial Bank of Iran to Guaranty Trust Company enclosing application of His Majesty the Shah for the opening of a private account in his own name of one million dollars. Before complying I should appreciate Department's instructions.

I understand that the rials with which the dollars were purchased were part of the more than six hundred million left by Shah Reza to present Shah. It would appear that Shah desires to have money abroad for two reasons: (1) to take care of himself and family should he ever have to leave Iran and (2) because he is being mulcted out of his money through contributions under pressure for charitable and other purposes.

"This matter is being treated with utmost secrecy here since its disclosure might have repercussions extremely harmful to Iran's delicate political situation. Transmission in pouch has been requested for this reason.

Department's reply should be marked "to be decoded by the Minister only" (Dreyfus, March 10, 1943).

The State Department had not hesitated to grant its approval. Its reply of March 12, 1943, reads: "Strictly Confidential. To Be Decoded By The Minister Only. Your 255, March 10. Department assumes that funds involved are legitimate property of Shah. If this is the case, you are authorized to transmit the letter in question in diplomatic pouch. Welles, Acting" (Welles, March 12, 1943).

The "application" and accompanying documents had been conveyed and a non-interest bearing account in the name of His Imperial Majesty Mohammad Reza Pahlavi with an initial deposit of \$1 million was opened at the Guaranty Trust Company of New York (Majd 2011: 324-330).

World War II Famine Death Toll

The initial estimate of the death toll based on US State Department population figures for 1941 (15 million) and 1944 (10-12 million) is 4 million (Majd, 2016: 690). The actual death toll was considerably higher.

Millspaugh (1926: 3) reported the 1926 population at 12 million. The 1937 population is given at 16.2 million in the United Nations Demographic Yearbook (Ramazani, 1975: 457), indicating a growth rate of 2.7% during 1926-37. Growing at 2.7%, the population should have been 17 million in 1941,

and this is indeed the figure given by Philip D. Pancheha who wrote: "Population: 17,000,000 according to the latest Iranian estimates" (Pancheha, 1941). Iran's population in 1941 was unchanged from that of 1869 and 1910.

The 1944 population is given at 12 million by Millsbaugh (Majd, 2016: 201). In contrast, "recent British Army estimates reckon that the population numbers ten million only" (OSS report 88811, 1943). Records indicate that Iran's population had fallen from 17 million to 10-12 million, a 5-7 million decline. Taking the mid-point, 6 million Iranians perished during World War II, and at least 15 million Iranians perished in the two World Wars.

Iran's World War II famine death toll exceeded that of India's World War II famine (Mukerjee, 2010; Toye, 2010). India's population, however, was 300 million whereas Iran's was 17 million, and while the Indian famine has received much scholarly attention, Iran's was relegated to oblivion. It did not rival the calamity of World War I and was less deadly than the Great Famine of 1869-73, but was sufficiently lethal to once again restore the 1850 population.

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