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## **From Quasi-Vegetarians to Quasi-Carnivores: The Changing Diet of Iranians**

*Until the twentieth century there was little change in the diet of Iranians. Bread was the major staple, accompanied by vegetables, fruits, yoghurt, and nuts. Meat and rice were a luxury food for most consumers. In the nineteenth and twentieth centuries new food items were adopted by Persian consumers. After 1970, the modern Iranian diet—large amounts of white rice, meats, sugar-sweetened beverages and sweet/deserts, with few vegetables, herbs, nuts or fruits—has grown increasingly similar to the US diet, with the same health problems.*

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### *General Diet*

There was little change in the diet of Iranians until recent times. At least one type of flat bread was always part of every meal. For bread was the major staple, accompanied by vegetables, fruits, yoghurt, nuts with small amounts of rice and cheese plus sweet-meats as an occasional special treat. Meat was a luxury few could afford and the Islamic ban on the eating of certain meats (e.g. pork, hare, oysters, crab) limits dietary choice and variety. Until the mid-twentieth century rice was also a luxury food for most consumers. There were, of course, regional differences in diet (e.g. rice, dates and fish mainly were consumed in the Caspian Sea and Persian Gulf provinces). There were also differences between rich and poor consumers, and, to a lesser degree, between urban and rural consumers. The variety in the diet was further constrained by the seasonal availability of certain products due to limited methods of preservation. Caloric intake was less during winter, and was at its lowest level by early spring. Nevertheless, in normal years, on average, the traditional diet provided enough calories for the majority of the population. In the nineteenth and twentieth centuries new food items were adopted by Persian consumers and after 1970 also more meat, rice and sugary beverages were consumed and, instead of the traditional Iranian diet, the modern Iranian diet—large amounts of white rice, meats, sugar-sweetened beverages

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### *Urban Diets*

*Pre-Safavid period.* It is of interest to note that “to eat food, have a meal” in both Middle and New Persian is *nan khurdan*.<sup>1</sup> Even today, in for example Baluchistan, “The conventional phrase for inviting someone to a meal is, *Be-all, nan bur*, ‘come and eat bread.’”<sup>2</sup> The fact that *nan* means “bread” as well as “food” is not a coincidence, for Iranians were and are first and foremost bread eaters. It did not make a difference whether you were rich or poor, your diet included much bread, the more so if you were poor. Those who did not have bread or did not cultivate wheat or barley could substitute it with dates as the date palm argues in the Parthian poem *Draxt asorig* (the Babylonian tree), which many in southern Iran did.<sup>3</sup>

In Abbasid times (850–1256), barley bread was eaten by the poor, dervishes, as well as in times of insufficient supply by most. This is echoed by the Seljuk vizier, Nezam al-Molk (1018–92), who wrote that “a pauper eats barley bread.” The founder of the Saffarid dynasty, Ya‘qub b. Leyth (r. 867–79), said: “my victual used to be barley-bread, fish, onions and leeks.”<sup>4</sup> Although rice was consumed in Iran, in particular in Khuzestan, it was in the form of rice bread (*khubz al-aruzz*). In fact, *pelow* or a rice dish with condiments is mentioned for the first time in a poem by Owjadi (1271–1338),<sup>5</sup> after which it does not occur in any Persian text until the Safavid period, even though rice dishes gradually became part of the diet of the elite.<sup>6</sup>

This suggests that generally meat was absent from meals of all except the well-to-do. Ibn Battuta (1304–68) reported that in Isfahan sometimes they would invite a friend and say: “Come along with me for a meal of *nan* and *mas*’ – that is bread and curdled milk in their language.”<sup>7</sup> However, bread was an important part of the elite’s diet as well. Ruy Gonzales Clavijo (d. 1412), the Castilian ambassador to Timur’s court, wrote that when the embassy arrived at a place it was the custom to bring refreshments

<sup>1</sup>Desmet-Grégoire, “Bread,” 493; Back, *Die sassanidischen Staatsinschriften*, 493; Sundermann, “Ein weiteres,” 497.

<sup>2</sup>Salzman, *Black Tents*, 73. In Larestan, *noo dada* (i.e. *nun dadeh*) means “to give food or means of support.” Mahmoodian, *Encyclopedia*, 310. In Bushehr, people are invited into someone’s house for a meal with the invitation to have “bread and onion” (*nan va piyaz*).

<sup>3</sup>Desmet-Grégoire, “Bread”; Boyce, “Middle Persian,” 55; Tafazzoli, “Drakht-i Asurik.” For the limited information on the cuisine in Achaemenid and Sasanian times, see Schmitt, “Cooking,” and Amuzgar, “Cooking.”

<sup>4</sup>Nizam al-Mulk, *The Book*, 18.

<sup>5</sup>In his *Jam-e Jam* (concerning the Zirq and Talbis people).

<sup>6</sup>The fact that we have two Safavid cookbooks, which provide recipes for a large variety of rice dishes, does not mean that rice was much consumed by the majority of the population. Rice remained a luxury food until the mid-twentieth century. Fragner, “From the Caucasus,” 58–60; Javadi, “The Life.” For the Safavid cookbooks, see Fragner, “From the Caucasus,” and Ghanoonparvar, *Dining*.

<sup>7</sup>Ibn Batutah, *The Travels*, vol. 2, 295; At‘ameh, *Divan*, 79, 152.

immediately, “namely bread and sour milk, followed by a soup that they are wont to prepare with rice and dumplings of dough.”<sup>8</sup>

*Safavid-Qajar period.* Bread was also the staple in Safavid times (1501–1732), often eaten with milk products and fruit, as in later times.<sup>9</sup> The diet could also be very simple during hard times, such as around 1740, when the common food of the soldiery, and of the bulk of the people, was bread and salt.<sup>10</sup> The poor in the Caucasus during the Zand period (1755–89) mostly lived “on milk, cheese and bread. Bread is unleavened wheat and barley and baked daily, partly in large flat pancakes, partly in thick disks. They bake cakes with quinces, apples, eggs, butter and wheat flour.”<sup>11</sup> This also held for Qajar Iran (1789–1925), where the poorer urban classes throughout Iran ate wheat bread mixed with barley or sorghum. A typical meal for a day laborer in Bushire was “a lump of dates before going to work, some bread (unleavened) and salt fish for dinner [sic; i.e. lunch], and some boiled rice for supper.”<sup>12</sup> In 1887, the average estimated per capita consumption of bread was 6 *man* and 30 *sir* (20.6 kg) per month or 688 gram per day for urban dwellers.<sup>13</sup> This figure is borne out by another source. In the beginning of the twentieth century, “A large proportion of bread is eaten compared with other food, the average allowance being twenty-eight ounces [0.8 kg] a head a day.”<sup>14</sup>

### *Rural Diets*

Food intake in rural areas did not substantially differ from that in urban areas. As a consequence, the rural diet likewise was usually sufficiently nutritious, but deficient in proteins and vitamins. The Iranian peasants were hard workers and led frugal lives, and were almost vegetarians. How well they ate depended on how good the harvest was, how good the landlord was, the season’s yield (herbs, vegetables, fruits) and their own relative economic situation. In general, peasants consumed unleavened barley, sorghum or millet bread or a combination thereof, while often their landlord got the wheat. The usual kind of bread eaten is often described as coarse. A peasant’s meal was often accompanied by curds, sour milk (*dugh*), yoghurt (*mast*), cheese, whey (*kashk*), or boiled buttermilk (*shalansh* or *krut*), the product of their own animals. In summer, they further ate lots of fruit, in particular cucumbers and melons, which were usually eaten prior to the meal.

Around 1850, in the village of Savand (near Shiraz), according to Robert Binning, the annual consumption of a family of four was: 1,200 kg of bread grain or 100 kg per

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<sup>8</sup>Le Strange, *The Lands*, 156.

<sup>9</sup>Tavernier, *Voyages*, 280, 282; de Thevenot, *The Travels*, vol. 2, 96; Chardin, *Travels*, 223, 228, 233–4.

<sup>10</sup>Hanway, *An Historical*, vol. 1, 124.

<sup>11</sup>Gmelin, *Travels*, 310.

<sup>12</sup>Smith, “Report,” 402.

<sup>13</sup>Floor, *History*, 104.

<sup>14</sup>Rice, *Persian Women*, 178.

month, or an average of 25 kg per person per month.<sup>15</sup> This level of consumption corresponds to that of peasants in Khorasan in the 1890s, where, according to Percy Sykes, people needed some 50 lbs (22.7 kg) of wheat per month per person.<sup>16</sup> Whether this level of consumption was actually achieved depended on a lot of external factors.

In some areas, peasants baked bread made with oleaster flour (*senjed*), which they stored in leather bags (*mashk*), mixed with dried whey (*kashk*).<sup>17</sup> A special dish for the poor in Azerbaijan was the making of cracked wheat, which was boiled and dried in small cakes. From this flour they also prepared a kind of grits (*belghur*), which especially the Turkish-speaking population liked and which took the place of rice for them.<sup>18</sup> In many parts of eastern Iran, the fruit of the wild pear (*Pyrus sp.*), of the *taghun*, *tokhm* (*Celtis caucasia*), a common indigenous tree in Khorasan, and of dried mulberries, were all converted into flour and mixed with ordinary flour to make into bread; so also were the seeds of luffa and some other squash and gourd-like fruits. Dried mulberry fruit, *tut-e-maghz*, was found in every household, for eating as a relish with their ordinary bread diet, or it was made into flour, *talkhan*, to be mixed with flour of other grains and baked into bread.<sup>19</sup>

Meat was a luxury and, except on special occasions, such as feast days and weddings, was only eaten by the more affluent. Moreover, meat could not be stored and if slaughtered had to be eaten the same day. Although chickens, sheep, and goats were kept in every household, the majority regarded these animals as producers of income, rather than as meat alone.<sup>20</sup> In many villages soups (*ash*), stews (*abgusht*), or pottages (*balim*) were eaten, which sometimes contained meat and/or fat. In Sistan in the 1870s, in addition to mostly bread, “ragouts of mutton flavoured with assafoetida as a vegetable, or curds, and in the proper season melons. The wealthy live differently according to taste and means.”<sup>21</sup>

The diet of the peasants was, of course, really bad after a poor harvest or some other mishap. For example, after locusts had damaged their crops, peasants “had to live on half-rations throughout the winter, and must continue to do so until the grain was ripe.”<sup>22</sup> Especially in the period before harvest time, their suffering was great.

*Caspian provinces.* There were two regions where the dietary pattern was not dominated by bread, but by rice (Gilan, Mazandaran) or dates (littoral of the Persian Gulf).

<sup>15</sup>Binning, *A Journal*, vol. 2, 47.

<sup>16</sup>Sykes, *The History*, vol. 2, 391.

<sup>17</sup>Vaziri, *Joghrafiya*, 163; Hanway, *An Historical*, vol. 1, 124.

<sup>18</sup>Knanishu, *About Persia*, 109; Polak, *Persien*, vol. 1, 111; Adams, *Persia*, 202.

<sup>19</sup>Aitchison, “Notes,” 35–6, 76, 134–5. The plant family of *Cucurbitaceae* further includes squashes, melons, gourds, pumpkins, and cucumbers.

<sup>20</sup>Polak, “Beitrag,” 130; Forbes-Leith, *Checkmate*, 39–40; Sykes, *Persia*, 210, 212–13; Perkins, *A Residence*, 170; Fraser, *Travels in Koordistan*, vol. 1, 128, 131; Sykes, *The History*, vol. 2, 391; Binder, *Au Kurdistan*, 352; Merritt-Hawkes, *Persia*, 17; Rice, *Persian Women*, 60, 89; Al-e Ahmad, *Owrazan*, 27; Tahbaz, *Yush*, 44; Planck, *Die sozialen*, 53.

<sup>21</sup>Bellew, *From the Indus*, 159.

<sup>22</sup>Sykes, *Persia*, 210, 212.

These were also two regions where fish was eaten and much more so than in the rest of Iran. Sunflower seeds were also used as food on the Caspian coast.<sup>23</sup> In the provinces of the Caspian littoral, the diet was considerably different from that of the rest of the country, if only because the staple was rice.<sup>24</sup> People did not eat bread, which was only to be found in the large towns and the households of the grandees.<sup>25</sup> It was only in the mountainous areas, where wheat and barley were grown, that bread and dairy products were the staple, but rice was eaten at lunch

*Persian Gulf littoral.* The normal diet of the inhabitants of the Persian Gulf coast consisted of dates, salt-fish, and onions.<sup>26</sup> This dates and fish diet was enriched with grains as well as fruits and vegetables. The poor had to do with the most inferior quality of those common food items as well as with those that only the poor ate, such as the red, sour fruit of the *lul* tree.<sup>27</sup>

*Diet of nomadic groups.* Bread was also the staple among nomadic groups. The Lur nomads lived on a diet of barley bread, yogurt and butter-milk, and very little meat. A man easily ate one loaf, women and children each a half of one or less. "Since it takes one kilo of flour to make three or four of these nans [bread], an average family of four or five persons would need at least 3 kg of flour every day."<sup>28</sup> Among the Kurds in the 1880s, the men ate >700 g of bread per day, which is similar to what sedentary households consumed. "In a family with three children and three adults, about 22–24 loaves of bread were baked each day."<sup>29</sup>

In the nineteenth century, the Bakhtiyaris had a similar diet as the Lurs. "The ordinary food of these hardy wanderers [Bakhtiyaris] is mas, or dry curds, goats' flesh, goat's milk, and acorns."<sup>30</sup> All migrant groups in the Zagros range ate acorn bread part of the year due to poverty. The Turkmen in the 1870s also mainly ate bread. Breakfast consisted of freshly baked bread, which was "has an intensely clayey taste and odour," and this was "washed down by weak green tea, usually sugarless," because sugar was a great luxury.<sup>31</sup> As better food, the Turkmen ate "rice or yarma (bruised wheat), and sour milk; and on a great occasion a sheep is killed, and soup or pilau is made."

In short, it would appear that until recent times the majority of Iranians were quasi-vegetarians, not by choice, but because most of the time they could not afford to buy meat. As a result, they had a diet that in normal years was adequate in terms of calories, but deficient in proteins and vitamins.

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<sup>23</sup> Adams, *Persia*, 129.

<sup>24</sup> Jaubert, *Voyage*, 425.

<sup>25</sup> Jaubert, *Voyage*, 337, 425; Fraser, *Travels and Adventures*, 216 (bread in Resht).

<sup>26</sup> Harrison, "Coastal Makran," 3; Ouseley, *Travels*, vol. 1, 228; Kempthorne, "Notes," 282.

<sup>27</sup> Faramarzi, "Banader," 646.

<sup>28</sup> Mortensen, *Nomads*, 245. A quantity of 700 g of bread is 2,300 kcal.

<sup>29</sup> Binder, *Au Kurdistan*, 352.

<sup>30</sup> Stocqueler, *Fifteen Months*, vol. 1, 119; Najm ol-Molk, *Safarnameh*, 158.

<sup>31</sup> O'Donovan, *The Merv*, vol. 1, 149, 212.

*The Beginning of Change in the Diet*

*Bread.* The change in dietary patterns was slow. True, in the period before 1800 some new food products became part of the Iranian diet, but these were far and few. An important one was the introduction of *nan-e sangak* that dates from the Safavid period (before 1630).<sup>32</sup> However, more changes took place in the nineteenth and in particular in the twentieth century.<sup>33</sup> The most important one was the consumption of tea. Although Persians are now a nation of tea drinkers, this has not always been the case. In fact, till the 1850s, Iran was mainly a country of coffee drinkers. Tea was not cultivated in the country, and initially it was imported, together with the samovar, teacups, and drinking habits, from Russia.<sup>34</sup>

*Tea and other food plants.* Although in the second half of the nineteenth century tea had become a popular drink in Iran, most peasants could not afford it.<sup>35</sup> Also important was the introduction of a new kind of bread, *barbari*, around the 1850s, which still is one of the most popular types of bread in Iran.<sup>36</sup> Another new food item was the *sib-zamini* or the potato (*Solanum tuberosum*) that was allegedly introduced into Iran by Sir John Malcolm in the first decade of the nineteenth century, and was therefore initially known as Malcolm's plums (*alu-ye malqolm*). However, it was already cultivated in Bushehr around 1780 and probably already in the seventeenth century.<sup>37</sup> Although the potato grows well in Iranian soil, initially it was hardly consumed. Mirza Bozorg said: "why eat potatoes if you have divine rice." By 1880, Wills could remark: "potatoes are now coming into common use among the Persians ... some fourteen years ago they were only cultivated for sale to Europeans, and were very rare and dear."<sup>38</sup> However, their use remained marginal, and nowadays it is mainly used to make *tahdig*, and to be used in *ab-gusht* and in salads.

The same holds true for *gojeh-ferangi* or tomatoes (*Lycopersicon esculentum*) that were grown in Kermanshah and in central Iran for local consumption at the turn of the twentieth century. As is clear from its name the tomato had been imported

<sup>32</sup>Zavosh, *Tebran*, 244 (he allegedly also developed *beryani* and *khoresht*, which is unlikely); see also Rowghani, *Nan-e Sangak*, 80, who also doubts the "discovery" by Sheikh Baha'i. *Sangak* is not mentioned at all by the fifteenth century poet Atma'eh 1360, who devoted his entire *divan* to food items, including breads and pastries.

<sup>33</sup>There was less variety in rice recipes in the nineteenth century compared with the seventeenth century, and consolidation, i.e. no innovation in twentieth century *pelow* recipes. Fagner, "From the Caucasus," 60–61.

<sup>34</sup>Matthee, "From Coffee," 199–230. For the growing importance of tea, see Floor, "Tea Consumption," 47–111.

<sup>35</sup>Sykes, *The History*, vol. 2, p. 391; on tea in general, see Floor, "Tea Consumption."

<sup>36</sup>Mostowfi, *Sharb*, vol. 1, 400.

<sup>37</sup>Brydges-Jones, *An Account*, viii (appendix) Mirza Bozorg said: "in short, why eat potatoes if you have divine rice"; Binning, *A Journal*, vol. 2, 87–8; Hamilton, *A New Account*, vol. 1, 59.

<sup>38</sup>Wills, *In the Land*, 170, 300; see also Zarrabi, *Tarikh*, 225; and E'temad al-Saltaneh, *Ketab al-Ma'ather*, 113, who remarked that both rich and poor ate potatoes.

from Europe.<sup>39</sup> However, its use is mainly limited to a condiment served warm with, for example, *chelow kebab*. Likewise, the *tut-e ferangi* or the large strawberry (*Fragaria vesca*) is a newcomer that was introduced to Tehran from Europe in the 1840s, although indigenous small strawberry varieties were to be found in the Caspian provinces.<sup>40</sup> Despite it being an indigenous plant, as well as the early introduction of the European variety in the mid-nineteenth century, Mostowfi reported that in the 1880s he ate his first strawberry, which was a novelty at that time.<sup>41</sup> Its use was and still is rather limited. *Bamiyah*, lady's finger or okra (*Abelmoschus esculentus*), was little grown, because Persians did not like this plant much. Farmers near large towns mainly grew them for Europeans and Arabs living in Iran.<sup>42</sup> According to E'temad al-Saltaneh it was a new kind of plant, which, although not correct, indicates that it was not generally consumed.<sup>43</sup> The same held for the *kunghir*, the cardoon or artichoke (*Cynara Scolymus*), which was cultivated in gardens. Both the artichoke and the *kangar-e ferengi*, i.e. the European thistle, were introduced during the nineteenth century. The cardoon, together with rhubarb and mushrooms, are now used in the preparation of *khoresh*, soup, *khoshab*, and *kangar-e mast*.<sup>44</sup>

*More bread varieties and quality control.* In short, these few new food items, even if they had become important consumption articles, did not basically change the Iranian diet. But there were changes, starting, of course, in the diet of the upper income brackets, who began to consume more European food items. More importantly was the introduction of new types of bread such as *nan-e bulki*, also known as *nan-e safid* or *nan-e fer*, which is one of the most interesting European oven breads (*nan-e feri*) that is used to prepare sandwiches. *Nan-e bulki*, which has been known in Iran since 1931, had an entirely different shape and form than Iranian bread, which is flat. It was introduced from Russia, hence its name, as *bulka* in Russian means "a small loaf of bread," or "a bun." In addition, in the 1950s,

Numerous varieties of wheat, dark-rye and so-called French bread are widely available in Tehran, thanks to the demands of the foreign colony and Armenian minority, but most villagers have not sampled them, and those who have disliked their flavor and flimsiness and were shocked by their prices.<sup>45</sup>

<sup>39</sup>DCR No. 3189 (Kermanshah 1903–04), p. 34. According to Schindler, *Eastern Persian*, 25 (the fruit initially was also known as *badenjan-e ferengi* or European egg-plant), 160; likewise Höltzer, *Persien*, 26.

<sup>40</sup>Schlimmer, *Terminologie*, 290; Binning, *A Journal*, vol. 2, 317; E'temad al-Saltaneh, *Ketab al-Ma'athar*, 113; Adamec, *Historical Gazetteer*, vol. 1, 197; Schindler, *Eastern Persian*, 25.

<sup>41</sup>Mostowfi, *Sharh*, vol. 1, 258.

<sup>42</sup>Polak, "Beitrag," 132; Schlimmer, *Terminologie*, 7; Wills, *In the Land*, 170; Benn, *An Overland*, 70 (lady's fingers).

<sup>43</sup>E'temad al-Saltaneh, *Ketab*, 113.

<sup>44</sup>Wills, *In the Land*, 170; Aitchison, "Notes," 52–3, 176; Schindler, *Eastern Persian*, 25; Polak, "Beitrag," 132; Sepehr, "Mokhtasar," 434; Najm ol-Molk, *Safarnameh*, 158; Eyn al-Saltaneh, *Ruznameh*, vol. 1, 68; Afzal al-Molk, *Safarnameh*, 61, 63.

<sup>45</sup>Alberts, "Social Structure," 176.

Since around 1970, with the growing expatriate community in Tehran and increased westernization of the middle class, rye bread loaves were made and promoted by some non-traditional urban bakeries as well as so-called “diet” (*rezhimi*) and “fancy” (*fantezi*) bread. Other types of European bread (*nan-e tost*, *nan-e mashini*) can also be found in Tehran and other large cities.<sup>46</sup>

Another change was in the quality of bread. Until the 1950s, bread was often adulterated, underweight, and its price was subject to so-called bread rings, who drove up the price of bread grains by creating artificial shortages in the market. Conversely, until that time, if the grain and bread market functioned properly bread could be really good and bakers could attract consumers by using better and/or sought-after grains. With better regulation of the grain market and centralization of flour production the raw materials for bread making became uniform. Although producing a guaranteed quality, product variety and taste were sacrificed to efficiency and regulation, and not too steep a price for quality and affordable bread.

There also were regional changes, such as in Gilani and Mazandarani households where bread had become a regular part of the diet. The consumption of bread in the lowlands only dates from the 1940s, when it had become normal to have breakfast with tea, or butter and honey, or jam. If there was meat it was mostly used for the preparation of *abgusht* (with potatoes, onions, beans, peas, rice, etc.).<sup>47</sup> In the 1970s people still ate more rice (40–65 percent) than bread (0–25 percent) according to diet surveys.<sup>48</sup>

*Meat.* There also was a change in the choice meats in the diet. In the 1950s, veal became popular, because it was more tender than mutton. Furthermore, in the 1960s the hamburger became popular, complete with ketchup and *nan-e bulki*. By the 1970s all kinds of sausages (*kalbas*) were popular, first among the middle class and later also among the lower classes. The early sausages, allegedly made with pork, were initially limited for use by Christians, but later were also eaten by other Iranians. The new sausages, such as *sisis-alemani* and *mortadella*, look like European sausages, but have neither the taste nor the flavor. With hamburgers and processed meats also came the pizza, and these are now regular and popular food items. The taste for meat was constrained after 1979 as it became more expensive and, instead of regular meat dishes (kebabs), those with fewer means added some meat to traditional vegetable dishes such as *khoresh* and *ash*, which even nowadays have some meat in them. Fish also has become more popular, especially those from the Persian Gulf, which before did not have a good reputation.<sup>49</sup> Until 1983, caviar was considered a religiously banned (*haram*) food because sturgeon have no scales. However, it was made religiously permissible (*halal*) by Ayatollah Khomeini, who wrote in a fatwa: “caviar fishes ... have lozenge-shaped scales on parts of their body

<sup>46</sup>Desmet-Grégoire, “Bread.”

<sup>47</sup>Mahmudi, *Joghrafiya*, 75–7.

<sup>48</sup>Bazin, *Le Taleb*, vol. 1, 57; De Morgan, *Mission*, vol. 1, 251 (rice is a luxury in the mountains); Bromberger, “Eating Habits,” 186.

<sup>49</sup>Khosrokhavar, “La pratique,” 146–54; Chehabi, “The Westernization,” 43–62.



especially on the upper lobe of their tail fin.” As a result, domestic consumption of caviar increased thereafter.<sup>50</sup>

*Beverages.* Beer, which was freely available before 1980, has disappeared and has been replaced by non-alcoholic so-called Islamic beer (*abjow-e eslami*). Likewise sodas such as coke that were marketed as of the 1960s and had become very popular, are still widely available in locally adapted forms, albeit not with the same taste as the foreign products.<sup>51</sup>

*Household consumption data show bread remained staple.* Unfortunately, household food consumption data are lacking before the 1970s. Although household food consumption surveys were conducted in 1937, these were restricted to middle-income families in cities with a population above 50,000. The majority of the urban population did not fall within this range, so the results of that survey cannot help to highlight the situation of low-income groups. According to this survey, middle-class families spent 56 percent of their income on food, of which bread and cereals represented the most important part (37.2 percent). Only 14 percent was spent on meat, mainly mutton, while expenditures on dairy (mostly butter) were only 11 percent. Household spent little on vegetables and fruit (6.7 percent), and relatively more on various food items (23.4 percent), of which sugar represented more than two-thirds. Expenditures on beverages and tobacco were minor (7 percent) and were mostly for tobacco.<sup>52</sup>

In the 1950s, bread was still the most important food consumed, together with vegetables, fruit and sometimes meat, which represented only 2 percent of low-income diets. This inadequate diet, i.e. one deficient in proteins and certain vitamins, nevertheless provided the majority of the population with sufficient calories. The average daily caloric intake per person was 2,100 kilocalories, of which 60 percent was from cereals. In good harvest years it rose to 2,200 kcal, which was lower than in Iran's neighboring countries, while in winter 10 percent fewer calories were consumed. The difference between the diet of the rich and the poor was significant. “The land-owning class spends approximately 38 percent of its total budget on food; agricultural laborers, 68 percent; and urban wage earner, 74 percent.”<sup>53</sup>

Water and some tea were drunk at all three meals. When the men worked on a far field they took bread and tea with them for lunch, and also some dates, an egg, or a gherkin. Even the well-to-do did not eat well. Only when there was a festival, a party, or when there were guests did people eat well.<sup>54</sup> In the village of Talebabad, near Tehran, the consumption of bread per family was 2.4 kg/day in the 1960s, but in addition they also consumed some *sangak* bread that was bought from Firuza-

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<sup>50</sup>A'lam, “Caviar.”

<sup>51</sup>Khosrokhavar, “La pratique”; Chehabi, “The Westernization.”

<sup>52</sup>ILO, “Récentes enquêtes,” 881–4.

<sup>53</sup>US Department of Agriculture, *Foreign*, 2; US Department of Agriculture, *Economic*, 6; US Army, *Area Handbook*, 142–3; CENTO, *Conference*, 107; Mehrbani “Hazinehha,” 360.

<sup>54</sup>Planck, *Die sozialen*, 54; de Morgan, *Mission*, vol. 1, 251.

bad, so that daily bread consumption per person was 0.5 kg.<sup>55</sup> In Hamidieh (Khuzestan) bread and onions was the staple. In 1954, bread represented one-third of food expenses of a farmer's family. Per capita consumption of bread was 0.76 kg.<sup>56</sup> In the villages of Owrazan and Yush the people ate *ash*, boiled water with vegetables such as lentils or rice and potatoes, or carrots, and *reshteh* (noodles), practically every day; they even ate it at lunch (*chasht*). There were many kinds of *ash* (*kashk-e ash*, *dugh ash*, *tesh ash*, *mast ash*, *narm ash*), which were all without meat and named after one of the main ingredients such as whey (*kashk*), buttermilk (*dugh*), or yoghurt (*mast*).<sup>57</sup>

Bread remained the dietary staple food for the population in the 1950–60s and accounted, on average, for 70 percent of the daily caloric intake. Several studies conducted in rural and urban environments showed variations in the proportion of proteins supplied by bread, from 60 percent among farmers to 34 percent among landowners.<sup>58</sup> In 1970, it was noted that the daily caloric intake had dropped to 1,620 kilocalories in 1968, although the earlier higher figures may have been over-estimations. This inadequate and insufficient diet lowered people's resistance to disease and in 1969 a survey in major urban hospitals found that 35 percent of infants under twelve treated in those hospitals suffered from malnutrition. It was further found that "Girls generally get less food than boys, and that the oldest and youngest children in the family are given preferential treatment at meals, whereas those in the middle ranges receive much smaller portions."<sup>59</sup>

*Calories adequate, but inadequately nutritious.* The US Department of Agriculture concluded in 1961 that "it is doubtful that the Iranian calorie level ever rises much above the 2,350 kilocalories average per capita for all West Asian countries."<sup>60</sup> Although this proved to be wrong, it indicates that Iran was perceived to have a major food problem at that time. A group of squatters (*hashiyeh-neshinan*) in Tehran in 1971 had a sufficient daily caloric intake (2,600–3,080 kcal), but most of this came from bread. For those working in the brick kilns this was 980 g/day and those living in makeshift huts (*alunak-neshinan*) 620 g/day; 59 percent of calories were supplied by bread. Protein intake of kiln workers was 108 g/day, and those living in makeshift huts 81 g/day, and most of that also came from bread (respectively 78 and 67 percent). Animal protein was little consumed: 12 g/day for kiln workers and 10 g/day for those living in makeshift huts, or about 11 percent of the total, although for about half of the families it was below 10 percent. The FAO at that time proposed that animal protein intake in the Middle East should be 20 g/day. Calcium intake was 730 mg (kiln workers) and 580 mg/day (makeshift hut inhabitants), mostly from bread (75 percent for kiln workers and 55 percent for those living in makeshift

<sup>55</sup>Safinezhad, *Talebabad*, 456–7.

<sup>56</sup>Borhanian, "Die Gemeinde," 93.

<sup>57</sup>Al-e Ahmad, *Owrazan*, 27; Tahbaz, *Yush*, 44.

<sup>58</sup>Desmet-Grégoire, "Bread."

<sup>59</sup>US Government, *Area Handbook*, 152.

<sup>60</sup>US Department of Agriculture, *Economic*, 6.

huts). Although in summer fruits were abundant and cheap, vitamin A intake was still insufficient. It was 2,300 units lower for kiln workers and 3,800 units lower for those living in makeshift huts than the international WHO norm. If it was that bad in summer it must have been worse in winter when fruits were not abundant and were expensive. It was also insufficient for other inputs (thiamine, riboflavin, niacin, vitamin C). In short, these migrant squatters lived on bread, and their inadequate nutrition was due to poverty not to tradition. This is clear from the fact that the workers living in makeshift huts were from the Caspian region, where people normally ate rice, and little bread. Their income varied between 53 and 80 *tumans*/month, and if they earned more they ate more protein, though this was mostly from bread. Animal protein intake remained more or less the same. The reality was more negative, for the researchers observed that all these figures were on the optimistic side.<sup>61</sup>

This situation was not atypical for non-migrant urban families either. Poor Jewish families in Shiraz ate a little meat only twice per week. When they were short of funds they were able to cut their food expenditure by one-third by eating less rice and more bread and vegetables.<sup>62</sup> This unhealthy dietary situation for poor urban dwellers existed despite the fact that, for example, squatters in Bandar Abbas spent 70 percent of their income on food.<sup>63</sup> A study carried out in 1972–73 by Hossein Azimi found that 44 percent of the Iranian population was undernourished and 23 percent consumed less than 90 percent of the recommended WHO daily caloric intake. In particular 21 percent, mostly in urban areas, were undernourished, 20 percent, also mostly in towns, were severely undernourished, and 3 percent (mostly in villages) were dangerously undernourished.<sup>64</sup>

*No more hunger, but less fruit/vegetables and more fat and sugar.* In the last forty years, there has been considerable economic progress and dietary change in Iran. After the Islamic revolution of 1979, the average diet had more than 2,400 kilocalories/day, but fell to 2,200 kilocalories per day in 1986–87 during the worst war years, to increase thereafter. In 2005, the daily caloric intake was 3,425 kcal (vegetable products 91 percent; animal products 9 percent) or 185 percent of the FAO recommended minimum.<sup>65</sup> Of this diet wheat still represented about 50 percent or about 600 g/per day.<sup>66</sup>

But there are changes in diet that are mainly due to lifestyle and income. Wealth and income inequality is high compared to the average for the region, in particular between the rural and urban populations. In rural areas local availability and prices seem to determine the choice of food, resulting in unsatisfactory intakes of iron,

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<sup>61</sup>Dowlat, Sa'edi, and Hazarkhani, *Hashiyeh-neshinan*, 8–14.

<sup>62</sup>Loeb, *Outcaste*, 80.

<sup>63</sup>Nirumand and Ahsan, *Hashiyeh-neshinan*, 49.

<sup>64</sup>Katouzian, *The Political*, 270–72 quoting from Hossein Azimi, "Aspects of Poverty and Income Distribution in Iran." Unpublished thesis, Oxford 1979.

<sup>65</sup>*Encyclopaedia Britannica*, "Iran," 355.

<sup>66</sup>Preedy, Watson, and Patel, *Flour*, 266.

calcium and vitamin A. Also, foods are mainly plant-based, bread being the staple, although rice consumption is increasing. High unemployment forces consumers to depend on cheaper, less nutritious food, exacerbating current nutrition and health trends. International sanctions on Iran, and inflation caused by them, have also had a significant impact on food intake of the population; with middle-class and poorer households particularly affected. Therefore, nowadays hunger may be less of a problem for most Iranians, but changing dietary trends have resulted in increased rates of malnutrition and obesity.

This trend is more pronounced among adolescents; in Iran 65 percent of the population is under the age of thirty-five. Their tastes are changing and companies are modernizing and targeting younger consumers by renaming well-known brands or adding new products and flavors. As a result, adolescents show an inadequate intake of milk and dairy products, fruits and vegetables, and a high consumption of empty calorie foods, for example salty snacks, sweets, soft drinks and junk food. This type of consumption is facilitated by the growth of fast-food chains that copy well-known US brands, such as Mash Donald, Kabooki Fried Chicken, Pizza Hat, Chipotle, Baskin Robbins, Dominuz Piza, Raees Coffee and Subways in addition to home-grown fast-food outlets, including Iranian food.<sup>67</sup>

Another trend is that packaged products have begun to replace traditional fresh baked breads. In 2015, the packaged food industry was worth \$30.4 billion and was predicted to have a compound annual growth rate (CAGR) of 33 percent, the highest projected growth in the Middle East. Also, the consumption of sweets has increased. For example, chocolate (dominated by Parand Chocolate Co., which holds a 20 percent market share) grew by 10 percent in 2016, with domestic manufacturers developing ways to improve quality and packaging for increased market visibility. Another market targeted towards younger consumers—soft drinks—is also doing well. After Saudi Arabia, Iran's retail value for soft drinks is the second largest of all Middle Eastern markets. The soft beverage industry is valued at \$2.8 billion (juices making up the largest share).

As a result of these effects and trends, the traditional diet based on wheat, fruits and vegetables is changing as the consumption of fruits and vegetables has dramatically decreased. Iranians now consume more sugar, fat and oils than in the past. Of total energy consumption 66 percent and 22 percent came from carbohydrates and fats respectively. As to the source of fats: meats and eggs represent 22 percent; dairy 10 percent, fats and oils 58 percent. Although still within accepted ranges, this means a doubling of fat intake during the past thirty years. This shift is not only linked to income, but also to a change in dietary habits. A major literature study concluded that

Our findings indicated that per capita calorie consumption in Iran is higher than the recommended daily values. In fact, per capita intakes of bread and rice, oil, and sugar were respectively 5%, 20%, and 38% higher than the rates in the standard

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<sup>67</sup>[https://www.buzzfeed.com/politicallyaff/the-greatest-form-of-flattery-imitation-american-ebwy?utm\\_term=.ftWoMvlol#\\_gyG0azR0R](https://www.buzzfeed.com/politicallyaff/the-greatest-form-of-flattery-imitation-american-ebwy?utm_term=.ftWoMvlol#_gyG0azR0R)

food basket. In addition, consumption of milk and dairy products, eggs, and fruits and vegetables was 25%, 20%, and 25% lower than the recommended values, respectively.

Consequently, today, 55 percent of women and 38 percent of men in Iran are considered obese or overweight, creating major public health concerns. Malnutrition is another repercussion from dietary changes. Micronutrient deficiencies are prevalent in Iran, especially iodine and iron deficiencies; related diseases, such as iron-deficiency anemia, are widespread.<sup>68</sup> In short, the diet of the twenty-first century Iranian consumer increasingly looks like that of the industrialized nations, such as the US and western Europe, and, consequently, causes the same health problems, i.e. obesity and malnutrition with their attendant illnesses such as diabetes and cardiovascular diseases.

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<sup>68</sup>Dzajazery and Siyasi, "Food Behavior," 105–17; Montazerifar, Karajibani, and Dashipour, "Evaluation," 62–71; Abdi et al., "Surveying," 159–67; Kimiagar et al., "Food Consumption," 539–47; Abdollahi et al., "Socio-economic," 19–26.

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