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Daily Lifestyle Managed By Natural Disasters In Anatolia

Anadolu'da Doğal Afetlerin Yönettiği Gündelik Yaşam Tarzı

Abstract: The heart of Anatolia was devastated by two major droughts between 1800 and 1880. The severe winter conditions during this period, followed by subsequent floods, once again destroyed farmers' crops. The great earthquake in Bursa further burdened the already exhausted society with pain and sorrow. In this study, data will be evaluated to understand how people in Anatolia, exposed to successive disasters, had to adapt their livelihoods. The focus will be on how workshop-style collective production, which had begun to emerge in Anatolia on the brink of the Industrial Revolution, was disrupted by natural disasters, and why the agriculture-based economy remained predominant. The study includes observations on the changes in Bursa and Adana, where disaster-affected populations clustered after being displaced. The contribution of cheap labor, provided by victims of natural disasters, to the manufacturing sector in Bursa, Adana, Aydın, and İzmir is analyzed in relation to the small-scale industrial transformations in these cities. A comparison is made between the livelihoods of the local population before the disasters and their income sources afterward. Based on this comparison, the impact of disasters on livelihoods is discussed. Additionally, the types of disasters and their varying degrees of impact in Ankara and Konya are examined.

Key Words; Ankara, Konya, Drought, Famine, Migration, Industry

Öz: Anadolu'nun bağı 1800-1880 yılları arasında iki büyük kuraklık vakası nedeniyle yandı. Bu süre zarfında şiddetli kış şartları ve sonrasında yaşanan seller çiftçilerin mahsullerini bir kez daha tahrip etti. Bursa'da yaşanan büyük deprem ise bitap hâldeki toplumu bir kez daha acı ve kedere boğdu. Çalışmamızda, Anadolu'da art arda afetlere maruz kalan insanların geçim tarzlarını nasıl değiştirmek zorunda kaldıklarına dair bazı veriler değerlendirilecektir. Endüstri devriminin eşliğinde bulunan Anadolu'da başlayan atölye tarzı kolektif üretimin doğal afetlerden nasıl etkilenerek yok olduğu ve tarıma dayalı ekonominin neden revaçta kalmaya devam ettiği yönünde bazı varsayımlar üzerinde durulacaktır. Afetler nedeniyle yurtlarını değiştiren insanların kümelendiği Bursa ve Adana'da meydana gelen değişim süreci üzerinde bazı hatırlatmalara yer verilmiştir. Doğal afet mağduru afetzedelerin Bursa, Adana, Aydın ve İzmir'de bulunan imalat sektörüne sunduğu ucuz iş gücünün bu şehirlerde gerçekleşen ufak çaplı endüstriyel değişime katkısı sorgulanmıştır. Çalışmada afet öncesi yerel halkın geçim kaynakları ile afet sonrası yaşanan kazanç alanları arasında mukayese yapılmıştır. Bu mukayese sonrasında afetlerin geçim kaynakları üzerindeki etkisine değinilmiştir. Ayrıca Ankara ve Konya ölçeğinde yaşanan afetlerin türleri ve etki kapasiteleri sorgulanmıştır.

Anahtar Kelimeler; Ankara, Konya, Kuraklık, Kıtık, Göç, Endüstri

Presenting the subject

The provinces of Konia and Angora, affected by the famine in XIXth century consumed a large area that covers almost the entire middle of Asia Minor. Konia includes some sandjacks (sub-province) within its borderline such as *Teke*, *Hamid* and *Niğde* in the years of severe draught, 1869-1875.¹ It is essential to introduce the potentials of these administrative units' sovereignty in order to explain how the draught shifted the fiscal way of daily routine in the region. The *Sandjack of Hamid* in Konia province provided vast opportunities to those who deal

¹ *Konya Vilayet Salmamesi* (The Annuale of Konia Province Governer House), Hijri 1290.

with animal husbandry and farming with its large pastures, meadows and fertile lands. *Hamid*'s climate was also humid enough to produce various kinds of vegetables. Antalya, the capital of *Teke Sandjack* of Konia province was a famous city for sea-transportation. As for the *Sandjack* of *Niğde* it could be asserted that the inhabitants of *Niğde* earned their living from mining and farming along with commercial trade activities. The main livelihood in the province was derived from agricultural facilities and animal husbandry. Grain cultivation was the main agricultural choice in the province due to the semi-arid climate of the region. However there were many other business attractions to earn in the province such as iron casting, gun-powder, hand-made pistol and rifle, textile and education. The Ottoman state introduced and courage the industrial developments not solely in the capital but also in the rural provinces of the country at the beginning of the XIXth century. European enterprises also backed this development with machinery. Maritime companies sought large amounts of products to trade with Indo-China. Thus, Ottomans on the way were regarded as a critical outpost for the European maritime companies. The ships' holds, came nearby to get supply were embarked to some small-scale extend with local products, provided from the eastern coastal towns of the Ottoman state. Konia province was also important station for maritime companies with its coastal towns of Antalya and *Silifke* in the east Mediterranean which enrooted to mid-east and Indo-China.

The attempt to explain the effects of natural disasters on the province also needs to present financial structures of social-economic classes. By doing so the importance of natural resources will be introduced within the socio-economic life of the province. It could be those explained how damaging natural disasters are on communities. In addition an attempt will be made to find out how industrial dealings and wealthy classes emerged through the suitable opportunities that might arise therefore an overview of the drought seasons will be presented. Attention must be first given to describing people's occupations in order to identify the lost resources during the draught famine, which was the most devastating of all natural disasters which struck Konia. Working fields in Konia province of the Ottoman state could be introduced in the following order;

A. Livelihoods which depended on natural sources

In the province people were used to consume natural raw materials in order to get by. These raw materials for earning some daily bread are provided from the herbal plants in the region. Meadows and forests were helpful to allow living wild hunting animals as well as for domestic ones. However the best raw material was the fertile soil of the province which suited well for the grain cultivation in agriculture. Thus, large amount of wheat and barley cultivated in the soils that could be plowed easily under the semi-arid climate. It is also worth mentioning that the province had also abundant underground raw materials as for mining. One of these ground sources for mining was potassium nitrate (potash) along with the sulfur that allows gun-powder production in the province for state consumption.² The earning fields in the province hence can be listed to explain so that one might figure out the scale of percentage of the man-power being heavily recruited in which occupation.

1. The occupation in the field of agriculture; Agricultural earnings had a greater influence upon those' occupations who settled in rural areas compared with those who lived in urban areas. Agriculture was one of the best livelihoods covering the plain of Konia and the places which were close to the lake-sides. Such inner lakes, especially scattered all around the sub-province Hamid of Konia province receives more humidity on fertile lands for cultivation which allows vast vegetable and grain growth. On the contrary agriculture could not provide any benefits to those who settled in nearby towns such as Bozkır, Esbkeşan, Karağaç and Tefenni where inadequate irrigation applied to salty fields. Nevertheless the large portion of the agricultural products combined from various kinds of grains which do not require more

² *Konya Vilayet Salnamesi*, H. 1290, 100-155.

irrigation yet need semi-arid habitable climate became the way of earning a living for those who settled in the province of Konia's basin in XIXth century. There were obviously different kinds of agricultural products as tobacco, corn and many kinds of vegetables in the lands which encircled the lakes of the province. However a large portion of the overall agricultural products was grain stuff that was beyond compare and it was not beatable by any other agricultural facilities. The grain cultivation in the province, hence, provided major economic activities employing uneducated muscle power as a small scale family entertainment and creating many business opportunities in the deserted remote rural areas, related to the wheat and barley.

2. Fruit plantation; The fruit trees which grew up in the province like pear, chestnuts, olive trees, orange, lemon, cranberry and alike others were important venues from which people could earn their living. Those fruit trees living there were largely planted within the border of the sub-provincials (sanjaks) of *Hamid*, *Teke* and *Niğde*. However those who earned their livelihood from fruit cultivation could not raise enough income because of inadequate transportation networks and the difficulties involved in preserving the fruits without going off. Nevertheless people who had fruit trees' garden (bahçe) invented their recipe of preparing jam without using industrial sugar. By doing so they enjoyed a new source of income by distributing those jelly jars in the local markets, named as open bazaar to consumers. As for the olive tree harvest, this was an occupation from which the owner of the olive gardens had made their living centuries before. Nevertheless there was one more item, also regarded as fruit grapes, cultivated in vineyards, located in stony and arid lands near the tiny streams. Those who have vineyards (bağ), near their accommodation were also registered as a subject for a tax levied for vineyards. Those vineyards were also incited the sweet production of grape molasses in the region. Grapes were also used for alcohol production for the local Christians in the region.

3. Forest materials; Though, there were limited forest areas especially around Antalya, timbers from those forests were enough to supply the needs of the internal furniture market in Konia. The timbers which were produced from pine-trees and chestnut trees were transported by using the river *Aksu* to the port of Antalya and from there sailed Syria and even as far as Egypt by sailing ships.³ The timbers, suited for mending the deck and any use as of oar were sold to those needy ship, anchored in the Antalya bay. It thus can be claimed that any sailing ship, harassed by the Augean storms were a candidate to Antalya quay for a while for a short-term mending. This obligation caused a sort of swift trade concerning on the fine cedar tree timbers between the locals and merchant ships, anchored in the bay. In addition to that it should be also be counted a blessing for the forest lands that chemist gained their livelihood by producing gum and medicine from the herbs and flowers which were gathered from the forest.

4. Hunting; Hunting the lynx (*vaşak*) and fliar (*tuluğan*) whose rare furs and feathers were used to make rare luxurious dresses and woman hats and then were exported to Paris also provided occupational opportunities. Fishing could also be regarded as a financial opportunity for net makers and fish sellers along with those who caught fish in the lake of *Hamid* sub-province.⁴ The abundant wild geese, ducks and many other kind hunting birds helped to ease food stock problems of people of Konia. In addition to these preys, mentioned so far, the leech pickers also earned their living by selling leeches to the chemist of the province.

5. Mineral resources; Those underground minerals like meerschaum, led, silver, sulfur along with ground sources like salt and salt peter fields provided people with well payment opportunities and encouraged development around the area where mine depots had been dug up.⁵

³ Böküzade Süleyman Sami, *Isparta Tarihi*, Translated by. Suat Seren (İstanbul: Serenler Yayınevi, 1983), 66; See also; Böküzade Süleyman Sami, *Isparta Tarihi*, Translated by, Hasan Babacan, (Isparta: İl Kültür ve Turizm Müdürlüğü, 2012), 1-750.

⁴ *Konya Vilayet Salnamesi*, H. 1290, 98-99.

⁵ *Konya Vilayet Salnamesi*, H. 1290, 97, 105.

B. Craftworks affiliates in the province

It was hard to claim any remarks of industrial growth in the state. However there were some minor workshops in where some small scale industrial apparatus were handcrafted. Those items were devised to produce by the local craftsmen according to the consumers' need. Therefore it can be easily seen the relation between local hand-made industrial product and inhabitants' occupation fields. If some plow the fields for farming, it is apparent that farmers was needed a hand-made iron plough and yoke etc. to ease the burden. Same goes for hunters, if there were hunters around local supplier should to find a way to produce rifle and its' ammunition, mainly as gun-powder. Nevertheless it is possible to introduce the workshops in the province as in order.

1. Manufacturing textile; Linen, cotton material and silks were the textiles, manufactured in the province. As a matter of fact, both agrarian development and animal husbandry supported industrial manufacturing by offering some surpluses from overall, yielded as wool, mohair, silk, cotton, linen and processed animal skin for coats. In the province of Konia's habitat, filled with natural dying herbs were also used to dye carpets, blankets, praying carpets (*seccade*) and other manufactured textiles. More surpluses as in the wools could not totally consumed by the local manufacturers, it was then wool-merchants, from Angora and Konia down-town visited rural areas in where herds grazed during the spring time. Those tradesmen were transporting the wool-bales with camel caravans or sailing ships to İzmir (Smyrna) and Istanbul too in where were available some yarn factories, constructed by both foreign investments and government.⁶

2. Agrarian apparatus production; Agrarian tools like shovel, spade, pickaxe and plow-share were required some blacksmiths in the province for local consumers. Blacksmiths in the region were also concerned with working on repairing and producing horse shoes, saddles and nails. Nevertheless the blacksmiths of Bozkır town did more to produce guns for hunters till 1876, when famine was diminished. Especially the blacksmiths of the province turned their production style from agrarian apparatus into pistol and rifle crafts caused by the severe famine, lasted between 1869-1876 because of that there were none farming abilities due to the draught.

3. Producing the house-hold wares; The house wares like stoves, furniture, flint stone, jars, copper pots and cups, clay cups and tin staff were all hand made in the province. The craftsmen made those house wares to sell on their own in their shops within the closed-bazaars in the trade markets of Konia.

4. Furs and leather; Furs, for pillow and quilt and leathers, for dressing making business owned their expansion to the growth in hunting and of animal husbandry. Hunting offered to fur-makers rare wild animals such as lynx, bustard and endemic domestic bird, called *tulağan*. *Tulağan* or *Tolgan* (phoenix) which once lived in the sub-province of Hamid whose feathers sold to France so that of tailors of Paris could design fine women hats with each has one phoenix' feather on it. The Ottoman sources claimed that the hunting of phoenix was so cruel that extinct the lineage of the phoenix in the region's environment.⁷ It is also possible to mention about the leather coats on concerning the commerce of the province. Seep and cow herds were slaughtered and their skin were used to make fine clothing. The tannery of the province was too busy especially on the days of *aid al adha*.

5. Production of animal husbandry; Horseshoes, combs, saddles, spurge, nails and cords were produced for selling at the animal husbandry market. The amount of production depended upon the portion demanded by the animal husbandry market in Konia.

6. Production of weaponry; Lead which was the main raw underground material of the province, was used to produce bullets for fire arms. The gunsmiths opened small workshops, ranging from 10 to 50 in order to forge handmade guns in the town of Bozkır. They produced

⁶ *Konya Vilayet Salnamesi*, H.1290, 100.

⁷ *Konya Vilayet Salnamesi*, H. 1290, 99.

pistols and rifles for the hunting market's needs.⁸ The gun powder factory in 1889 also produced gun powder for the consumers along with other small gun powder producing workshops owned by individuals. The gun powder factory and small units produced the requested amount of fertilizer to improve the productivity of lands in the region.

7. Stationary materials; There were increasing numbers of Moslem seminaries, in where higher education was introduced (medrese), secondary schools (rüştiye) and public schools (mekteb-i sıbyan) in 1874. Those schools in Konya gave a modern education compared with its contemporary examples. However Muslim seminaries lured sometimes those whose main aim was to get a military exemption due to the regulation that saves men who registered in a school from the military responsibilities. During the war years the intellectual life reflected the clever wit of the public. On the contrary even at the time of peace the number of students did not decline. The number of Muslim seminaries from 1874 onward increased rapidly from 1000 to 10.000. This was a profitable opportunity to provide the schools with stationary, mainly as pen, pencil, ink, paper and some years after 1872 with rubber as well. The number of calligraphers (hattat) also grew surprisingly large. The students, participated in to the higher education utilized the calligraphers' skill to copy the mullahs' texts' which contributed to the large increase in this profession. Nevertheless, it is still unknown as to what percentage of the peoples' living writing materials production occupied in those years. But we at least know that there were many schools, students and a penknife factory in Konya around 1874.

8. Food stuffs; The large portion of various kind of grain and bean cultivation saved the farmers from the harassments dealing with other crops which prone to decay, since the land condition and the climate guided farmers' choice of what to cultivate in the region. Grains would not be gone off because of the semi-arid climate of Konya.

Cultivating grains increased the demands for constructing the water mills, wind mills and yoke mills to produce flour, easily piled in the domestic barns and also in the ware-houses, built by local governors. Water mills, wind mills, miles worked by animal or even human muscle power and above all newly introduced technology of steam powered mills were actually at the beginning of technology for producing technical devices like the wheel and grindstone. The demand for meals which would not need water supply during the draught improved the mill production technology. The wares in where olive oil were composed from its' seeds, sesame, almond and opium supported food stuff markets in the region

C. Construction Business

It could be claimed that the growth and the existence of construction business were connected with the existence of materials, used for buildings. However it is also possible to maintain that due to the internal migration during the famine was increased men-power, needy souls whose appearances fatigue from the hunger to recruit in heavy construction works. The government struggled to keep those vast migrants busy in any kind of works such as construction of rail-road and stone-bridges as well. The main aim of the government thus was to prevent the refugees who soak refuge from the hunger should not spread all over the country.

The growth of population had its affect on the construction business in a profitable way. However it did not exceed the constructions as it was expected because of the absence of building resources. It thus might be thought that there was a strong link between the construction affiliates and the amount of building materials such as stones, timbers, marble, parget, special kind of soils for bricks and fine sandstones. The difficulties of transporting those construction materials from one place, extracted zone as raw material to another in where devised construction located was restricted the use of domestic sources in the region. Sandstone, parget and marbles alike were used in construction efforts in Niğde from where all those sources obtained as raw materials. Therefore the buildings in Niğde were all constructed with the

⁸ Konya Vilayet Salnamesi, H. 1290, 99.

combination of sandstone, parget and marbles. Brick houses probably fabricated from the soil in or around Konia supplied the needs of constructions in the province. The houses in Konia were built with bricks that were a domestic product of down-town. Timbers of forests around Antalya made the architecture of the city appear somehow different than neighboring towns. An Alevi (Shia Muslim) tribe named Tahtacı especially dealt with timber and carpentry work for building cottages in and around the sub-province of Teke.⁹

D. Trade Activities

Trade activities were mainly based on the pilgrimage. However, some caravan owners made their living by offering their services in remote areas like Aleppo and Smyrna. It is also worth to mention that the quay of Antalya was another main theater for the trade activities of maritime enterprise.

1. Visiting the Holy Sites; Konia province gained its fame by having holy tombs of notable pious individuals. Mevlana (Rumi) tomb was belonged to only one of those pious notables in the region. Many members of Seljuk dynasty were also buried in this region. At first side, these cemeteries did not seem to have economic value. However vast number of visitors who came from neighboring areas gave their sacrifices around those tombs and stayed there some times as pilgrim. Those inner pilgrims to tombs, belonging to deceased holly notables were not charge money for praying but their stay and sacrificed rams were obviously neither free of charge nor cheap. Therefore habitants who settled around such pious graves gained their daily share from pilgrims.

2. Merchants and caravan owners; Merchants of southern and eastern cities, encircling Konia province such as Adana, Diyarbakır, Halep, Musul, Bağdat inevitably regularly used provincial tress passages of Konia for reaching to the port towns and also to travel up to the Istanbul. Although there were none proper macadamized road to let carriages pulled by horses travel throughout the province, camel passages hence offered caravan owners vast opportunity to benefit from transportation facilities without coming across any kind of rivalry. The cast of caravan owners were explicit beneficiaries in this working field. The inadequacies of sea transportation – having no proper ports and fast sea vehicles – brought forth the need for land transportation. It might be proved, by referring to the large numbers of inns and coffee houses in the province of Konia, that much investment was afforded to this area of transportation that service the tradesmen and passengers. It was also obvious that the owners of the inns, scattered all around the dusty roads did not service passengers of outer towns from wilderness for their own pleasure but just for business. Camels, mules and horses also needed to rest and feed at each breathing space. The stewards of the stables on the road spots within the inns worked to gain some usurp coins for living.

3. The port of Antalya; The province of Konia had its unique port in Antalya. Therefore merchants, sailing to Beirut, Egypt and Trablus with northern winds preferred to post at the quay of Antalya to provide cargo of provision during the sail. The ship companies also came as passing by the port for provisioning. Those who provide water, food and timbers to the sailing ships or to steamboats made their living, been depending to the quay of Antalya. Ships that anchored on the bay of Antalya were sparing their time for a while in order to mending the broken parts of the decks with good quality timbers and tars, being provided from the nearby forests by locals.

Dependency between nature and industrial growth

Grain cultivation and animal husbandry were cornerstones of pre-industrial developments. The demand for fertilizer to increase the grain harvest, grapes for spirit alcohol and protect the surplus yields from fruit bats and rats required chemical industry growth. These

⁹ Böcüzade Süleyman Sami, *Isparta Tarihi...*, 66., “Tahtacı tribe was Turkic and migrated from Cyprus to Antalya after the drought famine in 1860’s. They were once upon a time exiled to Cyprus from Antalya around 1576’s.”

agrarian needs for chemistry led to develop as an explosive alike gun-powder and mainly potash for any use of to military purposes. Moreover, one could also maintain that the rise of the manufacturing industry emerged from the demand for consuming large production of cotton farming, mohair, spring wool, silk, natural dying herbs and leather. In addition to these it could be asserted that grain cultivation caused the growth of flour production; therefore, the demand for mills increased which spurred on the progress of wheel mechanics and steam-power too. Thus, the growth of industry correlated with the surplus of agrarian facilities along with animal husbandry.

Questions, such as;

1. "To what extend did natural disasters hinder the surplus of farming and products gained from husbandry?"
2. "To what degree did natural disasters influence the growth of industrial progress?" and;
3. "Were there any effects on the growth of industry and production because of the inadequate transportation?" still await plausible answers.

It is still unknown to what extend natural disasters affected those socio economic classes in the province. If the economic effects of natural disasters had not been overlooked, things would be clearer in order classify structural changes of social classes. By dealing with the affects of natural disasters in the state, the industrial growth of the province can be explained and reasons why the Ottoman state could not intervene in to world market with identified agricultural surplus.

Defining the natural disasters which struck Konia

It is quite natural and possible to come across different kind of disasters in the province because of its large borders. Strong eastern Mediterranean winds and sea storms disturbed the inhabitants of towns, located around the sea-shore of the province. Floods, caused by unseasonal rains around the streams and rivers, were formidable catastrophe and unexpected dangers, been hitting sudden massive water load devastating nearby settlers. Fires, epidemics and earthquakes were also uninvited visitors of the province knocking the door at least twice a year. However one of those disasters, the draught was an expected danger for the territory because of its semi-arid climate. The next part of the article aims to introduce historical disasters. It is needless to say that a number of disastrous events will be omitted and neglected in this study due to the scarcity of satisfied archival sources. However, it should not be forgotten that the calamities presented here were discovered from existing written sources on various kind of disasters. The main aim presenting such catastrophically events are as to attempt to detect which one of the most consequential disaster for those who gained their living by dealing with the forces of nature in the province.

a. Flood; because there were no streams and rivers which flowed fast and absorbed more water, the flood was a disaster for those who settled around tiny streams and rivers. Floods occurred at time of heavy rain which caused the dense water level to rise unexpectedly. Spring, summer and autumn were especially the months when such kind of disasters could be happen. In order to prove the existence of flood in the province a few examples should be given as a proof. In 1842 an immense amount of water flowed in Isparta stream which flooded those districts of the towns of Tabakhane, Fazlullah and Iskender. Uncountable houses were damaged and wiped out under the dense water flood.¹⁰ These floods caused from unseasonal rain were also mixed with underground fresh water sources, causing muddy water and made it impossible to drink.¹¹ In 1863 Aksaray, one of the towns of province suffered from severe flood.¹² Seven

¹⁰ Böcüzade Süleyman Sami, *Isparta Tarihi...*,199.

¹¹ *Konya Vilayet Salnamesi*, R. 1305,70, "Because of the underground waters' pollution, inhabitants of such places used clay potaries to preserve their water supply".

years later in 1873, one of the villages of Yalvaç called Hisarardı became a target for the flood, caused by unseasonal heavy rain. In order to save the village from future troubles of inundations, a dam was constructed to blockade the overflowing water during unseasonal heavy rain.¹³ It could be seen that the frequency of flood occasions was not so frequent in the province. It is clear that semi-arid climate shaped the flood disasters of Konia by restricting the affected area and confining the duration of flood. As a result of unpleasant semi-arid weather condition of Konia, the farmers of the province did not suffer as much compared with other provinces of the state like Erzurum, Hüdavendigar and Kastamonu.¹⁴ Thus far, it can be claimed that the flood which struck Konia was localized disasters. Because of the existence of the flood disasters in the province, the capacity of damage for farming activities should not be overlooked.

b. Earthquakes; In spite of the fact that the province was not on the route of an earthquake zone, such kind of disasters shook the sub-province of Hamid in Konia from time to time.¹⁵ The earliest earthquake event which date back to 1556 demolished Isparta; however, the damage done by the earthquake was not excessive.¹⁶ In 1866 the district of Ilgın became an earthquake target.¹⁷ In short, the level of the damage caused by earthquake was neither a formidable nor a disastrous event for the rural inhabitants of Konia, and the same not goes for the urban areas for the reason that they were not settled on an earthquake zone. Industrial growth within the urban area hence was preserved from any kind of earthquake demolition in the province. Nevertheless an earthquake was a serious natural event for the largely populated town centers were small scale of workshop production flourished on the line of earthquake zone. It is obvious that the workshops could have been ruined at the time of an earthquake. In addition to that, large number of workers and their families, who earned their livelihoods in a workshop of the suburbs of a down town, have been influenced more than those whose fields and stables were demolished in the rural areas at the time of any earthquake. Comparing the level of destruction between, the productions at the level of a workshop with the harvest in a field, one could easily realize that earthquake is not a hazardous event for those who earned their livelihood with the farming. Contrary to the level of earthquake damage in rural and urban areas, mill owners whose mills constructed around streams could not save their properties from the damage given by an earthquake. However, many of them did not live in the villages for the reason that they settled in nearest urban place after making fortune by producing flour in their mills. In 1856 the earthquake of Hüdavendigar (Bursa) demolished lots of manufacturing constructions and cost a great deal of decline in manufacturing products for a few years, following the years of the devastating disaster till new factories and workshops replaced the former ones.¹⁸ In short it could be asserted that what happened in Bursa as a devastating of a geologic destiny was never happened in Konia so for that reason any fault lines did not bother the province.

c. Overflowing lakes; Lake floods are one of the disasters that harmed the cultivated fields as a result of overflowing lakes from heavy rain falls and melting snows in the mountains. In the sub-province of Hamid in Konia province was especially well known place for such kind of natural disasters. It is reported that the lakes, named Beğşehir, Ilgın, Gökhisar and Akşehir over flowed around its borders from time to time. However, it was not the kind of danger that influenced a whole province. It only disturbs those who settled around the lakes.

¹² Presidency of the Republic of Turkey Directorate of State Archives Ottoman Archives (BOA), *İrade Hariciye (İ.HR.)*, Nr. 11964.

¹³ BOA., *İrade Dahiliye (İ.DH.)*, Nr. 40776.

¹⁴ Mehmet Yavuz Erler, "Hüdavendigar'da Sel Baskının Sosyo-Ekonomik Tesirleri (1911)", *Osmanlı Araştırmaları (The Journal of Ottoman Studies)* XVIII (1998): 143-159.

¹⁵ Böcüzade Süleyman Sami, *Isparta Tarihi...*, 105.

¹⁶ Caroline Finkel, Nicholas Nicholas Ambraseys, *The seismity of Turkey and Adjacent Areas* (İstanbul: Eren Yayıncılık, 1995), 51.

¹⁷ BOA., *İrade Meclis-i Vala* (I. MV), Nr. 25245.

¹⁸ BOA., *İ.DH.*, Nr. 23710.

d. Fires; Fire was an initial treat to the harvest of dried barley, wheat and hay stalks. However burning the crops was restricted within the boundaries of the field. Therefore it could not go further than being a local problem. Because it was not likely that the fire of such harvest would leap from one place to another within the province. The burning of harvest yields resulted in the failure of crops to some degree, thus increasing the prices of those crops which were affected like barley, grains and hay since there was a decline in the amount of each year's production. It was obvious that the rest of the farmers whose harvest had not been burned to ashes enjoyed the benefits from increased market prices resulting from the shortage of agricultural products. Fire was also treating to the limited forest areas in the province. Nevertheless, it could not be found out whether or not fire affected life earnings and timber market prices in Konia.

e. Locust invasion; Locust hers occasionally threatened the meadows within Antalya and Isparta.¹⁹ From 1800 onward locust invasion was not a serious problem for the whole province except in Antalya and Isparta which were sub-province of Konia.²⁰ The reason for this delineation of locust invasion in the province was the lack of meadows and humid soil in the other areas of the province which locusts need to lay their eggs.²¹ The province could not provide such opportunities for the locusts, and only remained a formidable event for the farmers of Isparta and Antalya whose land was suitable for locust invasion.

f. Draught; Global warming caused the draught from 1838 onward. Global warming may be caused by the variety in the level of carbon dioxide in atmosphere. Global warming takes place when the amounts of carbon dioxide increase from year to year. Coal used in XIXth and oil in XXth century could be the main reasons for global warming.²² However the global warming is not easy issue to deal with. Because its' main reason is not inside effect but rather outer space. The draught in 1839-1845 and 1868-1875 caused by solar explosion in the sun rather than global warming dried out the water sources of the ground.²³ Those who settled in a draught affected area were able to cope with water supply shortages for some time by using underground water reservoirs. Especially in Konia sinkholes were depots of fresh water for irrigation and also to drink. However those sinkholes were also dried out living empty holes on the plain of Konia. When scientists look at the past they find the nature has often environmentally adapted to climate changes that have occurred gradually over many thousands years. If climate changes gradually, many plants may be able to move by spreading seeds into new areas where they can grow. But if climate changes rapidly, many plants may not be able to spread their seeds far enough to reach the new area. If they die out, so may many of the animals that depend upon them. Failure of a harvest, particularly to successive years, could have been disastrous. The harvest failure determined the decision of farmers to increase the amount of seed or to abandon the land. The farmers' estimates of this probability are likely to have been based on both the frequency of crop failure and on his appreciation of the normal and variable climatic characteristics of the region. Nevertheless, if the draught continued for some years, the food stocks would run out and starving humans would attempt to feed themselves by eating anything and everything edible. The years following draught lasted with famine. Therefore the lack of food results in diabolical diseases and severe death. In 1869 something similar took place in Konia and Ankara provinces. The climate condition changed and weather became steadily warmer. The inhabitants in where affected by severe heat waves of the solar explosion had

¹⁹ Sevilyay Özer, *Anadolu'da Görülen Çekirge İstilaları ve Halk Üzerindeki Etkisi (1914-1945)*, (Ankara: Türk Tarih Kurumu Yayını, 2016), 30.

²⁰ Böcüzade Süleyman Sami, *Isparta Tarihi...*, 239-240, "Inhabitants of Isparta in 1870 agreed on the destruction of locust herds and their eggs by reading the Holly Quran and they refused to take any other precautions to annihilate the locust invasion."

²¹ Mehmet Yavuz Erler, "Kıbrıs'ta Çekirge İstilası (1845-1869)", *Akademik Açı*, 3, (1997): 1.

²² *Newsweek*, December 1997, 45.

²³ Leo Hüberman, *Feodal Toplumdan Yirminci Yüzyıla*, Translated by Murat Belge, (İstanbul: İletişim Yayınları, 1995), 292.

resisted against the negative effects of the nature by using their food stocks and benefitting from the opportunity of merchants' food transports for some years. However, the bell for hunger rang in 1874 after heavy snowing conditions closed all links between the other provinces. The limited food sources depleted in a short time. Then starvation began along with the difficulties of keeping warm the body temperatures against the bitter cold. In those years millions of any species of various animals were disappeared and more than 250.000 humans starved to death as a pale appearance on their faces.²⁴ In order to present the famine of 1874-1875 in Konia, we should define a table of draught evidence which happened in and out of the state between 1838 and 1874. It thus can be asserted that the drought was not a punishment given by God only to the Ottomans as some Ottoman pious notables claimed; indeed it was earthly being happens to all man-kind. There were too many droughts in Ottoman sovereignty mainly all may be dated in XIXth century. The island of Cyprus was a leading pioneer on the matter of drought and famine in 1838. Erzurum, Van and Hejaz drought came in 1841, following the sufferings' of Cyprus. Ankara, Bursa, Diyarbakir, Kastamonu, Konia, Sivas and Egypt in 1845, were the next draught-famine areas for disastrous event. Meanwhile Ireland was being suffocated due to short potato yield and famine till three loads of Ottoman grain ships arrival. Aydın, Bursa and Diyarbakır, in 1850-1851 were hit once more by the draught while European countries suffered from the famine. As a while, Tunisia and Libya as a part of the Ottoman domain had being struggled with severe drought and famine in 1853, having caused mass migration to the island of Crete. At the core of Crimean war (1853-1856) with Russia some Ottoman territories were also at the grasp of famine, caused by a drought in 1855. These territorial cites were listed as Crimea, Jeddah, Yemen, Manisa and Kars. In 1859, the Ottoman possession Bosnia-Herzegovina and the province of Adrianople on Balkan Peninsula were the drought-famine victims. Mosul stepped after those disastrous destinies in 1860. Ottoman towns as Kütahya, Hamit and Çıldır were next candidate for the severe drought in 1862. Harput, Palu, Halep, Diyarbakır and Muş in 1864 shared the same drastic fate once more. Bosnia-Herzegovina in 1865 faced this drought as calamity on her own. When the clocks depict the drought again in 1867 this time Tunisia as an Ottoman province along with Algeria as in French colony, Prussia and Spain was devastated from the famine. As a matter of fact this was the beginning of great famine, caused by solar activities and last around 1869-1876, scourging the vast area as can be named as Cyprus, France and Spain in 1871 onward, Libya in 1870 onward. In 1874 the great famine, caused by drought rose at its peak causing mass loss in Ankara, Konia, Kastamonu, Sivas, Diyarbakır, Libya as under the Ottoman severity and India, Crimea, North America.²⁵

The following years after 1869, the area affected by the draught had expanded for five years within Asia Minor. Farmers in those areas were reluctant to cultivate various kinds of grains because they feared harvest failure. Inhabitants of the province absorbed the food provisions which the storehouses had provided in as much as they could supply for the needs.²⁶ In 1874 a heavy winter closed the passes to other provinces, even the transportation opportunities within the province failed due to snow piles which were as high as telegraph pillars.²⁷ Ottoman state administration as other counterparts was very keen on communication to control the remote areas to the capital. Any kind of knowledge was very essential to react at the time of emergency for the state in haste.²⁸ It thus could be claimed that the authorities were all well aware of any kind of disasters in the country in where telegraph pillars were erected. In the spring which followed that disastrous winter, peasants of rural counties left their homes to

²⁴ Wolf-Dieter Hütteroth, *Wissenschaftliche Lander kunden Turkei*, Band 21, (Dramstadt: 1982), 127.

²⁵ Mehmet Yavuz Erler, "The Effects of Natural Disasters on the Province of Konya with a special reference to economic and social aspects of the city", *International Congress on Ottoman Empire with all aspects in 700th Anniversary of its establishment*, (Konya: Selçuk Üniversitesi Yayınları, 1999), 804.

²⁶ Erler, "The Effects of Natural Disasters...", 805.

²⁷ *Basiret*, 25 March 1290 (Rumi), "Starving wolves attacked to the villagers in a heavy winter"

²⁸ Hakan Tan, "Osmanlı Taşrasında Haberleşme Hizmetlerinin Modernleşmesi: Bafra Kazasında Posta ve Telgraf Hizmetlerinin Tesisi", *Bafra 2*, Ed. Osman Köse, (Ankara: Berikan Yayınları, 2023), 344.

where they could find relief from their starvation. The mass migration of starving people from different age groups gradually caused the increase of urban population, by having multiplied the demography of down-towns all around the province. Once, towns of famine-struck villagers became overcrowded by new migrants, it was not possible to compensate enough provisions for new refugees which caused the starving masses routing to the central town of Konya, carrying their miserable problems with them. This situation thus exacerbated the problem in each destination for where starving masses reached by wiping out the rest of the spared limited food sources. Thus, migrants disturbed cities as far as Constantiniyye where they hoped to find food supplies. It should be noted that governmental cautions were not enough to prevent the migrants who did not prefer to wait in blind adherence for the reinforcements.²⁹

Those who migrated to other provinces from Ankara and Konya were choosing to take refuge in nearby settlements. Migrants who started from Ankara reached Kastamonu, Bursa, İzmit and stopped in Istanbul which caused inflation in the food markets of those areas. As for the migrants from Konya, the nearest safe heaven was Adana which attracted starving people with its working opportunities in cotton fields and food stocks. The rail-road and bridges' construction were also prosperous with a daily bread or a few copper coins for the mason workers. Some of those incomers were directed by the state to the devised road construction, between Mersin-Adana. Many pale skinny souls lost their life while breaking the rocks to make tiny-stones for the roads.³⁰ However, some of those migrants of Konya went to Aydın, Bursa and reached Istanbul where they could call upon the government to fulfill its obligation to assist the starving citizens.³¹

One of the reasons of grain shortage in the cities which were affected by famine was because of a misguided grain aids regime, by government. Erzurum, Trabzon and towns in the Balkan Peninsula suffered from the absence of grain stocks since the government absorbed large amount of grains and animals in order to supply the needs of those who suffered in drought areas. The government summoned those inhabitants of such places, where harvest was abundant to raise donation as for a state burden. Some farmers responded this call paying their yoke of burden as grain and some wealthy local notables provide government aid efforts with purses filled pieces of gold or silver coins. Hence, the price of grain increased in those cities from which grain was exported. In addition to the misleading transportation measures which were taken by government, one should also add that the regulation of crop's transportation affected the provinces which encircled Konya. It was forbidden to sell and transport any kind of grains from the provinces of Bursa, Sivas and Adana to Ankara and Konya without having permission given by government officers according to the regulations of crops transport.³² The result was as it might be expected; the black marketers performed their role in the theatre of food transportation. The smugglers fastened the process of increasing the food prices even in neighboring provinces and enlarged the affected areas by famine contrary to the government plans of restricting the borders of famine within Konya and Ankara. As a result of unsuccessful government policies and uncontrolled migrants, the food shortage separated to each corner of the state. The inflation in the price of agricultural products stayed at their highest level in food market of the empire for some years even after the famine.

²⁹ Mehmet Yavuz Erler, "Ankara ve Konya Vilayetlerinde Kuraklık ve Kıtık (1845, 1874)" (Ph.D. Thesis, Ondokuz Mayıs University, Samsun, 1997), 137-220.

³⁰ Mehmet Yavuz Erler, "Kıtık-Kuraklık ve Mücadele Yöntemleri", Konya İli ve İlçelerinin Tarihi Düreç Çerçevesinde Çevre, Şehircilik ve İklim Değişikliği, Edt. Yusuf Küçükdağ, Koray Özcan, Caner Arabacı, (İstanbul: Alioğlu Matbaası, 2023), 220-222.

³¹ Erler, "Ankara ve Konya Vilayetlerinde Kuraklık...", 137-220.

³² Erler, "Ankara ve Konya Vilayetlerinde Kuraklık...", 262-267.

The Results of the Drought Famine

There were some outcomes of the drought event of the province in so far. Some of those results shifted the life in a good way but some none. These famine affects on socio-economic daily life of the province can be described as follows;

a. The changes in social classes of the province, caused by drought famine; The drought gave brand new opportunities for those who owned mules, camels and horses along with tax-collectors (mültezims) who were the owners of warehouses filled with grains and flour while the harvest caused failure for the farmers. In 1869 and the following few years, farmers of the province enjoyed the prices which went up by the limited harvest. The shortage of grains stirred the market prices in the favor of the farmers. Therefore farmers did not have any reason to worry about their welfare. What might have made them anxious was possibility of harvest failure. Therefore farmers determined the amount of seeds for cultivation which should not put into risk. The farmers made fortunes by selling their surplus after preserving their subsistence. Nevertheless, when the weather conditions worsened during the famine in 1875 due to the heavy snowing, farmers and people of the province mainly subsisted on various kinds of animal corpses, grasslands, wood barks, wild-wheat and anything edible, available and possible to reach.³³ Tax-collector of tithe in Konia, were also one of the classes of the province who gained wealth by selling their grain stocks for a reasonably good price to the famine zones like Libya (Trablus), Cyprus, Aleppo, Egypt, Algeria and even to Spain between the years of 1869 and 1872. Thus far the merchants and tithe collectors who sold the grain input of the farmers' harvest benefited from the disastrous event more than those with other life earning occupations. In 1873 the farmers could not perform their duty properly since agricultural conditions were worsened by the changes in climate. The tithe collectors and tradesmen were opening a credit to the farmers for the coming harvest, on condition that repayment must be returned with high interest. By doing so, the usurer-lender- made sure of agricultural productions carried on in the favors of tithe collectors and caravan owners. However, the government realized the portion of interest and offered less interest on loan to the farmers by intervening in situation. The amount of interest on loan thus declined for the benefit of farmers.³⁴ Pious notables were also had their piece of lion share from the cake of food market. Their attempts to astray the victims concerns about drought was a rather rivalry against the existence of other beliefs, flourished around. The pious notables of Muslims declared that the main scapegoats that caused the drought were those who drunk and play black-gammon, which was strictly referred to the Shiite sectarian of the province. One of the religious officer in Konia condemned not to perform the rain pray properly at the court of the sheria (judicial court of Muslims). Thus, pious notables incited people against to those Shiite sectarian of the province claiming that it was not rain after the religious performance because of those sinners.³⁵ The public also kept complained about those inadequate mosque imams' and state rulers whose "rain praying ritual" was not enough to pour down some rain during the drought. Strait to the point that the farmers and starving inhabitants therefore summoned the pious notables to act with their religious performances against the disaster with praying and sacrificing. Pious notables and the cults of Muslim saints' holy tombs did behave neither coquettishly nor eager for accepting such gifts. Some religious orders such as Hindi Tekkesi in Konia around 1871 feed starving migrants in their pious foundation offering some bread and a night shelter on their travel passing by down-town.³⁶

b. The affects of the famine, caused from the drought in the economic dealings of the province; Those who owned their wealth by selling agricultural products, guided the public bias

³³ Mehmet Yavuz Erler, "1869-1875 Osmanlı Kıtılığının Yemek Kültürüne Olan Etkileri" *Yemek ve Kültür* 21, (2010): 48-56.

³⁴ Usureres started to abuse the farmers from 1871 onward. Böcüzade Süleyman Sami, *Isparta Tarihi...*, 220.

³⁵ Konya Şeriyeye Sicili, H.1290,64; Böcüzade Süleyman Sami, *Isparta Tarihi...*, 166-167, 228.

³⁶ Ali Emre İşlek, *Osmanlı Coğrafyasındaki Hintli Mutasavvıflar ve Tekkeleri*, (İstanbul: Libra Yayınları, 2021)

in economic views towards farming. Wealthy lords of the affected areas invested their sums in building of warehouses and mills with the intention of having sufficient provision for an expected future famine events ahead their day. Somehow, emerging workshop production in gunsmith and gunpowder were also fade away according to the local wealth owners' investment approach that aimed not to support such unprofitable production during the famine years. There were less than 20 store houses for flour and grains in Konia before 1876; however number increased from 20 to 205 throughout the next nine years following the famine. Moreover the number of the mills enormously rose compared with the recorded numbers of 1875 as of 1853. The replacement of mill quantity produced different types of mills. Before there were mills which were mainly powered from water, then new power sources introduced to brand-new mills, erected in the province. It hence wind-mills, hand mills (or yoke mills) and especially steam-powered mills were introduced by the local wealth owners to the province during and aftermath the famine. In 1889, following the famine, caused by drought the number of variable sized and alternative powered mills went up to 528 within the province of Konia.³⁷ One should also conclude that the agricultural productions of the province might have been increased to supply the needs of those mills and storehouses. Because of the industrial growth in farming, farmers tended to produce more and variable crops by using fertilizer on their land after the royal potash factory opened in Konia.³⁸ In Niğde producers continued to supply the demand for fertilizer with their small home workshops. Potassium nitrate in Royal Factory was produced to supply the production of both fertilizer and gun powder; however, those who produced potassium nitrate in their home aimed to sell their product as fertilizer for agricultural use in fruit gardens and farms.³⁹ Nevertheless, in such places where agricultural affiliates had not been applied before the famine years residents changed their mind in producing grains to save themselves from potential famine years. For example Bozkır and Ereğli victims of famine saved themselves through buying their grain needs from neighboring towns because they became hopeless during the drought famine years. During the aftermath of the famine years, those who returned back to Bozkır and Eğridir realized that they could cultivate various kinds of grain, potato, okra in their lands by using irrigation methods in which they were trained during the migration years so that they could provide subsistence for themselves. Same went for the farmers of Niğde and Nevşehir in where fine potato cultivation extended aftermath of the famine. Nevertheless, migration has its impact on cropping patterns when the migrants returned back to their hometowns with newly acquired cropping regimes from other places. Those returning after failing to find suitable employment in the towns of Adana embarked upon cotton farming by imitating the agricultural activities of Adana's farmers with whom they worked during the famine years. In 1889, more cotton cloth was produced than compared with former years. Cultivation in Konia, such as turningip, licorice and cotton might be explained because of cultural mutual influence between the migrants of Konia and the inhabitants of Adana.⁴⁰ One result of the drought famine which attracts curiosity was the level of the fluctuations of the grain prices. On the one hand, it is needless to state that the absence of the food increased the prices because of the public demand. So far, we have tried to explain that the drought affected the market as long as it lasted. The famine was the highest peak of price increase. If one tried to compare the prices solely with former year and neighboring places within the drought zone would neglect the reality of how large the affected area and time too. It hence might be claimed that the comparison of the prices would not reflect the reality of why and to what extend the prices went up. It can be attempted to define price changes by looking into the price changes within twenty years. But then, who assure us that the reason of price changes was caused by only the drought famine? In addition to the government policies, the outside demand for

³⁷ *Konya Vilayet Salnamesi*, R.1305, 77, 81, 107, 93, 127, 130-131, 119, 122-123, 145, 153, 165, 169, 172, 175-176, 196.

³⁸ *Konya Vilayet Salnamesi*, R 1305., 68.

³⁹ İbrahim Hakkı Konyalı, *Aksaray Tarihi, Volume: 2*, (İstanbul: Fatih Yayınevi, 1974), 1643-1645.

⁴⁰ *Konya Vilayet Salnamesi*, R. 1305, 145, 186.

agricultural products, transport efficiencies, and the level of production would also determine food prices and should not be excluded with explaining the market price' changes during the natural disasters.⁴¹

Conclusion

The inhabitants of famine zones preferred technologically interesting agricultural developments. Those who wrote articles on agriculture to the press mentioned devices and the methods used in the field of agriculture in America and Europe. The concepts of journalists on agriculture were unorganized agricultural affiliates, without aiming or attending the soil condition which requires suitable crop's pattern. All those who debated drought accepted issues the evidence as an inevitable life experience for victims of drought. Therefore public opinion agreed on the common goal for provisioning against the danger of famine applying the state guidance in the sphere of education. Potato, sugar beet and some other industrial herbs as tobacco or rose were introduced by the state to those who suffered from poverty due to the famine and infertile land structure. The Halkalı Ziraat Mektebi (Halkalı Agricultural School) was the result of such reclaims for agricultural education.⁴² As a matter of fact, government gave enough care for the public's requests by providing agricultural education and introducing new kinds agricultural varieties to plow. As for the husbandry, Government invested to Ankara by introducing veterinary school to multiply Angora goat saving it from extinction.⁴³ Unfortunately, the effort of the government supervision in agriculture the necessity of proper transportation was neglected. The industrial growth and surplus from the production were indeed reinforced with both public's struggle and government's guidance. However, the growth was limited within local territories by the absence of proper transport. The surplus in agricultural products decreased the demand cutting the market prices down. If the production increased, then the prices went down. The production and prices were inversely related. The abundance of grains caused the failure of wealthy who hoped the gain in this field since there was no way to export the surplus out with cheap and available transportation.⁴⁴ Aftermath of the famine years, there was a growth in agricultural industry correlated with the portion of crops increase. The textile industry was also developed to some degree by benefitting cotton production and spring wool. Therefore those who dealt with the surplus of the agriculture and animal husbandry of the province became a wealthy class among the society of the famine zone. As a conclusion it could be summarized that those who were ready for the disasters gained.

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⁴¹ Erler, "Ankara ve Konya Vilayetlerinde...", 243-244.

⁴² *Şark Gazetesi*, 6 Mayıs 1290, Nr. 131, p.1.

⁴³ Şule Sanal, Ayşe Menteş Gürler, Mehmet Yavuz Erler, "Yitirilen Bir Servet: Tiftik Keçisi" *Kafkas Univ Vet Fak Derg* 25(6) (2019):763-768.

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