

The Decline

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Abstract

Declining stage of the Abbasid Khilafa is followed meticulously until its collapse in the fall of Baghdad to the Mongols in 1258. The full sequence of events, which had resulted in this most important event to Mesopotamia is followed and the decline in agriculture in the whole of al-Sawad during this is period, is carefully described. Agriculture had formed the main contributor to the economy and strength of the Khilafa State, but it had continuously suffered neglect and destruction during this period due to negligence of the central governments of the irrigation systems and the destruction of these systems during conflicts and revolts that became dominant during the last phase of al- Khilafa State. The large spending of the late Khalifahs and the depletion of the treasury, and their dependence on foreign military troops, who were mainly Turks, to support their rule, mark the beginning. By loss of sizable revenues, this had interacted again with the Khalifahs weakness causing more revolts and anarchy by various unsatisfied groups and by the troops themselves over their unpaid salaries. The war between al-Muntasir and his brother al- Mu'tazz over the thrown following the assassination of their father al-Mutawakkil is detailed by giving full attention to the large damages it caused to irrigation canals and flooding of large areas between Baghdad and Samarra. Following this the revolt of Zanj in Southern al- Sawad and the long conflict with the Qarmatians are then outlined by reporting the reasons and describing the consequences of those important wars in details, accounting at the same time the high costs of these wars and the extent of severe damages to population centres, cultivation lands and their irrigation works. During the Buwayhids period, the Abbasid Khlilafa experienced its worst moments as the Buwayhids did not contribute much to the welfare of the people, nor could they do much to reverse the trend of decline that was progressing. As a matter of fact they had committed their biggest mistake in tearing apart the land ownership system prevailing till that time by introducing a new form of Iqta' known as the Military Iqta's. New methods of land and crops tax collection system were introduced and thus disrupting long established procedures that were followed since the Sassanid era and had proved their success. Conflicts and wars during the Buwayhid rule and the large-scale corruption, which are fully reported here, had undermined the central power needed for the proper management of agriculture and for the well keep of the irrigation canal systems. Finally, when the Buwayhid strength was drained they were expelled under a new rising power in the Seljuks. The Seljuks proved during this period to be not much different from the Buwayhids and their Sultans kept the real power in their hands making the Khalifah a titular head of state only. The conditions of the economy was as bad as it was before, and the people complained much over the recurrent crises of extremely high food prices during these times. Worst of all the Seljuk Sultans surpassed the Buwayhids in practicing the Iqta' of the cultivated land by

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distributing qati'as not only to the military leaders as the Buwayhids did but they extend this to an unprecedented levels for the Seljuk Sultans had granted all the land to their Seljuk soldiers, their relatives and friends who were only Seljuks. To comprehend the magnitude of this; the number of the soldiers only in the time of Malik Shah who benefited from this system was forty six thousand horsemen; many more high ranking Seljuk persons were also entitled to qati'as under the same rules. With the passage of time the basic principle of this system were violated, and most of the beneficiaries succeeded in keeping the land as their own, used all sorts of abuses towards their farmers and even passed it in inheritance to their children. Some others encroached on neighboring qati'as, which belonged to others, and injustice and corruption became widespread. Negligence to repair these canals in so many cases leading to the permanent abandonment of land is also cited illustrated with many examples. In addition, many striking cases of failures of canals and their head works after large floods are fully described based on the reports given by contemporary writers. The details presented give an insight to the scale of the large fertile areas and the cities and towns that were badly affected and give evidence to the very low level that the State had reached during its last days after losing so much fertile lands and their agriculture.

Keywords: Buwayhids period, Seljuks, Iqta, Iraq

1. The Decline

Mesopotamia or the land between the two rivers, Tigris and Euphrates, was the gift of those two rivers, which was formed during thousands, if not millions of years, by the natural sedimentation processes of the silts, and sediments they carried down from the rigorous mountain regions at the north. This virgin and fertile land had become, therefore, the object of industrious and hardworking peoples that immigrated and settled in its plains and laid down the foundation of the first civilization in the history of the world.

Great civilizations flourished here one after the other since the city state civilization of *Sumer and Akkad* some 3500 year BC and continued uninterrupted for so many thousand years afterwards. This fertile land when properly irrigated and managed could bring abundance of profit to those who owned it and worked on it. The abundant water of the two rivers, however, if mismanaged, could also become the reason for deterioration of the land and the decline of the social communities that lived here. This fact was taken in well by those nations who governed this land, and so they spared no effort in developing methods of irrigation and means of cultivation, which were best suited to the prevailing natural conditions, and worked out flood protection measures to enhance their safety.

Lower and middle Mesopotamia belonged to the semi-arid region in which rainfall alone could not support the intensive agriculture practiced there, but this was made possible by constructing very intricate and laborious irrigation systems for supplying the water needed. Moreover, the nature of the two rivers which could bring about destructive floods made the people versed in ways and means to harness their flooding, or when efforts failed and the land was inundated, they had the patience and persistence to re-build what had been destroyed and start all over again.

These peoples knew well that their livelihood was in preserving these irrigation systems and keeping them in good working conditions. Maintenance of irrigation canals and keeping them free from silt was a duty of the governors and their folks that persevered in doing this in a sense of religious duty as to keep their gods and deities happy and satisfied with them.

Devising the fallow cultivation system was another thing that they had discovered to keep salinity of the land within acceptable limits to sustain production. In addition, even interchanging the types of the crop, whether wheat, barley or any other crop they had practiced keeping the land productive.

The civilization of Mesopotamia, was hydraulic civilization which needed constant care and looking after, and it needed political stability and continuous investment. The long history of agriculture and irrigation system in Mesopotamia shows that apart from short periods of wars or rivers changing courses, agriculture continued to flourish and reached its peak under the *Persian Sassanids* empire (224-621 AD) and continued in the same tempo even after the *Persian's* defeat by the Arabs. The victorious invaders preserved the tax and administration policies of the *Sassanids* and enjoyed remarkable successes for the next two and a half centuries. Baghdad was founded and became the center of the Golden Age of Islam in the 8th and 9th centuries at the time when the empire had reached its climax and enjoyed the accumulated wealth brought about by these policies. But by the middle of the 10th century, the irrigation system started to deteriorate following a slow trend of decline that had begun already some time before. Something had gone wrong, which impacted the whole production cycle and doomed the whole process to failure and even resulted in the depopulation of southern Iraq^[1]. In exploring the reasons for this failure, it does not take much time to discover that this was a direct result from the diminished central power of the State, which could previously put things in the right order and avoid any mismanagement.

In his book "The Fate of Empires and Search for survival," Sir John Glubb attempted to analyze the reasons behind the fall of eleven of the world great empires from 859 BC to 1950. By comparison, he concluded that the average life span of those empires did not exceed 250 years counted from their birth to their decline, which, more or less corresponds to an average of ten generations; if the time span of one human generation is taken to be 25 years. In this, he recognized that small nations, suddenly emerging from their homelands, had overran large regions of the world and conquered old established empires fueled by spontaneous vigor. The Arabs did this in the seventh century, and the Macedonians had done it before them in fourth century BC. By striking similitude, the Macedonian Empire lasted for 231 years while the Arab Empire lasted 246 years before actual power went into the hands of foreigners. As in many cases that are similar, those outbursts were characterized by strong display of energy and courage. The decaying empires, which they overthrew, were wealthy but defensive- minded. Their old legions had lost their stamina and became passive defenders. The new comers found their rewards in the booty and wealth left to them ^[2]. New empires followed the old once but only to fall in to decay in the same stages endured by the previous once.

Fall of empires in most cases had occurred, not by the declining of their military power only but also by the deterioration of their economy and social fabric. The decline of agriculture and the collapse of Mesopotamia's thousands year old irrigation system in the second period of the *Abbasid Khalifa*, must be viewed in this context.

It follows; therefore, that in any meaningful research about the fall of the *Abbasids* it must give a clear picture of the political and social background that had prevailed at that time, and should follow the historical sequence of events, especially those related to the *Khalifahs* as they were the major actors in this history.

In speaking of the Arab Empire, the beginning was marked after the death of the Prophet Mohammad (632AD), and the start of its decline was observed by the assassination of *Al-Mutawakkil* in 861 during the *Abbasid* period. The fall and the loss of this empire was a natural end to the stages normally experienced by all the other empires as mentioned already. First, was a stage of pioneering and military might, which was crowned by the extension of the empire's boundaries as in the time of *Abbasid Khalifah al- Mansur*, Second, a stage of active building and construction, successful agriculture, flourishing arts and intellectual achievements, booming commerce and thriving economy leading the way to luxury and accumulation of wealth as it was in the reign of the *Khalifah Harun al- Rashid*. But this affluence led to the third stage, the gradual moral degeneration of the *Khalifes* and their subjects

which became evident in the time of *al-Mu'tasim* and *al-Mutawakkil* with their tendency to buy security by recruiting foreign *Mamluks*.

To understand fully how things led to the fall of the *Abbasid Khilafa*; the real reasons must be identified and the weakness points should be diagnosed first in order to have a clear picture of the whole processes. This is the subject matter of this paper, which is based on exposing the relevant events in chronological sequence from the beginning to the end.

On the death of *Harun al-Rashid*, the first conflict over the throne in the history of the *Khilafa* occurred between his two sons, *al-Amen* and *al-Ma'mun*, which caused the first civil war and gave the non-Arab military forces a bigger role in the administration of the empire. Although the war ended in favor of *al-Ma'mun*, the role of the non-Arab military forces was strengthened, and it was even intensified during the reign of the next *Khalifah* of *al-Mu'tasim*. This state of affairs continued to be the case during the time of the following *Khilafa al-Mutawakkil*, when the commanders of the powerful *Turk ghilmān* elite force had the upper hand in running the State's affairs.

The Arab Empire lost its Arabic identity by the death of *al-Mutawakkil*, and the actual power slipped into the hands of the *Turks ghilmān* first, and later on into the hands of the *Persian Buwayhids*, and later on still in the hands of the *Seljuks*.

Except for very short periods during the remaining life of the *Abbasids dynasty*, the *Khalifahs* were reduced to mere religious figureheads while internal fighting and conflicts for power had dominated the scene. The loss of a strong central power resulted in anarchy, which did not only encourage the various regions of the empire to break away, but even stirred many internal wars in the core of the empire which had taken its toll on Iraq's *al-Sawad* prosperity and its revenue to the treasury. The declining revenue meant that all the irrigation systems were left without maintenance. Cultivated land area gradually turned to barren land inflicted with silt and salts and agriculture was reduced considerably creating less and less cash flow to the State's treasury.

Conflicts and revolts within Iraq *al-Sawad* and elsewhere in the empire worked in a most negative and severe way into the gradual crumbling of the economy and the social fabric. The weakening economy and loss of revenue were aggravated by mismanagement of the tax policies, using tax farming (*dhaman*) system. The manipulation of land ownership through (*military Iqta'*) to win the favor of the officers meant the disruption of the agrarian relations, which had prevailed previously and proved their value. The corruption that had spread within the hierarchy of the government officials, and tax collection agents worked into more dwindling revenue to the State. The inevitable consequence was the stark neglect of public services of which irrigation system maintenance was a major cost item. It also meant that rehabilitation of damaged systems after wars and conflicts was not performed due either to the large extent of the damage inflicted, or the unavailability of the required funds, and the lack of the will to do so.

The decline in agriculture came as the reasonable result to be expected and its output decreased steadily due to the shrinkage of the cultivated land area, which was mostly laid in waste after civil wars or destructive floods and the displacement and immigration of the farmers from the affected areas. These changes were irreversible and the agriculture, which had been the stable base upon which this empire, and all the previous ones had rested, was no longer able to support it.

The high dignity of *al-Khilafa* and its respect among the people were damaged by the unbalanced behavior of *al-Mutawakkil* (847- 861). His extravagances brought the famous remark "what *al-Ma'mun*, *al-Mu'tasim*, and *al-Wathiq* had accumulated, *al-Mutawakkil* wasted completely"^[3]. His apparent piety and adherence to Islam was contradicted by his indulgence in drinking, entertainments and pleasures. His actions in matters of faith damaged his role as *Khalifah* as an unbiased patron for all the faithful; and by instituting policies against

Shi'a, Christians and Jews, he risked alienating large groups of his subjects. Finally, his attempt to scale down the power and influence of the *Turk ghilmān* officers and palace ministers backfired and made him even more isolated and subjugated to them^[4].

On December 11, 861 *al-Mutawakkil* was assassinated. When being intoxicated of too much wine, he insulted his older son *al-Muntasir* openly and over-abused him. As *al-Muntasir* angrily left the *Khalifah's* chamber, a band of the *Turk* guards rushed in led by their leader *Bugha* and slew the drunken *Khalifah* and his confidant *al-Fath ibn Khaqan*, who was being entertained with him. Immediately on the scene *al-Muntasir* was proclaimed as the new *Khalifah*^[5].

Most historians link *al-Muntasir* to the assassination of his father on the ground that this was the natural outcome of *al-Mutawakkil's* favoring his younger son *al-Mu'tazz* over him, and the fear that he was about to shift the succession of the throne to him.

The assassination of *al-Mutawakkil* was a momentous event in the history of the *Abbasid Khilafa*. It marked the beginning of open military intervention in politics and led the way to more palace intrigues and coup d'état changes of the *Khalifahs* who became in most cases only puppets in the hands of the *Turk* commanders. During the next 31 years, from 861 to 892, the *Turks* installed five *Khalifahs* and assassinated three of them.

The *Turk* ranks and files were, in their origin, slaves from the eastern steppes, whereas their commanders were generally free men of aristocratic or royal lineage. In the *Abbasid* army, there were also units of free soldiers from the Islamic west (*Maghariba*) and central Asia (*Faraghina*). Relations between commanders and soldiers were far from easy. The commanders, moreover, did not constitute a unified group among themselves. This meant that there were elements, which opposed the murder of *al-Mutawakkil*, who readily organized resistance against the conspirators in an attempt to change the outcome in favour of *al-Mu'tazz*. The other faction led by *Wasif*, who backed *al-Muntasir*, thwarted the attempt; so, *Wasif* and the new Wazir *Ibn al-Khasib* dominated the scene for a while.

When *al-Muntasir* died under suspicious circumstances after only six months, the commanders selected a new *Khalifah*, *al-Musta'in*, who was *al-Muntasir* uncle. Then the new *Khalifah* himself came under strong pressures from the same commanders, which led him to flee to Baghdad. Civil war erupted for the second time in the history of *al-Khilafa*, but now, in 865, between, *al-Musta'in* and *al-Mu'tazz* whose forces besieged Baghdad. The fight was not between *Turks* and *non-Turks*, as *Al-Mu'tazz* partisans included both *Turks*, and *Maghariba* and the situation was much the same for *al-Musta'in* side in Baghdad. The conflict, which had lasted ten months, had its repercussions on the population in both of the two cities, Baghdad and Samarra, in addition to the countryside as both conflicting parties tried to inflict greater damages on the other side causing much hardship to the people.

According to *al-Tabari*; *al-Musta'in* while in Baghdad asked all the governors of the other cities and regions to stop food supplies from reaching *Samarra*. At the same time, he ordered them to forward the *Kharaj* money to him in Baghdad. *Al-Musta'in* in defending Baghdad oversaw the strengthening of the walls of the city and ordered the digging of moats and construction of shelters for the cavalry and building various bastions and obstacles to prevent the attacking force from entering the city. The total cost of these works amounted to three hundred and thirty thousand dinars, while at the same time he ordered the breaching of irrigation canals and the destruction of the control structures in the *Tusuj* of *al-Anbar* and *Baduraya* to flood the land and hinder the enemy's advance from that direction. The war resulted in shortage of food and soaring prices so that one *kafez* of wheat was sold for 100 dirhams^[6], (one *kafez* is equivalent to eight *ratls*; and one *ratl* is equal to about 406.26 gram so one *kafez* is about 3,25 kg).

The situation at the end cleared in favor of *al-Mu'tazz* who became then the new *Khalifah* in *Samarra* while *al-Musta'in* was banished to *Wasit* where he was found shortly afterwards

mysteriously dead. This period was very harsh on the population and hit their living resources, such as agriculture, very badly. Even the commanders of the army found themselves in a bad position by being unable to pay the salaries of their soldiers. Therefore, they blamed the *Khalifah* for this failure and instigated those soldiers to march to the palace and seize the *Khalifah*. After deposing him from *al-Khilafa*, they kept him imprisoned for three days without food or drink and finally they buried him alive in a newly plastered tight crypt¹⁷¹.

The reign of the next *Khalifah al-Muhtadi* (869-870) was not any better from that of the previous one, and when he tried to limit the powers of the commander *Musa ibn Bugha*, he was killed by angry soldiers who demanded the replacement of the *Turks* commanders and the corrupt officials who had plundered the treasury. Their demands extended to call for the restoration of good order, the reform of the tax collection system and abolition of the abuses that impacted the *Kharaj* lands and estates by awarding of concessions of land (*qati'as*) to the officers¹⁸¹. These demands give us first evidence that awarding (*qati'as*) to the officers of the army were practiced at that time; something, which was rare at this time and would become widespread in *Al-Sawad* under the *Buwayhids* and *Seljuk's* rules throughout the Islamic world¹⁹¹.

In the troubled years following, the death of *al-Muntasir* in (862), the governors of the provinces gradually turned themselves into feudal vassals and the supremacy of the *Khalifah* shrunk into a more or less a symbolic status. In Tabaristan, in the Caspian Sea region, the *Tahirid* dynasty that held their court in *Nishapur* had already established themselves outside from the *Khalifah's* authority in (864). Similarly, the *Hamdanid* dynasty (890-1004) had their autonomous state in northern Iraq and Syria in the Jazira region and had their capital in Mosul. By (870) when *Khalifah Al Mu'tamid* rose to the throne of *al-Khilafa*, the famous *Yacoub ibn Laith*, the *Coppersmith*, and the founder of the *Suffaride* dynasty who had commenced his life as a common soldier, conquered *Sijistan* from the *Tahirides* and in (873) he took over *Khurasan* and gradually extended his power over the whole of *Persia*. The period which marked the reign of *al-Mu'tamid* (870-892) was not any better from the previous one. This *Khalifah* was very weak, and the actual power was in the hands of his brother *al-Muwaffaq* (died in 891). So, after many encounters with *al-Muwaffaq*, the *Suffaride* leader *ibn Laith* made peace with *al-Mu'tamid* and obtained by a letter patent the free possession of all the country he had occupied. About the same time, *Transoxiana*, known in Arabic sources as *Mā Warā' an-Nahr*, (this name was used for the portion of central Asia that correspond approximately to modern day Uzbekistan, Tajikistan, southern Kyrgyzstan, and southwest Kazakhstan), became virtually independent under *Ismail the Samanid*. It won a similar concession from the *Khalifah*, and the rule became hereditary in his family, subject to the payment of a nominal tribute.

As it was in the eastern domains of *al-Khalifah*, the western regions followed the same trend as in the secession of Egypt as well as much of Syria establishing an autonomous rule in 868 under *Ahmad ibn Tulun* away from the central authority of the *Abbasids*.

Within only thirty years from the death of *al-Mutawakkil* the empire had shrunk considerably due to his short sight and unwise policies, which left considerable discontent in all parts of the *Khilafa* lands, especially in *al-Sawad*, which had formed the hard core of the empire. Losing all the mentioned regions, however, meant less revenue and weaker economy.

In *al-Sawad*, the State had to face one of the most serious and challenging uprisings in its history, which was the slaves (*Zanj*) revolt that had lasted for fourteen years from 869 to 883 and left far reaching impacts on the life of people in the towns of *lower al-Sawad* and its countryside. This rebellion started by attacking villages and estates causing great economic damage and large areas were seized by the rebels while large cities like *Basrah* and *Abadan* were also occupied and destroyed.

The slaves were originally from the *Bantu* people that were captured by the Arab slave traders who tagged them as infidels (*Kuffar*). Those traders had established themselves since (720) in

colonies along the coast of east Africa that extended from Lamu in Somalia to Mombasa, Zanzibar and Mozambique in order to hunt for these people and practice this trade, which found a very good market, especially during the *Abbasid* period. They were needed as free working hands in the palaces and in the vast agricultural estates, and in removing the salt from the *Bataih* lands in the south of *al-Sawad*. Here, work was tremendously hard within the swamps, which were covered with bamboo and papyrus and infested with malaria. Indications show, however, that there were already some of these slaves during the years of *Mus'ab ibn al-Zubair*, who served as governor of *Basrah* from (684 to 691) following the Islamic conquest, and that they had mutinied then and occupied the farms and estates protesting their miserable and inhuman conditions.

The number of those *Zanj* had increased tremendously as a result of the introduction of the *qati'a* system and the need for free hands to cultivate the extensive agricultural areas which were either newly reclaimed or confiscated from the *Sassanid Dahkans* who had left after the Arab conquest. Moreover, the *Zanj* formed also good number of the soldiers in the *Abbasid* army since (749). It was no surprise, therefore, that they had about three hundred thousand fighters when they rose up in rebellion against the State^[10].

The uprising of the *Zanj* began in (868) under the leadership of a man called *Ali ibn Mohammad*. He was a free man born in the village called *Warzaneyn* in the *Rayy* district in *Persia* as reported by many authors, but *al-Tabari* wrote that *Ali ibn Mohammad* was from Arab descent^{[11],[12]}. Other historians claim that he was *Persian*, and his real name was *Bahubad*^[13]. It was also reported that he had spent the years 861 and 862 in *Samarra* where he kept contacts with some of *al-Khalifah al-Muntasir* subordinates such as *Ghanim al-Shater*, *Said al-Sagher* and *Yusir al-Khadem* probably doing menial jobs and suffering from poverty, but in 863 he left to *Bahrain* where he stayed until 868. During his stay in *Samarra*, he had observed the luxury and profligacy, which the *Khalifah* and his retinue and the people of influence were living in. He detested this condition so much that he decided to come down to *Basrah* in good time and cultivate the indignation of the *Zanj* over their conditions and raise them against the State, where he found fertile grounds for this.

Making advantage of the conflict between two *Turk* army factions in 868 in *Basrah*, he declared his revolt after he had collected around himself a good number of *Zanj*. These were dissatisfied and unhappy about their conditions and towards whom he had shown sympathy. The revolt started by carrying out raids on *Basrah*, *Wasit*, *Ahwaz* and the areas around them, which caused the paralysis of agriculture in these areas and the disruption of trade. In the years, 868 till 869 the *Zanj* managed to occupy large towns like *Basrah*, *Ubullah* and *Abadan*. They controlled the estuary of the Tigris, which meant cutting off the *lower al-Sawad* from the other parts of *al-Sawad* and resulted in great losses to commerce, and their control of vast agricultural lands affected the food supply even to Baghdad. The defensive warfare tactics used by the *Zanj* included breaching the canals and flooding large tracts of land to obstruct the advance of the *Abbasid* troops which were sent to fight them; moreover, excavating long trenches and clearing large tracts of palm trees orchards were also practiced in this fight. The raids on prosperous villages caused the destruction of a great number of them while the villagers either were killed or fled abandoning their cultivated lands and orchards. In this long fight, the forces of *Zanj* advanced as far as *Nu'maniya* north of *Wasit*, and *Jarjaraiyeh*, which was located only 70 miles south of Baghdad and had caused extensive damages to irrigation networks in the whole region. In the counter offensives of the *Abbasids* armies led by *al-Muwaffaq*, *al-Mu'tamid* brother, they had to remove the dams and obstructions that were constructed by the *Zanj* for stopping navigation on the Tigris and the other rivers and canals in the war theater.

The *Zanj* uprising brought heavy losses to the landowners as well as the slave's owners. The wealth of those property owners depended on using large numbers of slaves in agriculture and in ameliorating the lands by removing the salts from them almost at no cost. Loosing this

workforce meant loosing very cheap production tool and exposing their large agricultural estates to ruin. Thus, the war between the *Zanj* and those landlords, which continued unabated for fourteen years, was characterized by hatred and violence.

The continuation of the *Zanj* conflict throughout this period had very grave consequences on the economy of the *Abbasid* State and ruined the area especially in *Lower Sawad* region. The raids of the *Zanj* on *Basrah*, *Wasit*, *Ahwaz* and neighboring areas naturally led to the paralysis of agriculture and the disruption of trade in these parts. Similarly, their occupation between 255 and 256 of large cities such as *Ubullah* and *Abadan* and levying taxes on the population, in addition to imposing their authority on the estuary of the Tigris, led to very negative results on Baghdad itself, whereby confiscating the agricultural lands and crops of the *Lower Sawad* had deprived Baghdad from a very important source of food. The disruption of the communication lines reflected very badly on its trade and the transport of the crops. It was that, whenever the *Abbasid* army restored these lines, they were cutoff again by the repeated attacks of the *Zanj*, and it was reported that even the navigation in Shatt al Arab stopped completely for ten years between 255 and 265. Having in mind that *Basrah* was the only port of Iraq on which the imports and exports of the *Abbasids* depended upon, then one can imagine the large losses the *Abbasids* suffered due to this conflict ^[10].

It may be concluded that the damage caused by this war on the irrigation networks of the *Lower Sawad* and therefore, on agriculture was very extensive. This may lead to the belief that it may have taken a very long time to restore the condition even partially to its original state, especially with the weak economic situation of the *Khalifah* and the lack of funds.

The extent of damage which this conflict caused may be better understood by going back to the estimates of human casualties suffered during this bloody war. One historian had put them at one and a half million casualties^[14], while another source estimated them at two millions and a half ^[15].

The *Zanj* uprising affected the economy very badly on account of the large amounts of money that were spent on it, which strained the treasury in addition to the damages caused to large cities like *Basrah*, *Ubullah*, *Abadan*, *Wasit* and *Nu'maniya* which suffered destruction as they were looted and burnt down^{[15],[16]}. Similarly great number of villages met the same fate and large areas of very fertile lands went out of cultivation resulting in the rise of food prices in an unprecedented way. As an example; the price of one *kur* of wheat reached 850 dinars in Baghdad and Hejaz^[17]. The total cost of war to the treasury in the year 869 only, amounted to 900000 dinars, and the financial problem was so big that *al-Muwaffaq*, the strong man behind *Khalifah al-Mu'tamid* (870-892), had thought seriously of levying additional taxes on the merchants. The deficit was so large that all attempts failed to restore conditions to the previous conditions, especially with the increasing unrest that continued to face the government.

In the aftermath of this war, the *Khalifah al-Mu'tamid* appealed to the farmers to go back to their farms. He tried to encourage them by giving cash advances to rebuild their villages and farms and even supplied them with seeds and animals^[18]. The total amount of money which was handed down to farmers, was, however, very little, and it did not exceed 36000 dinars due to the empty treasury.

The *Zanj* conflict, in addition to what it had caused of negative impacts on the *Abbasid* *Khilafa*, by the devastation of the irrigation works and agriculture and the economy as a whole, it had far reaching results on diminishing the prestige of the *Khalifah* and revealed its political and military weaknesses.

The next *Khalifah al-Mu'tadid* (892-902), however seemed to be more firm than his predecessors and was able to return the seat of *Khilafa* from *Samarra* to Baghdad to avoid the influence and the pressure of the *Turks*. He managed also to revive temporarily the strength of the State and was successful in repelling the *Byzantines* and restoring many cities in Syria from their hands, which they had captured previously. He also drove the *Kurds* out of Mesopotamia,

but his main achievement was returning back peacefully Egypt under the tent of *al-Khilafa*, and his relation with *Khumarweih*, the successor to *Ahmad ibn Tulun* was strengthened by his marriage to "*Qatr al Nada*" the daughter of *Khumarweih*^[19].

This revival period was short lived after which the *Khilafa* plunged again into turbulence due to the fighting with *al-Qarmatians*. The *Qarmathians* movement had its beginning in the general *Ism'ailiyya* movement as a covert religious organization. The *Ism'ailiyya* itself was first established in Syria and was soon to spread to *Ahwaz*, *Bahrain* and the eastern part of *Arabia*. Its main belief was of the inevitable appearance of *al-Mahdi* from the descendants of the Prophet Mohammad through his daughter Fatima; *al-Mahdi*, he who would become the *Khalifah* of all Muslims and would fill the earth with justice and satisfy the poor and the needy. In 899, *Hamdan Qarmat* the chief *Isma'ili* missionary (*da'iyah*) in *Lower Sawad* split off from the main movement and formed the new brand of this religious sect, which was called after him. *Qarmat* preaching was received well by the multitude of people, especially the poor who were dissatisfied of the large difference in wealth between the rich and the poor. However, not very much is known about *Hamdan Qarmat* except that he lived for some time in a village in the *tusuj* of *Badaqla*, east of *Kufah*. Then, he moved to *Kufah* itself and made of the city the center of his covert movement. The movement gained much of its momentum taking the opportunity of the confusion created in the wake of the *Zanj* rebellion. For several years in the aftermath of the suppression of *Zanj* revolt in 883, the *Abbasids* authority was not firmly re-established in the *Lower Sawad*. Only in 891/892 that reports from *Kufah* on this "new religion" and the news on the mounting *Qarmatians* activity began to cause concern in Baghdad. However, no action was taken against them at the time.

Qarmat and his theologian brother-in-law *'Abdān* prepared southern Iraq for the coming of the *Mahdi* by creating military and religious stronghold. Other such strongholds grew up in 899 in Yemen, eastern Arabia (Arabic *Bahrayn*) and North Africa. The *Qarmatians* attracted many new followers due to their zealous activities and messianic teachings, and *Qarmat* grew more in popularity by levying taxes on the rich and affluent people and distributing part of it to the masses of the poor^[20]. The movement did not go into open revolt until 899 when its leader at that time was the successor of *Hamdan Qarmat*; who was *Abu Said ibn al-Hassan ibn Bahram al-Jannabi*, a *Persian* from a village called *Jannaba* in *Persia*.

The first violent clash with the *Abbasids* occurred in 902 during the last years of *Khalifah al-Mu'tadid* who had sent an army to suppress the movement which was met by the *da'iyah Zakarwayh ibn Mihrawayh*. Historians differ on the outcome of the fight; while some of them reported the *Qarmatians* defeat and that *Zakarwayh* was captured and killed^[21], another source claimed that the *Qarmatians* had defeated the *Abbasids* army, captured its commander and occupied *al-Bahrain*, *Yamama* and *Oman*^[22].

The *Qarmatians* movement continued its challenge to the *Abbasid Khilafa* under *Abu Said al-Jannabi* while it was firmly established in *Bahrain*, where they managed to have their State. Their threats and violence grew up considerably during the time of *Abu Tahir Sulayman* (906–944), *Abu Said's* son, and they were then so emboldened that they raided *Basrah* in 923, where they managed to enter the city, plunder it, and shed the blood of its people. *Kufah* had the same fate in 927 when they repeated what they had done in *Basrah* defeating an *Abbasid* army in the process and advancing towards Baghdad threatening the *Abbasid* capital in 928 and pillaging much of Iraq's *Sawad* when they could not gain entry to the city.

In 930, *Abu Tahir* led the *Qarmatians'* most notorious attack when he pillaged *Medina* and *Mecca*. Being unable to gain entry to the city initially, *Abu Tahir* called upon the right of all Muslims to enter the city and gave his oath that he came in peace. Once inside the city walls the *Qarmatian* army set about massacring the pilgrims, taunting them with verses of the Quran as they did so. The bodies of the pilgrims were left to rot in the streets or thrown down the *Well of Zamzam*.

The *Ka'ba* was looted, with *Abū Tāhir* taking personal possession of the Black Stone bringing it back to *al-Hasa* and holding it to ransom. Later on, they forced the *Abbasids* to pay a large amount of money for its return in 951^[23], and the *Abbasid Khalifah* was obliged to pay them yearly tribute of 120,000 dinar per year for the safe passage of the pilgrims to *Mecca* in addition to charging them certain fees.

In 945, the *Khilafa* in Baghdad had entered a new phase of its history as it was subjugated under the control of the *Buwayhids* dynasty. This encouraged the *Qarmatians* of Bahrain to make their next move, and sought to assert their hold over southern Iraq. In 983, they attacked *Basrah* and had to be bought off by a tribute. In 985, a *Qarmatian* army repeated their attack but now on *Kufah*. As the *Buwayhids* government tried to reach a peaceful settlement, they began to confiscate crops and valuables from the farmers, hence the government was forced to act, and so it inflicted two humiliating defeats on the *Qarmatians* who were forced to withdraw and were permanently deprived of their influence in Iraq. Finally, in 988, *al-Asfar* chief of *Banu el-Muntafic* of 'Uaqyal Arab tribe defeated the *Qarmatians* and laid siege on *al-Ahsa* and pillaged *al-Caitiff* carrying off the booty to *Basrah*. The *Qarmatians* lost their privilege of escorting and taxing the pilgrim's caravans, claimed now by *al-Asfar* and other tribal chiefs, and were reduced to purely local, self-contained power.

Little is known about their late history but outside Bahrain, the *Qarmatians* communities were rapidly absorbed into *Fatimid Ismailism* or disintegrated^[24].

In more than one hundred years, this movement and the previous *Zanj* uprising had caused great damage to the *Abbasid Khilafa* lands, especially to *al-Sawad*, and left the *Khalifahs* in a very weak and shaky position for loosing so much revenue in addition to bearing the high costs of the wars. One recent study has summarized few examples of the costs of the *Qarmatians* war during the *Khilafa* of both *al-Muktafi* and *al-Muqtadir*, which were based on the writings of Muslim scholars. These examples are given here for indication only, and they cannot be taken as a complete list of all the costs and damages that were sustained by the treasury during the reign of these two *Khalifahs*:

- ✓ The *Khalifah al-Muktafi* spent 100,000 Dinars in 902 only in this war.
- ✓ In 905, the *Qarmatians* advanced towards Hit from their stronghold in Syria and looted the ships navigating the Euphrates.
- ✓ In 906, they attacked and looted the pilgrim's caravans causing 2,000,000 dinars of losses.
- ✓ In 914, during the reign of the next *Khalifah al Muqtadir* he spent 1,000,000 dinars in defending *Kufah*, and then 1,500,000 Dinar more in other locations in his war.
- ✓ In 915, the *Qarmatians* ambushed the agents of the treasury and confiscated the tax collections from *Ahwaz* and *Basrah*, which amounted to 300,000 dinars.
- ✓ In 924, the same *Khalifah* spent 1,000,000 dinars in defending *Kufah* again, and then 1,500,000 dinar more in other places in his war.
- ✓ In 925, the *Qarmatians* attacked pilgrims' caravans again with unaccounted magnitude of losses.
- ✓ In 926, the total amount spent to protect Baghdad against the *Qarmatians* attacks came to 3,000,000 dinars, while they had looted 1000 *kur* of barley and 100 *kur* of wheat.
- ✓ In 927, the total amount spent by the *Khalifah al- Muqtadir* in the war against *Qarmatians* in *Kufah* and *Wasit* reached 1,870,000 dinars
- ✓ In 928, the *Qarmatians* attacked *Kufah* once more coming this time from *Ein al-Tamer*, confiscated the *Kharaj* money, and took it upon themselves to do the administration after they had dismissed the agents and officials of the *Khalifah*. In

the same year, they attacked *ahl- Rahba* and *Deyar- Raby'a* in the *Khabour* districts of the *Jazira* region and looted five thousand camels and large number of cattle.

- ✓ In 931, the *Qarmatians* raided again *Kufah* and looted the depots of the crop belonging to the *Khalifah* and others.

The same study concluded that the *Qarmatians* war had resulted in grave financial crises and led to soaring food prices and even to widespread cases of famine^[25].

Other studies included lengthy descriptions on how these frequent wars reflected badly on the conditions of the irrigation systems and agriculture in the Iraq's *al-Sawad* leading to their deterioration and decline.

They explain that although the Arabs had inherited some very rich territories after the conquest of Iraq and *Persia* and elsewhere, Iraq's *al-Sawad* was the keystone of their empire and its prosperity. Mesopotamian agriculture was so productive that the support of farming population only required about 36% of the net output of food produced. The rest was available to support great cities, extensive commerce, and vibrant culture. This prosperity had corroborated the Golden Age of Islam. Nevertheless, this success required irrigation, and the geography of the *al-Sawad* meant that state support was vital. Unlike in *Persia* where irrigation with *qanāt* (*Karez*) was done on small scale and could be organized locally by private entrepreneurs, the Mesopotamia plain required giant long canals to realize the full potential, and these canals required public investment for their construction and maintenance. When the *Khalifahs* were rich and farsighted, the system worked, but when money became short and other immediate needs dominated; maintenance of the canal system was threatened. In the *Abbasids* case, the actual total income to the *Khilafa* treasury had decreased from 422.3 million dirhams in 780 just after the death of *al-Mansur* and during the reign of his son *al-Mahdi* to 189, 5 million dirhams in 918; out of this the share of *al-Sawad* decreased from 90.5 million dirhams to 38.3 million dirhams in the same period^{[26],[27]}.

Clearly, the canal system in *al-Sawad* was unsustainable without large investments, which the State could not make available during difficult times. Lack of proper irrigation and drainage led inevitably to canals siltation and salinization of the soil and therefore, attempts to keep good soil conditions were doomed to failure. Moreover, after the difficult times that the *Southern al-Sawad* had gone through during the *Zanj* and *Qarmatians* upheavals, it did not enjoy the same importance as a lucrative place for investment that it had before the sacking of *Basrah* by the *Zanj* and *Qarmatians* when the *Batiha* became a bastion for the rebels. There was no longer any economic incentive to restore the cultivation of the area while large proportion of the farming population had immigrated elsewhere as their safety was threatened. Therefore, the land became a barren landscape, marked by the traces of the moments of agriculture expansion but never brought under the plough again^[28].

Just to emphasize this point, evidence from archaeological records has shown that previous intensive agricultural activity had left significant traces in the landscape. In the early 1960s, these findings detected very distinctive landscape to the south and west of *Basrah*. The irrigation systems had occupied previously an enormous area of 57,000 hectares lying between the old westerly course of the Euphrates and *Shatt al- Arab*, but in 1962, just eight thousands of these hectares were used for cultivation of date palms along *Shatt al-Arab*: the rest reverted back to desert^[29].

Another example of the inability of the late *Abbasids* to sustain the old irrigation projects they had inherited from the previous times is the collapse of the *old Diyala Dam* which may be cited here. In the year, 912 during the reign of *Khalifah al-Muqtadir*; this serious event occurred, and it had far-reaching consequences on the *Nahravn Canal System* and the cultivated land it had served. The dam and its role as a key structure in this system were described fully in paper (9) and need not be repeated here, but the gravity of its collapse cannot be overlooked. The

collapse which was due to negligence led to cutting off the water supply from its source from the Tigris through the (*Katul Kisrawi*) and depriving the *Lower Nahrawan* canal and all its tributaries of water that was irrigating the fertile lands extending down to Kut.

An attempt was made in 932 to divert some water to the *Lower Nahrawan* canal directly from the Diyala River by building a temporary dam called *Masn'* at *al Suhyla* which could not replace the old Diyala Dam completely. But even this dam collapsed later on more than once due again to negligence, and according to the writing of *Yaqut al-Hamawi* the dam collapsed for the final time in 1228 and all the cultivated lands below Diyala River down to Kut were deprived completely of their water supply and turned to semi desert land covered with windblown sands. This event drove the population to migrate elsewhere. Consequently, all settlements and towns in this area fell to ruins. The history of this period as written by Muslim scholars like *al-Qiqzwini*, *Yaqut*, *Ibn al Jawzi* and others agreed that many of the irrigation systems in *al-Sawad* suffered destruction due to either conflicts between rival warlords, negligence and lack of maintenance or both^[30].

The bitter rivalry between the various *wazirs* and army commanders had also reflected badly on the canal network of the *Upper Nahrawan* canal, which irrigated the domains around Baghdad. Many such events occurred between 935 and 945, which led to intentional destruction of the canal's banks to flood the land and obstruct the enemy advance. Moreover, these actions resulted in extensive loss of crops and left the cultivated lands without water supply for long periods, and therefore, stressed the lives of the people by raising the prices of food. One particular important case was witnessed in 941 during the fighting between *Ibn Raik* and the other *Turk* leader *Bujkum* that led the former to breach the *Nahrawan* canal to prevent *Bujkum* from advancing towards Baghdad.

Negligence and lack of maintenance during this period of confusion caused the breaching of canals around Baghdad. In 940, for example, both the *Rufayl* and *Buk* canals breached due to negligence, and resulted in the ruin of the *Baduraya* district lands for more than ten years and kept them out of cultivation for this whole period. Before that in 934, *Nahr Isa*, which supplied water from the Euphrates to the quarters of Baghdad (west), had breached and could not be repaired. No repair works to damaged canals were performed except what was done in 938 by the *Khalifah* in repairing the *Sarat* canal, which had irrigated the lands around western Baghdad. *Khalis* canal which bifurcated from the *Nahrawan* canal and irrigated most of the area around eastern Baghdad was left without repair for many years after it had breached in the year 945^[31].

The welfare of the people of *al-Sawad* had always depended so much on the irrigation systems and the cultivation of the land, and the disruption of the water supply had resulted in grave consequences, and in many instances had caused severe famines. An example of such famines was reported in *Miskawayh's* book "*Tajarib al-Umam*" (Experiences of Nations). *Miskawayh* who had lived in (932-1030) and was contemporary to these events described the aftermath of the collapse of the *Old Diyala Dam* during the fight between *Muhammad ibn Raik* and *Bujkum*, which was mentioned already. He reported that the following years were years of hardship, which had culminated into wide spread famine. He said:

"In 964 people had no bread at all and were forced to eat the dead, the grass and the decomposed corpses. They collected and searched the dung of mules and other animals looking for barley corns to pick out and eat. The cotton seeds were taken and wetted with water before they were put on a hot iron plate to dry out to be eaten; a thing which caused them to have tumors in the intestines and so they either suffered death or were very close to death. Men and women and children would stand on the roadway pleading and shouting, hunger, hunger until they drop dead. If anyone found a small piece of bread he would hide it under his cloth for fear it would be snatched from him. The large number of the dead made it impossible to bury them all in good time and the dogs would devour their flesh. Large numbers of the poor left to Basrah

to feed on dates but the majority of them perished on the road; those who arrived died shortly afterwards. A Hashemite woman who had stolen a child was caught eating him after she had baked him alive in an oven and so she was beheaded. Houses and estates were sold for some loaves of bread and the broker took some of the loaves for his service. Another woman was found killing children and eating them and when this was discovered she had already killed many of them. When the *fitna* (conflict) was over the new crops arrived and the prices went down”^[32].

The years from 908 until 944 were also especially difficult on the people whereby the *Abbasid Khilafa* had passed into a very difficult time during which four *Khalifahs* had ruled namely *al-Muqtadir*, *al-Qahir*, *al-Radi*, and *al-Muttaqi*. This period was characterized by increasing influence of the *Turk* military leaders and the meddling of the palace harem and court officials into the government affairs, which was undoubtedly accompanied by decreasing authority of the civil establishment represented by the *Wazir*, and the *Scribes* who managed the various government departments or “*Diwans*”. These conditions aggravated the situation of the State and its civil management leading to a bankrupt treasury, mutinies of the soldiers over the delayed payment of their stipends and more conflicts, wars and bloodshed.

In the prevailing chaos, new armed powers began to appear on the outskirts of the *Abbasid Khilafa* challenging the *Khalifah* and the *Turks* authority in Baghdad. Of these were the *Hamdanid* dynasty in *al-Jazira*, *al-Baredyuon* in *Basrah* and *Ahwaz*, and the *Buwayhids* who were from *Dailamite* origin, who had already spread their control over *Faris* under *Imad al-Dawla ibn Buwayh* in 932. More *Dailamites* had already been in the service of the *Khalifah* in Baghdad as soldiers and had formed strong lobby competing with the *Turks* and playing an important role in the affairs of the state. Their influence had grown to the extent that their leader *Touzon* was promoted to the position of *Amir al-Umar ‘a* (*Prince of all Princes*) by the *Khalifah al-Muttaqi* (940-944). This position was created by the previous *Khalifah al-Radi* (934-940) combining the army high command with the *Wazir* duties of running the civil departments (*Diwans*) and the treasury all into one post. This meant, in effect, minimizing the temporal authority of the *Khilafa* by putting very large power in the hands of *Amir al-Umar ‘a* himself.

Regional wars with the *al-Baredyuon* separatists in *Ahwaz* and *Basrah* in the south and *Hamdanid* in the north during the same period overburdened the treasury and caused in many instances stopping the food supplies from reaching to Baghdad, which caused a sharp rise of food prices. The theater of these conflicts was the whole of *al-Sawad*, which meant more permanent destruction of the canal’s networks. These events opened the way to other developments, which marked even darker days for the *Abbasid Khilafa*, namely the occupation of Baghdad itself by the *Buwayhids* under *Ahmad ibn Buwayh* in 945 and their rule over what remained of the *Abbasid* lands until 1055^[33].

On entering Baghdad in 945, the *Buwayhids* managed to establish their principality at the heart of the *Abbasid Khilafa* supported by their legions of *Dailamites* and *Turk* troops, and while they had stripped the *Khalifahs* completely of their temporal powers, they kept to them their religious functions only for political reasons. In taking the position of *Amir al-Umar ‘a*, their princes had full control of the military affairs, the treasury and the administration of the State. During the *Buwayhids* ruling period, which lasted 110 years, eleven *Amir al-Umar ‘as* had ruled in Baghdad and four *Abbasid Khalifahs* were on the throne. Other members of the *Buwayhid* family ruled in *Faris* and in *Rayy*, *Isfahan* and *Hamadan*. The first *Amir al-Umar ‘a* in Baghdad was *Mu’izz al-Dawla* (945–967) who in addition to having control over Baghdad, had also controlled over *Wasit*, *Basrah*, *Kufa* and *Ahwaz*. During his term *Mu’izz al-Dawla* was very busy in strengthening the *Buwayhids* rule in addition to solving a great host of military, administrative and financial acute problems. Of the first, he directed many campaigns against the threats of *Hamdanids* in *Mosul*, *al-Baredyuon* in *Basrah*, and the mutiny

of an outlaw called *Omran ibn Shaheen* who had taken refuge with his followers in the *Batiha* and refused to pay taxes. He was even forced to confront the *Qarmatians* in their attempts to invade *Basrah* coming from Oman.

The treasury during this time was depleted and *Mu'izz al-Dawla* realized that reform was needed to rectify the situation in order to be able to pay the delayed salaries of the troop. On the administrative level, the repair and maintenance of the irrigation systems were an urgent task after a long period of neglect and recurrent fighting. Most writers have agreed that *Mu'izz al-Dawla* had attempted his best to rectify the situation as being aware that a flourishing agriculture was the best way to solve the other financial problems. In this respect, he managed to repair some of the irrigation canals and used the army to reconstruct damaged once and maintain others. It was even said that he had carried the earth of excavation himself to give a good example to his soldiers. After twenty years of abandonment of the best cultivated parts in the *Nahravn* districts around Baghdad, a thing which had led in the 964 to the famous famine, the land was put back again into cultivation, and Baghdad became prosperous again and "fine bread being sold at twenty rats to the dirham". *Mu'izz al-Dawla* attempted even to repair the damaged estates of the *al-Sawad*, and he commissioned *Aba al-Faraj Abi Hisham* to do this in 945. He tried also to solve the financial problems caused by the conflict of the tax collection timing in the *Hijri* calendar and transferred this collection from the year 961 to 962^[34].

The good results which came out from *Mu'izz al-Dawla*'s efforts and the outcome of his care and attention to the irrigation works disappeared against his bad policy towards land ownership, which he was compelled to follow in trying to solve the acute problem of the troop's payments. This new policy came to be known as the *Military Iqta'*. In this policy he tried to satisfy the commanders of the troop by granting to them fiefs (*qati'as*) of land at cheap prices. *Miskawayh* in his reporting of this gave a vivid account describing this important event:

"And in this year, the Dailamites rose in mutiny against Mu'izz al-Dawla in violent riot, and indulged in fierce confrontation with him. He gave them his word to release their payment within a period he fixed. So he was forced to lean heavily on the people and extort money from improper sources, and he gave away to his commanders, his household and his Turks as qati'as (fiefs) the estates of al-Khilafa, the estates of those who had gone into hiding, such as those of ibn Sherzad, and the rights of Bait il-Mal (Treasury) or the estates of the public. The majority of al-Sawad was locked up, and it became outside of the tax collectors authority, only a little remained to be taxed and farmed. He closed down the Diwans (Government Departments), laid off their officials and all the Diwans were gathered in one".

Miskawayh lamented the grave mistake *Mu'izz al-Dawla* had committed by this action and he went on to say:

"When the administration is based on faulty principals, even if it did not appear so at the beginning, it will show this in the long time. It is as when a man deviates from the straight road very little and this goes by unnoticed in the beginning, but if this continues and he goes further away, the more he continues the more he diverges from the right road, and the error becomes more apparent and his conditions become much different. And so he (Mu'izz al-Dawla) gave most of the lands of the Sawad in to qati'as when these lands were out of cultivation and were not reclaimed back and their values were low; then the vizers were complaisant to the assignees, took bribes and accepted gratuities themselves, and in other cases allowed themselves to be influenced by intermediaries, so the qati'as were given at different rates. As the years passed and the land came into cultivation, in some cases, the crops flourished and its output increased, but the same had decreased in others due to fall in prices; for when these qati'as were granted to the soldiers their prices were high due to the famine which had been described. Those who made profit retained the qati'as which was in their hands, and it was not possible to make proper assessment of their due taxes. Those who lost returned their qati'as and were compensated by getting other qati'as instead to make up for their losses. This became

a wide spread practice and a common procedure for the soldiers who used to ruin their qati'as and take others of their own selection in exchange. Therefore, they managed to be always the gainers and got a profit. The returned qati'as was granted to persons whose goal was only to take all what they found there, and presented an account of part. They would not take any step to put this qati'as back into cultivation. It became a procedure for those assignees to come back and seek fresh qati'as from the returned once which had got mixed together on the basis of their present value when that value was reduced to the lowest possible figure. The original deeds rotted away with the passage of years, the old assessments became obsolete, the old canals were ruined, the sluices got out of order, the cultivators suffered and were wretched, some of them migrated to exiles, others oppressed and patient with no hope of justice, while others were contented to surrender their land to the assignees to escape their evils and satisfy them”^[35].

As a direct result of this policy, whereby the agricultural estates were no more under the control of the government, the irrigation inspectors and officials were no longer needed, and so they were laid off and their accumulated experience was lost. Similarly, tax collectors had disappeared and the works of the respective Diwan shrunk to just estimating the price of these estates which was then divided into installments to be paid by the qati'a' owners, who would in most cases evade payment making use of the wide spread corruption. The end result was catastrophic on the irrigation systems and their hydraulic structures^[36].

Some authors have tried to give justifications to Mu'izz al-Dawla's policy towards land ownership. One of them argues that the military iqta' system was a result of the progressive deterioration in the financial stability of the state. A second author claims that Mu'izz al-Dawla paid attention to the background of the Buwayhids troops with their feudal semi tribal tradition in looking to the land as being theirs by right of conquest ^[37].

Whatever the motives were that led Mu'izz al-Dawla to take this decision it must be admitted that social and economic conditions had forced this decision, and the accumulation of mistakes and bad decisions previously made by the Khalifahs themselves had resulted in the deterioration of the central power itself which brought with it conflicts and bankruptcy.

It is believed that the military iqta' system introduced by Mu'izz al-Dawla had resulted in irreversible damage to agriculture in general and the agrarian relations in particular, and caused the deterioration of more land and forced many farmers to abandon the land and migrate somewhere else. Moreover, it undermined the management system which was established by the Sassanids and followed by the earlier Abbasids which was based on taking up the overall responsibility by a firm central power which took upon itself also the duty of investing in maintenance of the existing irrigation networks and the new required extensions.

Another factor, which had accentuated the financial crises during the late Abbasid Khilafa, was the excessive abuse of the tax farming system by introducing the new system that was known by (*dhaman*). This system had been introduced during the reign of the *Khalifah al- Muhtadi* (869-870) as a quick way of collecting the (*Kharaj*) taxes which were mostly generated from the cultivated land and the crop output. It meant the leasing of the tax collection job to powerful agents who would take it upon themselves to pay a fixed amount of money to the treasury (*Bait el-Mal*) against granting them the right to collect these taxes directly from the landowners and cultivators within the domain of their authority. This had caused in the majority of cases the extortion of the farmers to pay more than what was fair by using threats or even causing harm in order to make large profits. This practice had resulted in many cases into the abandonment of fertile lands when the farmers were unable to pay and were declared in default by those agents. Sometimes when conditions allowed, small landowners would put themselves under the protection of more powerful property owners against certain payment, this had led to another form of agrarian relationship, which was known by (*ilja'*) which literally means compulsion to seek protection. Although (*ilja'*) had been practised since the days of the

Umayyads dynasty, the need for it extremely increased during the *Buwayhids* time due to the abuse of the tax collection system. Corruption, which was the common practice under the *Buwayhids* rule, made it normal to pay bribes to the government estimators responsible for leasing the tax collection jobs at exceptionally low values, which results in considerable loss of revenue to the treasury.

In many cases when tax farming had been granted to a governor of a region or (*willayat*), it happened that he would not return to the treasury the full revenue and declare only part of it; this had led to many cases to arguments with the central government ending in disobedience and revolt in other cases^{[38],[39],[40]}.

During the *Buwayhids* period, the *Abbasid Khlipha* experienced very bad times as the *Buwayhid* Umara did not contribute much to the welfare of the people, nor could they do much to stop or reverse the trend of decline that was progressing. In fact, they had committed their biggest mistake of tearing apart the land ownership system, which had been established for many centuries and proved its success since the *Sassanid* time.

Conflicts and wars during the *Buwayhid* period undermined the central power needed for the proper management of agriculture, and for the good upkeep of the irrigation canal systems. Finally, when the *Buwayhid* strength was drained, they were expelled under a new rising power in the area, which was the *Seljuks*, who had established themselves in the neighboring regions of *Persia*.

In 1055, the *Seljuks* under *Tughrul* invaded Iraq and entered Baghdad and ousted the last of the *Buwayhid* rulers; *Al- Malik al- Raheem*. It was in fact, the *Khalifah al- Qaim* (1031-1075) himself who had sent message to *Tughrul* asking his help to overthrow the *Buwayhids* and relieve him from the *Buwayhid* oppression and harshness.

The *Seljuks* governed Iraq as part of the larger *Seljuk* Empire whereby a *Seljuk* family branch ruled in Baghdad under *Malik Shah II* (1105) and his successors and the *Seljuk* dynasty continued to rule Iraq and parts of *Persia* until 1194. During this year, *Khwarazm ruler Ala ad- Din Tekish* defeated their last *Sultan Tughrul III*, as he conquered parts of *Khurasan* and *Persia* as well and so the *Seljuk* period ended then.

The *Seljuks* proved during this period to be not much different from the *Buwayhids*. Their *Sultans*' tyranny was the same as that of the *Buwayhids amir al- Umar 'as*', and their attitude towards the *Khalifahs* was almost the same. The *Seljuk Sultans* kept the real power in their hands making the *Khalifah* a titular head of state only. Moreover, they interfered in, and ran all, the *Khilafa's* affairs without the *Khalifah's* consent or will. The *Seljuks era* was inflicted with troubles and conflicts as that of the *Buwayhids*, and the *Seljuks Sultans* were busy in their bickering and disputes, or fighting with outside neighboring enemies. Even the bands of vagabonds and bandits who called themselves "*al-ayyroun*" that terrified the population of Baghdad and disturbed peace during the previous era did the same thing now. The condition of the economy was as bad as it was before, and the people complained much over the recurrent crises of extremely high food prices during these times. Worst of all the *Seljuk Sultans* surpassed the *Buwayhids* in practicing the *Iqta'* of the cultivated land by distributing *qatia's* not only to the military leaders as the *Buwayhids* did but they extended this to all their family members, their courtiers and close friends, and they did this on much larger scale^[41].

In this period, there were some attempts to reform the administration of the state and rectify the policies related to the management of the agricultural lands. It was understood that the only way to improve the economy and enhance the power of the state was to adopt a new approach towards land ownership. *Nizam al- Mulk*, the *Grand Wazir* of both *Sultan Alp Arslan* and his son *Malik Shah* took it upon himself then to adopt a policy of reform, which was focused on land ownership and its exploitation. His first step was to distribute all the cultivable lands on the troops in a way different to what the *Buwayhids* had done and under different rules. The *Buwayhids Iqta'* meant in its initial form the ownership of the *qati'a*, itself by the beneficiaries

while in the new system, at least as *Nizam al- Mulk* had seen it, envisaged that the beneficiaries had rights to the output of the land but not the land itself. At the same time, those beneficiaries were to answer to the *Wazir* himself for any misuse, which could bring the penalty of losing his rights in it^{[42], [43]}.

The *Iqta'* system during both the *Buwayhids* and *Seljuks* times was based on the *Persian* tradition of land ownership, which was followed by the *Sassanids*. The *Shah* or *King*, being the highest authority, considered that he was responsible for distributing the lands on the various clans in a just and equitable way to be used as grazing or cultivation lands, but the ownership of the land rests in the end with the *King* or *Shah*. The *Buwayhids* and *Seljuks*, having both the same *Persian* tribal background followed this principle at least in the beginning only, and they diverted from it later on as they followed different rules in the application.

The *Seljuk Sultans* granted all the land to their *Seljuk* soldiers, their relatives and friends who were only *Seljuks*. According to *Nizam al- Mulk*, as stated clearly in his book of rules called (*Siyasat Nama*), stipulated very clearly that the beneficiaries of *iqta'* were to cultivate their *qatia's* under the authorization of the *Sultan* and pay the *Kharaj* tax, and to be kind and generous to the farmers who worked for them. To comprehend the scale of this *iqta'*, the number of soldiers only who benefited from this system at the time of *Malik Shah* was fourty six thousand equestrians. Many more high-ranking *Seljuk* persons were also entitled to *qatia's* under the same rules^[44]. With the passage of time, the basic principles of this system were violated, and in spite of the strict rules *Nizam al- Mulk* had put down, most of the beneficiaries succeeded in keeping the land as their own, used all sorts of abuses towards their farmers and even passed the land in inheritance to their children. Some others encroached on neighboring *qati'as*, which belonged to others, and injustice and corruption became widespread^[45].

According to the *Seljuks'* rules, the running of the whole affairs of the *qatia's* was the responsibility of the *Wazir*. Among these, he was responsible for the inspection of the *qatia's* and the observation of the rules applied to the beneficiaries, but in most of the cases the *Wazirs* overlooked the excesses and ignored the greed of those beneficiaries for personal reasons; either in exchange of favors or due to corruption. Normally, the *Wazir* should get one tenth of the revenue of the treasury which originates from *Iqta'* as salary, so in most of the cases, they did not objects the violations of the owners and their harsh treatment of the peasantry, so long as they keep their high income coming. This form of corruption resulted in general discontent and protest of the farmers, which had its impacts in weakening of the *Seljuk* society and led to the deterioration of the agrarian relations and agriculture as a whole.

Apart from the attempt made by *Nizam al- Mulk* to reform the land ownership system, which did not bring good fruits, very little is known of any construction works or projects that could have served irrigation and agriculture. One general statement which was made by the Muslim scholar and historian *ibn Khillikan* (1211-1282) in the praise of *Sultan Malik Shah ibn Alb Arslan* indicated that some of the works were done by this *Sultan* without giving much details; where he states:

“He exerted himself to spread the benefit of civilization; he dug numerous canals, walled a great number of cities, built bridges, and constructed ribats (military outposts) in the desert”^[46].

As a matter of fact, we have a gap in our knowledge of any of the works that *ibn Khillikan* had attributed to *Sultan Malik Shah*, or whether there had been any other significant irrigation works that were ordered and overseen by the other *Sultans*, especially that in this form of *Iqta'* such works were assumed to be done by the beneficiaries who had ignored. We should realize however, that large scale works could not be performed without the support of the central government as the case had always been in the irrigation works of the *Sawad* since the *Sumerian* time.

Generally speaking the *Seljuks'* military *Iqta'* caused the retrogression of agriculture and the decay of the irrigation systems of the *al-Sawad* lands. The lack of knowledge of the agricultural practices on the part of the *qati'as* owners and their dependence on their local agents in managing their vast estates led to mismanagement. The agents themselves did not have full control of the expenditures or revenues, and they were ignorant of the best methods or ways of doing the work. Being tough barbarians, they saved no effort in oppressing the farmers and deprived them of their rightful shares, and they often had attacked neighboring nonmilitary estates and confiscated their crops. This led to the abandonment of the farmers of large tracts of farmlands and their migration to safer places leaving the land to rot ^[47].

The *Abbasids* economy was basically an agrarian one in which the welfare of the people depended on the availability of food commodities in the markets at fair and reasonable prices. At times of disturbances and conflicts, the impacts on agriculture were profound and the supplies to the markets diminished, but often this was the case during the *Seljuk's* period when the major property owners who had to pay very high taxes to the *Sultans* monopolized these supplies. Many economic crises in the *Seljuk's* period had occurred in which they left their marks on agriculture, and the *qati'as* owners put the farmers themselves under pressure. Examples of such crises were recorded in 1055 when the general situation became tumultuous at the *Seljuk* troop entry to the country and the subsequent plundering and looting of the towns, villages and their granaries. The prices of bread and meat doubled, and the people were very much stressed. The same thing was repeated in 1056 when the crops were damaged and there was a shortage of them. The *Seljuk* soldiers caused another period of soaring prices in Tikrit following the looting of crops stores and granaries.

Conflicts and fighting between the *Seljuk Sultans* themselves brought about very bad and unbearable conditions. In 1099, one such conflict broke out between *Sultan Barkiyaruq* and *Sultan Muhammad ibn Malik Shah*. Consequently, large tracts in *al-Sawad* were damaged and their crops destroyed which reflected badly on the markets and drove the exploiters of the merchants to take advantage by using all unlawful means to raise the prices. The one *kur* of wheat was sold for ninety dinars, and many of the poor starved to death. In 1102, the villages and agricultural estates in the *Dujail* district were looted leading to a sharp rise of the bread price, and each three *ratls* of bread were sold for one *karat* when their previous cost was ten *ratls* for the *karat* ^[48].

Similarly; during the period 1112-1179, prices went up to unprecedented levels as a result of the decrease in the cultivated land area in direct consequence to the prolonged impacts of the *Seljuk Iqta'* system whereby the farmers had left, and large areas were deserted. With no working hands to do the job, the prices of land hit a bottom level, and some of the plots were sold for mere five *ratls* of bread. Just to see what the *Seljuk* period had done to on the cost of living, the price of one *kur* of wheat was twenty dinars when the *Seljuks* entered Iraq, but this price reached ninety dinars after only few months, and continued to increase to reach double this price after a while. Even the bran of wheat was sold for seven to ten dinars ^[49]. In one particular case during the reign of *Sultan Mahmud* in 1135, an extreme and general scarcity of food swept the country due to negligence of the irrigation works and the people in Baghdad and the whole country rose in protest, and the mob pillaged and sacked the cities and towns^[49]. The fighting and frequent conflicts erupting between the *Seljuk Sultans* themselves contributed heavily to the destruction of important irrigation canals and their ancillary structure with no hope of any reconstruction or repair. Such networks were not maintained or brought up to a satisfactory level of service as the *Iqta'* beneficiaries were not interested in spending on these repairs, and their only concern was collecting more money to pay the taxes levied on them by the central government in lieu of their *qatia's* exploitation. Central governments in its turn did not care for performing such maintenance or repairs as the treasury was always depleted due to the high spending on wars and fighting and the decline of the revenue of the treasury.

The whole land of *al-Sawad* suffered those excesses, and the general picture was bleak and told of a near total collapse. The decline in the agricultural yield in almost all *qati'as* reduced the income of the property owners. It caused them to put heavy burdens on the peasants working in their *qati'as*, demanding more payments and even forced labour, when the peasants were unable to go along with these demands. They sent their *Seljuk* armed bands to plunder and destroy the villages and kill the inhabitants. Muslim scholars such as *Yaqut*, *al-Qiqzwin*, *Ibn al-Ather*, *al-Edrissi*, *Ibn al-Jawzi*, and many others recorded in their writings many examples of such acts.

Of these some examples were cited of the looting and ravaging of prosperous towns and villages. Areas affected were, *Akbara*, east of the Tigris, *Sura* on the Euphrates, *Wasit* and its southern district *Bahmnardashir* on the lower Tigris, *Al Dujail* district and its numerous villages, one of which was *Awana*, all north of Baghdad, the town of *Bajisri* on the *Nahrrawn* canal, the prosperous villages west of *Tikrit*, the village of *Banarik* located between *Baghdad* and *Nu'maniya*, the district of *al-Dahiriya* and many more.

In effect, this systematic destructive work covered the whole area of *al-Sawad*, which was previously fertile and abundant in crops and was covered with cultivations and lush fruits trees and date palm orchards, and where the villages were very rich and raised large herds of cattle, sheep and other animals. The devastating works covered large cultivable areas and caused the disappearance completely of many populated districts such as *Jokha*, the most flourishing and large district of Baghdad countryside, and the *Daskara* of *al-Dahiriya* close to Baghdad. Such destruction extended to numerous canals and waterwheels that were in use in many of these districts. An example of these is the two waterwheels in the villages of *Beshine* and *Zurfafiya*, which were a large village in the *Quwsan* area, in addition to two hundreds and seventy more waterwheels that were serving agriculture in the region west of Baghdad^[50].

Fighting, which had erupted so frequently between the *Seljuk* troops in the struggle between the *Sultans* themselves over power such as that between *Sultan Mahmoud I* and his brother *Barkiyaruq* contributed to the destruction of irrigation canal systems, especially those connected to the *Nahrrawn Grand Canal*. This was because of the troop's use of the banks of these canals, especially the *Katuls* of the *Nahrrawn*, as roadways in the marching and counter marching that accompanied court intrigues in Baghdad. Both the possibilities and incentives for continued settled life in the areas alongside these canals gradually disappeared altogether, in addition to the enormous damage inflicted on the canals themselves. The gross neglect of the irrigation systems and the indifference to maintenance requirement was characteristic of the period of the *Seljuks*; and the damages caused by their own troops were left without repair. The unrepaired breach of the *Nahrrawn* canal near *Nahrrawn* town led to general abandonment of the land around the middle of the tenth century. This serves as one example in a wide range of deterioration that beset not only the administration in Baghdad but the whole rural economy as well^[51].

Finally, the case of the *Tughrul* advance towards Baghdad with his troops of fifty thousand men in 1055 gives us one more example of the destructive and irresponsible behavior of the *Seljuks* in using the *Nahrrawn* canal banks along the *Khurasan* road as their way^{[52], [53]}.

In this chaotic period one more case serves to illustrate the disordered condition which left far reaching results on the future of agriculture; this is the collapse of the *Old Adhaim Dam* in 1150. This key structure was of extreme importance to the *Upper Nahrrawn* system, in the same way as the *Old Diyala Dam* was essential for the *lower Nahrrawn system*, whereby its failure meant the devastation of the whole agriculture of the *al-Sawad* east of the Tigris River down to the *Diyala River*. The role and details of this important structure were fully covered in paper (9) and the reader can refer to that. Examination of the ruins of this majestic masonry dam indicated that it was cracked and left with no repair or decent maintenance for a very long time.

One author even adds one more reason to this by attributing the failure to intentional acts of war during the *Seljuk* period in the fighting between their Sultans [54].

This event resulted in drying up all the distributaries of the *Upper Nahravn* and cutting off the water supply to the lands in the *Tusuj* around Baghdad. The agricultural landscape of these districts changed drastically, and they turned to barren lands. Of the major tributaries, which were hit by this event, were *Nahr Buk* and *Nahr Ben* which carried water from the *Nahravn* to east Baghdad. The intake of the other major canal *Nahr al- Khalis* had to be shifted to a new intake on the *Diyala River* close to the site of the *Old Diyala Dam*^[55] where it remained until the construction of the new *Diyala Weir* in the 1960s.

In similar ways, all of *al- Sawad* irrigation systems between the Tigris and Euphrates Rivers suffered neglect and abuse during the *Seljuk* period in contrast to the keen attention and intense care exercised by the *Sassanids* and early *Abbasids*. The fine and diligent management that was exercised by the strong central governments of those times was absent during the *Seljuk* period. Their management of land by the application of their military *Iqta'* released the central government from its obligations for maintaining the irrigation systems and left these functions to be done by the landlords who were ignorant of any knowledge related to the agrarian operations and oblivious to the necessary maintenance. The communal efforts normally required for flood protection, or reconstruction efforts in the aftermath of destructive floods were missing on the part of both the government and the property owners. Five major floods of the Tigris and Euphrates in 1075, 1108, 1122, 1172, and 1173 left their permanent marks in the whole of *al-Sawad* towns and fertile lands.

Breaching of major canals because of negligence was more than often. The numerous towns and village, which spread all over *al-Sawad*, from Tikrit to Basrah, suffered from the serious decline. Silts were never dredged as before, and the canal breeches were not repaired in time, or if this was done, it was only after long delays resulting in the ruin of the crops, flooding and damaging of the lands. The recurrence of the same breaches was due to the poor and careless manner in which the repairs were done. Examples can be found in the many canal systems taking off from the Euphrates and irrigating the lands from *Falluja* down to lower *al-Sawad* around *Kufah*, which were described in details in the previous papers. The *Old Diyala Dam* had already collapsed in the year 912. This resulted in the return of the *Diyala River* to its original course so it was threatening Baghdad with its floods. Moreover this event had caused cutting off most of the water supply that was irrigating the lands to the south and east of the *Diyala River* around towns like *Bajisri*, *Jarjaraiyeh*, *Der al- Agul*, *Hawlayya* and *Askaf Abi el- Jund*. All these suffered from water shortage, but they were completely ruined after the collapse later on in 1228 of the temporary dam on the *Diyala River* that was called *Masn'at- Suhyla*, which was mentioned previously.

The upper part of the *Nahravn* and its *Katuls* remained in service in the early *Seljuk's* times but suffered of the transgressions describe. The main *Nahravn* artery suffered of major breechings in 1140 and again in 1143, in addition to the other breaches caused by the troop's movements, and little was done to return the canal to its former state.

Muslim scholars contemporary to the *Seljuk* period gave us in their writings many examples of damages that were suffered by the irrigation works and were left without repair, which can be described as clear examples of carelessness and negligence. Some of these examples were observed in the destruction of the *Nahr al- Dujail* canal intake structure in the flood of the Euphrates of 1082 and the ruin of the canal itself that was left without repair. The canal had irrigated the lands from *Falluja* down to the northwestern boundaries of west Baghdad and had served agriculture in this area. Another example is the *Nahr Isa canal* which was so vital to Baghdad and its surroundings. This canal had suffered from the damage of its intake many times by the flooding of the Euphrates, and finally remained in ruins since 1072. It was not important only because of irrigation but it also supplied the city with its drinking water and

served navigation between the Euphrates and the Tigris; and when it dried up, it dealt severe blow to this prosperous area and to Baghdad itself and caused real economic catastrophe. One more flood in 1075 caused cutting off the water supply to *Nahr Nil* canal, which was a main branch of the *Sura* canal that served the middle *Sawad*, and this again caused the complete ruin of the crops and mass migration of the population^[56].

The *Seljuk* period was also characterized by the deterioration of many of the prosperous agricultural districts and towns in the whole of *al- Sawad*. Specific examples can be mentioned such as the *Nahrrawn Tusuj*, the *Khurasan* road districts, *Baquba* and *Jalawla* towns, *Baduraya*, *Sarsar*, *al- Dahiriya*, and many more beyond count, which were left in very poor conditions after they were very rich lands and productive of various crops ranging from grain to dates and fruit. These lands were characteristic of the whole of *al- Sward*, which used to produce main crops such as wheat, barley and cash crops in abundance. Cash crops such as cotton which was grown on a very large scale in the lands of *Baqdari*, which was part of the *Dujail* district, was not grown any more.

In summary, the contributions of the *Seljuks* to the collapse of agriculture in *al- Sawad* were many; among these were their *Iqta's*' policies and the looting practices, and the high taxes levied on the farmers. These policies had led to the abandonment of most of the productive lands of Iraq's *al-Sawad* and turned them to barren lands plagued with salinity, or covered with sand dunes.

In the administration of the State, the *Seljuks* policies were short sighted and led to decentralization and encouraged the separation of many regions. For in their attempts to reduce the management burden of these regions, they devised also another form of *Iqta'*. This was on a much larger scale than the previous *Iqta'* that was limited to the distribution of land to their soldiers and their nobility. In this new form, they went much further by granting their most prominent commanders whole regions to be governed on behalf of the *Sultans* against some fixed yearly payment or tribute. In a way, care of irrigation and agriculture in these regions were left to those governors completely. The new governors were generally *Mamluks* military commanders upon whom the *Seljuks* bestowed the royal title "*Atabeg*". In such case, the *Atabeg* became the military governor of the "*Atabikiyyh*" and the sole responsible person for its administration, tax collection, welfare and all other related matters. Under such a condition the *Atabikiyyhs* became in the end semiautonomous states within the *Seljuk* state, in which ruling became hereditary and new dynasties of previously *Seljuk Mamluks* appeared. Of these "*Atabikiyyhs*" in Iraq were the *Mosul Atabikiyyh*, *Erbil Atabikiyyh* and *Sinjar Atabikiyyh*.

This form of *Iqta'* started to spread after the death of *Sultan Malik Shah* in 1012 and many of the *Atabikiyyhs* were established within the *Seljuk State* outside Iraq also. The *Atabegs* of these semi-autonomous states took advantage of the disputes between the *Sultans* to strengthen themselves and break away from the *Seljuk State* itself, which in the end was torn apart and collapsed^[57].

The *Iqta'* system, although meant in the beginning to reduce the administration burden of the central government, it did not do much to improve the agriculture of *al- Sawad*. It did not help, either, in the repair of the already decaying irrigation systems, but in fact, it contributed heavily to the bankruptcy of the treasury and speeded up the final collapse of the State. This collapse came very fast on the hand of the *Khawrazimans*, who had established their state in *Khuzestan* and western *Persia*.

In a case similar to what the *Khalifah al- Mustakfi* had done before when he had invited the *Buwayhids* to save the *Khilafa* from the tyranny of the *Turks*, the *Khawrazimans* *Sultan Shah Tagish* took the opportunity presented to him by the message of the *Khalifah Al Nasir* (1180-1225), who had asked for his help to relief the *Khalifah* from the *Seljuks*. Therefore, the *Khawrazimans* troops advanced west towards the *Rayy* in *Faris* heading towards Baghdad, and they met the *Seljuks'* army under *Sultan Tughrul III* who was killed in the subsequent battle

in 1194. However, to the bad luck of the *Khalifah Al Nasir*, he only exchanged one occupation by another one.

The new dynasty did not last long as they were vanquished by a new wave of invaders; the *Mongols* whose original homeland was in *Mongolia* in central Asia, who had risen to prominence under *Genghis Khan*. In their push into neighboring territories, they invaded the *Khawrarzimans'* state in the year 1209.

Genghis Khan's grandsons *Munker Khan* and *Hulagu Khan* continued their grandfather advance to the west, and *Hulagu* entered Baghdad on 10 February 1258 against very weak resistance offered by the last *Abbasid Khalifah al- Musta'sim* announcing the end of the *Abbasid Khilafa*^[58].

The *Mongols* invasion put an end to thousand years of civilization and completed the devastation of the rich heritage of science, literature and arts, and destroyed in the same way what was left of the prosperity that was enjoyed by the *Mesopotamians* for thousands of years; a prosperity which was the gift of the two great rivers, Tigris and Euphrates. However, the fact remains that in the two and a half centuries of *Buwayhid* and *Seljuk* supremacy, the major part of this destruction happened; and as far as irrigation and agriculture are concerned this was due to gross negligence and unwise policies. The recurrent major uncontrolled floods, famines caused from food shortage, and the resulting epidemics were only natural results and characteristic for this period. The whole of Iraq's *al-Sward* was mostly ruined and depopulated from around the end of the eleventh century and as correctly stated by Robert Mac Adams for this historical period by saying:

"History of this land is full of frequent mention of towns and villages that could be described as kharabat "ruins" [59].

The *Mongols*, however, were only instrumental in the delivering the final blow, and they finished the series of failures of the late *Khalifahs*, together with *Buwayhids* and *Seljuks*.

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