

Historical Perspectives on Agriculture and Biodiversity: The Role of Royal Orders during the *Konbaung* Era

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Abstract

This paper examines the role of monarchs in agricultural expansion and their attempts to plan for food security and environmental conservation during the *Konbaung* era in Myanmar. It mainly analyses the contents of the Royal Orders issued by the palaces in the 19th century against the backdrop of the impoverished socio-economic life of the people and political instability. While revisiting analyses of the Royal Orders by notable historians, other reliable literature in Burmese was also explored. It suggests that most of the kings in *Konbaung* were concerned about the stability of an economy mainly based on agriculture, which was experiencing a dramatic transition from a subsistence economy to commercial farming. Rural agricultural livelihood was a main source of royal income, forming part of the revenue from both local and foreign trade in the late *Konbaung* era. While most of the monarchs keenly promoted the idea of cash crops, they also intended to build legitimacy by symbolically performing the role as “Farmer King.” Preservation of wildlife was part of religious tradition and served the political purpose of creating a virtuous king, in accordance with the traditional Buddhist belief in the “ten virtues of the King.” The ceremonial role the kings played in the Royal Ploughing Ceremony can be considered a propaganda tool to shape positive public opinion towards the king, despite deep impoverishment in rural regions.

Keywords: Agriculture, Environmental conservation, Land, Royal Order

Introduction

Myanmar is primarily an agricultural country, and rice is the staple food for its people. The natural diversity of Myanmar provides fertile arable soil, ample water resources, a rich natural resource endowment, and extensive forest coverage. The Third Myanmar Empire of *Konbaung* dynasty, which lasted for 133 years, witnessed the reign of eleven kings in total. The political power of the King was stronger in the early years of the dynasty, as well as its economy, especially within the period between 1752 and 1819 (Toe Hla, 2008). However, signs of economic growth came to an end during the late *Konbaung* period as the political power started to wane after the first two decades of the 19th century (1819-1885) (Myo Myint, 2012). The political center of *Kongbaung* kings was located in Upper Myanmar cities, and *Shwebo*, *Inwa*, *Amarapura*, *Kyaukmyaung*, and *Mandalay* were names of the old capitals. In those areas, rainfall was always scanty. As rice was the main item in the daily diet of the Myanmar people,

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inventing the dry zone for rice growing areas was one of the most crucial projects of the Kings. Therefore, the irrigation system was the foundation for cultivating rice, and most of the Kings concentrated on the construction of irrigation canals, lakes, dams, and reservoirs within their realms. However, *Konbaung* Monarchs were not the pioneers in building irrigation infrastructure. Starting from *Anawratha* of the Bagan dynasty and continuing with successive Myanmar kings, there was great effort to maintain well-functioning irrigation systems in Upper Myanmar (Toe Hla, 2004).

Rice was extensively grown in the four granaries of Upper Myanmar—*Shwebo*, *Madaya*, *Kyaukse*, and *Minbu* Townships. Lower Myanmar also produced a large amount of rice due to sufficient rainfall and fertile soil suitable for paddy cultivation. That is why central Myanmar was not free from economic pain in those days. Before the *Konbaung* era, war with neighboring countries was a constant pattern and the *Inwa* Kings’ neglected to concentrate on improving dams and reservoirs despite damage. Consequently, most of the farmlands were flooded in A.D. 1741 in the *Inwa* capital. Due to this disaster, people faced drought and famine in the following year, A.D. 1742. During the famine, riot and looting occurred in many parts of the country, which made people panic more amidst this unsettling time.

During this time of revolt, the Kings first had to suppress the rebels and then sought to cure the root of the problem, which was hunger and food insecurity. During the war years in the middle of the 18th century, there were not enough crops produced in the granary areas of *Inwa* due to insufficient labor and water shortage. In many cases, the palace could not provide rice ration to the soldiers who fought at the frontline in the war against enemies from *Pegu* in A.D. 1751. Because of these unstable conditions, the *Inwa* city-state finally fell to the hands of *Hantharwaddy* in March 1752 (Toe Hla, 2008). Therefore, *Konbaung* Kings had to make extra effort in cities of Upper Myanmar to repair the past damage that resulted in areas that did not enjoy abundant rainfall for cultivation. Realizing the needs of water in dry geographical terrain, some monarchs built infrastructure for agriculture, such as reservoirs, canals, and dams. One outstanding achievement of this era was the establishment of protected zones for animals to support biodiversity conservation.

Under the absolute monarchy system, *Konbaung* Kings could force the people, including peasants, to serve in the royal army in times of emergency. This was especially the case in times of territorial war in the whole country and military campaigns. During this time, the peasants faced serious economic hardship and most of them were in debt. According to several Royal Orders released by the palaces, some of the Kings were seriously concerned about the debt problem of the people and tried to make laws to abolish national debts. These political acts were highly appreciated by historians, praising the Kings’ effort as if they only acted out of mercy for the people. On the other side, agriculture was also the foundation of the King’s income too. To develop agriculture and domestic and external trade, the rulers issued Royal Orders to update agricultural systems (Toe Hla, 2008).

Under absolute monarchy, it was predominant practice that every speech of the King became orders for his citizens. The liaison officer who relayed orders of the kings to the person concerned recorded the King's orders. It is noted that the date and name of the liaison officer were mentioned in each Royal Order. These Royal Orders are not daily digest but are regarded

as oral history (Than Tun, 2011). Royal Orders were instructions made by the Kings on what they wanted to be done or the methods of how it should be done (Than Tun, 1983). Some of them were orders that would affect the whole kingdom, such as a declaration of war, while some were related to an individual concerned, such as a slave who was granted freedom from slavery. Sometimes, a piece of the royal order dealt with one episode while other times it dealt with several things on a single sheet.

The emphasis of a particular order largely depended on the individual taste or style of the King; however, these orders also reflected the social and cultural situations of the people. As the King wielded absolute power, his statements were prescribed as law despite the fact that the King seldom went against tradition or religious norms (Than Tun, 1983). Based on numerous historical documents including the Royal Orders, the state of agricultural livelihood and the King's concern for farmers' lives and sustainability are examined through the following research questions.

- Did the *Konbaung* kings prioritize the advancement of agriculture and sustainability?
- How do the Royal Orders illustrate the *Konbaung* Kings' political consolidation through the enhancement of farmers' livelihoods?

Methodology

As a historian, I conducted this research by using a historical research approach. The work of a historian is mainly to focus on studying the individuals and societies regarding their behaviours, motives, fears, hopes, aspirations, experiences, etc. (The People's University, n.d.). Goldhor described the nature of historical research as an approach that focused on “analyzing and interpreting the meanings of historical events” and is “a process by which a researcher is able to reach a conclusion as to probable truth of an event in the past by studying objects available for observation in the present” (Goldhor, 1972). As guided by the historical research approach, numerous Royal Orders about the administration, appointment, religion, economy, culture, foreign relations, etc. were largely examined in this study. However, this research analysis especially highlights the Royal Orders particularly concerning agriculture and environmental conservation. This analysis also examined other archival documents and records of events that were used by other historian works to reconstruct the past events based on my findings in the agricultural sector and environmental efforts of the Kings.

Overview of Previous Literature on the Importance of the Royal Orders

There are numerous historical documents in both Myanmar and English concerning the *Konbaung* period. Among them, *The Royal Orders of Burma (A.D. 1598-1885)*, edited, compiled, translated, and annotated by Dr. Than Tun, consists of ten volumes with Vol. III to Vol. X focusing on the *Konbaung* period. These volumes are reliable sources for investigating the Royal Orders issued by the *Konbaung* monarchs. These ten volumes of Royal Orders are useful for any historian who wants to focus on the *Konbaung* period. There is a gap of literature due to some research areas not being fully explored or addressed, especially food insecurity of the people and the Kings' reactions to the needs in the agricultural sector in those days.

Identifying these gaps by reading previous research (Aung Zaw Myint, 2019; Mi Mi Hlaing, 2019; Wai Wai Hein, 2018) helped me determine where further study was needed and guided the direction of my research. Many of them aimed at helping next generation researchers to further explore research areas, especially around four topics including political, social, economic, and cultural aspects of Myanmar. In examining the socio-economic life of the *Konbaung* era, Toe Hla provided valuable historical insights into the agricultural conditions prior to the *Konbaung* dynasty, as well as the political, administrative, economic, and social aspects throughout the entire *Konbaung* period (Toe Hla, 2008, 2011, 2014). Toe Hla used *thakarit* (land mortgage), *Parabaik* (writing tablet made of paper, cloth, or metal in the form of accordion folds), *pyou* (poem of epic proportions), *lanka* (verse), and other literature to study the socio-economic life of the *Konbaung* era in his compiled books. Under the influence of his works, I compared and contrasted the socio-economic conditions of rural people under different kings.

By looking at the specific dates of events shown in different Royal Orders, it also helped me compare the local historical chronology with international trends and transformations of society in those days. While noting how local events took place, I could also analyze the influence and divergences between the local and international events, especially in the changes of agricultural society in the late *Konbaung* era. Myo Myint (2012) provides valuable insight regarding the royal efforts of agricultural development during the reign of King *Mindon*. In similar chronological analysis, Khin Maung Nyunt (2003) and the Myanmar Agenda 21 (1997) detail the historical outline of the Myanmar environmental conservation and Kings' ideas.

The ceremonial and political role of the Kings in agriculture is highlighted in Maung Maung Tin's study (Maung Maung Tin, 2020; Shwe Yoe, 1896), Myanmar Encyclopaedia Vol. XII (1972) and the article by Khin Maung Nyunt (1997). These documents proved how the King played a role as head of the State by performing religious rituals to emphasize his leadership in securing people's welfare. Some scholars emphasized the cultural and religious aspects of the Royal Ploughing ceremonies, but I tend to review their roles as leaders who happened to consolidate political legitimacy by stressing the virtue of the Kings, as defined by religious and traditional norms.

In short, a chronological review of the *Konbaung* dynasty's history provides insight into the role of religious propaganda, the Kings' steps to take reforms in the late *Konbaung* era, and their subsequent changes in administrative and economic policy. The push factors coming from the industrialization of agriculture and drastic social changes from the British occupied Burma are also noteworthy. These valuable documents support my main argument which is “Why does the King seriously need to care to fulfil the Royal duties to promote the wellbeing of the people by improving agricultural sector and environmental sustainability?”

1. The State of Agriculture in Konbaung Era

During the *Konbaung* era, arable land was abundant, and the population was sparse. Moreover, the livelihood of farmers was assisted by two major changes. One was the right to create new farmlands as land ownership, and the other was the royal support irrigation system (Toe Hla, 2004). Although all eleven *Konbaung* rulers had to deal with food security issues for the

country, *Badon Min* was the one who gave the most attention to agriculture in the early *Konbaung* era and *Mindon Min* was notable for improving agricultural conditions in the late *Konbaung* period.

Throughout the *Konbaung* period, a large number of farmers had debt problems and took out loans against the agricultural land (*Thakarit*), which was a very common practice to finance agricultural operations and surviving day-to-day struggles. According to historical records, the general socio-economic conditions suggest that cultivators suffered from poor conditions. Presumably, three main factors shaped the poor socio-economic situations of the people: firstly, concentration on the subsistence economy access to modern cultivation methods was lacking; secondly, an authoritarian feudal political system; and lastly, frequent wars with neighboring states, which demonstrated that the biggest expenditure was for military purposes and not agricultural development.

Regardless of the rise and fall of the Nation's economy, land was the primary form of wealth for the King and it remained as State property in an aristocratic economy. During the *Konbaung* era, land was classified as *Aya Daw Mye* (Royal Land), *Wuttakan Mye* (Religious Land), and *Bo Bwa Baing Mye* or *Dama U Gya Mye* (Private Land) (Toe Hla, 2014). *Aya Daw Mye* (Crown ownership of land) was subdivided into four categories namely 1), *Nan Sin Ayar tau Mye* နန်းစဉ်အရာတော်မြေ - (The King was the lead farmer in those lands and the annual planting season was initiated by the King himself, 2), *Sone the Amwe Pyat Ayar tau Mye* စုံသေအမွေပြတ် အရာတော်မြေ- (Land owned by the dead who did not have an inheritor); 3), *Thein su Ayar tau Mye*- သိမ်းစု အရာတော်မြေ- (Land seized by the King from criminals); 4), and *Yun Paung Par Mye*- ယွန်းပေါင်းပါမြေ- (Documented land owned by the Chief Queen). Among the common ownership of land, *Wuttakan Mye* (ဝတ္တကမြေ- Religious Land) was also important for the community as they were protected by religious leaders in times of crisis under the name of protecting religion. This land was used to generate income and maintain temples, religious schools, doctrines and the monastery. For the commoner, there was a type of land known as *Dama U Gya Mye* (Private Land), which allowed anyone to own a portion of wasteland that could be used for cultivation. The right to use land in this category was hereditary known as *Bo Bwa Baing* (transferrable as inheritance) to the offspring from the parents. There were three kinds of land; *Lokemyay* (Land to cultivate), *Naymyay* (Land to build their homes), and *Sarmyay* (Land for other purposes for people's livelihood) in *Bo Bwa Baing Mye* (Toe Hla, 2014).

The traditional cultivation practices of Myanmar consisted of wet cultivation (*Le*), dry cultivation (*Ya*), vegetable cultivation on the alluvial lands along the riverbanks where monsoon floods annually took place (*Kaing-Kyun*), and gardening (*U-Yin*). Rice growing fields was called *Le* and according to the documents of the *Konbaung* era, *Le* was more valuable than *Ya* because rice was the most crucial crop for Myanmar society. The crops grown in *Ya* were sesame, millet, cotton, etc. Beans, chili, onions, peas, tomatoes, etc. were grown on land referred to as *Kaing-Kyun*, which was the inundated area along the *Chindwin* and *Ayeyawady* Rivers. Gardening was confined to irrigated areas and inundated tracts. Betel leaf, area nut, plantains, toddy palm, durian, Jackfruit, mangoes, and coconut were grown in the gardens.

Toddy palm cultivation was important in central Myanmar, especially in the *Pakhkku*, *Myinchan*, *Mihttalar*, and *Monywar* districts (Toe Hla, 2004).

During the *Konbaung* period, they were particularly dependent on cultivation in four districts of Upper Myanmar. These four districts were six districts (*Chauk Kha Yaing*) in *Minbu* including *Saku*, *Salin*, *Phaunglin*, and *Lekaing*, nine districts (*Koe Kha Yaing*) in *Kyauk Se* consisting of *Pinle*, *Myitthar*, *Makkhyar*, in *Mattara* region belonging to *Taung Pyone*, *Letwe*, *Letyar*, *Lamine* and *Shwebo* region. A large amount of rice was produced in these regions, which was also renowned for the granaries of Upper Myanmar at that time. Successive Myanmar monarchs established villages in those areas with prisoners of war and organized them as *Asu* (troops by corps or regiment) and *Amuhtan* (servant) (Toe Hla 2004).

The size of land owned by the King varied from one King to another but some had a more obvious inclination to use land for religious purposes. From the private ownership of land, the King could still benefit. The King was the owner of all the land in his territories, and the tax collected from the farmers amounted to one-tenth of their yearly agricultural production (Ministry of Religious, 2007).

King *Alaung Mintaya*, the founder of the *Konbaung* dynasty who unified most territories of the present Myanmar, tried to improve socio-economic conditions within his realm. While establishing the Third Myanmar Empire with military and political might, he made the socio-economic improvement steady in the early *Konbaung* era and his second son, *Myaydu Min* (1763-76), reaped the fruit of this investment in expansion of agricultural areas. Consequently, *Singu Min* (1776-1782). *Badon Min* (1782-1819) also inherited these favorable conditions and further implemented plans for developing agriculture and international trade (Toe Hla, 2008). Significant improvement in early *Konbaung* era under the above-mentioned monarch included clearing the wasteland, building new water tanks, and repairing the old ones. However, in the late *Konbaung* period, King *Mindon* was the only one outstanding ruler who attempted to improve the economy for the country. Especially under the reign of the powerful and far-sighted King *Mindon*, economic conditions reached sufficiency for local consumption and agriculture was prospering. Moreover, he ordered a reforestation plan and saved the animals by granting land for forest sanctuaries. In those days, he was considered a pious King because saving animals' lives comes from a basic precept to be abided by any disciple of Buddhist teaching. Kings who maintained such religious traditions were highly praised. The agriculture development planning was effective for all subjects and religious traditions. Unfortunately, in the late *Konbaung* era, the agricultural conditions of British Burma greatly changed in Lower Myanmar, which led to the biggest mass migration *Konbaung* Kings experienced since the beginning of the 19th century. *Mindon Min* attempted to improve raw material production and foreign trade, and changed from sufficient agriculture to market-oriented agriculture. However, this attempt to strengthen commercial agriculture did not last long when the whole country fell under British rule after he passed away.

2. The Kings' Effort for Improving Agricultural Infrastructure

The following excerpt from the Royal Orders of different years released by King *Badon* demonstrates the role of the King as both authoritarian owner of land and policy maker.

Cultivate all available land and grow any suitable crop in order to increase food production (The Royal Orders of Burma, ROB, 21 September 1787).

On irrigation, observe the following five points: 1. Royal Lands have top priority to receive water distributed from reservoirs; 2. Canal used for water distribution should be in good repair at all times; 3. Water is to be shared among various fields strictly in accordance with the quota mentioned in old records; and 4. Works at weirs in Kyaukse area are always given first preference; officers at Kyaukse have the authority to commandeer any man for any emergency (ROB, 15 September 1787); and 5. Enlarge the width of canals so that they carry more water for distribution (ROB, 24 September 1787).”

They could also demand the use of forced collective labor of ordinary citizens and that of prisoners of war to clear wasteland and construct or repair reservoirs, lakes, and irrigation canals. At the same time, they could conscript ordinary citizens to war. The King’s order was largely implemented by the head of village tract who was aware of the size of the cultivated area and the number of population in each collection of villages (Toe Hla, 2014). Among the early *Konbaung* monarchs, the policy of *Badon Min* (1783-1819) included recruiting more soldiers by force without disturbing the growing food production and building or repairing of weirs and canals. Noticing the scarcity of cultivators in four of five districts in times of emergency during the war with the Ayutthaya Kingdom, the royal order dated 8 August 1787, demonstrated how the King prioritized food security:

Either Manipuri or Burmese Royal Land Cultivators shall never be conscripted into the fighting forces; they shall work only in the economic interest of the King (Than Tun, 1986).

The king passed an order addressing the need to repair weirs and canals in nine districts (*Kyauke* Area) as well on 15 September 1787:

As the damage to the weirs and canals at *Koe Kha Yaing* (*Kyaukse*) in the south, the local economy could be affected. Therefore, queens, princes, and princesses had to appoint *Kyaukse* officers (*Kyaukse-Wun*) and clerks (*Kyaukse-Sayay*) to check maintenance works in this area. Any servants and local cultivators shall participate in repairing weirs and canals under their supervision (Than Tun, 1986).

It can be proven that King *Badon* mainly concentrated on repairing dams and irrigated cultivation in the important cultivation areas. Moreover, *Badon Min* gave special consideration to the social development of cultivators. The royal order dated 21 September 1787 reads:

Urge the people to grow crops such as corn, beans, and millet on all available lands by repairing the weirs, canals, and water tanks (Than Tun, 1986).

In this order, it stated that all possible kinds of crops had to be cultivated in all arable land to produce consumer food for the people. The royal order dated 22 July 1806 reads:

Kyaukse Wun (*Kyaukse* officer) reminded native cultivators to maintain the ruined weirs and canals at *Min-ye*, *Kun-se*, *Tamoke*, *Myaung-Zone*, and *Zee-taw* in *Makkhaya* Township. If all cultivators including royal servants shirked repairing works in these areas,

they would not grow in all cultivated lands. Cultivators who participate in the repairing duties shall work cultivation as usual. Supervised *Daing Wun* (Officer of Land Tracts) on maintaining weirs and canals (Than Tun, 1986).

Traditionally, local people were required to participate in the maintenance of water tanks for the Crown, as well. If they refused to work for maintaining canals and weirs, the king punished local farmers by evicting them with force. The royal order dated 10 December 1806 reads;

Kyauk-se Wun (*Kyauk-se* officer) and *Kyauk-se* clerk reported that *Myaung-son* in *Kyauk-se* nine district became shallow and needed to be repaired, so villagers of *Dabet-Hswe*, *Tet Myaw*, and *Ma-Taung-ta* were called upon to contribute in digging canal. But they refused to do so because this area is situated in the royal compound. According to this report, the king ordered that do not be allowed to live in this area and shall settle available (Than Tun, 1986).

According to this order, the villagers had to repair the canal, which was needed for irrigated cultivation.

Badon Min repaired *Nandarkan* (or) *Maungmakan* on 13 March 1789 and *Mitthilarkan* on 10 April 1798, in addition to building *Kantyan*, *Tamuatsoekan*, and *Myaungmataw*. He collected revenue inquests to preserve previous irrigation canals and dams such as the *Kintar Dam*, *Nga Naing Thay Dam*, *Nwartat Dam*, *Pyaungpyar Dam*, and *Thintwe Dam* in the nine districts. He also drained the water from the *Samone River*, *Zawgyi River* and *Panlong River* to these canals. Officers and clerks were appointed to preserve these dams, and they urged the villagers to conduct good drainage from the canals. According to the royal order of King *Badon*, villages that avoided working on repairs for drainage were banned from farming (Toe Hla, 2008).

During the late *Konbaung* era, King *Mindon* made a concerted effort to increase rice production. His endeavors extended to improving irrigation. The water from restored irrigation works enabled farmers to bring many acres of agricultural land back under cultivation. In addition to maintaining and building weirs and tanks, embankments and dikes along the *Ayeyarwady River* were constructed to protect the paddy fields from flooding (Myo Myint, 2012).

However, the authoritarian rule of the Kings that ordered constant care for Royal farmland and food security of the soldiers did not minimize the wellbeing of the poor. During King *Mindon's* reign, he passed a royal order that validated the right of land use for the poor people. The Royal order dated 24 March 1853 reads:

Do not allow the queen, prince, or royal officer and group services to confiscate *Bo Ba Baing Myay*, *Dama Ucha Myay*, *Ngwe Paung Myay*, *U yin Myay*, and *Kaing Kyun Myay* of the poor people who live in any town or village within the whole country. The owner of *Bo Ba Baing Myay*, *Dama Ucha Mya*, and *Ngwe Paung Myay* could cultivate with the king's permission after reporting to the *Hluttaw* (Than Tun, 1989).

The King protected the poor people by promulgating such law and enforcing orders. The King's serious consideration for the poor can be seen in another Royal Order dated 28 June 1854:

Although land disputes applied by the poor people were accepted, the court did not settle them during the rainy season and suspended them after harvesting paddy. This order was sent to the East Court, West Court, Law Court, township judges, group chiefs, and blood bond brother leaders of the country (Than Tun, 1989).

In a similar manner, the Royal Order dated 24 August 1854, also demonstrated holistic planning for poverty alleviation under his reign.

The early monarchs of Myanmar embarked on the *Tamoksoe* Lake at the east of the royal city in *Amayara* to supply water for the rice land of the people. As the *Tamoksoe* Lake became a ruin, *Mingyi Mahar Min Hla Min Khaung*, lord of *Myaydu Myo* took charge of repairing it at the auspicious time. In this situation, the expense of the repairing work did not affect the poor people and all the costs must be submitted to the estate for expensing (Than Tun, 1989).

As the rainy season was the time for growing crops, King *Mindon* ordered the Courts to suspend any settlement of land disputes in cases where poor people's lives were at stake. In order to prevent an ongoing case from disturbing the planting season among the poor, he commanded that the respective court postpone jurisdiction until the poor could reap the harvest of the year. The Royal order dated 6 June 1855 reads:

The rainy season was favorable for cultivating crops, for all the servants and poor people in the various parts of the country. If the court settled land disputes at this time, the cultivation would be affected. Although the East Court, West Court, Law Court, and Officers' Court accepted the appeal of land disputes, the decisions shall wait until the harvest is over (Than Tun, 1989).

In 1856, *Mindon Min* repaired the bunds of the *Aungbinle* and *Nanda* tanks, and issued money to cultivators to enable them to purchase cattle and seed. In 1862, he repaired the *Shwelong* weir, dug the *Nada Canal* to the east of *Mandalay* city, and planted gardens along its banks. King *Mindon* also had the *Tamokso* tank repaired. In 1867, he repaired the tributaries of the *Aungbinle* and *Nanda* tanks, constructed the *Atigauye* tank, and issued money to the peasants for the purchase of cattle and seed (Searle, 1928).

Upper Myanmar had long depended on Lower Myanmar for its rice supply. People in Upper Myanmar relied mainly on the irrigated areas of *Shwebo*, *Kyaukse*, and *Minbu* for rice production. King *Mindon* made a concentrated effort to increase rice production. His efforts extended to improving irrigation. Irrigation works and water tanks in Upper Myanmar had been neglected in the previous reigns due to administrative chaos, and they needed extensive repairs. The water from restored irrigation works enabled farmers to bring many acres of agricultural land back under cultivation. The inscriptions commemorating the repair of these tanks are still extant, and they contain valuable information on such matters as works of merit by King *Mindon*, the officials who supervised the works, measurements of the tanks, and the acres of land benefited by the repair of each tank. In addition, repairing and building weirs and tanks, embankments, and dikes along the *Ayeyarwaddy* were constructed to protect the paddy fields from flooding. By his order of 1870, King *Mindon* strictly controlled the buying and selling of cattle in his territories. King *Mindon* reduced the kingdom's dependence on Lower Myanmar

for rice. Wheat and chickpeas were ideal crops suitable to the climate and soil of Upper Myanmar, and King *Mindon* did not fail to exploit the production of these crops for commercial purposes. Cotton was another commercial cash crop that provided export earnings to King *Mindon*'s treasury. King *Mindon* made cotton an article of royal monopoly from his accession. He also encouraged cultivators to grow two more commercial crops, indigo and cutch. His reign saw extensive exploitation and trade in teak with the outside world (Myo Myint, 2012).

By studying the transformation of the agricultural sector under the *Konbaung* period, it can also be stressed that political centers of the *Konbaung* dynasty pushed very hard to obtain enough water for cultivation. Several kings planned to build reservoirs, dams, drainages, and canals from the pivotal rivers of Myanmar to get ample water to the agriculturalists and ease their worries. There are two renowned monarchs, namely *Badon Min* and *Mindon Min*, who issued many Royal Orders to encourage pro-poor agriculture. Not only did they lead as policy makers in the agricultural sector, they also retained their status as “Farmer King” to ensure the rural people would continue to support them.

Good rain is a necessity for paddy fields, and without rain a good harvest is not possible and surplus would be gone. The King did not ignore the importance of religious rituals but emphasized prayers for rain and organized rites for inviting rain every year. In the days of yore, Myanmar folks performed different kinds of rites to invite rain. For the King, the Ploughing ceremony was one of his rain-invoking rites. In order to prove himself as a virtuous king, his participation in the ploughing ceremony was believed to avert drought, bring reasonable showers, and provide good yield (Khin Maung Nyunt, July 1997).

3. Celebrating Economic and Political Significance of Agriculture by the Kings

According to the tradition of the ancient noble kings who descended from the *Ādicca Vamsa*, the king himself had to perform royal Ploughing ceremonies (*Le Htun Mingala*) surrounded by the royal audience, and royal occasions were conducted on royal land to develop prosperity for the people of his realm. It was believed that a good rain would come and plentiful crops would yield if the king himself participated in Ploughing (Myanmar Encyclopaedia Vol. 12, 1972).

The royal Ploughing ceremony has historical roots as it was celebrated by King *Suddhodana*, father of Prince *Siddhattha*, since Buddha's lifetime. Successive Myanmar Kings usually held royal Ploughing ceremonies at the first waning moon of *Nayun* (the beginning of June). However, not every king performed it and the kings who participated did not hold it every year. Some wise men asserted that celebrating the royal Ploughing ceremony auspiciously predicted good rain and plentiful paddies for the kingdom (Myanmar Encyclopaedia Vol. 12, 1972).

The Ploughing ceremony performed by royalty had economic and political significance for the people of an agricultural country like Myanmar. The Ploughing ceremony was one of the traditional rites to invite rain, which the king himself had to perform should he desire to prove himself a noble king. It was believed that a drought would be averted, reasonable showers would come, and good crops would yield if the Head of State himself participated in Ploughing. Moreover, royal Ploughing created an image of a "Peasant King" (*Taung-thu-gyi-min*) in the

minds of the Myanmar people, who would thus regard the king as one of them, and peasants would be inspired to labor manifold in their works (Khin Maung Nyunt, July 1997).

The Royal family adopted many *Brahmanical* ceremonies that included coronation and other ceremonies like naming the child, hair shampooing, marriage, and the Royal Ploughing Ceremony (*Lay Thwan Mangala*), etc. (Than Tun, 1990). To appease the guardian spirits for a good harvest the king himself had to do the Royal Ploughing Ceremony (*Lay Thwan Mangala*) each year (ROB, 23 Apr 1810).

The Royal Ploughing ceremonies were celebrated by the four kings of the *Konbaung* dynasty (A.D. 1752-1885). Myanmar Chronicles fully recorded these ceremonies. The first king was *Badon Min* (A.D. 1782-1819). The Royal Ploughing Ceremony recorded as follows:

King *Badon* built a grand royal pavilion near *Aungponle* Lake, to perform a royal Ploughing ceremony on 23 May 1785, (Friday, the first waning moon of *Nayon*). In this ceremony, golden gilt plough and silver gilt plough, golden gilt yoke, and silver gilt yoke, golden and silver gilt trapping and reins, and golden and silver whips were placed in the royal farmland. The king performed royal Ploughing by surrounding the crown prince, ministers, noblemen, wealthy persons, and Brahmins (Maung Maung Tin, 2020).

The second king was King *Bagyidaw* (A.D. 1819-1937). The Royal Ploughing ceremony performed by King *Bagyidaw* was recorded as follows:

King *Bagyidaw* constructed a great royal pavilion near *Aungpinle* Lake on 26 May 1820 to hold a royal Ploughing ceremony. The king came out together with the chief Queen by surrounding sons, brothers, royal relatives, noblemen, ministers, royal army officers, and men of wealth, and followed and guarded combat arms (consisting of the elephant corps, the cavalry, the chariots, and the infantry). He performed a royal Ploughing ceremony traditionally in the royal farmland (Maung Maung Tin, 2020).

The third king was King *Thayawaddy* (alias King *Shwebo* or King *Konbaung* (A.D. 1837-1846).

The fourth King was King *Mindon* (A.D. 1853-1878). King *Mindon* performed the Royal Ploughing Ceremony three times: on 16 June 1853, 25 June 1866, and 24 June 1868 during the twenty-five years of his reign (Than Tun, 1990) and was recorded as follows

King *Mindon* came out with royal regalia such as a white umbrella, and long-stemmed fan, and deployed three royal troops in front and three royal troops in back as an entourage on royal Ploughing ceremony dated 16 June 1853. According to the listed persons performed in this ceremony from the crown prince to the royal ministers had to plough in the royal farmland (Maung Maung Tin, 2020).

Two eyewitnesses recorded the royal Ploughing ceremony of King *Mindon*. One was a famous Myanmar artist at the Court named *Saya Chone* whose painting of the Ploughing ceremony is reproduced in this article. The other eyewitness was a British writer-diplomat named Sir George Scott, alias *Shway Yoe*, who wrote details about the ‘Gracious Ploughing’ in his book, *The Burman, his life, and notions* (Khin Maung Nyunt, July 1997).

The king himself celebrated the Royal Ploughing Ceremony, which was one of the motivations for *Konbaung* rulers to develop an agriculture plan. The celebration of the royal Ploughing ceremony meant the king himself keenly endeavored in agriculture. The Royal Ploughing Ceremony was held in the *Konbaung* era until 1885. After the British annexation of the whole of Myanmar, the royal Ploughing ceremony was not held except in Cambodia, Thailand, and Laos where it is still traditionally held today.

4. Merit-Making Reflects on the Biodiversity and Environmental Conservation

Asian kings often considered their origins mystical due to cultural beliefs, religious traditions, and the desire to legitimize their authority by linking themselves to divine or supernatural forces.

According to the Myanmar monarchical concepts, the *Konbaung* kings claimed their descent from *Mahāsammata* through *Ukkākarāja* and the *Sakya*. Therefore, it is not surprising that many of the rituals, ceremonies, and concepts at the Burmese Court of the *Konbaung* era were based on Indian ones (Yi Yi, 1982). Among these ceremonies, the Royal Ploughing ceremony was introduced to some Southeast countries from ancient India. In Myanmar, the royal Ploughing ceremony was rooted in Buddhist beliefs, but there were also royal performances to buy people’s support and validate his leadership by ordering plentiful harvest for the country. Another area the King showed interest in was environmental conservation.

Preserving the forest has a long history in Myanmar as it is also endowed with impressive flora and fauna. Environmental protection was part of royal duties, which Myanmar kings had faithfully carried out. The ten moral precepts prescribed by Buddha for the attainment of noble qualities were binding upon Myanmar kings. Loving kindness to all beings and providing safety, security, and peace for all living beings in the kingdom was one such precept. At the accession of a new king or the founding of a new capital, works of religious and social merit were carried out. Old religious monuments were repaired and renovated and new ones were built. Old irrigation works were maintained, and new ones were constructed. By royal order, parks and sanctuaries were also created (Khin Maung Nyunt, 2003).

The Royal Orders of the *Konbaung* Dynasty discloses how bird and beast sanctuaries were founded during the reigns of King *Badon*, *Tharawaddy Min*, and *Mindon Min*. Among the *Konbaung* monarchs, *Badon Min* and *Mindon Min* piously supported religion. There were many recorded religious documents during this period.

Badon Min passed five Royal Orders dated 2 March 1788, 13 March 1788, 10 August 1797, 5 July 1801, and 14 August 1807 to create bird and beast sanctuaries during his reign. It can be remarked that these orders were based on religious beliefs. For example, the Royal Order dated 2 March 1788 reads:

The abbot of the Kun Bo *Araññwāsī* appealed to the king that all the creatures that lived in the Kun Bo area be killed, and to demarcate again the four directions of the Kun Bo area as the sanctuary bird and beast. Therefore, *Badon Min* ordered that no hunters and fishers enter and do anything in the Kun Bo area (Than Tun, 1986).

The Royal Order reveals how King *Badon* deeply concentrated on religious matters and protected the lives of creatures. In the other four Royal Orders, *Badon Min* laid out plans to put up stone pillars to mark bird and beast sanctuaries within religious lands.

King *Thayawaddy* issued sanctuary areas in his order dated 9 August 1838;

The King had attained as a noble ruler because of the good deeds done in the past had practiced *rājadhama* (Ten duties of the King), and wanted to accumulate more meritorious by supporting religion, to become nearer a future Buddha. *Taung Tha Man Inn* situated in the south of the Golden City was the sanctuary area marked by the King *Badon*. King *Tharawaddy* ordered to mark sanctuaries by saving or sparing life following places:

Taung Tha Man Inn

Saddan Kan Ma Hnone Inn

Yan O Inn

Nyaung Ni Bin Inn

Saw Ya Kna Inn Tha Ya

Bone O Htone Inn, and

All the places where water level based on reverse rises and subside.

Put up stone pillars to demarcate in eight directions of sanctuary areas, and submit a map of these sanctuaries (Than Tun, 1988).

Mindon Min issued Royal Orders declaring "a vast area of land as a sanctuary for all creatures and beings, which haunt and dwell on land and in the water." There are nine Royal Orders to save and secure wildlife. Among these orders, the Royal Order dated 5 April 1855, is remarkable in demonstrating the need for people to obey the Royal Orders regarding the sanctuary areas.

East Court arrested and inspected the over sixty boatmen of *Lawka Beik Hman* and *Pyay Sone* because of fishing in *Taung Tha Man* which is marked as a sanctuary area of the successive kings. In this situation, these boatmen admitted their guilt. In this case, *Nga Shwe Ya*, Helmsman of *Lawka Beik Hman*, and *Nga Shwe Min*, Helmsman of *Pyay Sone* were executed after beating a gong for their weak control of their follower boatmen. These boatmen were punished by giving lashes for fishing in the sanctuary area (Than Tun, 1989).

It can be remarked that kings more severely punished the responsible person than the guilty person in times of disobedience to Royal Orders. The far-sighted kings of the *Konbaung* dynasty ruled with the ten precepts incumbent on a king and kinds upon their citizens. By studying the Royal Orders concerning bird and beast sanctuaries, it is evident that *Konbaung* monarchs generally believed in religion. By declaring sanctuary areas, they wanted to offer good merits by saving and sparing all the creatures. However, if the people did not obey the orders, the king would punish them severely. It can be suggested that protection for biodiversity

led the noble king to keep religious traditions and impacted the consolidation of political legitimacy through this merit-making.

Conclusion

The development of the socio-economic life of the people during the monarchical system depended on the success of the King in carrying out his royal duties to improve the citizens' wellbeing. Monarchs of the early *Konbaung* era were more eagerly involved in politics, which was mostly war making than economic development. However, *Badon Min* and *Mindon Min* were notable supporters of religious influence in society and worked towards the reconstruction of a kingdom based on the Buddhist concept.

Such a religious influence is strongly seen in their policy making of agricultural and environmental conservation plans. Under the reign of several kings of *Konbaung*, food security was prioritized while the needs of the poor were neglected. However, being an authoritarian governing system under the absolute monarchy, people were also forced to contribute both tax and labor to the King. Their efforts of agricultural expansion aiming at promoting the commercial sector might have lifted the social status of some cultivators but not all faced the same fate. In general, the *Konbaung* monarchs' support for irrigation systems, loans, labor, and other necessities were obviously not adequate for the growing population and battling soldiers of his own forces. When the global agricultural transformation happened, local cultivators faced many difficulties due to both man-made and natural disasters. Additionally, cultivators could not avoid paying taxes after every harvest. These conditions often led to increasing numbers of loans against agricultural land and widespread impoverishment among the cultivators.

In Upper Myanmar, the traditional cultivation system gradually transitioned to commercial agriculture under King *Badon's* rule, reaching its peak during the reigns of *Mindon* and *Thibaw*. However, the centralization of commercial cash crops and trade as a royal monopoly meant that cultivators did not benefit due to exploitation by the king's purchasers. Once the *Ayeyarwaddy* Delta under British Burma became the rice bowl of Myanmar, making the country a major rice exporter in Asia after the opening of the Suez Canal, downstream mass migration started to happen under King *Mindon*. Eventually, the King's effort to provide sufficient local consumption was obstructed due to labor shortages in upper Myanmar.

However, this paper suggests that not all *Konbaung* Kings were war mongers. They also tried hard to perform the traditional duties of a king for agricultural improvement and sustainability as outlined by text in many of the Royal Orders. However, their actions seem far from adequate, as none of them were known for improving the status of the country's economy in an outstanding manner.

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