Chŏng Yakchŏn 丁若銓 (1758–1816), A Personal Treatise on Forest Administration (Songjŏng saŭi 松政私議)

Introduction and Translation by John S. Lee (Graduate Student, Harvard University)

In late Chosŏn Korea, deforestation became a serious and ever-growing problem. As forests disappeared and precious fuel and timber supplies grew scarce, people from all walks of life faced greater economic burdens. Moreover, deforestation incurred other problems, such as floods and famine that furthered a growing economic and environmental crisis.\(^1\) Under the backdrop of this predicament, in 1804, Chŏng Yakchŏn (1758–1816), wrote the following essay, titled “Songjong saŭi” (A Personal Treatise on Forest Administration). This remarkable document details the various types of forestry institutions in late Chosŏn Korea, highlights the major causes of deforestation, and proposes solutions to the problem. Though the treatise was not widely distributed, Chŏng’s observations and proposals yield numerous answers to the question of “what happened” in the course of Chosŏn deforestation. Furthermore, Chŏng’s particular response to deforestation reveals the tensions facing many Chosŏn local elites in the changing political, economic, and ecological landscape of the early nineteenth century.

Chŏng Yakchŏn is perhaps better known for his eminent brother, Chŏng Yagyong (1762–1836), a noted Korean philosopher, social critic, and arguably Roman Catholic convert. Chŏng Yakchŏn, though, was an interesting figure himself, and Don Baker notes that Chŏng was most likely the one who introduced his brothers to Catholic teachings.\(^2\) In 1790, Chŏng passed the higher civil service examination (munkwa 文科) and entered government service. A decade later, however, he became entangled in the anti-Catholic Purge of 1801, and was exiled to a remote part of Chŏlla Province to live out the rest of his days. Chŏng’s surviving writings include the Hyŏnsan ŏbo 烏山魚譜 (Ichthyology of

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1 For a general overview of Chosŏn environmental problems, see Conrad Totman, Pre-industrial Korea and Japan in Environmental Perspective (Boston, Leiden: Brill, 2004).
Hyŏnsan Island), a study of marine life around his place of exile, and the following text, which was recently discovered and introduced in the Munhŏn kwa haesŏk 문헌과 해석 by An Taehoe in 2002.3

**** Original Text ****

Our country lacks the timber of the camphor trees,4 and so when palaces, houses, ships, carriages {our country’s custom is not to use carriages; generally, we lump together types of vessels and call them “carriages” (車)},5 and coffins are made, we all rely on the pine. Our country’s borders from north to south are over 4,000 li (里).6 The three western, northern, and eastern sides are all great mountains and steep peaks, while only the southern side is more like plains and marshes. Those too, though, are not even 100 li of fields. For the most part, the entire country is sixty to seventy percent mountain, and moreover, the mountains are largely made up of pine.

However, from the officials and nobles on high to the commoners down low, everyone has difficulties in obtaining lumber. At the top [of society], when building a house of ten pillars or ships of several in number, it is not the case that the government is preparing anything special, but from as far as perhaps 1,000 li and at nearest [distances] still numbering 100 li, [timber] has to be floated on water and dragged onto land to be able to start the work. At the bottom [of society], the timber for one coffin costs close to

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4 Camphor tree (Cinnamomum camphora Sieb.) is an evergreen tree and usually grows in tropical or sub-tropical zone. A few are found at lower elevations on Cheju Island.
5 Brackets and subscript denote Chŏng Yakchŏn’s in-text commentary
6 One li is approximately 450 meters.
perhaps 400 to 500 yang (兩) {our country’s custom takes 100 chŏn (銖) to be a yang}. Yet this is still speaking in the generalities of a town. Arriving in the poor countryside, if a rich household has a funeral, the waiting period for laying in a coffin reaches some ten days, and the most of the common people do grass burials [without coffins].

According to my witnessing and recollection, compared to twenty years ago, wood has jumped three to four times in price. Moreover, once twenty years have passed, surely prices will not stop at three to four times that of the present day’s. Of the five elements, wood is one of them, and furthermore, fire relies on wood. These are two genuine elements. As for wood in relation to humans, how important it is! And yet, how can it so deeply not be considered so?

As for decay and dilapidation of government buildings, one can still pull together the supports and get by. Our country is pressed near Japan, and with Japan we inevitably have naval warfare. During the disturbances of the Dragon Year, we solely relied on our navy, and this previous affair could be [used as] an example [that shows the importance of navy]. If there were a crisis, how would we acquire the timber for 100 ships? True, our country has arisen in peace for several hundred years, and our people live at ease. But they live lacking proper houses, and they die lacking the means to be laid in a coffin. All this is because our king’s government has not been exhaustive [in its efforts]. Are the state planners thinking about this?

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7 As a basis for comparison, three or four yang could feed a late Chosŏn family for a month.
8 The five elements in traditional East Asian cosmology are fire, water, wood, metal, and soil.
9 This refers to the Imjin War (1592–1598), also known as the Hideyoshi Invasions.
Out of ten, six or seven parts are mountain, and the mountains moreover are truly proper [for growing] pine. But as for the pine’s value, how has it come to this? I have quietly thought about this issue, and it has three causes. However, palaces, houses, boats, carriages, and coffin expenditures are not included therein. One [cause] is not sowing and planting [trees]. Another is that from when [trees] are young, they are cut to make fuel. Another is slash-and-burn agriculture and the burning [of trees]. Excluding these three worries, even if the woodcutter’s axe entered daily, timber could be infinitely utilized.

It has been said, “Let the producers be many, and the consumers few, and then [the wealth] will always be sufficient.”¹⁰ Planting is the fundamental of growing trees. Those who plant are but one, and those who consume are ten, and [so] already, [trees] cannot be sufficient. Presently, there is no one who plant trees, but those who use [the trees] lack neediness. [When it comes to] timber, where can one find anyone who is not needy? This is the concern about not planting [trees].

Perhaps there is a stroke of luck and something grows, and it is slightly preserved, protected, and cared for, and it is not killed young by an axe. Then, it could possibly grow into [mature] timber. Now [though], one or two ch’ŏk (尺)¹¹ of the tree have left the ground, and a woodcutter ignorantly sharpens his sickle, as he is only concerned about future persons. When it comes to timber, where can one find anyone who is not needy? This is the concern about young trees being cut to make fuel.

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¹¹ One ch’ŏk is about 21 cm.
Perhaps deep in the mountains or unknown valleys, [a tree] sprouts on its own and
grows on its own, and so still, it is feasible to take and use it. In one pass, slash-and-burn
agriculturalists make a fire burning as strong as wind and thunder, and what took 100
years to grow and nourish is, in one morning, ashes. When it comes to timber, where can
one find anyone who is not needy? This is the concern over slash-and-burn agriculture
and burnings.

If these three concerns are not eliminated, even with Guan Zhong (725–645
B.C.E)\(^{12}\) and Zhuge Liang’s (181 - 234 C.E.)\(^{13}\) wisdom and Shen Buhai (385 - 337
B.C.E)\(^{14}\) and Shang Yang’s (? – 338 B.C.E)\(^{15}\) execution of laws, in the end, they will not
improve pine administration, and our country’s people all [remain] hard-pressed.

As for the three concerns’ origins, there also exist therein the state’s laws, [which]
are not yet completely sound. As for the evil practice of slash-and-burning, the ancients
have words about it. {In Yu Songryong’s (1542–1607) writings, there are these words. The meanings
are roughly as follows, saying, “The mountains and valleys lack trees, and so as for landslides, no one can
block them. The fields are overturned and buried, and so subsistence shrinks by the day.” He says, “The
forests are bare, and so treasures and money are not arising.” He says, “Birds and beasts do not multiply,
and so for the Chinese tribute relations, gifts of animal hide are hard to continue. He says, “Tigers and
leopards go far, and so those who travel in the mountains do not keep a big or small personal weapon. Our
country’s customs are daily yielding to stupidity and weakness.” He says, “Trees for timber are wasting
away, and so the people’s consumption is poorer by the day. Even if we do not attain one commendation,

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\(^{12}\) A Chinese statesman from the Spring and Autumn Period (722 BCE–481 BCE) who
installed various bureaucratic and economic reforms.

\(^{13}\) A Chinese general from the Chinese Three Kingdoms period (220–280 C.E) renowned
for his wisdom and strategic acumen.

\(^{14}\) A Chinese statesman from the Warring States Period (475 BCE–221 BCE) who
reformed his state’s bureaucracy and law code.

\(^{15}\) A Chinese statesman from the Warring States Period who installed various meritocratic
and Legalist reforms in his state of Qin (778–207 B.C.E)
we [must] prohibit plowing anywhere higher than the middle of the hillside. Now this is in the Great Code.” But the prohibition of the hillside was also not done therein. This is truly ‘prohibiting but not prohibiting.’

As for boundaries of the government forests (kongsan 公山), they also can be called expansive. The mountains of yellow pine (hwangjang 黃腸) are located in deep gorges. The fields that fit to pine are located along the coastline. As for several li of mountains by the coastline, they all belonged to the government, [and] these in the end can be infinitely utilized. And moreover, there is, along thirty miles from the coastline, in both government and private forests, a law that systematically prohibits cutting. If there are trees, and one prohibits [cutting], still there exists profit [in cutting]. If there are no trees, and one prohibits [cutting], the people will just not plant [any trees]. What advantage is there in prohibition?

Not only that, the people have a fist-sized mountain, and they nourish several tens of pines. If they cut those trees for the sake of timber for houses, boats, and carriages, then the corrupt and greedy official, under the pretext of the law, has the person imprisoned, beaten, and whipped as if they committed a capital crime, and in extreme cases, they are exiled. Therefore, the people see pines as a bitter poison or malicious sickness, and so they clandestinely remove and secretly gouge out the trees. Only after they annihilate them, they would stop. If there are sprouts, then they are killed like poisonous snakes. As for the people, it is not the case that they want no trees. [People think that] the way to secure safety only lies in having no trees. Therefore, the private mountains (sasan 私山) lack one even stand of trees.
True, as for mountains fit for pine, they are under the administration of Navy Commander’s Office (Sugunyŏng 水軍營). This office lacks the means to [obtain] land taxes and bribes, so [its revenue] from the beginning is meager. And because it is a provincial commander’s office, there are many officers and clerks. However, when it comes to the means for serving their parents and taking care of their wives and children, they lack support other than, of course, the government pine forests and that is all. [Accordingly], if one builds a house at the base of the mountain, the officers say, “These are government forests.” If one [uses the trees] to build a coffin, then they say, “These are government forests.” If important, the perpetrators are prosecuted by an official, but if the perpetrators are unimportant, the officers informally imprison them. [The officers then] extort them, disparage them, bully them, tie them up, confine them in shackles, torture them more cruelly than the pain of a burning fire. The world’s pines all look the same. Even if they are not the government’s pines, how can the people submit themselves to [such] violence?

[So], houses are broken, incomes are washed away, and those begging for food in all four directions are three to four out of every ten people. Thus, even though their crimes are not much in number, they live constantly terrified, as if they are falling into a deep ravine. Once they see a naval officer, like a rabbit meeting a tiger, they run forward on the double, prostrate themselves, and solely follow their orders. Accordingly, there is a “hidden incorruptible” (“hidden incorruptible” is another way of saying “begging”) law. According to one household’s { people of the Reserved Forests (ponsan 封山) are under the jurisdiction of naval officers. Even if they were not under the officers’ jurisdiction, they would not dare say that they were not such a household.} tax levy, the heaviest levy would reach 100 to 1,000 yang. How do the people live?!
Due to this, the people living in the Reserved Forests say to each other, “Solely due to the pines, our lot has come to this. If there were no pines, then it is possible to not have these affairs.” Then, they clandestinely remove and secretly gouge out the trees. In the hundreds, they calculate, plan, and then remove the trees. What is more, when a thousand people combine their strength, their massed axes collectively echo, and what was several *li* of green forest in one night becomes red earth. There are also occasions where they collect money for weighty bribes in order to get rid of future problems [because of removed trees]. Afterward, even the smallest of small government forests lack even one stand of trees.

Alas! As for the government clerks (*sŭngsa* 丞史) { The *sŭngsa* refers to clerks in the local yangban administration (*hyangso* 鄕所)}, they provide various services. As for having a *palsŏk* {a raincoat 발석} on top of clothes, they serve to block the rain. Without *sŭngsa*, the government cannot manage on its own, and without a *palsŏk*, clothes cannot stay dry on their own. Without private forests and small Reserved Forests, the great Reserved Forests cannot exist on their own. This is an inevitably looming principle.

Namely, the Reserved Forests only exist barely in name in a few places in great mountains and large garrisons, such as in Kŏje and Namhae in Yŏngnam,16 Wando and Pyŏnsan in Honam,17 and Anmyŏn-do in Hosŏ.18 These too are already all barren of trees. The people only hate the pines, and if pines are lacking like that, then it is also not possible to grow any. Additionally, the private forests lack pines, and the smallest of small public forests lack pines. Like silkworms nibbling away, the forests are exhausted

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16 Another name for Kyŏngsang Province in southeastern Korea
17 Another name for Chŏlla Province in southwestern Korea
18 Another name for Ch’ungch’ŏng Province in western Korea
until one lacks land to lay a hand on. Yet, the people cannot help but gather their coins on a string and go to the various Reserved Forests. The wardens of the Reserved Forest rely on these [circumstance] to direct their profits. The naval officers prohibit them to no avail.

The people say, “As for the law not being enforced, blame lies with the naval officers.” I then answer, “Even if hawks or tigers served as the naval officers, surely that does not enable prohibition.” Why? As for the pine seeker’s need, it is more urgent than the thirst for water. As for the warden’s attraction to profit, it is more extreme than the water’s current. A popular saying goes, “Although there are ten keepers for one thief, the keepers don’t triumph over the stealer.” Now, those who keep are one, and those who steal are countless. (From the naval officers of the left and right, to supervisors, forest wardens, and the people along the coast, every one of them steals trees.) Even if the Wei River\(^{19}\) becomes completely red, how do we prohibit and cease [stealing]? We do not straighten our fundamentals, and we [try to] take care of the trivial matters. Even a sage would not be able to do that; as for our current naval commanders, all the more for those fellows!

I have another deep concern. As for the eight provinces’ land, which supply the capital’s food, I still worry that they are not sufficient. If [this is the case for] the land of a few districts, which supply eight provinces’ food, then even one who cannot grasp wisdom can realize that this is poverty. The number of households in the land along the southwestern coast is not below 100,000. From lumber for ships, oars, and palace buildings on high to wood for plows and laundry clubs down low, now everyone takes them from those few Reserved Forests. It’s not the case that [timber] gushes out like

\(^{19}\) A river in north-central China that flows from Gansu to the Yellow Sea. It is noted as one of the cradles of Chinese civilization.
geysers. After several years, we will not have any trees left to steal. Then, how would this be different from the case where a few districts feed all eight provinces?

As for the aforementioned concern over the Japanese, this still has not yet come to pass. For 100,000 households, if there were no shelters for living, no cover after death, no boat on water, and no tools for livelihood, {If no fish are caught from water, then mercantile activity is completely abandoned. If the islands have [no] ships, then the mainland will lack fish and salt. If people go about without implements, then agriculture and crafts will all be abandoned.}, is it possible to go one day without disturbances?

The government forests were expansive, and the private forests were moreover prohibited. The government forests’ pines must be [abundant] like water and fire, and now it is the reverse of this. Once every five years, the government repairs several tens of warships, and there is no way to procure wood. So, every time repair is due, they rush here and there, east and west, merely improvising on the spot. Things are like this, and still they do not realize this? Alas! They merely think that if their lands are wide, then they can become rich, but they don’t know that they do not share the benefits with the people. Therefore, their lands becomes wider and wider, but poverty becomes more extreme. Confucius said, “If the common people have enough, what ruler would not have enough?” The present planners of our state should thrice repeat [and remind themselves of] these words.

Generally speaking, pines cannot be feasibly restricted. What they claim as prohibition is what scoundrels easily transgress. However, if [even] a gentleman could transgress this, then this prohibition is inevitably wrong. As for the present-day forest

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20 *Analects* 12.9
prohibition, even Confucius and Yan Hui21 could not help transgressing. Why? If Confucius and Yan Hui were living in our present world, and they encountered a parent’s funeral, then just because of this prohibitive law, would they abandon the ritual of laying a coffin? I know surely it would not be so. If Confucius and Yan Hui could not help transgressing the law, but [the government still] desired to impose it on the masses, I know that [people] surely would not obey it. This is the reason why the prohibition is not proper.

If this is so, then as for the aforementioned “three concerns,” are they ultimately impossible to eliminate? I hence only say to relax the law and that is all. As for the people’s hating pines, it is not that they hate the pines themselves. It is that they hate the law. If the laws are not feared, then since [pines] nourish our bodies in life and send us off in death, for what reason would the people hate pines and not nourish them? If each person nourishes a pine, why would the people take effort to steal [pines], which will lead to heavy punishments due to government’s strict laws?

As for the private forests which have been laying and wasting, have [the owners] nourish [pines] and then use them. As for the Reserved Forests that have been abandoned, allow them to be used for nourishing [pines] and use them. Generally, when there are several fathoms of mountains that lack trees, penalize the people in charge. Anyone who can nourish 1,000 pines and make them available for house’s frames should be promoted with rewards of higher rank and title. Strictly order the prohibition of further slash-and-burn agriculture on the mountainsides, and this will cause no more burning. In general, as for mountains that lack ownership, if one village collectively nourishes pines there for

21 One of Confucius’s disciples, noted for his integrity
one or two years and they luxuriantly grow into a forest, then depending on the size of the
tree, the village is relieved [of taxes] for one or two years. Generally [though], this new
forest administration statute must be supervised by a district magistrate, and one should
not let the naval commander’s office intervene. At present, besides the government
forests, arable lands do not increase one bit. If the state does not interfere with the
people’s profits, then in about several decades, our country’s mountains will flourish with
mature trees, and as for government forests’ trees, the people will naturally stop
trespassing on them.

Some say, “Currently, our country’s people are many, and our lands are narrow.
Even if there were those decrees, we lack the leisure to nourish pines.” I reply, “People
may be many and lands narrow, but if the advantages are not exhaustively mobilized,
then the things available for people’s use will become much more meager. Presently, our
mountains lack trees, and even grasses and roots are being pulled out. Day by day, the
mountains become more barren, and fuel wood becomes more expensive. With the
scheming for gathering fuel wood as it is, we do not set plans for nourishing trees. We are
still wallowing in a hoof print’s puddle rather than digging up a well of nine fathoms. If
this law is practiced, then day by day, forests will become lush, and that will protect the
roots and trunks. People will take the leaves and branches, and fuel wood will be
extremely abundant. The artifice before our eyes should not be considered.”

Some say, “Even if Reserved Forests are abandoned, they are still government
property. In one morning, they are given to the people. As for your plan, how generous it
is to the lower, and how cruel it is to the upper!” I reply, “This is referred to by the
proverb, ‘Though I hate my food, it’s a waste to throw it to the dogs.’ The government
lacks the strength to nourish pine and lets so many fine fields go to waste and not grow a thing. This is just like simply abandoning them. [As for giving the Reserved Forests] to the people, how does this hurt? Moreover, if small mountains all have trees, then as for the contemporary great Reserved Forests, even without the law of prohibition, [transgression] will naturally come to a stop. This is the first advantage. If forests are under the people, and the people’s mountains have trees, then when the government has emergency needs [for trees], then the people would not regret letting [the government] use them. There is no such thing as the king in dire need when the people have enough. This is the second advantage. Accordingly, this is how high and low share in the arts of profit.

Some say, “The people do not trust the [state’s] orders, and this has been long ongoing. Moreover, the people fear the pine prohibition in the manner of a bird wounded by an arrow. Even if there were such an order, the people would not act in accordance. So why?” I reply, “This proposal is not something my stupidity can follow. Trust from the people is more urgent than soldiers or food. Wei Yang was extremely malevolent, but he was still able to establish trust with three chang of tree. As for having no trust in decrees but still being able to make a state - since ancient times, such has never been. The king’s court should decree this, the governor should declare it so forth, and the magistrate should carry out and implement it. In time, the king should send a Royal Emissary to investigate and inspect, and he should write a report back to the court, so that awards and

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22 Wei Yang refers to Shang Yang, a Legalist statesman from the Qin dynasty. In order to earn people’s trust, he supposedly erected a three-chang tall tree on the south gate with an announcement saying that anyone who moves this tree to the north gate would be heavily rewarded. See Shi Ma Qian 史馬遷, Shi Ji 史記, 商君列傳第八.
punishments can be necessarily implemented. Afterwards, only if the people were not truly people would there be no trust.

If things are pushed to the extremes, then they turn back [on their own]. This is how principle is constantly so. When the evil practices of tribute tax came to an extreme, the Uniform Tax Law was created.\textsuperscript{23} [Then] the abuses of military tax were being discarded to an extreme, and so the Equalized Tax Law was installed.\textsuperscript{24} [Then] the corrupt aspects of private slavery were extreme, and so the children of commoner mothers were freed from slavery.\textsuperscript{25} [Then] the problem of slavery became extreme, and so there was burning of slave rosters. As for all this, a great sage would follow the times and set laws accordingly, and he would protect the people like his children, with his vast virtue extending to excellence. Sigh! This is not something to forget.

The present day’s extreme problems are the grain loan system and forest administration and that is all. If someone may rely on this treatise to attain ease for the widow’s worries and [relieve]\textsuperscript{26} the people and state’s collective groans, then as for this lowly servant, even as he dies secluded by the sea, he will lack even an ounce of regret.

Alas! [Even] Xi Shi\textsuperscript{27} in her childhood was not clean, and the people would all cover

\textsuperscript{23} The Uniform Tax Law (taedongpŏp) was first passed into 1608 in order to improve the efficiency of the tax collection system. Due to the Imjin War (1592-1598), tax revenues had fallen greatly, and the old system of indirect tribute payments had become inefficient, unwieldy, and subject to corruption and exploitation.

\textsuperscript{24} The Equalized Tax Law (kyunyŏkpop) was an attempt by King Yŏngjo (1724-1776) to ease the tax burden on the commoner population.

\textsuperscript{25} This refers to the Matrilineal Succession Law of 1750, which decreed that children of commoner-slave marriages would henceforth be of commoner status.

\textsuperscript{26} Due to a lacuna in the text, “relieve” here is a speculative addition.

\textsuperscript{27} Xi Shi (506 BCE - ?). One of the “Four Beauties” of ancient China, she lived during the Spring and Autumn Period (722 BCE - 481 BCE). Accordingly to legend, she was so beautiful that her presence made fish forget to swim and birds forget to fly.
their noses. I am even more unclean. Only Heaven is pure, and who looks back at all this?

How sad, how sad!

In the eleventh lunar month of the kapcha year,\textsuperscript{28} written by Sŏn’gwan.\textsuperscript{29}

\textsuperscript{28} 1804.
\textsuperscript{29} “Sŏn’gwan” was one of Chŏng Yakchŏn’s pen names.