

Was Tobacco Described in Bhutanese Buddhist Texts Before the 16th Century?

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Abstract

The small Himalayan Kingdom of Bhutan has banned tobacco sales since 2004, citing prophets of the country's state religion, Mahayana Buddhism, who described the evils of tobacco 200 years before its introduction to Asia. To address whether tobacco really is the plant designated in these early texts, we commissioned new translations of these documents, including one of the first translations out of Choekey of the first legal code of Bhutan, known as "The Golden Yoke of Legal Edicts." A set of allegorical stories predict that a demon will make a plant appear that will be smoked, sniffed or eaten, and will cause a myriad of physical and societal ills. The stories in the ancient documents are allegorical and apocryphal (in the sense of mystic and esoteric) and do not describe the plant in enough detail to identify it as any real plant. In some cases, the word "thamakha," meaning "the very worst black poison," was transliterated as tobacco. Nevertheless, modern day interpretations in Bhutan of "thamakha" as tobacco are congruent with Buddhist tenets that intoxicants of any type will cloud the mind and inhibit the journey to seek Nirvana.

Introduction

In this paper, we review the history of Bhutan in relation to tobacco and discuss new translations of the ancient texts said to pertain to tobacco to determine whether tobacco could have been referenced in those texts originating before 1616.

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In 2004, the small, eastern Himalayan Kingdom of Bhutan enacted a far reaching and unique law banning all tobacco sales while allowing importation of small amounts of tobacco for personal use (*Kuensel* Newspaper 2004a, 2004b, 2004c). Even in light of tightening Western regulations on tobacco, a complete national ban is distinctive. This isolated kingdom (the size of Switzerland, sandwiched between India and China) has discouraged tobacco use based on Buddhist principles from the inception of its first formalized legal system in 1651 (Givel 2009). Records of the Bhutanese National Assembly from the 1990s and early 2000s show that religious reasons for the ban were at least as powerful as public health concerns (National Assembly of Bhutan 1991, 1995, 2004). Buddhism is an integral part of everyday life and governing in Bhutan (Pommaret, 2006) and the tobacco ban has been linked to those deeply held religious beliefs (Givel 2009; Pommaret 2006). In 1991, in one of the several debates leading up to the tobacco sales ban, members of the National Assembly harkened back to their beloved Guru Rinpoche as declaiming tobacco for both its immediate and future negative effects in the 8th century (National Assembly of Bhutan 1991, 1995, 2004). However, according to many scholars, tobacco products were not introduced to Asia until 1530 (Borio 2007; Rajasevasakta and Aiyer 1996; World Health Organization 2009).

Guru Rinpoche, better known outside of Bhutan as Padmasambhava, was the 8th century sage who spread Buddhism to the region containing Bhutan and Tibet. In Bhutan, Guru Rinpoche is considered a second reincarnation of the historical Buddha himself, Siddhārtha Gautama (Namse 2007; Sharap 1979). Temples in Bhutan have three idols on their main altar. They usually depict the historical Buddha in the center, the Guru Rinpoche on the right, and the Shabdrung Ngawang Namgyal, Bhutan's founder, on the left ((Pommaret 2006); Sherry 2009 personal observation). For nearly all of Bhutan's history, its government has largely been a theocracy. From 1651 to 1907, Bhutan had a formalized dual system of government with a secular branch, headed by

the Druk Desi, and another branch lead by the Je Khenpo, or head monk (Gulati 2003). After the establishment of a hereditary monarchy in 1907, the Je Khenpo continued to be an important advisor to the King (Zurick 2006). Supporting the Buddhist monastic order through financial support and recognition of Mahayana Buddhism as the state religion remains one of the main functions of the government (Dorji 1997; Gulati 2003; Labh 1996; Rose 1977; Sinha 2001).

The tobacco ban originally had both popular and religious support. A popular movement to ban tobacco began in the early 1990s in the central district of Bumthang, and by 2003, 18 of Bhutan's 20 Dzongkhags (districts) had enacted their own restrictions on tobacco sales and/or use in public places (*Penal Code of Bhutan* 2004; Buddhist Channel 2005; Chakrabarti 2003; Ugen 2003). The religious establishment strongly supported a ban. Specifically at the 82nd National Assembly Session in 2004,

The Yangbi Lupon [deputy head monk] said that the concept of tobacco control did not originate today, but had been prevailing since the time of the Buddha. Even Guru Rinpoche had preached about the present and future effects of tobacco consumption. The establishment of religion and health projects by the health sector would help in controlling tobacco consumption. Moreover, the religious community continued to instruct the people on the effect of tobacco from the religious point of view. Tobacco not only caused harm to religion and health, but also caused family problems. Therefore, the people and students were constantly taught and advised to abandon the unwholesome deeds during Dharma teachings (National Assembly of Bhutan 2004).

Members of the National Assembly also stated, "...that the use of tobacco was unacceptable both from a religious and social health (view) in the land blessed by Guru Rinpoche"

(National Assembly of Bhutan 2004). The Royal Advisory Councilors to the King also supported a tobacco ban for both religious and public health reasons (National Assembly of Bhutan 1991). Two different schools of thought have developed as to whether tobacco consumption existed in Bhutan prior to the 1616 A.D. arrival of Shabdrung Ngawang Namgyal, the Tibetan warrior monk who founded Bhutan (Chakrabarti 2003; Lak 2003; Ugen 2003). One school of thought argues that there is no evidence of anti-tobacco provisions in ancient Buddhist texts in Bhutan prior to 1616 A.D (Ugen 2003). Others have argued that there is evidence that Guru Rinpoche in the 8th century declared that smoking was bad and that no practicing Buddhist should smoke (Chakrabarti 2003; Lak 2003; Pasricha 2004; Sharap 1979; Thinley 2002). Sangye Ngedup, Minister of Health, in 2003 also noted: “He (Guru Rinpoche) may have been referring to opium, but we feel comfortable extending his concerns to tobacco.” (Lak 2003)

Materials and Methods

To determine whether tobacco could have been referenced in texts originating before 1616, we used the following methods. Information on the history of the development of tobacco ordinances in Bhutan is taken from “Tobacco Use Policymaking and Administration in Bhutan” by Michael S. Givel, Kuensel Corporation Limited, Thimphu, Bhutan, 2009. The archival research methods primarily using newspapers, government documents, and elite interviews are described therein. Information on the history of Bhutan and of Buddhism in Bhutan comes from available cited texts. Religious texts referring to tobacco were identified from the pamphlet “The Harmful Effects of Tobacco” by Khenpo Pema Sharap (1979), and from “Ill Effects of Tobacco Products” by Kunzang Thinlay (2002) translated in 2009 by Tashi Tshewang of the Dzongkha Development Commission (which promotes Dzongkha, the national language) in Bhutan. Original copies of these Choekey texts were obtained from the National Library & Archives of Bhutan in Thimphu, photocopied and translated from the Choekey by Rinchon

Khandu of Guru Consultancy and Translation Services of Thimphu, Bhutan, in 2009 (Khandu 2009e, 2009a, 2009g, 2009c, 2009d, 2009f, 2009b). Translation of the pamphlet “Ill Effects of Tobacco Products” by Kunzang Thinlay (2002) was performed in 2009 by Tashi Tshewang. Plant descriptions from these texts were discussed with Sonam Wangchuk, Jigme Thinley, and other researchers at the Institute of Traditional Medicinal Services in Thimphu, Bhutan, one wing of free government-provided health care in Bhutan (Thinley 2002; Wangchuk and Thinley 2009).

There are no paper copies of “The Golden Yoke of Legal Edicts” of the Shabdrung Ngawang Namgyal. One copy exists as stone slates inscribed in Choeky by the 13th Druk Desi Sherab Wangchuk between 1744-1763 and attached to the outside wall of a small temple next to the Punakha Dzong (monastery/fort) in Punakha, Bhutan covered by a metal grating. The slates were photographed as overlapping sections and relevant portions were translated by Dr. John Ardussi, Senior Fellow with the University of Virginia’s Center for Tibetan Studies (Ardussi 2007, 2009). Other scholarly works were consulted as cited for other aspects of the history of Bhutan, translations of better known Bhutanese historical documents, and the history of tobacco, cannabis and opium in Asia.

Results

None of the anti-tobacco references cited in the government documents since the 16th century we examined came directly from the writings of Padmasambhava himself. However, Padmasambhava prophesied that holy men would come after him and “uncover” some of his writings later when people were better able to receive them (Sharap 1979; Urygen 1995; Gymats 2012). The discoverers of such texts are known as tertōns and the texts themselves are called treasure texts or terma (Gymats, 2012 #60). Tertōns lived from the 11th century to the 19th century. The terma are taken by devotees to be the words of Padmasambhava himself (Gymats 2012; Sharap 1979; Urygen 1995).

We obtained copies of ten original Choekey documents from nine different tertöns from the 11th to 18th centuries that were cited in two government documents as describing the evils of tobacco use (Sharap 1979; Thinley 2002). The oldest is a brief passage from Machig Labdrön (1055-1149), a great Tibetan yogini (Allione, 2000 #3; Norbu, 1986 #43). She mentioned that an unnamed plant containing all the five poisons would be grown in China and become the food of the Tibetan people and cause great societal ills there. The five poisons, arrogance, ignorance, anger, desire, and delusion, are a common theme in Mahayana Buddhism (Gray 2007). Machig Labdrön gives no further description of the plant.

The next tertöns to be connected to tobacco emerged in the 14th century. Sangay Lingpa (1340-1396) writes one of the longest passages concerning a plant thought to be tobacco (Khandu, 2009 #34). He tells a tale of a demoness in remote China who made a curse that a plant called *Thamakha* or *Hala Nagpo* will grow and flourish in the future, diminishing the light of the Dharma, making the gods angry, and bringing forth disease, war, frost, and famine. In Chhokey, “Tama” means very worst and “Kha” means difficult to get. “Hala Nygpo” means black poison (Thinley 2002; Wangchuk and Thinley 2009). Sangay Lingpa describes the plant as having

. . . five different colors and five different types. The colors will be yellow, blue, white, red, and black all of which carry the five poisons in them. (Khandu 2009f) pp. 1-2.

It is described as having a noxious-smelling seed. Additionally,

...the plant will foster blood pressure, tuberculosis, fits and other illness associated with the liver. It will blacken the teeth and cause joint pain. Further, it will dim both the eye-sights and the intelligence of a person leading to the loss of memory. The body of

the person will emit foul smell and so too the place
the person lives. (Khandu 2009f)

Its smell will rise to the sky and find its way into the ground where it will anger spirits. There will be drought, hail, frost, crop failure, earthquakes, famine, and war. People are entreated to avoid this plant (Khandu 2009f).

Although different species and varieties of tobacco do have white, pale blue and pink flowers, and it does blacken teeth and smell, these descriptions are insufficient to identify the plant referred to in the text as any real, existing plant species, which could have myriad different leaf and flowers forms. Passages such as this appear to be more metaphorical than descriptive (Goodspeed 1947).

Most of the later texts tend to be brief and similar in vein. Ratna Lingpa (1403-1478) also refers to the plant as *Hala Nagpo* (R. Lingpa 2009). Five others mention its smoke (Dorji 2009; Khandu 2009a, 2009d, 2009b). The longest of all the excerpts comes from Duddul Dorji (Dorji 1997; Dorji 2009). He describes a meeting of five devils incensed at how the Dharma (Buddhist teaching) is spreading in the world. They each demonstrated their various powers, represented as frighteningly deformed and monstrous animals: a snake for death and disaster; a frog for crop-destroying hail and frost; a bear for dragging monks and practitioners from their vows and disciplines and undermining law; a fanged bear with the head of a yak for warfare, robbery and arson; and a chimera of a frog, a snake, and a scorpion to reduce the Dharma to dust. The five devils then pooled all these powers into one terrible ball and each spat on it. This was handed over to a devil queen and her minister to release into the world. But at that time the world was well protected and it was not until thousands of years later that they were able to powder the ball and disperse it in all directions. Eventually, a new plant began to grow in south India where it fell into the hands of a prostitute.

She took home (sic) and started to smoke it. A different kind of happiness filled her heart and not long after her experience, many people began to follow suit. Some of them made a powder out of it and started to sniff it. Others started to eat it and still others started to smoke it spreading out all over India. (Dorji 1997; Dorji 2009)

Rigzon Dorji went on to predict the plant would cause the fall of several nations, diseases, societal ills, and eventually the rebirth of the five devils (Dorji 1997; Dorji 2009). However, Dorji does not give a visual description of the plant.

None of these texts describe any other details of the plant that would allow it to be identified to any plant family, such as the Solanaceae (the plant family that includes tobacco), much less genus or species (such as *Nicotiana tabacum*, cultivated tobacco). The descriptions appear to be merely metaphorical. Later readers took a great leap of imagination in assuming they referred to tobacco. But that leap was based on the Buddhist precept not to engage in activities that might cloud the mind (Mitchell 2008; Morgan 2010). To answer whether tobacco *could have* been present in Bhutan prior to 1616, we next analyze the first appearances of tobacco in Asia and Bhutan.

Tobacco in Asia

The genus *Nicotiana* consists of at least 86 species worldwide, most of which contain nicotine (Goodspeed 1954; Marks 2007; Wheeler 1935). Native tobacco species are found in North and South America, southwest Africa, some Pacific Islands, and Australia (Horton 1981). Tobacco species have a wide range of floral and vegetative shapes (Burbridge 1960; Clarkson et al. 2004; Goodspeed 1954; Horton 1981; Wheeler 1935). Almost all scholars and historians agree that the tobacco plant was first cultivated in the New World in Central and South America as early as 6000 B.C.E. (Borio 2007; Rajasevasakta and Aiyer 1996; World Health Organization 2009). Indigenous people in Central and South America

began smoking tobacco by 1 B.C. (Borio 2007; Rajasevasakta and Aiyer 1996; World Health Organization 2009). Tobacco consumption was unknown in the Old World until 1492 when Christopher Columbus discovered tobacco smoking and brought tobacco to Europe (Rajasevasakta and Narvan Aiyer 1966, Clarkson et al. 2004, Borio 2007, WHO 2009). Tobacco products were first brought to China in 1530 and to India in 1600 (Borio 2007; Clarkson et al. 2004; Rajasevasakta and Aiyer 1996; World Health Organization 2009). As for tobacco use in other parts of the world, Borio has concluded:

Although small amounts of nicotine may be found in some Old World plants, including belladonna and *Nicotiana africana*, and nicotine metabolites have been found in human remains and pipes in the Near East and Africa, there is no indication of habitual tobacco use in the Ancient world, on any continent save the Americas (Borio 2007).

Possible evidence that tobacco may have been used independently of New World tobacco plants was presented in a 1993 peer-reviewed scientific article by Parsche, Balabanova and Persig in the prestigious medical journal, *The Lancet*. In this study, the researchers tested for evidence of nicotine in 72 Peruvian mummies, 11 Egyptian mummies, skeletal material from two Sudanese corpses, and ten south German corpses, all dating from 5000 B.C.E to 1500 C.E. (Parsche, Balabanova, and Persig 1993). There has since been much controversy surrounding this work, but none of the remains were from Asia.

Records from Captain James Cook's first voyage in 1770 to the east coast of Australia indicate that Aborigines chewed an unknown herb (Edlin 2009; Rudgley 1998). *Nicotiana suaveolens* was later definitively identified as occurring in parts of Australia in the early 18th century (Wheeler 1935, Marks 2007, Lee 2009).

Prohibition against tobacco use became an early Buddhist religious concern of the ruling authorities of Bhutan. Shabdrung Ngawang Namgyal, before his death in 1651, crafted the first legal code of Bhutan also known as “The Golden Yoke of Legal Edicts” to prescribe proper secular and spiritual conduct (Ardussi 2007). This legal code contained a specific anti-tobacco provision (Ardussi 2007). No known paper copy of this legal code is yet available (Ardussi 2007). However, near Punakha Dzong stands a small house of worship. Etched in large black slates affixed to its wall is the only known copy of Shabdrung Ngawang Namgyal’s original legal code (Figure 1) (Ardussi 2007)

The text of the legal code of Shabdrung Ngawang Namgyal was inscribed on the black stone slates by the 13th Druk Desi Sherab Wangchuck sometime between 1744 and 1763 (Ardussi 2007). The anti-tobacco provision of Shabdrung Ngawang Namgyal’s legal code states:

Functionaries and servants of whatever rank, high or low, once they have entered the Dharma door of the Choje Drukpa, may not perform deeds that violate the Dharma, such as sleeping with women, using intoxicating substances such as tobacco and alcohol, etc. (Ardussi 2009)

In 1729, the tenth Druk Desi, Mipham Wangpo, issued his own legal code. The practice of rulers issuing legal edicts based on Buddhist cannon and moral principles was a tradition carried on from Tibetan leaders, and is well known to draw upon the edicts of earlier rulers. The first mention of tobacco in Mipham Wangpo’s Legal Code of 1729 sounds similar to the writings of the tertöns, except that the present tense is used rather than the future tense:

. . . this evil substance called *tha-ma-kha* (tobacco) which is a cunning trick prepared by demons, is now being used continuously by all the people and the peasants, including bodyguards and menials; not

only does this pollute the body, speech and mind-supports but also it causes the gods above to decline, it disturbs the spirits of intermediate space and injures the *nāgas* of the underworld. From this cause there continuously arises in the world the fate of diseases, wars, and famines and so it conforms with many prophecies given by the great teacher Padma[sambhava] (Aris 1979).

This 1729 Legal Code then goes on to discuss government efforts that should be taken to end the importation of tobacco from India:

If people in any of the districts found to be indulging in the trading and smoking of tobacco, this ruinous sustenance, and if this practice is not forcibly eliminated by the *rzdong[-dpon]*, *mgron[-gnyer]*, government representatives and officials, the village counselors and messengers, then things will definitely fall on their own heads. The officials on the Indian frontier must prohibit [the import of tobacco] at the *duars* (foothills) themselves. Control through these measures is important (Aris 1979).

Bhutan's Legal Code of 1729 seems to have drawn significantly from the 1681 Tibetan Guidelines for government officials (Cüppers 2007). However, the two documents take very different attitudes to tobacco smoking. In Bhutan, tobacco smoking was generally banned because it was thought to be against the state religion, with officials at the southern border with India commanded to take measures to prevent the importation or smuggling of tobacco. In the Tibetan document, smoking was prohibited only in government buildings because of fire hazard (Cüppers 2007).

In George Bogle's detailed account of his visit to Bhutan in 1775 as the first British envoy, he mentions that tobacco was grown in the border region of Bhutan and India, but he does not describe its consumption in Bhutan, although the "great

consumption” of tobacco in Tibet is mentioned more than once (Markham 1876). Samuel Turner, documenting a 1783 diplomatic mission to Bhutan and Tibet, noted tobacco growing in northern Bengal, Bhutanese travelers smoking pipes, and listed tobacco as being imported into Tibet from Bengal, Bhutan, and China (Turner 1800). Pemberton in 1865 also mentions tobacco importation in his report on his 1838 mission to Bhutan (Pemberton 1838). White in 1909 and Bell in 1928 report high tobacco use in Bhutan among people of all stations and walks of life during the late 19th and early 20th centuries (Bell 1928; White 1909). The scholarly evidence is quite strong that tobacco was not known in Asia or Bhutan until the 16th century (Borio 2007; Rajasevasakta and Aiyer 1996; World Health Organization 2009).

Discussion

The emphasis placed on smoke and smoking in the texts of the ancient tertöns suggests tobacco, but the diseases it is predicted to bring and the euphoric feelings it causes have no evidence of links to tobacco. Other plant drugs that can be smoked grow in the region, namely, cannabis and opium (Abel 1980; Lak 2003; Merlin 1984; Polunin and Stainton 1984; Press, Shrestha, and Sutton 2000; Scott 1969; Zhengyi and Raven 2009; Zhengyi, Raven, and Deyuan 2002). Additionally, all three can be smoked, sniffed or eaten in one form or another. Cannabis is native to southern Asia and was known in ancient Chinese medicine, pre-dating Buddhism by thousands of years. It is thought to have been brought to India around 500 C.E., possibly earlier (Abel 1980). Opium was used medicinally and recreationally in the Middle East even earlier (Merlin 1984; Scott 1969). It was thought to have been introduced to India by Alexander the Great in 330. B.C.E. and introduced into China by traders about 400 C.E. (Merlin 1984; Scott 1969). Both drugs would not have reached the isolated valleys now known as Bhutan until much later, but a wandering monk in the 8th century (such as Padmasambhava) or later (such as the tertöns), could easily

have predicted that either opium or cannabis or both would eventually arrive there.

Five poisons, or five vices that can cloud the mind, being represented by five colors is a common theme in Mahayana Buddhism dating from at least 700 C.E. (Gray 2007). Yellow signifies arrogance, greed or pride; blue is for ignorance; white for anger or hatred; red for lust or desire; and black for delusion (Gray 2007). In *Nicotiana*, flowers can be white, lavender purple that can be taken for light blue, many shades of red and pink, and pale yellow, however, they do not occur in black (Goodspeed 1947). Opium poppy flowers exist in many shades of white, pink, purple, lavender and red, but not in yellow or black (Press, Shrestha, and Sutton 2000; Zhengyi and Raven 2009; Zhengyi, Raven, and Deyuan 2002). Cannabis flowers are green and inconspicuous (Press, Shrestha, and Sutton 2000; Zhengyi and Raven 2009; Zhengyi, Raven, and Deyuan 2002). The colors of the plant described in the tertön's texts do not fit tobacco, nor opium, nor cannabis, but appear to be a metaphor covering all types of vice. One of the five precepts obeyed by Buddha's early followers as well as many Buddhists today is to avoid alcohol and other drugs that may cloud the mind (Mitchell 2008; Morgan 2010). The injunctions of the tertöns of the second millennium to avoid this mysterious plant sometimes interpreted as tobacco and of the current Je Khenpo of Bhutan to avoid tobacco are both rooted in attempts to maintain mindfulness and avoid activities that could harm.

Finally, the lack of concern about tobacco from Tibetan rulers, who had the same reverence for Padmasambhava, indicates that the texts can be interpreted differently. There is no conclusive written or botanical evidence that tobacco existed in Bhutan at the time that the early treasure texts were written. All available evidence indicates that tobacco was introduced much later, beginning in the 1600s. The Bhutanese prohibition of tobacco use beginning in the 1600s was a combination of Buddhist religious piety and possibly concern about illegal economic activity at the Indian border.

References

- Abel, E L. (1980). *Marihuana, the first 12 thousand years*. New York: Plenum Press.
- Ardussi, John (2007). Stone Inscriptions: An Early Written Medium in Bhutan. In *Media and Public Culture*. Paper read at Proceedings of the Second International Seminar on Bhutan Studies at Thimphu, Bhutan.
- _____. (2009). RE: Information Request on Bhutan - Middle Slates. Simtokha, Thimphu, Bhutan, September 11,.
- Aris, Michael. 1979. Translation of the Legal Code of Shabdrung Ngawang Namgyal. In *Bhutan, the Early History of a Himalayan Kingdom*, edited by Michael Aris. Aris & Philips.
- Bell, Charles. (1928). *The People of Tibet*. Oxford: Clarendon Press.
- Borio, G. (2007). Tobacco Timeline. Available at http://www.tobacco.org/resources/history/Tobacco_History.html/.
- Buddhist Channel. (2005). Be a Good Buddhist and Put That Out. Available at <http://www.buddhistchannel.tv/index.php?id=7,974,0,0,1,0>.
- Burbridge, N T. (1960). The Australian Species of *Nicotiana* L. (Solanaceae). *Australian Journal of Botany* no. 8:342-378.
- Chakrabarti, S. (2003). Health: Bhutan Aims to be First Country to Ban Tobacco. *IPS News*, February 18,.
- Clarkson, JJ, S Knapp, V Garcia, R Olmstead, A Leitsch, and M Chase. (2004). Phylogenetic Relationships in *Nicotiana* (Solanaceae) Inferred from Multiple Plastid DNA Regions. *Molecular Phylogenetics and Evolution* no. 33:75-90.
- Cüppers, Christoph. (2007). Bstan 'dzan Chos rgyal's Bhutan Legal Code of 1729 in Comparison with Sde srid Sangs rgyas rgya mtsho' Guidelines for Government Officials. In *Bhutan Traditions*, edited by John Ardussi and Francoise

- Pommaret. Leiden, The Netherlands: Koominklijke Brill NV.
- Dorji, C.T. (1997). *Blue Annals of Bhutan* New Delhi: Vikas Publishing House Pvt. Ltd.
- Dorji, Rigzin Dhuedhuel. (2009). Excerpt from the Treasure Text.
- Edlin, D. (2009). The Stoned Age? A Look at the Evidence of Cocaine in Mummies. Available at <http://www.hallofmaat.com/modules.php?name=Articles&file=article&sid=45>.
- Givel, Michael. (2009). Tobacco Use Policymaking and Administration in Bhutan. Thimphu, Bhutan.
- Goodspeed, T H. (1947). On the Evolution of the Genus *Nicotiana*. *Proceedings of the National Academy of Sciences* no. 33 (6):158-171.
- _____. (1954). *The Genus Nicotiana; Origins, Relationships, and Evolution of its Species in the Light of Their Distribution, Morphology, and Cytogenetics*. Waltham, Massachusetts: Chronica Botanica Co.
- Gray, David. (2007). The Cakrasamvara Tantra (The Discourse of Śrī Heruka): A Study and Annotated Translation. Columbia University.
- Gulati, CMN (2003). *Rediscovering Bhutan*. New Delhi: Manas Publications.
- Gymats, Lama Yeshe (2012). *Taye, Jamgon Kontrul Lodro. Lives of the Hundred Tertons*. Woodstock, New York: KTD Publications.
- Horton, P. (1981). A Taxonomic Revision of *Nicotiana* (Solanaceae) in Australia. *Journal of Adelaide Botanical Gardens* no. 3:1-56.
- Khandu, Rinchon (2009a). Excerpt from Goedhem Lungjand Thimphu, Bhutan.

- . (2009b). Excerpt from Lonsel Lungjang by Longsal Nyingpo. Thimphu, Bhutan.
- . (2009c). Excerpt from the Treasure Text of Drodhuel Lingpa. Thimphu, Bhutan.
- . (2009d). Excerpt from the Treasure Text of Ratna Lingpa. Thimphu, Bhutan.
- . (2009e). Excerpt from the Treasure Text of Thuchhog Dorji. Thimphu, Bhutan.
- . (2009f). From the Treasure Text of the Treasure Revealer Sangay Lingpa. Thimphu, Bhutan.
- . (2009g). Lapdrön, Machig. Excerpt from the Prophecy of Ratna Lingpa. Thimphu, Bhutan.
- Kuensel Newspaper. (2004a). Assembly Bans Sale of Tobacco in Bhutan. *Kuensel Online*, August 17,.
- . (2004b). Tobacco Ban from December 17th. *Kuensel Online*, November 13,.
- . (2004c). Tobacco Sale Banned. *Kuensel Online*, December 17.
- Labh, K. (1996). Political Developments of Bhutan: Emerging Trends. In *Bhutan: Society and Polity*, edited by Ramakant and R C Misra. New Delhi: Indus Publishing Company.
- Lak, D. (2003). Bhutan Seeks to Ban Smoking. *BBC News*, January 19,.
- Lee, I. (2009). Early Explorers in Australia. In *A Project Gutenberg of Australia eBook*.
- Markham, C. R. (1876). *Narratives of George Bogle to Tibet and of the Journey of Thomas Manning to Lhasa*. Ondaon: Trubner and Co.
- Marks, C. (2007). Evolution of Nicotiana L. (Solanaceae). In *Australia*. Australian Systemic Botany Society Newsletter.
- Merlin, MD. (1984). *On the Trail of the Ancient Opium Poppy*. Cranbury, New Jersey: Associated University Presses

- Mitchell, Donald (2008). *Buddhism: Introducing the Buddhist Experience*. New York: Oxford University Press.
- Morgan, Diane (2010). *Essential Buddhism: A Comprehensive Guide to Belief and Practice*. Santa Barbara, California: Praeger Publishers.
- Nameś, Chöje Lama (2007). *Guru Rinpoche – A Short Introduction to His Life & Activities*. Paper read at Karma Chang Chub Choephel Ling, at Heidelberg.
- National Assembly of Bhutan (1991). *Proceedings and Resolutions of the 70th Session of the National Assembly of Bhutan*. Thimphu.
- _____. (1995). *Translation of the Proceedings and Resolutions of the 73rd Session of the National Assembly of Bhutan Held From 10th August to 2nd September 1995* Thimphu.
- _____. (2004). *Translation of the Proceedings and Resolutions of the 73rd Session of the National Assembly of Bhutan Held From 10th August to 2nd September 1995* Thimphu.
- Parsche, F, S Balabanova, and W Persig (1993). *Drugs in Ancient Populations*. *Lancet* no. 341:503.
- Pasricha, A. (2004). *Bhutan/Tobacco Use*. *Voice of America News*, November 19,.
- Pemberton, R.B. (1838). *Report on Bootan with an Appendix and Maps*. Calcutta and New Delhi: Reprinted Today and Tomorrow Printers and Publishers.
- Penal Code of Bhutan*.
- Polunin, O, and A Stainton (1984). *Flowers of the Himalaya*. New Delhi: Oxford University Press.
- Pommaret, F. (2006). *Bhutan: Himalayan Mountain Kingdom*. Hong Kong: Odyssey Publications.
- Press, J.R, K.K Shrestha, and D.A Sutton (2000). *Annotated Checklist of the Flowering Plants of Nepal*. London: Natural History Museum.

- Rajasevasakta, and A.K. Yegna Narvan Aiyer (1996). *Field Crops of India* 6th ed. Bangalore, India: The Bangalore Printing and Publishing Co., Ltd., .
- Rose, L. (1977). *The Politics of Bhutan* Ithaca, New York: Cornell University Press.
- Rudgley, R. (1998). Tobacco. In *The Encyclopedia of Psychoactive Substances*: Little, Brown, and Company.
- Scott, J.M. (1969). *The White Poppy*. New York: Funk & Wagnall's.
- Sharap, K.P. (1979). *The Harmful Effects of Tobacco* Delhi, India: Mujeab Press.
- Sinha, A.A.C. (2001). *Himalayan Kingdom, Bhutan, Tradition, Transition, and Transformation* 2nd ed. Shillong, India: Indus Publishing Company.
- Thinley, K. (2002). Ill Effects of Tobacco Products. Thimphu.
- Tsewang, Tashi (2009). Translation of Sharap, K P, 1979. *The Harmful Effects of Tobacco*. KMT Press. Phuentsholing, Bhutan. Thimphu, Bhutan.
- Turner, Samuel (1800). *An Account of an Embassy to the Court of the Teshoo Lama in Tibet; Containing a Narrative of a Journey through Bootan and Part of Tibet*. London: W. Bulmer and Co.
- Ugen, S. (2003). Bhutan: The World's Most Advanced Tobacco Control Nation? *Tobacco Control* no. 12:431-433.
- Urgyen, Tulku Rinpoche (1995). *Rainbow Painting*. Translated by Erik Pema Kunsang. Edited by MB Schmidt and K Moran. Hong Kong: Rangjung Reshe Publications.
- Wangchuk, Sonam, and Jigme Thinley (2009). Interview at the Institute of Traditional Medicinal Services Thimphu, Bhutan.
- Wheeler, H M. (1935). Studies in Nicotiana II. A Taxonomic Survey of the Australasian Species. *University of California Publications in Botany* no. 18:45-68.

Was Tobacco Described in Bhutanese Texts?

- White, John Claude (1909). *Sikhim and Bhutan, Twenty-One Years on the Northeast Frontier, 1887-1908*. London: Edward Arnold.
- World Health Organization (2009). The History of Tobacco. <http://www.who.int/tobacco/en/atlas2.pdf>.
- Zhengyi, W, and P Raven (2009). *Flora of China*. Vol. 7. St. Louis: The Missouri Botanic Garden Press.
- Zhengyi, W, P Raven, and H Deyuan (2002). *Flora of China*. Vol. 5. St. Louis: The Missouri Botanic Garden Press.
- Zurick, David (2006). Gross National Happiness and Environmental Status in Bhutan. *Geographical Review* no. 96 (4):657-681.