

TODDY PALM CULTURE IN MYANMAR (1752-1885)

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ABSTRACT

Toddy palm climbing and palm sugar boiling business have been predominant in Myanmar society since the Bagan Period. The trees grow mainly in upland dry zone regions where annual rain fall is scanty, less than 40 inches and where dry cultivation is prevalent. This study is confined to the regions of Kyaukpadaung, Myingyan, Myitche, Nyaung Oo, Pakokku, Sintgu, Taungtha and Yesagyo. Periodization is placed on the Konbaung Period(1752-1885). People engaged in toddy palm climbing in this period are found fairly formidable. As this study shows, palm sugar-boiling business alone could not feed a family. Off seasons, they were compelled to work as husbandmen or craftsmen to make both ends meet. In this study four chapters are organized. Chapter One deals with the background history of toddy palm culture; Two, with social conditions of the palm workers; Three, with their economic conditions; and Four, with palm tree products that greatly contribute to Myanmar culture picturesquely and interestingly. As this palm sugar boiling business is still in primitive way and no distinct change has taken place, the research is conducted among the people engaged in toddy palm climbing and palm sugar boiling business. Even though toddy palm climbing is very risky and its sugar-boiling is costly, the workers have no option but to keep on doing it. Nowadays, palm sugar could not fetch good price and compete the demand of cane sugar. Moreover, younger generations can hardly be recruited in this business as they were born and brought up in the age of globalization. This dissertation made attempt to give information that toddy palm climbing and palm sugar boiling business are to die out soon, unless fruitful encouragements and benevolent financial supports are made timely by the authorities.

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ABBREVIATIONS

Amar, 2002	<i>Set hnint pwe Ze-the hnint Kyun-ma tou A-nya</i> (My Native Anyar and Shopkeeper with Twelve Festivals), Mandalay, Kyeepwaye Bookhouse, November 2002
Andrus, 1947	<i>Burmese Economic Life</i> , London, Stanford University Press, 1947
Aung Thein, 1990	<i>Kye-let-yoe-ya Myanma-hmu Dha-le-mya</i> (The Traditional Rural Customs of Myanmar), Yangon, Sarpay Beikman Press, 1990
Awbasa, 1954	<i>Mahosahta Zat-taw-gyi</i> (Mahosahta's life story), Yangon, Thamada Press, 1954
Aye Maung, 1958	<i>Bagan Kyauk-sa Let-ywe-sin</i> (The Bagan Selected Inscriptions), Yangon, Pyinnya Nanda Press, 1958
-----,1956	<i>Ka-bya Pan- kon</i> (A Garland of Poem), Yangon, Myanmar Union Press, 1956
Ba Thin, 1984	<i>Shu-taw-mu Hse A-bi-dan Let-twe-ku-hton Hse-Kyan</i> (Shutawmu medical dictionary and its practices), Yangon, Eissathaya Pitakat Press, 1984
Ba Yin, 1976	<i>Myanma Le- ya Ta-khwin</i> (The Myanmar Cultivated Lands), Thiri Mingalar Press, January 1976
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GLOSSARY

<i>A-na-lo</i>	Toddy sap can not be produced for it is needed pressure in clamping male inflorescence of toddy palm trees and bruising the fruit stalks of female toddy palm trees
<i>A-pwet</i>	The season of tapping sap from both male and female toddy palm trees in the months Thadingyut and Tazaungmon
<i>A-ti</i>	The season of tapping sap from both male and female toddy palm trees in the months Nattaw and Pyarho
<i>A-yin-taw</i>	Initial outlay
<i>Hnyet-khaing</i>	Spadix of male toddy palm to be clamped with wooden clamp
<i>Hnyet-toke</i>	Clamped <i>htan-sa</i> or male inflorescence that has been tied with young leaves of toddy palm
<i>Htan Ma</i>	A female toddy palm
<i>Htan Hnyet</i>	Tools which long 3 feet in length like a shape of coal tongs
<i>Htan Pho</i>	A male toddy palm
<i>Htan-nyet Pho</i>	Big stove to be used in boiling palm sugar
<i>Htan-phyat</i>	Cutting the fruit stalks of female toddy palm trees
<i>Htan-sa</i>	Prepared inflorescence of male toddy palm
<i>Kalaing</i>	Wooden stick wedged in between fronds to provide a seat for toddy palm climber in preparing for toddy work
<i>Kyo-phye</i>	Rope to be attached to sap-pot to tie or hang

<i>Let-tha-khaing</i>	The last fruit stalk that comes out from female toddy palm
<i>Mye Tha</i>	Sticky soil
<i>Myu-oo Seinn</i>	Unbaked earthen pot used in collecting toddy sap
<i>Nap-pyet</i>	The condition in which toddy palm fruit stalks have not been cut because of something else like wind or rain
<i>Oo-htoke-kyo</i>	String of <i>Htan-shaw</i> twine tied in the form of elove hitch at the top of <i>yin-swe</i> ladder
<i>Pa-de-tha-pin</i>	A kind of legendary tree from which one could get anything one wanted; supposed to be grown in the Northern Peninsula in the pre- historic Period
<i>Pin-htaung Sa-nit</i>	Crop or product paying system when it is in season
<i>Saya-khaing</i>	The first and foremost fruit stalk or bunch appeared from female toddy palm
<i>Tha-ka-ye</i>	A thick brown liquid of palm sugar
<i>Thee-yint</i>	Working with <i>thee-yint</i> or mature fruits stalks of female toddy palm tree
<i>Yaung</i>	Working with <i>thee-nu</i> or young fruits stalks of female toddy palm tree
<i>Ye-nu</i>	Breakable palm sugar because of low degree of fire
<i>Ye-yint</i>	Dark colored palm sugar because of high degree of fire
<i>Yin-htaung</i>	Ladder that is to be attached at the base of toddy palm tree
<i>Yin-swe</i>	Ladder that is to be attached at the upper part of toddy palm tree
<i>Yit-khaing</i>	The spadix of male toddy palm to be make light circular cutting with knife

INTRODUCTION

A toddy palm is a kind of tree all parts of which are useful in one way or another in Myanmar society. It provides us with food, shelter, furniture, and many other household utilities including toys and play things for children. Even Myanmar culture in daily life is deeply rooted in the products of a toddy palm. When, for example, a child is born to a Myanmar Buddhist family, its horoscope and birth date are made and inscribed on a palm leaf.

As for the shelter, a building or hut, shelf, public resthouse are built of toddy palm leaf, stem, fibrewood, and strips of toddy palm leaf. Moreover, in making drinking well, water tanks, tombs, water barricade, bridge, dam, boat and water troughs, cement is made in a traditional way from the mixture of palm sugar, jaggery, *Htan-nyet* called in Myanmar and molasses. For food, toddy nut kernel, toddy shoots, toddy sap, varieties of *Htan-nyet*, and snacks made of *Htan-nyet* can be served while there has been a tradition of drinking fermented toddy sap, liquor and beer. The commodities are made of toddy products: hat, mat, long- handled water cup, bowl, a circular base for holding the water pot, woven protection cover for the oxen for not eating while working ("*Pa-chat*"), yoke, ladle, brush, balances, clippers, fan, tongue for the obe, broom, slippers, ropes, prop for the head of the cart case, spinning wheel, toddy oil, tobacco cuts, cane ball, soap, tooth paste, boxes, large basket of toddy palm strips, shopping baskets, toddy bud strip case, clothes container, gigantic basket ("*Pok*"), fodder trough, tables, chair, bed, stool, water tank, flower vase and toys. A poor country lass would wear toddy palm leaf beads of necklace, bracelet, ear-ropes, ring, and watch as beauty accessories. In rural areas, when in need of health care, the toddy products are usually used for preparing traditional medicine. On wedding ceremonies, parents from both sides

usually give away the inherited lands and toddy plantations as wedding gifts to their sons and daughters, the bridgroom and the bride. When parents passed away, the inherited toddy plantations were usually divided as portions of inheritance. In trade, *Htan-nyet* produced from toddy palms are traded, which has been a business for the traders and brokers. The money lenders either accepted the toddy palms as objects of mortgage, or purchased them or lent them to tenant farmers. Also in ceremonies of donation, toddy palm strips are used to make decorative objects of *Hse-Ngagyin*, fan, *Kun-daung*, *Pan-daung*, *Kan-saung* Pot (used in religious ceremonies), water pot base, *Kanu* stick container (used in toilet by monks) and *Tapu* stick (tooth-pick container). Monks are also offered *Satumadu* (mixture of honey and butter and molasses), toddy sap and other juices. There is also a tradition in which toddy palms, stems and fibrewood stem are used for building shelters. During the pagoda festivals, *Htan-nyet* is made one of the offertories to monks. Moreover, in white washing the pagodas, molasses and *Htan-nyet* were used in mixing with lime. During Konbaung Period, fortresses of toddy palm stems were built while the containers woven of toddy palm strips were used for carrying things on the march to the battle field. So this dissertation is prepared with the aim of imparting the knowledge about the usefulness of toddy palms. Its objectives are (1) to preserve the toddy civilization under threat and enable the toddy climbers to support their livelihood: in the present, building roads, bridges and urban areas have destroyed the toddy plantations; using the toddy fibre stems for making bricks also decreased the number of toddy plantations; sugar has replaced *Htan-nyet*, while plastic wares have made no more room for toddy product commodities; the younger generation of toddy climbers have given up the traditional livelihood, and picked up more income-generating jobs, resulting in the decrease of livelihoods by toddy business; (2) to help upgrade the living standard of toddy climbers who have to risk their lives in doing their work but earn a little money, as well as to promote the sectors such as living style,

clothing and health of the toddy climbers; (3) to help solve the issues related to the toddy climbers who found it easy to survive only when engaged in the task of toddy climbing, as in the saying, "The *yin-htaung* ladder stands up against the toddy palm, so does my life; as the *yin-htaung* falls off, so does my life in dire straits", and to consider the fuel- related issues; (4) to attract the foreigners with the toddy products and earn foreign exchange by producing standardized toddy products through modern technology such as flower vases, tables and chairs; (5) to import the knowledge about the usefulness of the whole toddy palm and its usefulness in preparing some Myanmar traditional medicines.

This dissertation is concerned with the history of the Myanmar toddy civilization. It is divided into four Chapters. Chapter One presents an account of the history of toddy ranging from Bagan Period till Konbaung Period: significant role of toddy, development of toddy cultivation, and systematic cultivation with reference to the inscriptions, *Sit-tans*, Royal Orders and *Parabaiks*, as well as to the data surved on the Internet. In Chapter Two, the poor social conditions of the toddy climbers are highlighted in the aspects of their life style, dress, health, education, religious beliefs, and social dealings. In Chapter Three, the economic status of the toddy climbers is discussed over the lives of toddy climbers who make a living solely by the livelihood of toddy climbing, those who combine the livelihood of toddy climbing with the farm work, and those who produce toddy and toddy products; on the other hand, discussions are made on how the traders, brokers, money lenders and owners of toddy plantations in the line of toddy business have been prospering in their business. Chapter Four gives an account of the usefulness of the toddy palm in the aspects of religion, religious beliefs, military affairs, food stuff, animal fodder, farm implements, domestic commodities, preparing traditional medicines and alchemy.

The dissertation was prepared as follows: data were collected from books, newspapers, magazines, journals, Reports, *Sit-tans* ("Revenue Inquest"), Royal Orders, palm leaf inscriptions, and *Parabaiks* from the libraries of Mandalay

University, Yadanapon University, Yangon University, Yangon Universities Central Library, Meiktila University, Lashio University, Magway University, Pakokku University and Myingyan Degree Collage; *Parabaiks* from Salay *Pan-pu Yoke- sone Kyaung Pya Taik*, Salay *Pitakat- Taik*, *Koe-Hsaung Kyaung Taik*, *Thathana Takun Sar Thin Taik* and U Ponnya *Pya Taik*, collected *Parabaiks* of Daw San San Win of Sagaing, collected *Parabaiks* of Mya Thida of Kyaukpataung, *Parabaiks* of Shwe Ku Monastery, *Parabaiks* of Ngwe In, Tamangan, Pakhangyi Cultural Museum, Pintale Te-su, U Thaung's collection, U Maung Maung Latt's collection, Dr Daw Pyone's collection, Daw Aye Aye Myat's collection, and Dr Toe Toe Win's collection; and data surveid on the Internet, related to toddy palms. Moreover, field studies were made and interviews were conducted: Phone Bwe Village, Htanpin Chan Village, Hsin Ka Village and Gwe Cho Village in Chauk Township, Central Myanmar: West Kabyu Village, Kyar Kwe Village and Phe Kya Village in Hseik Phyu Township; Mye Sun Village and Magyee Sauk Village in Kyaukpataung Village; Kamba Ni Village, Taung Shae Village, Shwe Hlaing Village and Indai Village in Nyaung Oo Township, Sabe Village, Kamma, Gawun Lay Taing, De pya, Ye Kyi and Kyat Hto Villages in Pakokku Township; So Twin Gyi Village and Kyauk Sauk Village in Myaing Township; Ku Htoke, Nyaung Sauk, Thanpya Chaung and Ma-u Villages in Yezagyo Township; No.8 Quarter of Yezagyo ; and Thabyeyin Village and Thamo Village in Magway Township. During the field trips, interviews were made with the toddy climbers, wives who prepare *Htan-nyet* and workers engaged in collecting the toddy sap pots, or *Myu-o*: procedure of toddy tasks, necessary implements, necessary capital, years of experience, education, health, economy, private toddy business or tenant worker, rate of tenant work, rate of toddy mortgage, price of toddy palms, and data related to *Htan-nyet* business. The field trips were personally made from one region to another, one village to another, one hut to another. If any shortcoming should have occurred in this dissertation, the responsibility goes to the researcher.

CHAPTER ONE

HISTORY OF TODDY PALM

Botanical Facts and Terms about Toddy Palm

Toddy palm is botanically termed as *Borassus Flabellifer. L.*, and is included in the family of Palmaceae, Palmae or Arecaceae. That family has 6 sub-families and 13 groups.¹ That family has over 1500 species apart from toddy palm. corypha palm (*Corypha umberaculifera*), coconut (*Cocos nucifera*), betel (*Areca catechu*), nipa palm (*Nipa fruticans*), and salu palm (*Licuala peltata*), etc., are family members of toddy palm. Such family members are classified by leaves into two. They are in the shape of feather and the shape of a fan. The palms of coconut and betel are of feather shape, while the palms of corypha palm and toddy palm are of fan shape. The toddy palm with the shape of a fan is called corypha palm and toddy palm.² Corypha palm was called "Piye" in old Myanmar and is currently called "Pe." Toddy palm was written as "Tan" in Old Myanmar, and is now used as "Htan" in spoken and written form. "Htan" is called "Tar" in Mon-Kayin Language.³ Because all parts of the toddy palm are useful for medicine, building, furniture and cattle fodder, the toddy palm is figuratively

¹H.G Hundley and Chit Ko Ko, *List of Trees, Shrubs, Herbs and Principal Climbers of Burma* (Myanmar), 3rd Ed., Yangon, Government Printing Press, 1969, pp.385-387 (Henceforth : Hundley, 1969)

²"Mideast and N.Africa Encyclopedia: Palmyra," [http:// en. wikipedia. org/wiki/Borassus Flabellifer](http://en.wikipedia.org/wiki/Borassus_Flabellifer)

³"Webster Dictionary,"[http://wikimyanmar. Co.cc/wiki/index-php? title = E 1% 80% 91% E 1% 80% 94% E1% 80%B 9%E 1% 80%B8](http://wikimyanmar.Co.cc/wiki/index-php?title=E1%80%91%80%94%E1%80%B9%E1%80%B8)

alled "*Padetha Tree*"⁴ in the Cental Myanmar region, particurally in the rural areas.⁵

Toddy palm grows on soil naturally without man's nursing or weeding. It has fiber as grass family tree on both inside and outside⁶. The toddy palms do not grow branches, twigs or boughs stretching to all directors, but the palm grow on top and grow straight upward. Thirty palms grow a year. The toddy palm has the average height of 60 to 80 feet and some grow higher than that. The life span is 150 to over 200 years.⁷ It grows where it has the rainfall of 20" to 40" and likes the hot and dry season. Except the place where perennial water is, it can grow on any soil or site. It prefers to sandy *In-daing* soil. It grows in places of rough climatic conditions and drastic changes of heat and cold such as Bagan, Magway, Mandalay,⁸ Monywa, Salingyi, Shwebo, Wetlet, Yenanchaung. It also grows in Myingyan where the wells can not be dug and water is scarce and small rivers dry up. It also grows in Kyaukpadaung where sands are plentiful and water is scarce. It also grows in hot and arid places, wet places, places of high rainfall and flooded lands like the Ayeyawaddy Delta and Tanintharyi Coastal regions. It grows also in plainland regions like Thayet, Pakokku, Sagaing, Ye, Dawei, Nyaung Oo, and Chauk. It grows less in hilly regions, and does not like high and cold places, but

⁴A kind of legendary tree from which one could get anything one wanted; supposed to be grown in the Northern Pennisula in the Pre- historic Period.

⁵Thein Toe, "*Htan Tho-ma-hok Pa-de-tha-pin*" (Toddy palm or the tree of Bountiful Gifts), *Myawaddy Magazine*, Vol.16, No. 3, January 1968, p.147 (Henceforth: Thein Toe, 1968)

⁶*Myanma to i A-myo-tha Yin-kye-hmu A-mwe Pe-sa Parabaik* (Pe and Parabaik: National Cultural Heritage of Myanmar), Maung Maung Nyunt (edt), Yangon, Sarpay Beikman Press, 1999, p.13 (Henceforth: *Pe-sa*, 1999)

⁷Maung Lin Thu, *Htan hnint Htan-lok-ngan-saing-ya Thi-kaung-sa-ya* (Getting to know toddy palm and toddy business), Yangon, Sarpay Beikman Press, 1986, p.14 (Henceforth: Lin Thu, 1986)

⁸See Photo (1)

there grow a few toddy palms on the hillsides of Chin hill like Setoketaya.⁹ It can be said that toddy palm grows mostly in hot and dry of the Central Myanmar regions.

Young toddy palm grows two palms on the ground when it is one year old. The seven-year-old toddy palm has about one-and-a half feet palms. The toddy palm grows one foot higher a year. Though it grows slowly in its younger years, its rate is faster when it becomes grown up. The toddy palm from which sap is taken grows slower than that which sap is not.¹⁰ Toddy palm has two kinds: male and female. While the male toddy palm produces toddy spadix, the female toddy palm produces toddy fruits. The male toddy palm has 4 to 5 spadixes, which resembles fingers and which flowers. Only after about 15 to 20 years the spadix flowers and toddy sap can be taken. Only after 25 years, the toddy palm produces good sap.¹¹ Though the toddy palm grows older, its sap does not go less. At the height of 70 feet, it is difficult to climb the toddy palm and so no sap is taken. One toddy fruit contains 1 to 3 kernels. A toddy fruit with four kernels is scarcely found. The branches of male toddy palms sprout out sparsely and irregularly, and this may lead to difficulty in choosing the apace where fixed small ladder called *yin-zwe* in Myanmar is hanged by toddy palm climber to climb for. But, the branches of female types sprout out densely in V-shape and it therefore is easy to hang the fixed ladder.¹² On the abdomen of the toddy seed is a navel. If it is big, it

⁹San San, "*A-nya hnint Htan*" (Upcountry and Toddy Palm), Type Script for Sarpay Beikman Award Competition, 1989, Department of Geography, University of Pakokku, pp.37-40 (Henceforth: San San, 1989)

¹⁰Hundley, 1969, 390

¹¹*Palm Jaggery*, Director of Agriculture Burma, Market Sections Survey No. 16, Rangoon, Superintendent Government Printing and Stationary, Burma, 1951, p.20 (Henceforth: *Palm Jaggery*, 1951)

¹²Khin Khin Sann, "Some Economically Useful Plant Resources of Meiktila Township", PhD Dissertation, Department of Botany, University of Mandalay, May 2008, p.64 (Henceforth: Khin Sann, 2008)

contains a female seed; if it is rather small, or if it has no navel, the seed is a male one. If the toddy fruits are grown in the waxing days, the palm is a male tree, it grown in the wanning days, it grows into a female palm tree. Moreover, if the fruit is grown with face upward, it is a female palm; if grown with face downward, it is a male one.¹³

In classifying the immature wild toddy palm into male and female, the palm with the tips of the palms growing upwards clockwise is a male one; the one with the tips of the palms growing upwards anti-clockwise, a female one.¹⁴ All the parts of the toddy palm are useful. From the toddy spadix and the toddy fruit come toddy sap (*Hta-ye Cho* and *Hta-ye Kha*)¹⁵ and varieties of *Htan-nyet*¹⁶ called in Myanmar, palm sugar in English, jaggery in India. Toddy spadix can be made into chopped stalks of tobacco. The palm leaf is for inscribing letters, making tobacco leaves, toys,¹⁷ figure for decoration,¹⁸ Palm sugar containers¹⁹ and roofing. The leaves and outer layer strip of petiole of toddy palms (*Htan-shaw*) are woven into boxes²⁰, mat,²¹ basket (*Htan Khauk Taung*),²² shopping basket (*Hswe- chin*),²³

¹³Lin Thu, 1986, 19-20

¹⁴Ludu Daw Amar, *Set hnint pwe Ze-the hnint Kyun-ma tou A-nya* (My Native Anyar and Shopkeeper with Twelve Festivals), Mandalay, Kyipwaye Bookhouse, November 2002, p.177 (Henceforth : Amar, 2002)

¹⁵See Photo (2)

¹⁶See Photo (3)

¹⁷See Photo (4)

¹⁸(a)See Photo (5)

(b)See Photo (6)

¹⁹See Photo (7)

²⁰(a)*Htan Ywet Pha* and *Htan Khauk Pha* (Container woven of toddy palm leaves and outer layer of petiole)

(b)See Photo (8)

²¹See Photo (9)

²²See Photo (10)

²³See Photo (11)

cradle,²⁴ table and chair. The shell of toddy seed can be used a cup for oil or carry (ladle made from the shell of toddy seed) or pickled tea. Ripe toddy palm can be made into traditional delicacies.²⁵ Toddy nut (*Hta-thi-zan*) can made jelly and soft drink. The stem is used for making beam or column, flower vases,²⁶ mangers,²⁷ furniture²⁸ and water tank.²⁹ So toddy palm is an essential plant for the society.

Toddy Palms in Old Records

In Central regions of Myanmar, in excavating the fossils, it was said that many fossilized wood and stones were discovered.³⁰ So it can be assumed that toddy palm's origin is the Central Myanmar.³¹ Some said that toddy had existed even before the Gottama Buddha was born because one term concerning the toddy palm in the Episode of solving the problem of the Red Ruby in the Jataka stories of the Young Sage Mahawthahta.³² So it can be assumed that toddy existed since million years ago. Moreover, when the Brahmin astrologers checked the footprint of Prince Siddhattha (pro. Theikdhada), the Buddha-to-be, the 108 auspicious marks on his sole contain the symbols of the golden yak, a fly whisk made of yak tail, a fan made of toddy palm and a feather fan made of peacock's tail.³³ This is the early

²⁴See Photo (12)

²⁵See Photo (13)

²⁶See Photo (14)

²⁷See Photo (15)

²⁸See Photo (9)

²⁹Interview with Dr. Kalar Lu, Lecturer, University of Mandalay, age 43, (9.9.2013)

³⁰Tin Tin Mya, "A Study on Cultivation of Toddy Palm in Amarapura Township and its Economical importances", M.A.Term Paper, Department of Botany, University of Yadanabon, March 2006, p.19 (Henceforth; Tin Tin Mya, 2006)

³¹Interview with U Htay Win, Professor, University of Lashio, age 51, (27.6.2012)

³²U Awbasa, *Mahosahta Zat-taw-gyi* (Mahosahta's life story), Yangon, Thamada Press, 1954, p.100 (Hnceforth: Awbasa, 1954)

³³San San, 1989, 48

Indian culture in the Life of Gautama Buddha which came down to our hand since the time we became Buddhist converts. It really suits our life, because toddy palm originates in our country. It grows in upland region of Central Myanmar. Our prehistoric people might have used the toddy palm in making their shelters as roofs and walls. They might eat toddy palm sprouts or shoots as their food. In the urbanization age, they might eat toddy fruits. What we are sure is that Bagan people grew toddy palm groves and used them all in their daily life.

In the early historic period, man invented writing and writing tools to record the subject he or she wanted to. After the invention of alphabets and their diffusion to South Asia, people eventually began to write them down in dried palm leaves of palmyra, toddy palm or talipot palm.³⁴ In inventing such writing tools, in India, Srilanka, Myanmar and the Dry Asia Region, the Dry Zone Region countries in Central Africa, writing or scribing was done on the toddy palm, toddy bud and palm leaves.³⁵ Palm leaves have been the most popular writing material in India and the countries of Southeast Asia where Buddhism and Indian Culture spread. Three species of palm trees provided material suitable for writing: the talipot or umbrella palm, the palmyra palm or toddy palm and the lontar palm.³⁶ There are hundreds of thousands of old manuscripts written on palm leaf in almost all countries of Asia. Palm leaves were also used for writing of manuscripts

³⁴The United Nations Education Scientific and Cultural Organisation, UNESCO, "The Tamil Medical Manuscript Collection as Memory of the World Register," http://en.wikipedia.org/wiki/Palm_leaf_manuscript

³⁵*Myanma Swe-zon Kyan* (Encyclopaedia Birmanica), Vol.VI, Yangon, Myanmar Translation Society, 1962, first edition, p.354 (Henceforth : *Swe-zon, 1962*)

³⁶(a)The United Nations Education Scientific and Cultural Organisation, UNESCO, "The Tamil Medical Manuscript Collection as Memory of the World Register," http://en.wikipedia.org/wiki/Palm_leaf_manuscript

(b)"Manuscript writing material, Palm leaves in Srilanka," <http://aluvihara.Virusinc.Org/appendix.1.html>

in India and Srilanka.³⁷ In Buddha's life time, writing system might have been introduced. Symbols of letters are thought to be in existence. Scholars and inscription scholars said that people in that period used to inscribe the letters on palm leaves.³⁸ So in middle India during the Buddhist's life-span, the custom of inscribing letters on palm leaves had existed and it can be assumed that plenty of toddy palms had already grown for inscribing letters in society.

Toddy Palm Culture

The Indians, who first came to Myanmar in the 1st Century, A.D, introduced the toddy to Myanmar.³⁹ So, Buddhism came to Myanmar in about 1st century AD. But the introduction of writing system would not be that much early as U Thaw Kaung has stated in one of his research papers.⁴⁰ Pyus were the first and earliest people who introduced writing system in Myanmar history. They recorded Buddhist credos and Pali verses on stones, gold leaves, pedestals of Buddha images, and votive tablets. As writing materials, they might have used palm-leaves.⁴¹ Writing system came in to use not earlier than the 4th century AD. It is because the scripts used by the Pyus are thought much similar to that of some Indian scripts used in Gupta Period. The custom of inscribing on palm leaves

³⁷O.P.Agrawl, "Conservation of ASIAN Documents on Paper and Palm-leaf,"http://www.Ndl.go.jp/en/iflapac/preconference/pdf/OPA_grawal.pdf

³⁸Natmauk Phone Kyaw, *Pe-bhu-hlwa* (Letter or note written on tender Palm-leaves), Yangon, Guardian Press and Publication, February 1966, First Printing, p.26 (Henceforth: Phone Kyaw, 1966)

³⁹Dr. Than Tun, *Bagan Khit Lu-mu-ye* (Social Affairs of Bagan Period), Yangon, Poe Wa Offset, 15 August 2005, p.54 (Henceforth: Than Tun, 2005a)

⁴⁰Dr.Thaw Kaung, "Unearthed Story of Myanmar History: Preserve Palm-leaves in Digital Format," Fukuoka, Public Forum, 17 September 2005(Henceforth: Thaw Kaung, 2005)

⁴¹U Thaw Kaung, "Myanmar Traditional Manuscripts and their Preservation and Conservation Chaing Mai," Thailand, from 15 to 17 December 1993(Henceforth: Thaw Kaung, 1993)

reached Myanmar from India⁴² and Srilanka.⁴³ In that time, the Hindus from the Indian coastal regions came and did trading at coastal towns in Myanmar among which Bago, Dagon, Thahton and Thayekhittaya (Pyay) might have been included.⁴⁴ The first people whom Indian merchants and religious missions encountered were the Mons and the Pyus and that's why they received Buddhism, Hinduism and Indian culture.⁴⁵ Scholars believed that the earliest use of palm leaf inscriptions was begun by Pyus of Sriksetra. Palm leaf inscriptions are made on corypha palm or on toddy palm leaf which is more common.⁴⁶ So the Pyus had beautifully decorated palm leaves of gold in the form of toddy palm leaves and corypha palm leaves, inscribed on them and enshrined them inside the pagoda treasure stoves they had built in donation. In A.D 1847, two gold leaves were excavated at the site of Maung Kan's field, Thayekhittara, and in 1927-28, twenty gold palm leaves were excavated at the mound of Khin Ba. Thus they came to be known as Maung-Kan scripts and Khin Ba Mound scripts.⁴⁷ Gold palm leaves were made probably because the ordinary corypha or toddy palm leaves could decay, so the gold leaves in the form of corypha or toddy leaves were made and

⁴²(a) Sylvia Fraser-Lu, *Burmese Crafts, Past and Present*, Kuala Lumpur, Oxford University Press, 1994, p.279 (Henceforth: Fraser-Lu, 1994)

(b) Min Thu Wun, "*Pe-bhu-hlwa*" (Letter or note written on tender Palm-leaves), *Shumawa Magazine*, No.100, 1955, September, p.8 (Henceforth: Min Thu Wun, 1955)

⁴³U Win Han, "A Unique Culture, A Unique People," <http://www.Myanmar.Gov.mm/Perspective/persp2004/1-2004/uni.htm>

⁴⁴Phone Kyaw, 1966, 26

⁴⁵U Win Han, "A Unique Culture, A Unique People," <http://www.Myanmar.Gov.mm/Perspective/persp2004/1-2004/uni.htm>

⁴⁶"Myanmar Traditional Culture, Palm-leaves inscriptions," <http://Myanmartravelinformation.com/mti-Myanmar-culture/palm-leaves.htm>

⁴⁷(a)U Myat Kyaw, *Myanma Yo-ya A-mwe-a-nit She-haung Pe-sa* (Ancient Palm Leaf writing, a traditional Myanmar heritage), Yangon, Sarpay Beikman Press, 1993, p.11 (Henceforth: Myat Kyaw, 1993)

(b)*Pe-sa*, 1999, 17

enshrined inside the pagoda. The reason for the gold leaves to be shaped like toddy or palm leaves indicated that palm leaves were the main writing materials. So in Thayekhittara, it can be assumed that the Pyus may have grown many toddy palms and corypha palms from which inscribing could be done on the leaves even before the Buddha's *Tha-tha-na* (pro.) 1,000, A.D 5th century. So toddy palm leaves as writing material was introduced from India, and it can be said that various uses of toddy were accepted by the Myanmar. Moreover, in 308 BC, 1,000 venerable monks held the Third Buddhist Synod at the *Asoka-yama* Monastery. Then, a missionary of five *Mahatheras* was sent to Suvanna-bummi (pro. Thuwannabhumī) in present-day Myanmar. These *Mahatheras* who reached Suvanna-bummi, encountered that the people were under constant threat of cannibals whom they called *Bilu* or orgre. In order to ward off them they made miniature figures of sphinxes (*Manussiha*- lion body with human head) and gave them to the people in order to be hung around their necks. People being free from the threat of cannibals took refuge to the Buddhist missionaries.⁴⁸ That figure can still be seen on the top of the hill to the north east of Thahton in the form of a stone sculpture.⁴⁹ So the custom of drawing figures on the toddy palm leaves had come into existence since that time, and it can be assumed that there may have grown plenty of toddy palms in Thahton. In B.C 94, at *Ah-lawca* Cave, Srilanka Island, 500 *Mahahteras* inscribed the Three *Pitakas* of the Buddhist Scriptures, as well as Ahtakahta, on palm leaves and held the Fourth Buddhist Synod.⁵⁰ This art of making palm leaves manuscripts was probably by Thirilanka monks who also brought some of the earliest Buddhist texts and commentaries to Myanmar.⁵¹ Moreover, the preparation of the leaves of toddy palm as well as corypha palm

⁴⁸Members of Hanthawaddy Pali Experts, *Tha-tha-na Linkara Sa-tan* (Tha- tha-na Linkara Paper), Yangon, Hanthawaddy Pitakat Press, 1956, pp.57-58 (Henceforth: Pali Experts, 1956)

⁴⁹*Pe-sa*, 1999, 20-21

⁵⁰*Swe-zon*, 1962, 354

⁵¹Thaw Kaung, 1993, 249

used as a writing material in Srilanka. The Myanmar people probably learnt the art of manufacturing palm leaves as writing material from Srilanka.⁵² Thus, toddy palm culture in Myanmar reached from India and Srilanka. Since then, writing on palmya palm and corypha palm leaves had existed in Myanmar up to the introduction papers and printing press in the 19th Century. Because of this new culture recording and writing on corypha palm as well as on palmya palm leaves slowly died out in Myanmar society.

As the Indian Buddhists who introduced toddy palm culture in Myanmar, it came into existence and lasted for over one millennium. In Thahton and Thayekhittara, the religious lands which were the ancient Mon and Pyu towns, the toddy palm culture prospered. Via Thahton, that culture reached Bagan, as one might assume. In Sagaing, Poe Win Hill, Pakokku, Myingyan and Bagan, the religious lands in Myanmar, plenty of toddy palms were grown and toddy materials or commodities were used. Both Mahayana Buddhism and Theravada Buddhism were observed to have been of the culture related to toddy palm. Not only in Myanmar, but also in Thailand, which had the relationship with Bagan and Ayudiya, there also grow the toddy palm culture.⁵³ So even before Bagan Period, toddy palms were grown, and the toddy palm culture in which toddy products and commodities were used had come to prosper.

Toddy Palm Plantation

Toddy palm is an important tree in Myanmar economy, and toddy palms were grown with the objectives of widening the economic eye of the next generation

⁵²(a) Swe-zon, 1962, 354-355

(b)Thaw Kaung, 2005, 3

(c)Albert Fytche, *Burma Past and Present with Personal reminiscences of the country*, Vol. I, London, Kegan Paul, 1978, p.291 (Henceforth:Fytche, 1978)

⁵³Guy Lubeigt, *LE PALMIER A SOURCE EN BIRMANIE CENTRALE*, Paris, Department De Geographic, Universite De Paris-Sorbonne, 1979, pp.40-41 (Henceforth : Guy Lubeigt, 1979)

and making use of all the parts of the toddy palm. For the people of Central Myanmar, toddy palm had been important since the pre-historic age. While teak was important for kings, toddy palms were important for the commoners, so toddy palms were grown.⁵⁴ Toddy can resist the hot weather conditions and grow despite the intense heat for many years, so people grew toddy, which is very useful. In places where paddy does not grow well, where cultivation can not be done, waste land, compound, by the dam or lake or pond along the embankments, or on the river bank, toddy palms are mostly grown.⁵⁵ While toddy can be grown, it can also grow naturally. It is a tree that can resist heat and cold, it grows when grown, and it grows well. But it cannot grow well in hilly regions. Some toddy plantations are systematically grown. There are plantations grown from the times of the forefathers. Toddy fruits are grown at suitable distance. One fruit can be grown into three plants. The distance between the plants is about 9 feet. Plot outline can be done in uncultivated lands. It is noted that the forefathers grew toddy palms according to the plot outline.⁵⁶ It is better to grow toddy by the chequered pattern. It has grown at a distance of 15 cubits, 80 trees can be grown over one acre. The land where the toddy palms are grown, millet, sesamum, common millet “*Lu*,” Italian millet “*Hsat*,” peanut, cotton, beans, maize, and cattle fodder are grown well.⁵⁷ Toddy palms are grown along the embankment to mark the borderline

⁵⁴Dr. Toe Hla, *Myanma Thit-taw hnint Myanma Lu-hmu A-phwe-a-si (1752-1819)* (Forests of Myanmar and Myanmar Society in 1752-1819), Yangon, Thiri May Colour Printing, 2009, pp.143-144 (Henceforth : Toe Hla, 2009a)

⁵⁵Pyae Phyo Thet, “A Study On Toddy Palm Culture in Central Myanmar”, MRes, Thesis, Department of Botany, University of Mandalay, 2003, p.4 (Henceforth: Pyae Phyo Thet, 2003)

⁵⁶Tin Myint, “*Yezagyo-ne-hma Htan-tha-ma-gyi-mya*” (Toddy palm climbers of Yezagyo Region), *Myawaddy Magazine*, Vol. 20, No.8, June, 1972, pp.150-151 (Henceforth : Tin Myint, 1972)

⁵⁷Maung Maung Phyu, “*Htan-pin*” (Toddy Palm), *Ngwetaryee Magazine*, No. 30, December, 1962, p.408 (Henceforth : Maung Maung Phyu, 1962)

between two fields. Toddy palms grown in wet land and fields by the brook are fresh and green and grow faster.⁵⁸ The suitable temperature is 75° Farenheit to 100° Farenheit. The average temperature needed for the whole year is 70° Farenheit to 80° Farenheit and at least 64.4° Farenheit is required. But the hot winds can dry the toddy spadix and bundles of fruits, so the cool winds are needed.⁵⁹ It does not grow in sandy, rocky and poor soil hilly ground in the Dry Zone. Though it likes the soil and dark soil, such fertile lands are cultivated for growing other crops, so very few toddy palms are grown. On sandy lands, red earth and yellow earth, where crops do not grow well, toddy plams are mostly grown.⁶⁰

Depending on the type of soil, the toddy climbers classify three types of toddy; *Kyin Htan*, *Pyin Htan* and *Kon Htan*. The first kind grows in uneven grounds, by the cliff and along the embankment. It is also called "*Ye-win Htan*". The second type grows on slopes with muddy underground soil and black cotton soil where peanuts grow well. It is also called *Pyin Htan*. It is a mediocre type. *Kon Htan*, the third type, grows in red sandy earth and yellow sandy earth over 200 feet high. It grows in drier places which do not get much water supply.⁶¹

Depending on the sizes, toddy palms are classified. Different sizes also are considered: *Kye-mye*, *Let-myaw*, *Hsin-che Paw*, *Thamee Hla*, *Ye-ya* and *Pin-Htwet*. The time of *Kye-mye* is that from the seed of toddy, a toddy sprouts up and two or three twigs peep up like the tail of a parrot, then it begins to grow. The term "*Let-myaw A-ywe*" is the time when all sprouts sprout upward. The term "*Hsin-che Paw A-ywe*" is the time when the stem of the toddy palm grows up like the foot of an elephant. The term "*Thamee Hla A-ywe*" means the time when the palm leaves fully grow at the top. The term "*Ye-ya A-ywe*" means the times when

⁵⁸Interview with U Than Aung, Toddy Palm Climber, age 52, Kyat Toe Village, Pakokku Township, Magway Division(28-12-2010)

⁵⁹Guy Lubeight, 1979, 50

⁶⁰San San, 1989, 39-40

⁶¹*Palm Jaggery*, 1951,3

toddy sap can be taken from fruits and spadixes. The term "*Pin-htwet A-ywe*" means the time when the palm leaves and the entangling bases of the petiole of a palmyra growing in confusion are cleared so as to take the toddy sap and the top of the toddy palm can be seen clearly.⁶²

In growing toddy palm, the fruits from the toddy palms which produce good toddy sap are placed in holes of about 6 inches in the ground, and are grown in the months of *Waso* (it mostly corresponding to June-July), *Wakhaung* (it mostly corresponding to July-August) and *Tawthalin* (it mostly corresponding to August-September). The peasants dig the ground in shallow pits and place the seeds in them.⁶³ After growing, 90% of them grow well. There is no need to water or do nursing. So everybody should grow toddy palms.

Toddy Palms in Donation

There were 63 inscriptions concerned with the donation of toddy palms in Bagan Period. The donation of toddy palms were intended for perpetuating the Buddhist Sasana (pro. *Tha-tha-na*). It was intended that their religious structures would last 5000 years. According to Buddhist belief the three gems, i.e., the Buddha, *Dhamma* and *Sangha* are the most precious jewel ever kept in their hearts. Endowments of land, toddy palm groves, labour (in terms of slaves) for maintenance and daily services to these three gems. Toddy palm is a kind of tree that can provide that food and shelter for Myanmar rural society. Toddy palms were important for religious affairs, social and economic in society. Thus toddy palms were grown in Myanmar. So, toddy palms culture was influenced in Myanmar since the Bagan Period.

⁶²U Nyein Maung, *She-haung Myanma Kyauk-sa-mya* (Ancient Myanmar Inscriptions), Vol.V, Yangon, Planning and Finance Ministry Department, Archaeological Department, 1987, pp.95-97 (Henceforth: Nyein Maung, 1987)

⁶³Interview with U Than Maung, Toddy Palm Climber, age 52, Kyat Toe Village, Pakokku Township, Magway Division (28-12-2010)

In inscriptions of Bagan Period, we often come across the mention of toddy palms inscribed in various terms: “*Htan*,” “*Dhan*,” “*Dan*,” “*Tan*.” The word “*Htan*” is thought to be derived from Pali “*Tan*” from *Tāla*, *Htan* from *Tan*. The toddy palm is mentioned as *Tan* in the inscription of Kyauk-gu-u-min of Bagan in AD 1111,⁶⁴ and in the inscription of the Queen of King Mingyi Swa dated on 7 April 1400.⁶⁵ The terms “*Dan*” or “*Dhan*” are inscribed in the inscription of Taung-nge- u-min Kyaung dated on 19 October 1324,⁶⁶ in the inscription of King Moe Nyin, inscribed on 26 February 1430,⁶⁷ in the inscription of Yadana *Ceti* Hsin Mya Shin Pagoda,⁶⁸ and in the inscription of Yandana *Ceti* Hsin Mya Shin Pagoda, inscribed 14 July 1485.⁶⁹ So the written term “*Htan*” derived from *Tan*. The word *Htan* in Thai language is written *Tarl*, and is pronounced *Htan*.⁷⁰ So it resembles *Tan* inscribed in inscriptions of Bagan Period. In Chinese, “sweet” means “*Hti-Un*, *Htein*, *Dhi-Um*.” In Tibetan language, “sugarcane” is “*Dam*,” “*A-*

⁶⁴U Nyein Maung, *She-haung Myanma Kyauk-sa-mya* (Ancient Myanmar Inscriptions), Vol.I ,Yangon, Printing and Publications Corporation, 1972, pp.45-46 (Henceforth: Nyein Maung, 1972)

⁶⁵U Nyein Maung, *She-haung Myanma Kyauk-sa-mya* (Ancient Myanmar Inscriptions), Appendix of Vol. V, Yangon, Printing and Publications Corporation, 1996, pp.25-26 (Henceforth: Nyein Maung, 1996)

⁶⁶U Nyein Maung, *She-haung Myanma Kyauk-sa-mya* (Ancient Myanmar Inscriptions), Vol.III, Yangon, Printing and Publications Corporation, 1983, pp.300 (Henceforth: Nyein Maung, 1983a)

⁶⁷U Nyein Maung, *She-haung Myanma Kyauk-sa-mya* (Ancient Myanmar Inscriptions), Vol.IV, Yangon, Planning and Finance Ministry Department, Archaeological Department, 1983, pp.255-258 (Henceforth: Nyein Maung, 1983b)

⁶⁸*Htu-pa-yon Kyauk-sa* (Htu-pa-yon Inscription), Ministry of Culture, Archaeological Research, National Museum and Library Department, Vol.I, Yangon, Pyi Oo Thar Press, Sept, 2009, pp.131-132 (Henceforth: *Htu-pa-yon*, 2009)

⁶⁹*Htu-pa-yon*, 2009, 137-139

⁷⁰U Poe Latt, *Myanmar- la- a - myi - mya* (Names of the months in Myanmar Calendar), Yangon, Cekkyawadah Press, 1950, p.107 (Henceforth: Poe Latt, 1950)

Dam.”⁷¹ So in Sanskrit and Pali, “*Htan*” is termed as *Tala*, quite similar to the terms above.

The 27th king of Bagan, sons of Thein Khun and Queen Shwe Kai, Si Thu and Kyaw Swa built a Town known as Ku-Than or "Pakhan" where palm trees were naturally grown. Being a place of toddy palms, Prince Kyaw Swa who liked the intoxicant toddy sap lived in Pakhan, and squared his youth drinking and enjoying cock-fights. When Prince Kyaw Swa died, he became a spirit⁷² and was worshipped by the local people.⁷³ It is still observed that the propitiating of the Spirit Ko Gyi Kyaw is still done by offering fermented toddy sap. It is a kind of intoxicated drink which young people were accustomed to. Moreover, there were thousands of toddy palm groves and palm sugar boiling was then one of the most important livelihoods. Tapping toddy palms for preparing fermented wine and palm sugar boiling was one of the most predominant economic performances in Central Myanmar. Thus toddy palm plantation came into being in Pakhangyi and Yezagyo since the Bagan Period.

During the reign of King Aniruddha who was popularly known as Aniruddha, Myinmu Region might have been covered with toddy palm groves because, there came out an outstanding man among toddy palm climbers. He was a Nga Htweyu. Because of his skill in toddy palm climbing he was raised to a

⁷¹Poe Latt, 1950, 107

⁷²When Prince Sithu irrigated water into the canal at Yezagyo, it didn't work out, which disappointed him and frustrated him, and finally, on meeting his younger brother Prince Kyaw Swa, who was enjoying himself with the intoxicating toddy sap, he killed him on the spot with his royal sword. Younger brother Prince Kyaw Swa was believed to have turned into the Deity known as Ko Gyi Kyaw.

⁷³Dr. Thet Lwin, *Ku-ni-nun hnint Pakhan-mye* (The Palace of the Red Cave and the Land of Pakhan), Yangon, Chan Thar Press, September 2003, pp.96-102 (Henceforth: Thet Lwin, 2003)

standard of royal hero. Of the four heroes of King Aniruddha he was one of them; others were Kyansittha, Nga Lon-let-pe of an outstanding farmer from Poppa, and Nyuang-U-phi of a great swimmer.⁷⁴ Up to now plantation of toddy palms still live on in this region since Bagan Period. Some regions in rural communities still live on toddy palm groves. It will be discussed later.

As is stated, Bagan kings and people alike planted toddy palm trees in donation in or around their pagodas, temples, the Ordination Halls and ponds for maintenance of their buildings. It was then a rooted custom in society to plant toddy palms. For maintenance of these religious structures in their absence, endowments of land, toddy palm trees in groves and slaves for their labour in minor and major repairs were also made. On 10 February 1019, King Aniruddha built a monastery for Venerable Thakhin Gawin, and donated fields and toddy palms as recorded in the inscription of Thakhin Gawin.⁷⁵ According to this inscription, in Budalin and Nyaung Kan to the north east of Pan Si, 1000 toddy palms were grown. So, toddy palms were vital to repair monastery for *Tha-tha-na*. Thus in the Sagaing Division, toddy palms were grown. On 23 April 1035, King Aniruddha repaired the Tant-Kyi Pagoda on the Hiranyaka Hill, built by King Thiri Dhamma Thawka, and donated 30 *Pes* of land and 500 toddy palms of Ti-Kyit Village, at the foot of the Taywun Hill. In repairing the pagoda, molasses

⁷⁴(a)Dr. Toe Hla, *Konbaung Khit Kye-let Lu-mu Si-pwa Ba-wa 1752-1885* (Socio-Economic Life of the Rural People in the Konbaung Period, 1752-1885), Yangon, Universities Press, 2004, p.171 (Henceforth: Toe Hla, 2004)

(b)Nan Nyunt Swe, “*Htan*” (Toddy palm), *Myawaddy Magazine*, Vol. 22, No. 7, May, 1974, p.48 (Henceforth: Nan Nyunt Swe, 1974)

⁷⁵Dr. Than Tun, *Mandalay Maha-muni Ta-daing-a-twin-shi Kyauk-sa-mya* (Inscriptions at Mandalay Mahamuni Pagoda), Vol.II, Yangon, Myanmar Historical Commission, 2006, p.1 (Henceforth: Than Tun, 2006)

were also donated for using as glue, as recorded in the inscription of the Tant-Kyi Pagoda.⁷⁶ So, toddy palms were useful to build pagoda for religious affairs and social in society. So even since King Aniruddha's reign, toddy palms were grown in Ti-Kyit Village. Moreover, the king grew and donated toddy palm to build the Cekkalamma Pagoda at Pin-Chaung in 1057, as recorded in the inscription of Pin-Chaung Cekkalamma Pagoda.⁷⁷ According to that inscription, 180 toddy palms grown as the basis at Me-Htee Khin Yoe and 200 toddy palms at Kon Tharyar were also donated. So at Me-Htee and Kon Tharyar, since King Aniruddha's reign, there existed the growing of important toddy as a borderline between villages for society. Toddy palms were done systematically. It is noted in the Shwe *Ceti* Pagoda Inscription, Ban-Kyi *Taik*, at the Town of Pyaung Pya,⁷⁸ and in the inscription of Pyaung Pya Shwe *Ceti* Shwe *Gu* Temple Inscription,⁷⁹ that toddy palms, and four families of *kyun* were donated to the service of the Shwe *Ceti* Temple at Pyaung Pya in 1058. That donation included the donation of land and toddy, apart from *kyuns*, because the profit gained from the land and toddy palm could be used for maintaining the pagoda. Moreover, in Pyaung Pya, Ban-Kyi *Taik*, there existed vital toddy plantations during King Aniruddha's reign.

Ex-king Manuha of Thaton by permission of King Aniruddha, and grew coconuts, toddy palms and mangoes (*Mangifera indica*) in the pagoda precincts built on top of the Thiri Zeya-Bon Hill to the north east of the Lawkananda Pagoda, as stated in the inscription of the Mi Tagu Monastery near the Manuha of

⁷⁶Mandalay *Maha-muni Ta-daing-a-twin-shi Kyauk-sa-mya* (Inscriptions at Mandalay Mahamuni Pagoda), University of Yangon, Department of History (ed), Vol.I, Yangon, Universities Press, 1989, pp.318-329 (Henceforth: *Maha Muni*, 1989)

⁷⁷ *Maha Muni*, 1989, 79-82

⁷⁸ *Maha Muni*, 1989, 84-92

⁷⁹ *Maha Muni*, 1989, 97-104

Bagan.⁸⁰ Near the Manuha Pagoda, Mi Tara built a monastery to which land, villages, gardens, toddy palms, mangoes, and *kyuns* were donated. Moreover, the ex-king also made a colossal Buddhist Image, so big it is that people used to say that it has been the biggest one ever made by Manuha on 22 February 1075 at the expense of the ruby named Manaw Maya. It is located at Taung Nagar-yon Site, in Bagan as mentioned in the inscription of the Manuha Pagoda.⁸¹ On 17 October 1087, according to the inscription, garden, toddy palm and mango were grown and donated in the environment of the pagoda. So during King Aniruddha's reign, not only the great king, but also King Thahton built pagoda and monasteries, as well as toddy palm. Toddy palms were useful to make the compound green and fresh for social and religious affairs in society. It can be envisaged that the pagoda precepts would be shaded by the toddy palm groves. It would give cool shade to the pilgrims. In King Aniruddha's reign, plenty of toddy palms were already grown every where in the Central Myanmar regions, as it can be assumed. Bagan may have had first plenty of toddy palms even in King Aniruddha's reign during the Bagan Period. King Aniruddha was so intent on the plantation of toddy palms for religious affairs, which effected the Bagan people socially and economically.

In the reign of King Saw-Lu, the minister of King Si Thu and King of Hanlin Thamanbattara built a four-fascade temple, one ceti, one four-fascade *pyat-that* or roof-tiered structure and a large *Kala* Temple, on 3 March 1082, as stated in the inscriptions of the Pannaw *Paya-shin* of Hanlin⁸² and Shin Pannaw Pagoda of Hanlin, Yadana Theinkha.⁸³ According to these inscriptions, for the sake of service in offering lights and alms, land and toddy palm were donated, and King Sithu donated the land of Sakhangyi, the land of Nga Phon-ti and toddy to the west

⁸⁰*Maha Muni, 1989, 308-314*

⁸¹Than Tun, 2006, 11-12

⁸²*Maha Muni, 1989, 135-139*

⁸³*Maha Muni, 1989, 142-151*

of Sakon, Han Lin *Taik*, as well as the cultivated lands of Thin Phyu-Kan and toddy palm of Kyin-Nge. So when the ministers of those days built temples, pagodas and roof-tiered structure and *Kala* temples, toddy palms were also donated, while the king added donation of the cultivated lands and toddy palm. Toddy palms were vital for the sake of service in offering lights and alms of pagoda and monks. Thus, in Sakon Village and Thin Phyu-Kan Village in Hanlin, Shwebo, even in King Saw Lu's reign, toddy palms were grown. In the surrounding areas of Shwebo, even in King Saw Lu's reign, as it can be said, toddy palms had already been grown.

During King Kyansittha's reign, the younger sister of King Aniruddha's Queen Saw Shwe Kyu built a monastery at Thittawthar, and donated cultivated lands and toddy palm in 1089 as stated in Thittawthar Monastery Inscription.⁸⁴ According to the inscription, along the roadside of Chauk-Bagan motorway, donation was made 3000 toddy palms at Kyar-O Village, 3000 toddy palms at Salin and 500 toddy palms at Kanni, etc. So even during King Kyansittha's reign, all over the Central Myanmar regions like Kyar-O Village, Salin and Kanni, many toddy palms were already grown for religious affairs, social and economic in society. King Kyansittha built the Min-O Chan Thar Pagoda of Bagan in 1089, and donated villages, lands and toddy, as can be seen in the inscription of Bagan Min-O Chan Thar Pagoda.⁸⁵ According to the inscription, donations were made 100 toddy palms in Ywa-Swun, as well as toddy plantations in Poke-Saw, Ye-Myet, West Taput-si, Saku and West Aggava. Toddy palms were crucial for religious affairs and social in society. So in King Kyansittha's reign, there had existed the custom of donating toddy palms after building a pagoda or a monastery. Even in King Kyansittha's reign as it can be assumed, toddy already grew in large numbers in Ywa-Swun Village, Poke-Saw Village, Ye-Myet

⁸⁴San San, 1989, 45-47

⁸⁵*Maha Muni*, 1989, 171-177

Village, Taput-si Village, Saku Village and Aggava Village. King Kyansittha was so intent on the plantation of toddy palms for the perpetuating to the Buddha *Tha-tha-na* to the Year 5000.

The inscription of Taw Kyaung Pagoda of Bagan reads that King Alaung Sithu donated lands and toddy palms to the Taw Kyaung Pagoda of Bagan on 23 May 1148.⁸⁶ According to this inscription, donation of irrigated land of 510 toddy palms of Htaw Htan Village and 350 toddy palms of Pauk-Taw-Nge Village to the west of Kapai was made. Toddy palms were important for religious affairs and economic in society. So even in King Alaung Sithu's reign, in Htaw-Htan Village and Pauk-Taw-Nge Village to the west of Kapai, toddy palms were grown. When the pond maintained by King Kandah Hti-Lo Min Hlyin Saw was completed on 25 March, 1156, King Alaung Sithu donated toddy palms and land after building a temple and a pagoda, as stated in the inscription of the Kan-Auk Pagoda, Aung-Pin-Le.⁸⁷ According to this inscription, even in King Alaung Sithu's reign, there existed the growing of toddy palms at Pu-Win Village. The king maintained and repaired the pond at Thein Kan-Ka Village in 1159, and donated toddy and land, as stated in the inscription near the Nga Me Taung Oo Pagoda.⁸⁸ According to that inscription, the toddy palms at Lin-Pan-Kwe Village were donated. So it is assumed that the Nga Me Taung Oo Pagoda was located near Laung She Village while Lin-Pan-Kwe Village could have been situated near around. So it can be said that even in King Alaung Sithu, there existed the cultivation of important toddy plantations for pagoda and monastery to perpetuating Buddha *Tha-tha-na* in the neighbouring areas of Laung She Village in Pakokku Township. According to the inscription of *Tha-kywe*, Nga Kular Thin's Ordination Hall, not only the kings

⁸⁶Dr. Than Tun, *Hnaung-twe Kyauk-sa-mya* (Inscriptions Later Discovered), Yangon, Myanmar Historical Commission, 2005, pp. 36-37 (Henceforth: Than Tun, 2005b)

⁸⁷Than Tun, 2005b, 55-58

⁸⁸Nyein Maung, 1972, 140-141

but also well-off person like *Tha-kywe* also built Ordination Halls.⁸⁹ The inscription reads that *Tha-kywe* Nga Kular paid the cash of 100 to buy a cultivated land and donated the Ordination Hall and a pagoda on 1st April 1159, then grew toddy on the land, and donated all the toddy palms, big and small, to the pagoda, one toddy plantation above Kaung-Manar Village, one plot of toddy to the east and one plot of toddy palms in front of the Ordination Hall. So it can be said that toddy palms must have been grown in plots of various width, *Ta-Taw*, *Ta-Taik*, and *Ta-Wun*. Even in King Alaung Sithu's reign, it can be assumed, plenty of toddy palm trees must have been grown for Buddhist Sasana(*Tha-tha-na*), social and economic in the neighboring areas of Kaung Manar Village in Shwebo Township.

According to the inscriptions of Taung Swe Taw Pagoda, in Yin Taw Village, Rattana Theinkha,⁹⁰ and the inscription of King Sithu,⁹¹ King Sithu donated land and toddy palms to the Taung Swe Taw Pagoda of Yin Taw Village. According to the inscription, King Sithu donated 33 toddy palms at Myaung-Nauk in the southern corner of Si-Wah Village, 13 toddy palms at Ywa Nauk Village, 33 at Htan-Gyi Shin, 2 *Pes* of land at Htan-Shae, and 2 *Pes* of *Htan-le*, on 15 April, 1168. So it can be said that toddy palms were grown not only in farmlands, but also in fields and that even in King Sithu's reign, toddy plantation had already existed in the neighbouring areas of Yin Taw Village and Si-Wah Village, in Shwebo Region. Shwebo may have had second plenty of toddy palms in the Bagan Period.

According to the inscription of Myat Kyi Swa of Khe Taung Monastery, Myat Kyi Swa built the Khe Taung Monastery on 3 April 1169, and donated toddy palm, water tank and 5 *Pes* of land to the monks.⁹² So it is observed that toddy

⁸⁹Nyein Maung, 1972, 337-338

⁹⁰Than Tun, 2005b, 80-82, 84-85

⁹¹Nyein Maung, 1972, 33-34

⁹²Nyein Maung, 1972, 35-37

palms were donated to monks and that toddy palms were grown on the banks of the water tank. Myat Kyi Swa donated toddy palms in September 1171, to the pagoda, as stated in the inscription of Taung Dauk Village, Natmauk Township.⁹³ According to the inscription, 7 *Pes* of toddy palm from Kan Swe Village were donated, and it is observed that even since that time, toddy palms were crucial for perpetuating the Buddha *Tha-tha-na* to the *Tha-tha-na* year 5000. Thus toddy palms were grown in Natmauk Township.

King Narapati Sithu donated the land and toddy palm to the Kun Katin Pagoda in 1172, according to the Kun Katin Pagoda Inscription.⁹⁴ As it is noted that the land with 250 toddy palms was purchased with 11 *Kyats* from a donor of a monastery, "*Kyaung Dagar*" of Kun Katin Village, it can be said that 250 toddy palms were grown on a land of 1 *Pe* acre. So it is observed that even in King Narapati Sithu's reign, there grew plenty of toddy palms in fields of Kun Katin Village. According to Nagar-Kyaung Inscription, King Narapati Sithu built a pagoda and a monastery at Nagar-Kyaung on 14 August 1178, and donated villages, land and toddy.⁹⁵ According to that inscription, the toddy palms of Nanthar Village and those of Taung Pauk-Lon Let Pan Village, as well as the ponds and the cultivated lands, were marked at corners with four stone columns, and were donated. So since the reign of King Narapati Sithu, it can be said, plenty of toddy had been grown in Bagan and its surrounding villages. In Bagan, on 20 October 1183, King Narapati Sithu built and donated the Sulamani Pagoda and a monastery, as mentioned in Bagan-Sulamani Inscription.⁹⁶ That inscription reads that the lands with 1,000 toddy palms stretching over, Moke-Soe-Bo, Moke-Soe-Chon, War-taung-gyi and War-taung-nge to the west of the Mu River, and Tein-

⁹³Nyein Maung, 1972, 38-39

⁹⁴Nyein Maung, 1972, 343-344

⁹⁵Than Tun, 2006, 183-186

⁹⁶Than Tun, 2005b, 152-156

Taing Ta-htaung Village were donated. So in donating toddy palms to the pagodas, not only the areas around the pagoda but also even the toddy palms in areas beyond were included in the donation, and it can be said that plenty of toddy palms must have been grown in the Central Myanmar.

From the Sar Kyo Phaya Hla Inscription and Swe Kyo Pagoda Inscription⁹⁷ and Swe Kyo Pagoda Inscription of the Town of Amyint,⁹⁸ King Narapati Sithu donated village, land, alluvial land, toddy palms, pond and natural lake to Sar Kyo Phaya Hla Pagoda on 26 March 1192. These inscriptions read that as the king went down the river with toddy palms at Let-We Village, Let-Nge Village and Amyint and Central Myanmar regions, the toddy palms of Myaung U-gyi Bonmathu of Le-Kai and toddy palm in Than-Po Village, toddy in Kon Village, and toddy palm in Mye-Ohn-Ton Village were donated separated to the pagoda and the monks. So even in King Narapati Sithu's reign, there existed toddy plantation in the neighbouring areas of Bagan and the Town of Amyint and Le-Kai. The King identified the plot of land for the Salay Sar Kyo Phaya Hla Pagoda, and donated the land of toddy palm in 1195, as noted in the inscription of Sar Kyo Phaya Hla Pagoda.⁹⁹ According to the inscription, the king gave away the toddy palms to Minister Sekkhi Kyan and all *A-the* and *A-lar* classes of people. Then the minister donated 7 toddy palms to the pagoda. The future toddy palms that might grow out of the original number of toddy palms were also donated to the pagoda. So it is learnt that when the king made donation, or meritorious deeds, the minister, the *A-the* people and the *A-lar* people were given away toddy palms. Toddy palms were vital for social, economic and Buddha Sasana (*Tha-tha-na*). Thus, it must be noted that there already existed toddy palms in Salay.

⁹⁷Than Tun, 2006, 29-33

⁹⁸Nyein Maung, 1972, 354-356

⁹⁹Nyein Maung, 1972, 363-364

During the reign of Narapati Sithu, Queen Saw Shwe Chu built a monastery at Thittawthar on 24 March 1180, and donated many pieces of land including toddy palm groves grown on to be the support of four monastic prerequisites, i.e., food, shelter, clothing and medicine.¹⁰⁰ In her endowment of toddy palm groves to the pagoda she built numbered 3000 at Htanaung-kon-yoe and another 3000 at Chaungmana Village and another 500 at Nyaung-bawdi respectively.¹⁰¹ So even in Narapati Sithu's reign, it can be observed, plenty of toddy palms had been grown in the Central Myanmar. Moreover, the toddy climbers had to pay palm sugar balls weighing five viss, 100 fries for the monks of the monastery in the month of *Thadingyut* (it roughly corresponding to October-November), and they had to pay one basket of *Htan-nyet* (a morsel piece of palm sugar) to collectors of the pagoda. It is also note worthy that when the collectors regardless of whether they were laymen or monks came to collect the payable dues they were treated hospitably by the hosts or toddy palm workers in their utmost effortability.. It is also observed that payment rate of toddy palm groves differed in different regions. And toddy palm plantation had also been commonplace in Bagan Period for endowment to pagodas built in those days. Saw-A-lun, queen of King Sithu, built the wall, the fire barricade and two caves near the pagoda built by the king on 26 January, 1193, at Thitma-hti¹⁰² and she donated many pieces of cultivated lands on which were grown toddy palms. During King Narapati Sithu's reign, it can be said not only the king and the queen, but also the senior ministers built temple, monastery and enclosure of a pagoda or monastery, "A-yan." On 19 October 1194, Minister Thubarit built a temple, a monastery, and an *A-yan* near the pagoda of King Sithu, and purchased the toddy lands at 200 of gold and donated them with the aim of perpetuating the Buddha *Tha-tha-na* to the *Tha-tha-na* year 5000, as stated in

¹⁰⁰Than Tun, 2005b, 124-127

¹⁰¹Than Tun, 2005b, 130-132, 135-138, 141-142

¹⁰²Than Tun, 2006, 38, 166-167

Shwe Yaung Pheik Pagoda Inscription of Taungtwin Town.¹⁰³ It can be said from the inscription that even in King Narapati Sithu's reign, in Taungtwin Township in such villages as Hsin-Kut Village and Shwe Thabeik Village, toddy palms had already been grown. Moreover, in the inscription of the donation of King Sithu and Minister Subarit,¹⁰⁴ the toddy palms in Kyauk Sauk were donated. So it can be said that toddy palms were donated. So it can be said that toddy palms for Buddha *Tha-tha-na* in society were already grown in Kyauk Sauk Village. Three toddy palms were donated. In the north of Ku-khan, Pauk-ngu Shwe-hsaung-thin Inscription,¹⁰⁵ lands were donated on 10 October, 1203, and the lands of toddy were identified. According to the inscription, it is noted, toddy palms were grown in particular plots of land. During King Narapati Sithu's reign, pagoda, monastery, *ceti*, temple, *sima* (ordination hall) and enclosure were built and the custom of donating toddy palm had existed, as well. Toddy plantations all over the Central Myanmar regions existed and toddy palms were grown not only in gardens, but also as a borderline between fields, embankments and farmlands. King Narapati Sithu was so intent on the plantation of toddy palms for religious affairs, social and economic in Myanmar society.

During King Nadaungmya's reign, the king built temple, and the repository of the Buddhist Scriptures of 31 July, 1201, and donated 150 toddy palms in the west corner of Taung Po Village to the monks, as in Sa-thein Village Monastery Inscription.¹⁰⁶ It is learnt, therefore, that toddy palms were grown even in King Nadaungmya's reign in the neighbouring areas of Taung Po Village. On 1 May 1207, the king built temple, the Repository and monastery and donated 1050 toddy palms in the Southern west corner of Taung Po Village to the monks in terms of

¹⁰³Than Tun, 2006, 54

¹⁰⁴Than Tun, 2006, 51-52

¹⁰⁵Than Tun, 2006, 112-113

¹⁰⁶Than Tun, 2006, 107-109

offering alms, as in Khemarvara Pagoda Inscription.¹⁰⁷ In 1212, Minister Min-thein-Kathu built an Ordination Hall, and donated toddy palms to the service of the Ordination Hall, as recorded in the Min-Thein-Kathu Thein Inscription.¹⁰⁸ Three toddy palms were donated. It is also learnt from the Anantathu couple Inscription,¹⁰⁹ that in 1224, toddy palms were grown as the *A-yan* or enclosure of a monastery. On 26 March 1232, King Nadaungmya built temple, monastery and the Repository or *Pitakat*, and donated 150 toddy palms in the southern west of Taung Po Village, as in Bagan Nadaungmya's Inscription.¹¹⁰ So King Nadaungmya donated the toddy palms from the toddy plantation in the west corner of Taung Po Village to the service of the temple, monastery and the *Pitakat Taik*. It can be said that toddy plantations can provide for the alms of the monks. Thus, toddy palms were grown in the surrounding area of Taung Po Village since that time.

During King U-zana's reign, Thakhin Sakibo donated *kyuns* or slaves and toddy palms and garden of Nga-tha-yauk Village to the Buddha, the *Dhamma* and the *Sangha* on 17 May 1255, as in Thakhin Sakibo Inscription.¹¹¹ It can be assumed that the maximum of toddy palms were grown in Bagan Region during Bagan Period.

The inscription of Sarekkhan Kyaung Tawya Pagoda reads that donation of slaves, oxen and toddy palms was made in 1272.¹¹² In 1273, when Myinkhontaing

¹⁰⁷U Aye Maung, *Bagan Kyauk-sa Let-ywe-sin* (The Bagan Selected Inscriptions), Yangon, Pyinnya Nanda Press, 1958, pp.29-32 (Henceforth : Aye Maung, 1958)

¹⁰⁸Nyein Maung, 1972, 100-102

¹⁰⁹Lin Thu, 1986, 16-17

¹¹⁰Than Tun, 2006, 155-157

¹¹¹U Nyein Maung, *She-haung Myanma Kyauk-sa-mya* (Ancient Myanmar Inscriptions), Vol.II, Yangon, Printing and Publications Corporation, 1982, pp.179-180 (Henceforth: Nyein Maung, 1982)

¹¹²*Mandalay Palace Inscription* (Mandalay Palace Inscription), Ministry of Culture, Department of Archaeology, The Department of Museum and Library, Vol. I, Mandalay, Taw Wun Nan Offset, September 2011, p.151 (Henceforth: *Palace (I)*, 2011)

Thakhin Maha Hti built the Cave temple, donation of land, slave, cultivated lands and toddy palms was made.¹¹³ During King Narapate, *Ta-yok-Pye Min*'s reign, Ein-Phon-Hson-Thin and son donated 7 toddy palms to the monastery on 28 May 1273, as in Ein-Phon-Hson-Thin Inscription.¹¹⁴ In Nakkapotha Nga Latt Inscription,¹¹⁵ Nga Latt donated the cultivated land and 20 toddy palms to the monastery. In O-yauk-Thin inscription,¹¹⁶ on 19 April 1279, O-yauk-Thin donated 530 toddy palms, *kyun* or slaves and oxen to the monastery. During Narathihapate's reign, only a few toddy palms were donated. So toddy palms were donated to the service of the Buddha *Tha-tha-na* as an ordinary offertory.

During King Kya Swa's reign, the king gave away the revenue of Katu Village to the Queen. The queen donated 50 toddy palms of Ywa Thar Village to the Katu Recluse Monastery, and built a monastery for the monks dwelling in Katu Village at a site between Katu hilltops, and donated the toddy lands for *Htan-nyet* alms, as mentioned in Katu Recluse Monastery Inscription inscribed in 1283.¹¹⁷ So after building a monastery, toddy palms were donated, from which *Htan-nyet* came for the alms of the monks. Thus, along with building a pagoda, a *ceti* or a monastery, toddy palms were donated. So toddy palms can be considered as having been a religious object of offering, or offertory. During Narathihapate's reign, Kublakan sent Buddhist monks for missionary and 20,000 soldiers to attack and occupy Bagan. So in 1284 King Narathihapate sent the great learned man Shin Disaparmauk as the Envoy to Peking, to hold talks with Kublakan. The wise monk suggested that paddy had to be supplied for the monks and soldiers in order to dispatch the order of the emperor, that rice was essential for the country, that the

¹¹³*Palace (I)*, 2011, 159-160

¹¹⁴Nyein Maung, 1983b, 73

¹¹⁵Nyein Maung, 1983a, 87-89

¹¹⁶(a)Nyein Maung, 1983a, 5-6

(b)*Palace(I)*, 2011, 107-108

¹¹⁷Nyein Maung, 1983b, 26-27

soldiers were, therefore, to be called back so that the local people could grow rice, and that the emperor's desire would then be fulfilled.¹¹⁸ So it can be said that agriculture was mainly done during Bagan Period while toddy palm was the second priority. Although toddy becomes mature only after 20 years, it can be said that toddy must have been grown widely, during Bagan Period.

Queen Pwa Saw made donation of 20 *Min-Htan* or royal toddy, from Seimmale Village, the king's reward, 500 from Hmeik-Kyun, and 3,000 from Pyun Village to the monastery, as in the inscription of Queen Pwa-Saw and the couple owner of the boat dated 1301.¹¹⁹ According to that inscription, there grew royal property of toddy palm in Seimmale Village and plenty of toddys in the neighbouring areas of Bagan. King Hsinphyu Thakhin donated to the service of pagoda, temple, monastery and the Ordination Hall the toddy palms grown on the banks of ponds on 27 June 1309, as in King Hsinphyu Thakhin Inscription.¹²⁰ Toddy from Thit Khat Village, toddy from Pan-Lin-Kan Village and toddy grown in farmland were donated. It can be said from the inscription, that toddy palm was grown in the surrounding areas of Myin-Saing.

During Bagan Period, supplies or offertories were made not only from cultivated fields, but also from toddy, for the perpetuation of the Buddha *Tha-tha-na* up to the *Tha-tha-na* year 5000. The lists of donations included fields, farm, slaves and toddy palms must have been grown in large numbers. So, the majority of the inscriptions contain a maximum account of "tamarind tree" (*Ma-gyee*), and mention the term "toddy" (*Htan*) in second largest number. According to the inscriptions, terra-cotta or votive tablets inscriptions, crops, fruits, edible plants and medical plants –altogether 77 kinds- were grown, and it is noted that toddy

¹¹⁸Dr.Than Tun, *Myanma Tha-maing Lit-kwet-mya* (Gaps in the Myanmar History), Yangon, Poe Wa offset, November 2003, pp.16-17 (Henceforth: Than Tun, 2003)

¹¹⁹Nyein Maung, 1983a, 172-176

¹²⁰Nyein Maung, 1983b, 98

was mainly grown.¹²¹ In the olden times, in the Central Myanmar, *Htan-nyet* was mostly used, instead of sugar. So, Toddy palms were grown in groves, as well as in line in pagoda precincts, and monastery compounds, or around a pond. Moreover, they were also grown near the paddy fields and *Ins* (natural ponds). Toddy is grown all parts of the Central Myanmar,¹²² as it in toddy plantation.¹²³ Toddy was also grown among mango and coconut as gardening tree. King Aniruddha, Kyansittha and Narapati Sithu were so intent on the plantation of toddy palms in the Bagan Period. Toddy palms were grown in Bagan, Shwebo, Sagaing, Magway, Pakokku, Taungtwin, Salay, Salin, Salingyi, Kyaukpadaung, Kyaukse, and Myin-Saing. Among them Bagan, Shwebo and Sagaing must have been grown widely during the Bagan Period.

While inscriptions carry records about toddy palm plantation in Bagan Period, the toddy palm plantation in Pinya Period can be studied in the 25 inscriptions. The minister of King Thiha Thura Kunandrit donated in 3 January 1312, 50 toddy palms of Khat Sam Village for the perpetuation of the Buddha *Tha-tha-na* till the *Tha-tha-na* year 5,000, as can be seen in Kunandrit Inscription.¹²⁴ The inscription reads that toddy was donated in separate plots of land such as toddy palms from Myin Village and toddy from Ya-da-na-pon, etc. It can be said that toddy palm for economic was grown in the Central Myanmar regions. The grandson of Minister Kyan of King Mingyi Swa, Subarit built a pagoda and a Buddhist image on the land he had occupied from the Talaing Kingdom, and on 11 April 1316, he donated 540 toddy palms in cultivated lands, 7 *Wut-Htan*, 20 young toddy palms, etc., of different sizes, as can be seen in No. 389 Inscription of Nan-twin House, Mandalay.¹²⁵ This shows that toddy palm for

¹²¹Dr. Than Tun, *Khit-haung Myanma Ya-za-win* (History of Old Myanmar), Yangon, Monywa Press, February 2008, pp.232-234 (Henceforth: Than Tun, 2008)

¹²²See Photo (16)

¹²³Than Tun, 2005a, 54

¹²⁴Nyein Maung, 1983a, 62-63

¹²⁵Nyein Maung, 1983a, 274-276

religion and economy was grown in the Talaing Kingdom. In Ngaman-Thin Kyaung Inscription,¹²⁶ Ngaman-Thin built a monastery, and donated fields, oxen, slave, and toddy palm on 4 February 1316. On 9 November 1319, King Taung Pi donated 5,000 toddy palms to Myin Sai Monastery.¹²⁷ During King Lulin, Sawnit's reign, on 22 April, 1320, Aung Thar Pha and brother donated 104 grown-up toddy palms, "*Htan-gyi*," and 30 young toddy palms to the Buddhist, the *Dhamma* and the *Sangha*, as in Aung Thar Pha Inscription.¹²⁸ It can be assumed that the toddy palms grown by the forefathers were given away in donation. So toddy plantations were important for religious affairs, social and economic. The Queen O-Man-Le Thin Inscription dated 9 April 1321 read that Queen O-Man-Le Thin built a temple at Tuyin Hill, and donated the toddy palms.¹²⁹ The queen donated villages Pan Pwe, Kan Tauk and Thayet-Chin. So it can be said that toddy palms were already grown in Kyaukpadaung Region since that time. The *Thanpyin* Minister named Thiha-Thu dug tunnel on 20 October 1322, and donated 15 toddy palms in Taungpyone, as can be studied in Nan-Kai Pagoda Inscription.¹³⁰ This shows that in Taungpyone, since Pinya Period, toddy palm for religion was grown. In Kanswet Monastery Inscription, Gawnan-Pisi donated the toddy palm of Ein-Tha Village to the monastery and the monks on 19 October 1324, as can be studied in Kanswet Monastery Inscription¹³¹ and Taung-nge-u-min Monastery Inscription.¹³² These inscriptions show that important toddy palms were grown to maintain and repair of monastery in Kyaukse Township.

¹²⁶Nyein Maung, 1983a, 275-276

¹²⁷*Mandalay Palace Inscription* (Mandalay Palace Inscription), Ministry of Culture, Department of Archaeology, The Department of Museum and Library, Vol.II, Mandalay, Taw Wun Nan Offset, September 2011, pp.55-56 (Henceforth: *Palace (II)*, 2011)

¹²⁸Nyein Maung, 1983a, 296

¹²⁹Nyein Maung, 1983a, 297

¹³⁰Nyein Maung, 1983a, 339-340

¹³¹(a)Nyein Maung, 1983a, 299

(b)*Palace(II)*, 2011, 131

¹³²Nyein Maung, 1983a, 300

During King U-zara's reign, Nga Phyu Thin donated 4 ponds, 43 cultivated lands with 1500 toddy palms, and 401 toddy palms of dry earth 1901 in total as recorded in Ngazun Pagoda Inscription dated 10 November 1325.¹³³ It is observed that toddy palm was grown not only in gardens but also in fields, farms and ponds, banks and dry earth. Toddy palms were important for religious affairs, social and economic. According to the inscription, in Kyaukse Township since King U-zana's reign, toddy palm was already grown.

In Saraai Saririka Pagoda Inscription,¹³⁴ the *A-the* People pooled and donated toddy to the pagoda on 8 February 1328. This shows that toddy palm was grown since Pinya Period in Wetlet Township, Shwebo District. On 5 April 1328, King Kyaw Swa appointed Thubharit as the general and gave away all the lands down the river for the revenue, as in the General Thubharit Inscription.¹³⁵ The general grew toddy palms at *Htan-Pin Le* and donated them. His re-donation the revenue entitled to him to the monasteries, so it can be regarded as a remarkable donation of Pinya Period. King U-zana re-built the big pagoda on 2 March 1329, and donated the Htanaung Kyi Village and 100 toddy palms to the Let-the-she Pagoda, and Htanaung Kyi Village and 70 toddy palms to the Taung-Taw pagoda, as seen in U-zana *Mingyi* Inscription.¹³⁶ It can be said that plenty of toddy were grown in Htanaung Kyi Village in the reign of King U-zana. As there was almost one donation of toddy palm that was not made in every deed of donation, it can be said that toddy palms must have grown widely during Pinya Period.

On 30 December 1330, Queen Shwe Taung Me denoted 26 toddy palms to the west of Khet-si Village to the monastery, as can be seen in Queen Shwe Taung

¹³³Nyein Maung, 1983a, 304-305

¹³⁴(a)Nyein Maung, 1983a, 317-318

(b)*Palace(II)*, 2011, 143-144

¹³⁵Nyein Maung, 1983a, 315-316

¹³⁶Than Tun, 2008, 86-87

Me inscription.¹³⁷ On 20 November 1332, Queen Yadanapon built the Kala Monastery, and donated 20 toddy palms, as can be studied in Ya-da-na-pon Queen Inscription.¹³⁸ *Tha-kywe* Phonma Theingar built an Ordination Hall, and donated 100 toddy palms, and the people who were present on the occasion also donated toddy palms to the Ordination Hall, as can be seen in Phonma Theingar Ordination Hall Inscription.¹³⁹ This shows that people grew toddy palms, and toddy palm was considered as a religious offertory. Nga Thauk-Kyar built a recluse monastery, and donated 11 toddy palms, as can be seen in *Kyaung-ah-le-mye-hlu-thaw* Inscription, dated 17 February 1338.¹⁴⁰ Thet-Shae-Thin et al Inscription¹⁴¹ show the Thet-Shae-Thin built a large Ordination Hall, and 46 toddy palms and toddy palm of Kyun Pin Village, and donated them in 1341: 8 *Kyats* per 2 toddy, and toddy lands were bartered with cattle, and goat. This shows that plenty of toddy palms were grown in Sagaing District, and that toddy palm was of great value. During Pinya Period, because *Htan-Akon*, *Htan-Alon*, *Htan-tawun* were donated, toddy may have been grown widely. When a donation was made, toddy palm was used as a charity or a religious offertory in deed of donation. King U-zana was so intent on the plantation of toddy palms in Pinya Period. Toddy plantations were grown in Ngazun, Shwebo, Kyaukse, Sagaing, Kyaukpadaung, and Taungpyone. Among them, toddy palms must have been grown widely in Ngazun, Shwebo and Sagaing. While inscriptions recorded the toddy plantation in Bagan Period, it was inscriptions that highlight the toddy plantation in Pinya Period. It is noted that the toddy plantation in Bagan Period was more than that in Pinya Period.

¹³⁷Nyein Maung, 1983b, 114

¹³⁸Nyein Maung, 1983a, 327-328

¹³⁹Nyein Maung, 1983a, 353-354

¹⁴⁰Nyein Maung, 1983b, 181

¹⁴¹Nyein Maung, 1983b, 32-33

Like Bagan Period and Pinya Period, the toddy plantation in Sagaing Period could be studied in 3 inscriptions. According to Soe Min Gyi Monastery Inscription, Daughter of King Sagaing and King Kya Swa built a Maha Vihara Monastery to the west of Sagaing and grow coconut and toddy fully as an enclosure with the aim of the perpetuation of the Buddha *Tha-tha-na*.¹⁴² Toddy palm, mango and coconut were grown in the precinct of a monastery or pagoda probably in order to make the compound green and fresh. In other words, perennial plants were grown, so those who served the pagoda or monastery could get the benefits from those trees and use them for the maintenance of the pagoda or monastery. It can be said that plenty of toddy palms were grown in Sagaing.

King Hsinphyu Shin, also known as Sagaing *Min* Thihapate, built a pagoda in Sagaing and donated 300 toddy from Pan-Pu Village, 1, 000 from Phonma Village, 300 from Min Hla Village, 70 on the right side of Ma-Lwe Village and 40 to the east of Than Hlaing Village on 24 January 1351 as can be seen in the Sikhon *Payagyi* Inscription.¹⁴³ It is observed that toddy palm was grown plentifully in Sagaing. Minister Kuna Linkar built a monastery at Wun-Ku, grew toddy palms and donated them, as can be studied in Ohnmar-Dandi Monastery of Pinya dated 28 November 1355.¹⁴⁴ So it can be said that toddy palm was already grown then in Pinya, as well. In Sagaing Period, King Hsinphyu Shin was so intent on the plantation of toddy palms for religious affairs, social and economic in society. In Sagaing Period, plenty of toddy palms were grown and made donations in Sagaing, so it can be said that toddy plantation must have prospered well. To review from the inscriptions of Sagaing Period, toddy plantation in this period had declined more than those in Bagan Period and Inwa Period.

¹⁴²Nyein Maung, 1983b, 140

¹⁴³Nyein Maung, 1983b, 90-91

¹⁴⁴Nyein Maung, 1983b, 119-120

Toddy plantation in Inwa Period can also be studied, in 26 inscriptions. King Thadominphya and Queen *Taung Nan* of Inwa donated toddy palms and lands as an addition in 1364 to the Shwe Saw Lu Pagoda, Ordination Hall and monastery of the Town of Phaung Lin built by King Saw Lu, as can be seen in the inscription of the Lay-myet-na Pagoda and monastery built of King Saw Lu of Phaung Lin.¹⁴⁵ This shows that even in Inwa Period, important toddy palm was grown for religion in Phaung Lin. Nga Naung Oo Thin purchased a plot of land on 4 February 1364, grew toddy palm and donated them to the Mottaw Pagoda, as can be seen in the Mottaw Pagoda Inscription.¹⁴⁶ This shows that vital toddy palm was widely grown for religious affairs and economic in Wetlet Township, Shwebo District.

On 13 April 1364, the General Maha That Hteik and wife built the Maha Vihara Golden Monastery and donated, as shown by the Min Maha That-Hteik Maung Nan Inscription.¹⁴⁷ In that donation, King Thadomintaya made an additional donation of land and toddy palm in Hsat-thwa Village and garden of Han-Kwe Village to that monastery. This inscription shows that there was support to the general by the king and donation of toddy palm. On 26 August 1365, Minister Raza Thingyan built a monastery to the south of Salin, and donated coconut, toddy palm, mango and *Htan-ta-yin-tet* amount on 5 *Pes* of lands in Wayin-Tok Village and Kan-Tu Village to the monks, as can be seen in Raza Thingyan Monastery Inscription.¹⁴⁸ According to the inscriptions, toddy palms were crucial for religion in rural society. Nga-nathiba built a cave-shrine in 1360, and donated toddy palms and lands, as for religion in Nga-nathiba Inscription.¹⁴⁹

¹⁴⁵*Maha Muni*, 1989, 345-354

¹⁴⁶(a)Nyein Maung, 1983*b*, 150

(b)Mottaw Pogada is present situated in the Wetlet Township, Shwe Bo District.

¹⁴⁷Nyein Maung, 1983*b*, 139

¹⁴⁸Nyein Maung, 1983*b*, 152

¹⁴⁹Nyein Maung, 1983*b*, 160

This shows that toddy palm was grown in Nahtogyi Township, Myingyan District. During King Ah Saw Myat Swa Nawrahta's reign 1371-1379, plenty of toddy palms were grown.¹⁵⁰ In Nga-Shi-Thin Khame's Inscription, Nga-Shi-Thin Khame donated 100 toddy palms of Thamai-Kyi Village on 5 April 1381¹⁵¹. This shows that in Nahtogyi Township in Inwa Period, toddy palm was widely grown for perpetuating the *Tha-tha-na* and economy.

King Swa-Saw Ke donated land and 100 toddy palms below Yadana Kan, 1, 000 toddy palms of Pale-Tha Village, 1,000 toddy palms of Mon Nyin, 500 young toddy palm, 5 toddy palms donated by *Me The*, 30 toddy palms from Pan-Khi Village and Let-Pan-Gyi to the Yadana *Ceti* Monastery, as can be seen in Yadana *Ceti* Monastery Inscription.¹⁵² This shows that toddy palm was widely grown for religion, economy and society in the neighbouring areas of Monywa even since Inwa Period. The inscription carries a curse to the destructive hand reading "All the iron hooks in the toddy palms shall be hung at the tongue of the destructive hand, and suffer agonies at hundreds and thousands of hell." So it can be assumed that the people of that period valued toddy palm, donated in large numbers and inscribed curses on would be destructive hand to the meritorious deed. In 1393, the Minister Pisi donated 1½*Pe* of toddy plantation in building a temple.¹⁵³ In 1395, the couple of Thammanathu built a monastery and donated 300 toddy palms as an enclosure in building it, as can be seen in Thammanathu Couple Inscription.¹⁵⁴ So it can be said that toddy palm was grown as an enclosure. King Swa Saw Ke donated the toddy palms and lands on the left side of the public rest

¹⁵⁰U Tun Nyo, *Ma-ha Ya-za-win Thit* (New Chronicle), Vol. II, Yangon, Ne-La Yaung Press, August, 2007, p.6 (Henceforth: Tun Nyo, 2007)

¹⁵¹Nyein Maung, 1983*b*, 179

¹⁵²Nyein Maung, 1983*b*, 19-21

¹⁵³*Palace(II)*, 2011, 153-154

¹⁵⁴Nyein Maung, 1983*b*, 218

house at Si-Khon Monastery in Sagaing, and 200 toddy palms on the left side of Min village in 1398, as can be seen in *Mingyi Swa Saw Ke Inscription*.¹⁵⁵ So it can be assumed that plenty of toddy palms for religion and rural society were grown in Sagaing and toddy palm may have been grown in building rest houses. King Swa Saw Ke was so intent on the plantation of toddy palms in Inwa Period.

Brother in law of King Aniruddha Min Saw and King Tagaung Thein-Ka-Pate donated the toddy palms of Taung-Pan-Wun, toddy palms of Taung-Phi, 1,000 toddy palms in the south of Mattu Taw Kyaung as the belonging of the monastery in 1400, as can be studied in Yan Aung Myin Pagoda Inscription.¹⁵⁶ This inscription indicates that important toddy palm was already grown to maintain and repair of monastery in Tada-Oo Township since that time.

On 7 April 1400, the Queen of King Swa Saw-Ke built a monastery and donated toddy palms and lands, as in *Min-gyi Swa Miphaya-gyi Kyaung Inscription*.¹⁵⁷ The donations mentioned in the inscription included 5 *Pes* of toddy palm on the formerly cultivated land, 5 *Pes* of toddy palm on the former sugarcane garden, $3\frac{1}{4}$ *Pes* of toddy palm, and 3 *Seit* of toddy palm grown in line, and 4 *Pe-Sayut* of toddy palm, at Thittapin. So when the formerly grown *Mayin* paddy got damaged, toddy palm was grown, on lands where other trees or plants could not be grown. Thus, toddy palm was grown for economy. According to Yan Aung Myin Pogada inscribed 19 November 1400,¹⁵⁸ toddy grove at Shae-Dauk-Kan, toddy palms of Mon Thin Village, and toddy palms of Wetlet, Mingun, and Kun Taw Yar Nge Village were donated to the monastery. So toddy palm can have been grown widely for religious affairs, social and economic in the neighbouring areas of Mingun and Wetlèt Township.

¹⁵⁵Nyein Maung, 1983b, 205-206

¹⁵⁶Nyein Maung, 1983b, 210-212

¹⁵⁷Nyein Maung, 1996, 25-27

¹⁵⁸Nyein Maung, 1983b, 220-227

In Shwe Kyaung Inscription¹⁵⁹ Thammanathu built a monastery and donated 300 toddy palms as the enclosure of the monastery. Minister Narga Thaman built a *Kala* Monastery, wall, and passage way, and in 1406, grown coconut, toddy palm and trees, as can be seen in Narga Thaman *Amat* Inscription.¹⁶⁰ This shows that toddy palm was grown to add grace to the enclosure, wall and passage ways. Thus, toddy palms had been done systematically in Inwa Period. According to the Queen Saw Bo-Me Monastery Inscription,¹⁶¹ 500 toddy palms and Sai Pauk Village in Than Hlaing were identified as the separate land, and were donated. Pi-Tu Thanga Raza purchased 1500 toddy palms of Samon Village at one horse and 3 viss of *Kyae-Lin-Pan* and 17 *Kyats* in dedication of the *ceti* on 16 April 1417, and donated them to the Pagoda. He also purchased 217 toddy palms of Chaung Net-Nge Village, 24 of Min Se Taw Village, and 40 toddy palms at the cost of 40 *Kyats*, and also donated 130 toddy palms and 100 *Htan-yin* of Kyar-Khat Village, as in Pitu Thanga Raza Inscription.¹⁶² It can be assumed that toddy palms were grown for economic and religious affairs in Sagaing Division.

King Moe Nyin built a pagoda and a monastery and on 26 February 1430, donated 1500 toddy palms of Ta-Pe Village, 300 of Mon Nyin Village, 3000 of Mye-Sun, 1500 of KaTu, 300 of Pan-Khi, 1247 of Kasa-Kaung, 20 *Htan-gyi* toddy palms and 2000 *Htan-pauk*, 1000 of Pale and Oke-Pho, 300 of Kaung-sin, 240 of Htan-ta-Pin and 1400 of Thaminnan, as in Yadana *Ceti* Hsin-mya-Shin Pagoda Inscription¹⁶³ and Moe Nyin Mintara Inscription.¹⁶⁴ It can be assumed that toddy

¹⁵⁹Nyein Maung, 1996, 28-29

¹⁶⁰*Htu-pa-yon*, 2009, 105-106

¹⁶¹Nyein Maung, 1983b, 236

¹⁶²Nyein Maung, 1987, 11-14

¹⁶³*Htu-pa-yon*, 2009, 131-132

¹⁶⁴Nyein Maung, 1983b, 255-258

palm was widely grown in the neighbouring areas of Yezagyo, Monywa Township and Sagaing Division. King Moe Nyin was so intent on the plantation of toddy palms for Buddha *Tha-tha-na*.

King Narapati built the *Htu-pa-yon* Pagoda on 20 April 1442, as is recorded in the *Htu-pa-yon* Pagoda Inscription.¹⁶⁵ That inscription reads that 300 toddy palms, young and old, in In-Pe *Taik*, 300 toddy palms of Lin Pet Village were donated. So it can be said that toddy palm was widely grown in Sagaing Division. During King Narapati's reign, according to Pi-Tu Thanga Raza Inscription, Pi Tu Thanga Raza built a cave-shrine, monastery and the *Pitakat* repository on 28 February, 1443.¹⁶⁶ This reads that on 30 December 1445, Pitu Thanga Raza purchased toddy palm from the four brothers: toddy of *Thamee-Hla* size from Khet-Si Village, toddy of the size of the elephant's foot, 400 toddy palms of the size of the parrot's tail, as well as cattle, silver, *Paso*¹⁶⁷ and 5 clothes, etc. It is assumed that toddy palms of different sizes must have been purchased at different prices. Thus, toddy palms were important for economy.

Son of King Narapati, the Crown Prince Maha Thiha Thura built a monastery at Simmanar in 1446, and donated land, toddy palms and villages, as recorded in Maha Thiha Thura Monastery Inscription.¹⁶⁸ Twenty-eight toddy palms were donated. The son of the Guardian of Princes and Princesses of King Narapati by the name of minister Ananda Thuriya, built a golden monastery and donated 1500 toddy palms of In-Taung *Taik*, and toddy palms of Nga Myi Sauk Village, 100 toddy palms of Nwar-Sakyat *Taik*, and 740 toddy palms of Linlyin *Taik* on 15 April, 1448, as recorded in Ananda Thuriya Monastery Inscription.¹⁶⁹ Minister Ananda Thuriya had no chance to make donation of toddy palms, village

¹⁶⁵Nyein Maung, 1987, 34-44

¹⁶⁶*Htu-pa-yon*, 2009, 169-170

¹⁶⁷men's nether garment

¹⁶⁸*Htu-pa-yon*, 2009, 181-182

¹⁶⁹Nyein Maung, 1996, 50-55

or land according to his desire, but only through the permission granted by the king. So the donars who wanted to make donations of land, garden, village and toddy palms to the promotion of the Buddha *Tha-tha-na*, had to submit presents to the king's permission, the donor expressed his of her name and title and had them recorded in the inscriptions, according to the then customs. In the donation of a monastery, the donors usually donated the toddy palms together with the land. In the plantation of gardening in the Central Myanmar regions, toddy palms which could grow in any climate and fetch good income were mostly grown. As the toddy products like toddy sap and *Htan-nyet* were sold, donations of toddy palms may have been made. The toddy products were sold for paying the cost of maintaining the pagodas or monasteries, or *Pitakat Taik* of Repository of the Buddhist Scriptures, to make offertories of alms, flowers and lights and to donate the four essentials of monkhood. The minister donated not only over 3,500 toddy palms, but also betel palms, coconut palms, mango and jackfruits. The inscription reads that 740 toddy palms fetched K. 100.¹⁷⁰ The donars of Inwa Period identified the types of donation such as village, land and toddy palms. Systematic allocations of donations were made in different categories: to be used for the maintenance of the religious edifices, to offer flowers and lights, to repair the Repository of the Buddhist scriptures, to make offertories to the abbot and the residing *Sanghas*. So it can be assumed that toddy palms were made donations and toddy palm was grown widely in Sagaing Division during Inwa Period. The Guardian of South Queen of King Narapati, Theit Seik *Kodaw* built Golden Monastery at the north east corner of the *Htu-pa-yon*, and donated 155 toddy palms, many young toddy palms and 5 *Pes* of fields with toddy palm at Palaing, as seen in Theit Seik *Kodaw* Monastery Inscription.¹⁷¹ So it can be said that important toddy palm was grown

¹⁷⁰Daw Ohn Kyi, "Ananda Thuriya Kyaung Kyauk-sa"(Ananda Thuriya Monastery Inscription), Universities Historical Research Centre, *Myanmar Historical Research Journal*, No. 11, June 2003, pp.75-84 (Henceforth: Ohn Kyi, 2003)

¹⁷¹Nyein Maung, 1987, 54-56

plentifully for religious affairs, economy and social in society in the Central Myanmar regions, while young toddy palms were offered to a pagoda or a monastery.

When King Narapati passed away, King Maha Thiha Thura built the burial urn pagoda on 24 July 1468, and donated 500, entitled to *Kaung-sit-hmu*, 60 toddy palms entitled to Aung Naing Pha, 30 entitled to Nga Pu Nge, and 150 toddy palms entitled to Nga Tha, as stated in the Burial Urn Pagoda Inscription.¹⁷² *A-mi* Soe Min named *Vimala Devi* grew toddy palm in the land where to the monastery of grandma existed in Sagaing, and donated in 5 October 1482, as seen in *Vimala Devi myi-thaw A-mi* Soe Min Inscription.¹⁷³ It is observed that during Inwa Period, plenty of toddy palms were donated when pagoda, monastery, *ceti*, cave-shrine, *Pitakat* repository, passage-way and wall were built and donated, so it can be said that toddy palm was donated plentifully for religious affairs during Inwa Period. During this period, toddy palm of different sizes were grown and donated. So toddy palms were used as offertories and were grown seriously and systematically during Inwa Period. According to the inscriptions, toddy palm plantation as the second largest cultivated plant in the Inwa Period.¹⁷⁴ During the Inwa Period, King Swa Saw Ke and Moe Nyin Mintara were intent on the plantation of toddy palms in Inwa Period. Toddy palms were grown in Shwebo, Salin, Nahtogyi, Yezagyo, Monywa, Tata-Oo, Sagaing, Mingun and Wetlet in Inwa Period. Among them Sagaing and Yezagyo were grown widely in Inwa Period. It must be commented that toddy plantation in Inwa Period has prospered more than that in the preceding periods of Pyinya and Sagaing.

¹⁷²Nyein Maung, 1987, 65

¹⁷³Nyein Maung, 1987, 70-71

¹⁷⁴Daw Ohn Kyi, *AD 1500-1600 Myanma Kyauk-sa pa Tha-maing* (History of Myanmar Inscription, AD 1500-1600), Yangon, Myanmar History Commission, 2004, p.80 (Henceforth: Ohn Kyi, 2004)

Toddy plantation in Taung-ngu Period can also be studied, in 3 inscriptions. On 14 July 1485, King Minkaung the Second and the Senior Queen maintained the damaged Yadanar *Ceti* Hsin-Mya Shin Pagoda, and donated garden, village, land, and toddy, as in Yadanar *Ceti* Hsin-Mya Shin Pagoda Inscription.¹⁷⁵ The number of 7,200 toddy at In-Met, 2500 at Hsin Bo, 32,000 at A-nya Let-pan-nge, 500 A-kye Let-pan-si, 4300 at Thin Ma Nan, '150, 000 toddy in total 'were donated for the brick, timber and iron of the monastery, and four essentials of monks dwelling at the monastery, and in the service of light and alms, cement, molasses, the scriptures, ink and palm leaves to the pagoda. Toddy palms were grown seriously for religious affairs, economic, social and education. Thus, toddy palms were grown widely in Sagaing Division in Taung-ngu Period. The toddy seeds were purchased in case and grown in the beginning of building the monastery. At Ottara-Won Garden, mango, jackfruit (*Artocarpus heterophyllus*), coconut, betel and toddy palms were grown in the surrounding of the temple, and donated. The inscription reads that the headmen of *A-the* and *A-lar* classes who cared the growth of the toddy palms were allowed the revenue of one toddy per ten, ten toddy per a hundred, in the line of ancestry, while the masons, carpenters and blacksmiths were allowed the revenue of 100 toddy palms each, and the slaves, 100 toddy palms each and 50 toddy palms each. Thus, the revenues were systematically shared, and given away. The donors of that period made donations for the cause of the future, so they can be regarded as being fore-sighted. It can be said that toddy palms were grown seriously for the perpetuation of the Buddha *Tha-tha-na* till the *Tha-tha-na* year 5000. Moreover, it can be assumed that what the toddy palm would yield could be used to fulfil the needs in pagoda, *ceti* and monastery.

¹⁷⁵(a)*Htu-pa-yon*, 2009, 137-139

(b)Toe Hla, 2009a, 144

In Yadana Beikman Inscription¹⁷⁶, 20,000 toddy palms were donated on 28 January 1509, from four toddy regions. In that inscription was inscribed by Shin Maha Silavamsa. "*Kye-mye, Let-myaw, Hsin-che-paw, Thamee-hla, Ye-ya, Pin-htwet.*" Thus, the growth of the toddy palm was classified into six, according to the size. The four toddy regions included in that inscription were Kyauk Htauk Region, Talai Village, Thalai *Taik*, and Lin Pet *Taik*. So those four villages can be considered as the villages where plenty of toddy palms were grown for economic and religious affairs during Taung-ngu Period. It can be learned from the list of toddy donations inscribed in inscriptions, that toddy plantation in Taung-ngu had developed more. It is noted that the number of toddy palm donated had risen even to over 170,000. Nevertheless, King Taung-ngu had the cases inscribed on the toddy palm for jurisdiction. Only when the case had been accepted did the king accept the gift. This can lead to the assumption that toddy plantation had already existed in Taung-ngu Period. According to Casesar Fredick's record, King Bayintnaung grew coconuts and toddy palm on roadsides along the main roads.¹⁷⁷ The record shows that the main roads were shady and cool. It can be said that toddy palms were grown in groves. Besides the Royal Capital of Hanthawaddy, five main roads were built in Taung-ngu, as well as 200 roof-tiered passageways, and toddy palms were grown along the city wall. To the east were grown 1400 toddy palms; to the south, 1960 toddy palms; 1400 toddy palms to the west; 1960 toddy palms to north "6702 toddy palms in total." So the town Taung-ngu could even be called the Town of toddy palms, *Tarla-Pura*.¹⁷⁸ Thus, the toddy plantation in Taung-ngu had prospered more than that of Sagaing Period. Thus, toddy palms were grown systematically. It must be commented that toddy plantation in Taung-ngu Period had prospered more than that in the preceding periods of Bagan, Pinya, and

¹⁷⁶Nyein Maung, 1987, 95-97

¹⁷⁷Tun Nyo, 2007, sar-san

¹⁷⁸Toe Hla, "*Ta-khit Ta-kha ka Taung-ngu-myo Kay-tu-ma-ti*" (The City of Taung-ngu, Kaytumatu in the Past), In the memoriam to the 500th Anniversary of the foundation of the Royal Capital, *Research Journal*, November, 2010, p.16 (Henceforth: Toe Hla, 2010)

Sagaing and Inwa. During King Tharlun's reign at monastery, pagoda and *cetis*, toddy plantations were donated, as can be seen in Kaungmutaw Pagoda Inscription; one grove of toddy palm to Thar Tun Oo Pagoda; one grove of toddy palm of Myaung Ohn Monastery; one grove of toddy palm to the Maha *Ceti*; and one grove of toddy palm to the Nga-Su Pagoda.¹⁷⁹ During Nyaungyan Period, toddy palms were grown into plantations and donated. During King Pintale's reign, in 1653, to the west of Zeyapura, to the north east of the Royal Pavilion where his royal grandfather Narapati stayed, a plot of land was donated, as well as 5-tiered roofed passage-way and a large monastery. In the compound, 7,000 banyan trees and 7,000 toddy palms were to be grown.¹⁸⁰ So it can be said that toddy palm was grown systematically in plantations for religious affairs, economic and social in society during Nyaungyan Period.

During Nyaungyan Period, toddy palms were grown for economy in Central Myanmar regions, as can be studied in the *Taya-Chin* on toddy climbing, composed by the Great Composer *Wun-gyi* Padetha Raza.¹⁸¹ It must be commented that toddy plantation in Nyaungyan Period had prospered more than that in the periods of Pinya and Sagaing.

In the inscriptions from Bagan Period to Nyaungyan Period, in making donations of cultivated lands and toddy palms, the majority went to the general service of pagodas, of *Cetis*. A few donations were made to the *Sanghas*. The majority of such donations were made by the king and queens, as well as by the governors. Quite a rare donation was made by the pooling of donations among the *A-thes* or Commoners.

King Alaungpaya, to founder of the Konbaung Dynasty, organized 46 villages in the surrounding of Moke-Soe Bo Village, and built a fortress of toddy

¹⁷⁹"*Kaungmutaw Kyauk-sa*" (Kaungmutaw Inscription), Reverse, lines 60-61

¹⁸⁰Khin Cho, "*Nyaungyan-khit Si-pwa-ye*" (Economy of Nyaungyan Period), M.A Thesis, Department of History, University of Yangon, February 1987, p.15 (Henceforth: Khin Cho, 1987)

¹⁸¹Toe Hla, 2004, 137

stems that stretched over the distance of 470 *tars*,¹⁸² from which he gathered forces.¹⁸³ So toddy palms were important for military, economy and social in rural society. Thus, toddy palms were grown in large number in the neighbouring areas of Shwebo. From King Naungtawgyi's reign to King Tharyarwaddy's, no evidence have yet been discovered, which are related to toddy palm, but it is assumed that, being a perennial tree, toddy plantation must have existed.

According to *the Royal Orders of Burma*, toddy palms were grown plentifully and commercially for doing *Htan-nyet* trading in the surrounding areas of Bagan during King Bagan's regin.¹⁸⁴ According to Bagan 1765 *Sit-tan*, the villages such as Nyaung Chit, Thaphan Khar, Htan-Kyin, Mye Thin Twin and Pin Lin existed toddy plantation for economy.¹⁸⁵ In Bagan 1783 and 1784 *Sit-tans*, such villages as Kabar Ni, Mye Thin Twin, Twin, Nga Hlaing, Dan't-Kyin, Nyaung Chit, Pun, Palin, Phalan O, Ku, Let Pya, Ye Kyi, Sa-Pe, Ye-Myet, Nga Kyaw, Myint Wun, Tin kat, Taung Pon Tan, Nga Kyaw Tan, and Thaphan Khar existed toddy plantation for economy.¹⁸⁶ Thus, toddy palm was grown plentifully as tax tree in those villages in the neighbouring areas of Bagan Region.

¹⁸²One Tar is equivalent to 3 feet

¹⁸³(a)Williamson, *Burma Gazetteer, Shwe Bo District*, Vol. A, Rangoon, Govt. Printing, 1924, p.21 (Henceforth: Williamson, 1924)

(b)U (Maung Maung) Tin, *Konbaung-set Ma-ha Ya-za-win-taw-gyi* (The Great Chronicle of Konbaung Dynasty), Vol.I, Yangon, Universities Press, 2004, p.50 (Henceforth: (Maung Maung) Tin, 2004)

¹⁸⁴*The Royal Orders of Burma (A.D 1598-1885)*, Edited & Translated by Dr Than Tun, Vol.V(A.D 1809-1810), Kyoto, Centre for Southeast Asian Studies, Kyoto University, 1986, p.246 (Henceforth:ROB,V)

¹⁸⁵Dr. Yi Yi, "*Konbaung Khit Sit-tan-mya*" (Revenue Inquests of the Konbaung Period), *Journal of the Burma Research Society*, Yangon, The Burma Research Society, 1966, Vol.49, pt. (i), p.86 (Henceforth: Yi Yi, 1966)

¹⁸⁶Yi Yi, 1966, 96

Toddy was mentioned on the trees grown in the royal garden during Bagan Period. Also in King Badon's reign, a term "*U-yin-taw-shi-htan*," "toddy palm" in the Royal Garden¹⁸⁷ is noted. Tuyin-Taing Myoma¹⁸⁸ and the villages in Tuyin-Taing Province, namely Taung Shae, Shar-myein, Anauk, Tharaphi, Kamma, and Pahto-Kan existed toddy was grown plentifully for religious, economic and social in society.¹⁸⁹ The Taung Hsin Town *Sit-tan* mentions that there existed toddy palm of 49 *yin-tet* amount in the Town of Taung-Hsin.¹⁹⁰ The other 17 *yin-tet* toddy palms were *Kyaung-Paing* toddy palms. So it is noted that toddy palm was grown plentifully in Taung Hsin Town during Konbaung Period.

There existed toddy palm of religious affairs in Pun,¹⁹¹ while there were 25 *yin-tet* of toddy palm in Ywa Tha as well.¹⁹² So there existed toddy plantation in Pun Village and Ywa Tar Village. It is also noted that Nga Tha Yauk Village,¹⁹³ Mye Sun Village,¹⁹⁴ existed toddy plantation. So, in Kyaukpadaung Region, during Konbaung Period, there existed plentiful toddy plantation.

¹⁸⁷(a) *ROB*, V, 589

(b) Dr. Toe Hla, *Alaungmintayagyi i Konbaung Shwe-pyi* (Konbaung Dynasty of King Alaungmintaya), Yangon, South Okkalapa Press, May 1993, p.183 (Henceforth : Toe Hla, 1993)

¹⁸⁸Yi Yi, 1966, 97

¹⁸⁹Frank N. Trager and William J. Koenig, *Burmese Sit-tans (1764-1826)*, (Records of Rural life and Administration), Tucson, The University of Arizona press, 1979, pp.279-280 (Henceforth : Trager and Koenig, 1979)

¹⁹⁰Toe Hla, "*Badon-min Let-htet Myanma Naing-gan Tha-maing*" (History of Myanmar : King Badon's Regin) (AD 1782-1819), M.A. Thesis, Department of History, University of Mandalay, 1970, p.Hse (Henceforth : Toe Hla, 1970)

¹⁹¹Trager and Koenig , 1979, 265

¹⁹²(a) Toe Hla, 1970, Hse

(b) Trager and Koenig, 1979, 288

¹⁹³Yi Yi, 1966, 97-8

¹⁹⁴Trager and Koenig, 1979, 307-308

In Salay Township, Gwe Cho,¹⁹⁵ Myoma¹⁹⁶ and Pya Village¹⁹⁷ had toddy plantation, according to the *Sit-tans*. When Maha Thiri Zeya Thura founded Taung-ngu as Ke-Tu-Ma Ti Town, at every distance of 5 cubits was grown one toddy palm every year in total, 5400 toddy palms.¹⁹⁸ So toddy plantation existed in Taung-ngu. In Hantharwaddy *Sit-tan*, King Banyar Oo founded ten towns, including Htan-taw-gyi Town.¹⁹⁹ So it can be assumed that there existed toddy plantation in Hantharwaddy. In Wuntho *Sit-tan*, in 1796, the *Myosa* of Mya Taung took six villages, including Htan-taw Village, by force.²⁰⁰ So it can be assumed that toddy plantation existed in the Township of Mya Taung. According to the *Sit-tans*, it was found that there existed large toddy plantations in the regions of Bagan, Tuyin Taing, Kyaukpadaung and Salay for religious affairs, social and economic in Myanmar society.

Not only the *Sit-tans* but also the Royal Orders mention the villages where toddy plantation existed. According to the Royal Order of King Badon, there existed toddy plantation for military and economy in West Mingun,²⁰¹ Sagaing, Kyaukse, Nabe-Kyu, Pyawt, Moo-Thar, Pan-Chi, Mate²⁰² Moo-Nar, Mingun, Thayai, Thant-sin, In-Be.²⁰³ King Badon's Royal Orders show that these existed 7

¹⁹⁵Gwe Cho Village 1164 *Sittan*

¹⁹⁶Salay Town 1145 *Sittan*

¹⁹⁷Pya Village 1164 *Sittan*

¹⁹⁸Yi Yi, 1966, 73

¹⁹⁹Yi Yi, 1966, 72

²⁰⁰Dr. Yi Yi, "Konbaung Khit-oo Myo-ne Ok-chok-pon" (Township Administration in Early Konbaung Period), *The Union of Myanmar Literature and Social Science Journal*, Yangon, Vol.I, part.iii, May 1968, p.368 (Henceforth : Yi Yi, 1968)

²⁰¹*The Royal Orders of Burma (AD 1598-1885)*, Edited & Translated by Dr Than Tun, Vol. VI (AD 1807-1810), Kyoto, The Centre for Southeast Asian Studies, Kyoto University, 1987, p.586 (Henceforth : *ROB*, VI)

²⁰²Min Te E-kin

²⁰³(a)*ROB*, VI, 589

(b)Toe Hla, 1993, 184

yin-tet of toddy palm in Twin-Thin *Taik*, Kokko Hla, and Min Thar Village.²⁰⁴

According to King Badon's Royal Order dated 11 January 1812, toddy palm was grown plentifully for economy in Pakhan Gyi Region so that such a bountiful supply of *Htan-nyet* could be made.²⁰⁵ There existed toddy plantation for economy in Amarapura, Sagaing, Pinya, Mingun and Inwa as in the Royal Order dated 2 December 1806.²⁰⁶ So toddy plantation was vital for economy during the Konbaung Period.

On 11 January 1807, King Badon formed the Chinese as groups for preparing *Htan-nyet* into sugar.²⁰⁷ So it can be said that King Badon made encouragements on the toddy plantation. Besides, King Badon ordered his men to check the inscriptions on the toddy plantation and donation in Bagan, Pinya, Inwa and Sagaing Periods, as well as on donation of salves, and donated toddy palms and lands in addition, and left new additional inscriptions.²⁰⁸ So it can be said that toddy plantation in villages and regions where toddy was grown in Bagan, Pinya, Sagaing and Inwa Periods still continued to exist till King Badon's reign. It is assumed that toddy palm has continued to exist because it grows naturally and because people had made additional plantation of toddy palms. According to the

²⁰⁴*ROB*, VI, 597

²⁰⁵(a)*The Royal Orders of Burma (AD 1598-1885)*, Edited & Translated by Dr Than Tun, Vol. VII (AD 1811-1819), Kyoto, The Centre for Southeast Asian Studies, Kyoto University, 1988, p.275 (Henceforth : *ROB*, VII)

(b)Toe Hla, 1993, 132

(c)Toe Hla, 2004, 141

²⁰⁶(a) *ROB*, V, 1042

(b)Toe Hla, 2004, 140

²⁰⁷*ROB*, VI, 330

²⁰⁸(a)Than Tun, 2005b, 35-37, 55-58, 80-82, 124-127, 135-138, 141-142, 152-156

(b)Than Tun, 2006, 29-33, 155-157, 160-163, 183-186

(c)*Maha Muni*, 1989, 79-82, 142-151, 171-177, 318-329, 345-354

King Badon orders, toddy palms were important for religious affairs, economic, social and military in Myanmar society.

According to the records of Konbaung Period, there existed villages and regions of toddy plantation for economy. In Yezagyo Township,²⁰⁹ Mahlaing,²¹⁰ existed toddy plantation. Moreover, in Mahlaing, cotton and toddy palms were mainly grown.²¹¹ In Amyint Township, Hsa-htone Village grew sesamum and toddy palm mainly.²¹² In Ngazun Township, in the villages Myo Thar, Lay-Dauk-Kan and Htan-Taw, toddy plantation existed.²¹³ So in Ngazun Township, when in need of money, toddy palms were taken seriously like the jewelleryes, so mortgages were done. Toddy palm can be considered as an essential commodity to the Myanmar society.

Also in the regions of Salay, Bagan, Nyaung Oo, Kyat, and northern Poppa, Gway-Cho, Kye-Ni, Thwe-Net, Hsin-Ka, Thalon-Thwe, Hsi-Pwa in the regions of

²⁰⁹"*Htan-paung Thet-ka-yit Sa-chok*" (Toddy palm Mortgage Contract), *Parabaik* MS, Cultural Collection (Henceforth: Cultural, *Parabaik*)

²¹⁰(a)"*Htan-pin-yaung Thet-ka-yit Sa-chok*" (Toddy palm grove Sale Contract), Thamangan, *Parabaik* MS, Daw Hla Myaing Collection (Henceforth: Hla Myaing, *Parabaik*)

(b)"*Htan-pin-paung Thet-ka-yit Sa-chok*" (Toddy palms Mortgage Contract), *Parabaik* MS, No. 147, Daw Pyone Collection (Henceforth: Pyone, *Pu* 147)

(c)"*Htan-pin hnint Le-mye A-mwe-khwe-we-hmu*" (Toddy and lands of inheritance) *Parabaik* MS, No.157, Daw Pyone Collection (Henceforth: Pyone, *Pu* 157)

²¹¹W.J.Keith, I.C.S, *Report on the Second Settlement of the Meiktila District*, Upper Burma, November 1907- October 1910, Rangoon, Printed at the British Burma Press, 1911, p.20 (Henceforth: Keith, 1911)

²¹²Win Myint Aung, "A Socio-Economic History of Amyint in the Konbaung Period (1752-1885)", M.AThesis, Department of History, University of Mandalay, 2002, p.45 (Henceforth : Win Myint Aung, 2002)

²¹³(a)"*Htan Le paung Thet-ka-yit Sa-chok*" (Toddy land Mortgage Contract), Phyin Hla Taw Village, *Parabaik* MS, No. 1, U Bo Kyi Collection (Henceforth: Bo Kyi, *Parabaik*)

(b)"*Htan-pin-paung Thet-ka-yit Sa-chok* " (Toddy palm Mortgage Contract), Ngwe-In Village, *Parabaik* MS, No.1, Aye Aye Myat Collection (Henceforth: Aye Aye Myat, *pu*-1)

Yaw, Hseik Phyu, Hsin Phyu Kyun, Kyaukpadaung, Sit-Ku, Lin Pin, Pakokku, and Yenanchaung, toddy palm was mainly grown as a livelihood.²¹⁴ In Konbaung Period, there also existed toddy plantation in villages like Dipeyin Kwe Village, Thit-Cho-Kon Village in Sagaing Region.²¹⁵

In Kyaukpadaung Region, according to the list of toddy palm owners in December 1870, there existed toddy plantation in villages like Kan Ni, Yon, Kywe Kan, Intaw, Yelar, Ze Cho Pin Hta-Su, Hman-Gyi Kan, Amyaung Kan, Ywa Thit,

²¹⁴(a)"*U Boe Kyi htan hma pe-sa-mya*" (Letters from the merchants U Boe Kyi), *Salay Pan-pu Yoke Sone Pitakat Taik, Parabaik* MS, No.1, 2,12, 13,14, 16, 53, 74, 77, 79, 168, (Henceforth: *Salay Pi, pu* -1, 2,12, 13,14, 16, 53, 74, 77, 79, 168)

(b)"*U Boe Kyi htan hma pe-sa-mya*" (Letters from the merchants U Boe Kyi), *Thathana Takun Sar Thin Taik, Parabaik* MS, No.74, (Henceforth: *Thathana Takun, pu*- 74)

(c)"*U Boe Kyi htan hma pe-sa-mya*" (Letters from the merchants U Boe Kyi), *Salay Pan-pu Yoke Sone Kyaung Pya Taik, Parabaik* MS, No. 14, 23, 46 (Henceforth: *Salay, Pya, pu*- 14, 23, 46)

(d)"*U Boe Kyi htan hma pe-sa-mya*" (Letters from the merchants U Boe Kyi), *Koehsaung Kyaung Taik, Parabaik* MS, No. 15, 16, 40, 41, 46, 51 (Henceforth: *Koehsaung, pu*- 15, 16, 40, 41, 46, 51)

²¹⁵(a)"*Htan-pin-paung Thet-ka-yit Sa-chok*" (Toddy palm Mortgage Contract), Shwe-ku Village, *Parabaik* MS,U Za-wa-na Collection (Henceforth: *Za-wa-na, Parabaik*)

(b)"*Htan-pin-paung Thet-ka-yit Sa-chok*" (Toddy palm Mortgage Contract), *Parabaik* MS, U Wardeiksa Collection (Henceforth: *Wardeiksa, Parabaik*)

(c)"*Htan-pin-yaung Thet-ka-yit Sa-chok*" (Toddy palm grove Sale Contract), Shwe-ku Village, *Parabaik* MS, U Za-wa-na Collection (Henceforth: *Za-wa-na, Parabaik*)

(d)"*Htan-nyet-yaung Sa-chok*" ("*Htan-nyet* Selling Contract), *Parabaik* MS, Taung-Oo Village, U Wardeiksa Collection (Henceforth: *Wardeiksa, Parabaik*)

(e)"*Htan-nyet-yaung Sa-chok*" (*Htan-nyet* Selling Contract), *Parabaik* MS, Shwe-ku Village, U Za-wa-na Collection (Henceforth: *Za-wa-na, Parabaik*)

Inpinsan, Bonkansin-kan, and Kan Lun.²¹⁶ Besides, there also grew toddy palm in Kyote-Pin-Kan Village.²¹⁷ So during Konbaung Period, in Kyaukpadaung Region, toddy palm was grown plentifully, and it was grown as a means of livelihood.

Magyeepin Village, and Hsin The Village in Taung Thar Township, during Konbaung Period, there existed toddy plantation.²¹⁸ So toddy palms were used as a property for mortgage to borrow the money loan. Thus, toddy palms were essential for Myanmar society.

During King Thibaw's regin, through the King's agents, toddy seeds were purchased, and were grown in Dhanuphyu and Hinthada Regions. According to the list, toddy palms were grown in villages like Kya-Khat, Samon, Saye, Sity, Tin-Teik, Taung-ngu-Kon, Pyu-Kan, Mingun, Shar Yaung, Magyee-sin, Myaung-Kon, Yetwin-Gaung, Ywa Taw and Ywa Thit Gyi.²¹⁹ So toddy palm was grown

²¹⁶(a) "*Htan-tha-ma-mya Sa-yin*" (List of Toddy palm Climbers), Uinversities Central Library, *Parabaik* MS, No. 1463 (Henceforth: Central, *pu*- 1463)

(b)"*Htan-tha-ma-mya Sa-yin*" (List of Toddy palm Climbers), Universities Central Library, *Parabaik* MS, No. 1869 (Henceforth: Central, *pu*- 1869)

(c)"*Htan-pin A-mwe-lu-hmu-mya*" (Toddy-palm Inheritance Dividing Contract), *Parabaik* MS, No.1, Kyaukpadaung Township, Mya Thida's Collection (Henceforth: Mya Thida, *pu*- 1)

(d)"*Teik-ta-seik Me-myan Son-san-yan Htauk-hlan-sa*"(Report on Secret Investigation), Universities Central library, *Parabaik* MS, No. 1285 ((Henceforth: Central, *pu*- 1285)

²¹⁷Central, *pu*- 1869

²¹⁸(a)"*Ngwe-che Thet-ka-yit Sa-chok*" (Money loan Contract), *Parabaik* MS, No. 4, Daw Pyone Collection (Henceforth: Pyone, *pu*- 4)

(b)"*Htan-taw Mye-paung Thet-ka-yit Sa-chok*" (Toddy Land Mortgage Contract) *Parabaik* MS, No. 1, Daw Pyone Collection (Henceforth: Pyone, *pu*- 1)

²¹⁹(a)Dr.Toe Hla, *Mye-paw Mye-auk Kyauk-sa Hmat-tan-mya ka Pyaw-thaw Tha-maing* (History from Inscriptons Above and Under-ground), Yangon, Zaw Press, 2009, p.145 (Henceforth : Toe Hla, 2009b)

(b)Yee Yee Win, "Peasantry of the Lower Doab Region (1819-1885)," Ph.D Dissertation, Department of History, University of Mandalay, 2006, pp.63-64 (Henceforth: Yee Yee Win, 2006)

not only in Upper Myanmar but also in Lower Myanmar. In Madaya Region, there existed the toddy plantation of Senior Prince Kanaung.²²⁰ It can be assumed that during Konbaung Period, if the number of toddy palms had been low, the kings would not have considered to collect toddy tax, that because there had existed large number of toddy plantations, toddy tax had been collected. As the society of Konbaung Period considered toddy palm as a valuable good, there existed toddy mortgage, sale, share of inheritance and even robbing of the toddy palms, etc. As toddy palms were considered as valuable even by the kings, it can be said that the king made encouragements on toddy plantation, grouping for special tasks and donations of toddy palms. During Konbaung Period, the regions where toddy work was done in large scale were Kyaukpataung, Sagaing, Salingyi, Nyaung Oo, Nahtogyi, Pakokku, Pintale, Monywa, Meiktila, Myingyan, Myaing, Yezagyo and Shwebo Regions. The names of the villages related to toddy work in large scale were Kabhani, Kyet, Nga Kyaw, Nya Hlaing, Sape, Hsahtone, Nyaung Kyit, Nyaung Hla, Tayuntaing, Taungzin, Taungpon, Tant-kyi, Pakhet, Pinlin, Pya, Pyin, Pon, Palan O, Mye Sun, Mye Thin- twin, Myo Hla, Ye-gyi, Ywathar, Shamyeyin, Letpan, Leyar, Thaphankhar and Thayai. As the Myanmar people believe that *Htan-nyet* is medicinal, though sugar has taken place, the use of *Htan-nyet* did not decrease during Konbaung Period.²²¹ Toddy palms were essential for religious affairs, economic, social, education and military. It can be said from studying the *Htan-nyet* trading that in Konbaung Period, there developed toddy plantation. This resulted from extended plantation of toddy cultivable lands.

During Colonial Period, toddy palm was grown in Shwebo, Sagaing, Lower Chindwin, Myingyan, Pakokku, Minbu, Magway, Kyaukse, Meiktila, Pyay, and

²²⁰Maung Maung Phyu, *Nwe-oo Ka-la Myu-hta-thaw-a-kha* (Amid swirling mists of early summer), Yangon, Hla Maw Sarpay, 1967, p.15 (Henceforth, Maung Maung Phyu, 1967)

²²¹Dr. Than Tun, "*Kye-let A-thet-mwe- wan-kyauing-hmu*" (Rural Livelihood), *Sape Phyu Magazine*, No. 5, June 2001, p.151 (Henceforth: Than Tun, 2001)

Taung-ngu.²²² Moreover, in Magway, Kyaukpadaung, Taungtwingyi, Pahtanago, and Myin Kun, plenty of toddy palms were grown.²²³ There were 1, 436, 432 toddy palms in Pakokku, Myaing, Yezagyo, Pauk, and Hseik Phyu in Pakokku Township,²²⁴ while there were over 2 million of toddy palms in Myingyan and Pakokku²²⁵. After the Colonial government had annexed Upper Myanmar, plenty of toddy palms were grown in Wetlet Region. So it can be assumed that toddy plantation had developed in the Colonial Period because of the encouragements made on toddy plantation.²²⁶

To sum up, toddy palm is a useful tree for religious affairs, economic, social, and military and commodities for mankind in Myanmar society. It is useful not only for man of furniture but also for medicine. Toddy palm plays a significant role in Myanmar rural society. It is an essential tree for rural areas, while teak was important for kings. Thus, toddy culture influences in Myanmar. To review the history of toddy palm, toddy fossils were found in the Central Myanmar region. So it must have been a tree that grew in Central Myanmar regions only. To make a

²²²(a) J. George Scott and J.P Hardiman, *Gazetteer of Upper Burma and the Shan State*, Vol.II, Part.i, Yangon, Government Printing, 1901, p.459 (Henceforth: Scott and Hardiman, 1901)

(b)J. S Furnivall, *An Introduction to the Political Economy of Burma*, Yangon, People Literature House, 1957, p.4 (Henceforth: Furnivall, 1957)

²²³U Kyaw, "Auk-Myit-sin-kyaung Tha-maing" (History of Lower Riverine Region) (1819-1885), *Than Tun 75th Birthday Gift Sha-Sha-Phwe-Phwe Myanma Tha-maing*, Vol. II, Yangon, Thein Htaik Yadanar Press, 1996, p.213 (Henceforth : Kyaw, 1996)

²²⁴C.F.B, Pearce, *Report on the Revision Settlement of the Pakokku District, Upper Burma, Season, 1927-1931*, Rangoon, Superintendent, Government Printing and Stationary, Burma, 1932, p.366 (Henceforth : Pearce, 1932)

²²⁵(a)J.L Christian, *Burma and The Japanese Invader*, Thacker and Com. Ltd, Botany, 1925, p.112 (Henceforth: Christian, 1925)

(b)Furnivall, 1957, 14

²²⁶See Appendix (I)

review from the geographical point of view, toddy likes the hot and dry season. So toddy palm grows mostly in hot and dry Central Myanmar regions. Toddy palm leaves are used for inscribing the letters, the practice of which was observed to have existed even since Pyu Period. Since toddy palm inscriptions are easy to get damaged in the course of time, examples of such records can not be cited. The term “*Htan*” can be found in the inscriptions of Bagan Period. The reliable historical evidences are the stone inscriptions. Most inscription of Bagan Period mentioned *Htan* as *Tan*, *Dham* and *Dam*. The word “*Htan*” first occurred in the inscription dated A.D 1019. So it is assumed that toddy plantation gradually developed since Bagan Period. According to the inscriptions, the kings of successive periods starting from King Aniruddha's reign donated toddy palm to maintain and repair the pagoda, *ceti*, cave-shrine and the *Pitakats*, with the profit gained from toddy plantation. Thus, it can be said that toddy plantation was significant in Bagan Period. During Pinya Period, according to the inscriptions, the lists of toddy donations mention the toddy-cultivated areas and donors of different classes. Endowments of toddy palm trees to the religion were made referred to in terms of “*Htan-Akon*,” “*Htan-A-lon*,” “*Htan-ta-win*.” According to the inscriptions, together with the toddy plantation, toddy donations of the kings and ministers of middle rank, *Amats* are observed to have existed. During Taung-ngu Period, toddy plantation became more widespread. Especially during the reign of King Min Khaung the Second, toddy plantation became more numerous. It was observed that the donations of toddy palms reached up to the number of 150000. In the earlier inscriptions, the maximum number of donated toddy palms was about hundreds or thousands. Also in Nyaungyan Period, as 7,000 toddy palms for one village were donated, the significance of toddy plantation became greater. The toddy plantation regions during Konbaung Period were studied in *Sit-tans*, Royal Orders and *Parabaiks*, so it is assumed that toddy plantation became more widespread. It was found out that toddy palm was grown as a means of livelihood during Konbaung Period. It had become commercially important during Konbaung Period. Also

during the Colonial Period, toddy palm was important commercially. As profit was made from toddy plantation during the Colonial Period, it can be assumed that toddy plantation had been done systematically. It is a fact that toddy is a kind of tree that can provide food and shelter for all walks of life in Myanmar. Therefore, the toddy plantation plays a significant role in Myanmar Culture. So, toddy culture has influenced Myanmar till the present time. Toddy is an essential plant for the society. Toddy palm owners have many benefits from toddy palms for economy, but toddy workers have little benefit. Thus, social life of toddy workers is very low from Bagan Period to the Konbaung Period.

CHAPTER TWO

SOCIAL CONDITIONS OF TODDY-PALM CLIMBERS

In the Konbaung Period, the major economy and occupation of the people was agriculture. About 80 percent of total population made their livelihood with agriculture especially rice plantation (in lower Myanmar and in irrigated regions like Kyaukse, Madaya, Meiktila, Minbu-Salin, Shwebo and Taungdwin) and dry plantation (in central upland regions and inundated vegetable cultivations in flooding areas along the rivers like the Ayeyarwady and the Chindwin). However, in some regions of Central Myanmar, most people had to work toddy palm plantation and related work as rice plantation did not thrive due to inadequate rainfall and insufficient water supply. The plantation of toddy palm trees, toddy palm climbing work and toddy palm related occupations led to earn a large amount of income from the virgin land of dry zone region of Central Myanmar where rice was unable to cultivate. Thus, it can be said that, apart from rice cultivation, toddy palm plantation was the most important business in Konbaung Period Myanmar.¹ In Sanskrit treatise entitled *Sekka Nita*, among 64 kinds of handicraft called *Kala* in Sanskrit, which means "science", were included three kinds of handicraft related to toddy: (1) brewing liquor or fermenting (2) preparing *Htan-nyet* or molasses out of toddy sap of *Pe* palm juice, and (3) climbing up the palm trees like toddy palm, coconut palm and betel palm.² Indeed, everyone could not perform the difficult work of toddy palm climbing for it needed to climb the

¹Toe Hla, 2004, 142

²Dagon U San Ngwe, *Myanma-hmu A-htwe-htwe* (Myanmar General Customs), Yangon, Thein Than Oo Press, 1969, pp.27, 28-29, 37 (Henceforth: San Ngwe, 1969)

top of the tree at the risk of life, and needed to have skill in accordance with the seasonal occasions. However, the toddy palm climbing work and plantation was usually hereditary. When the father was getting old his son used to climb the toddy palm trees and when the mother become older her daughter was accustomed to boil *Htan-nyet*.³ The toddy palm climbers were creators of a great business within the kingdom making toddy palm trees valuable by boiling *Htan-nyet* after tapping the sap from toddy palm fruit stalks.⁴ Moreover, they served in the consuming production of the kingdom at the risk of their lives. They also helped protected the stability of society for they could see everything from the top of toddy palm tree if someone thieved cows, sheep and goat while they were being looked after.

In discussion on the social conditions of the toddy palm workers, documents are rare and very sketchy for further illustration. But their lives were very similar in many a case to those of present-day toddy palm climbers. Except a negligible change in toddy palm boiling all other means of production and modes of production are the same, as still primitive as ever before. So let me explain their social conditions in comparison with those of present-day of the toddy palm workers.

There were two kinds of toddy palm climber: the ones performed both rice plantation and toddy palm plantation together and the one whose major livelihood was only toddy palm plantation.⁵ Those who had attached their rice land work with toddy palm climbing started their work only in the later part of cold season when they were free from cultivation of rice, crop and alluvial land and in the hot season before the rain fall. And those who made their livelihood only with toddy palm climbing paid their attention only to toddy palm related work living the

³Tin Myint, 1972, 150

⁴See Photo (17)

⁵Takkatho Sein Tin, *Htan* (Toddy Palm), Yangon, Sarpay Beikman Press, 1969, p.107
(Henceforth: Sein Tin, 1969)

whole year round in toddy palm garden without discrimination of summer, rainy and cold season.

The toddy palm climbers usually lived in huts roofed and walled with Palmyra fronds in the toddy palm groves. They were included in the social class of poor manual workers. In Nyaungyan Period, Minister Padetharaza composed a verse about peasants in which he had described peasant's dish of frog and shellfish mixed with vegetables like water convolvulus creeper, acacia longifolia and acutangulus.⁶ In the poems on peasants composed by U Saung, a well known poet of the Konbaung Period, it is found that the peasants had to eat millet and boiled dish of acacia longifolia without any edible oil.⁷ Composer U Gyi also composed a poem describing that peasants had to meal curry of fish fished from rivine (a little pond), boiled roselle, and pounded green chilli placing on teak leaves without *daung-lan*, a standing circular bamboo tray. Therefore, social life of peasants and farmers is found to be unchanged during the era from Nyaungyan Period until Konbaung Period.⁸ Similarly, Minister Padetharaza also represented the social life of toddy palm climbers in his toddy palm climber *tra-chin* song starting with "Nwe-oo Ka-la Myu-ha-thaw A-kha" (Amid swirling mists of early summer). In that *tra-chin* he described that toddy palm climber climbs toddy palm taking *yin-haung*,⁹ *yin-swe*,¹⁰ sap-pots, knife,¹¹ *kalaing*,¹² etc. While the toddy palm climber

⁶Toe Hla, 2004, 44

⁷U Poe Latt, *Tha-chin Pa-de-tha* (medley of songs of various styles and topics), Vol.II, Yangon, Pyinnya Nanda Press, 1957, p.117 (Henceforth: Poe Latt, 1957)

⁸U Maung Maung Tin, *Pyi-thu Te-than* (People's Songs), Vol.I, Mandalay, Bamah-khit Press, 1965, p.59 (Henceforth: Maung Maung Tin, 1965a)

⁹Ladder that is to be attached at the base of toddy palm tree

¹⁰A hanging ladder firmly tied up at the upper part of toddy palm tree

¹¹See Photo (18)

¹²(a)Wooden stick wedged in between fronds to provide a seat for toddy palm climber in preparing for toddy work

(b)See Photo (19)

is climbing toddy palm trees one after another, his wife, sons and daughters are to collect sap-pots or *Myu-o*. And his grandsons are hunting such denizens of the forest as rabbit, partridge, quail, rat, snake, etc that can be served as dishes. After climbing toddy palm trees, toddy palm climber, together with his family returns back to his hut taking collected sap-pots and hunted animals. They barbecue, bake, or cook the hunted meat while *Htan-nyet* is being made on *Htan-nyet-pho*.¹³ When boiling has finished, all the family members enjoy cooked rice and curries together putting them a big bamboo tray, *hni-daung-lan*. After the meal, they put down the bamboo tray on the ground for the dogs which eat remnants completely so the tray does not need to clean.¹⁴ Therefore, it can be known that toddy palm climber and his family did not have a chance to choose different kinds of taste though there were such a variety of taste as sweetness, sourness, bitter taste, saltiness and peppery taste among Myanmar traditional meals. They had to eat only sour and salty tastes. They usually ate pounded or baked chilli with fish paste. For the sourness they only ate roselle and tamarind leaves and for the taste of saltiness fish paste and salt were used. They could not afford to buy as well as get meat always. Acting themselves as hunters they had to catch denizens, and had to eat only the meat they hunted, daily.

It can be said that there was no cooking skill and knowledge in everyday boiling. And they rarely used edible oil. Therefore, daily life of toddy palm climbers is found to be very poor in food and shelter. It was under the situation that they could eat meat only when they could have done hunting, and that they had to eat only boiled or baked food without edible oil and thus their social status was very inferior. Therefore, it is found that the life of toddy palm climbers of Konbaung Period, like those of Naungyan Period was very low in status having any progress and changing.

¹³Big stove to be used in boiling *Htannyet*

¹⁴Poe Latt, 1957, 117

When we turn our study on the dressing form of toddy palm climbers, it is found that as all the family members of toddy palm climber had to work the whole day against the adverse effects of sun, rain and the heat of fire, continuously. Because of that they had no time to wash their clothes. Mostly, their clothes were dirty for they were so busy with their work, and for they could not afford to buy new clothes, and for they had to live in the forest.¹⁵ That is why we have a saying at present in Upper Myanmar that "What a pity boy! Like toddy palm climber's child", when we see the boys or girls with dirty clothes. Therefore, it can be known that the social life of toddy palm climbers and their families was very inferior in status. Although, their social life was so inferior, the toddy palm climbers are found to have worked at the risk of their lives.

The Difficulties of Toddy Palm Climbers

There were many difficulties for toddy palm climbers. Normally, *Tabodwe* (it mostly corresponds to February-March) is the month for the toddy fingers called *Htan-pote* are produced; *Tabaung* (it mostly corresponds to March-April), the month when the tapping toddy sap is received in little *Myu-o* (earthen pot); and *Tagu* (it mostly corresponds to April-May), the month when the toddy fruits ripen hard. Yet those periods could differ between Upper and Lower Myanmar, climatic conditions, fertile soil or lack of such soil. These periods come in earlier in Lower Myanmar than in Upper Myanmar. The toddy palms in Thaton and Mawlamyaing Region bear flowers and buds in the month of *Tazaungmon* (it mostly corresponds to November-December), and bear fruits in the month of *Pyatho* (it mostly corresponds to January- February). In some regions of Shwebo Region, the toddy palms bear flowers and buds in *Tabaung* and bears fruits in *Kasone* (it mostly corresponds to May-June). But the palms bear fruits earlier in more favourable

¹⁵Toe Hla, 2004, 42

climatic conditions. In Pakokku and Yezagyo Region, the toddy palms bear buds in *Tabodwe*, but in Myaing Region where the soil is poor, the palms bear buds only in *Tabaung*. So in places of good soil and rain water in Upper Myanmar, the palms bear buds only in *Tabodwe* only in the years of favourable climatic conditions, produce toddy sap in *Tabaung* and fruits in *Tagu*.¹⁶ They had to face with difficulty of income decreasing because of late entry to the workplace according to the weather, place and good or bad condition of soil and water which led to the less productivity of toddy sap. Moreover, toddy palm climbers had also to face with trouble like cutting of skin by the edge of the stem of toddy palm frond or by knife in preparing toddy palm work. They usually started preparation work of cutting dry and unnecessary leaves down, making new *yin-htaung* and *yin-swe*, and attaching them to the toddy palm trees one month in advance. After such preparation toddy palm climbers tapped toddy palm sap in the period between the early weeks of the month of *Tabodwe* and the middle of the month of *Thadingyut* totally eight months per year. In accordance with the time of producing spadix from male toddy palm and fruit stalks from female toddy palm, the working time for toddy palm related work had been divided into *htan-pho-oo*, *hnyet*, *thee-nu*, *thee-yint*, *a-pwet*,¹⁷ and *a-ti*,¹⁸ traditionally.¹⁹ In such tapping the toddy sap, toddy palm workers are found to have worked hardly taking pain and putting in their life at risk.

¹⁶(a)U Kyin U, *Pa-de-tha Tha-chin-mya* (Medley of songs of various styles and topics), Yangon, Sarpay Beikman Press, January 1964, p.118 (Henceforth: Kyin U, 1964)

(b)Poe Latt, 1950, 118

¹⁷The season of tapping sap from both male and female toddy palm trees in the months of *Thadingyut* and *Tazaungmon*.

¹⁸The season of tapping sap from both male and female toddy palm trees in the months *Nattaw* and *Pyatho*.

¹⁹Sein Tin, 1969, 51

In collecting sap from young staminate toddy palm, it is found that the climber had to work hardly in order to be any harm for life as well as discrepancy. Naturally, there usually yield *yit-khaing*²⁰ and *hnyet-khaing*²¹ from staminate toddy palm trees. The climbers, in making light circular cut, should not make cutting the *hnyet-khaing* except the *yit-khaing*.²² If they do so the crown of toddy palm would become smaller remaining only bud sticks. So there may cause danger for toddy palm climbers' lives if stub of toddy palm brunch have broken down while placing *yin-swe* or collecting palm sap.

Htan-pho-nu must be prepared before there appears little male inflorescence from *htan-sa*²³ which may be damaged by touching with knife and hands harshly. If the male inflorescence of spadix of male toddy palm were broken so the toddy palm climbers would have experienced with the trouble that toddy sap could not be tapped and collected.

Moreover, toddy palm climbers had to face also with troubles of toddy sap fermenting because of the high degree of the heat of the sun in summer and because of the wind from the south which caused dry of spadix of male toddy palm and less production of toddy sap. Such experiences as parrot's biting of spadix of male toddy palm, getting no full pot of sap because of tilting by resting of crows, falling down of toddy sap pots by the wind, flowing no toddy sap into the pots because of missing between spadix of male toddy palm and sap pots by something else.²⁴ Therefore, it can be said that the work of toddy palm climbers was practical as well as a hard knowledge of livelihood.

²⁰Spadix of male toddy palm to be made light circular cutting with knife

²¹Spadix of male toddy palm to be clamped with wooden clamp

²²Lin Thu, 1986, 56

²³Prepared inflorescence of male toddy palm

²⁴Interview with U Win Aung, Toddy palm climber, age 56, Shwe Hlaing Village, Nyaung-U Township, Mandalay Division (26-4-2011)

The young male toddy palm is unable to withstand adverse effects of weather; by the weather condition of Upper Region, even toddy palm trees that usually produce a great deal of toddy sap become less in production for blowing of strong monsoon wind, blowing of hot air and having intense hot by the sun.

In continuing work for *htan-pho-hnyet* soon after the completion of work for *htan-pho-nu*, *Hnyet* of male toddy palm, toddy palm climbers usually faced with troubles like suffering sunburn, having chance to be fallen down to the ground from top of toddy palm tree, and unobtaining toddy sap because of male inflorescence drying. Throughout the toddy palm working season the clamping time was the weariest and the most suffering time of the heat of the sun. Toddy palm workers usually begin the clamping of male inflorescence in the months of *Tabaung*, *Tagu* and *Kasone* when heat intensity is relatively high. The clamping of male inflorescence of male toddy palm is a kind of practical skill handed down from generation to generation. By *Htan-hnyet*²⁵ made up the clamping method and procedure is very important in clamping the tip of the male inflorescence with pincers.²⁶

Without the consideration on the condition of male inflorescence, weather and location, the toddy palm climbers should not do clamping of male inflorescence so as to be supple and clamping the tip as is done to the root as well as intertwining the male inflorescence with two hands in order little flowers to be come out. Doing so would cause clamped male inflorescence drying one after another. The *hnyet-toke*²⁷ of clamped male inflorescence that needs *a-nar-lo*²⁸ or

²⁵See Photo (19)

²⁶Interview with U Hla Aung, Toddy palm climber, age 48, Gawin lay-taing Village, Pakokku Township, Magway Division (14-4-2011)

²⁷Clamped *htan-sa* or male inflorescence that has been tied with young leaves of toddy palm

²⁸Toddy sap can not be produced for it is needed pressure in clamping male inflorescence of toddy palm trees and bruising the fruit stalks of female toddy palm trees.

needing pressure has to be cut down for it can not produce toddy sap. Therefore, toddy palm climbers had to go through trouble that they could not collect toddy sap abundantly.

It has already been mentioned that the life and work of a toddy palm climber was very harsh and hard. There usually occurs strong wind in the clamping season of male toddy palm. While there is windy, toddy palm climbers are busy with attaching and detaching sap pots and cutting male inflorescence. They feel weary with anxiety and worry about falling down to the ground as toddy palm tree is swaying and shaking. Some had to step down again after having reached on top of the toddy palm. Not to get such trouble some things some climbers used to climb toddy palm trees since afternoon. They had to climb the stem of toddy palm that had absorbed heat the whole day. It was that they could resist the heat of stem just as their hands were hard with corns. Some workers wait until the wind is calm; they tap the male inflorescence when it is getting dark in the evening. At that time, lighting is to be made by setting fire to dry leaves. It is worried about the danger of snakes and poisonous insects like centipedes or scorpions for climbers and sap pot collectors as it is at night. Moreover, after climbing work, they have to perform the work of baking sap pots, warming toddy sap, etc at night which may be up to nine to ten o'clock.²⁹ Therefore, toddy palm workers had to work continuously the whole day except sleeping time in the clamping season of male toddy palm. Their occupation is found to be a hard one that is very close to the danger for life.

Toddy sap can be produced by two methods from male toddy palm as well as female toddy palm. The methods are *yaung*³⁰ and *thee-yint*.³¹ At the beginning of rainy season when toddy sap of *yaung* fruit stalks from female toddy palm

²⁹Interview with U Tin Win, Toddy palm climber, age 50, Gawun lay-taing Village, Pakokku Township, Magway Division (14-4-2011)

³⁰Working with *thee-nu* or young fruits stalks of female toddy palm tree

³¹Working with *thee-yint* or mature fruits stalks of female toddy palm tree

begins to come out, if there suffers from drought, toddy sap can not be tapped. If there is heavy rain at the beginning of rainy season, the climbers do not dare to climb up to the top of toddy palm trees because of fearing of adverse effects of rain and wind. Unavoidably, if they had to climb the toddy palm trees, they do so by taking a risk for life. In bruising fruit stalks made by a hummer called *Hsauk-khauk*³², as *yaung-sa* or tips of fruit stalks may be broken brittle for they are very tender. After bruising fruit stalks, the *yaung-sa* is to be cut with knife; if cutting is unsystematic toddy palm workers would face with problems such as less production of toddy sap and non-production of toddy sap. The *yaung*, unlike *htan-pho-hnyet*, is slow in productivity of toddy sap. The toddy palms with *yaung* fruit stalks that had been prepared in the month of *Tabaung* can yield toddy sap until the end of *Waso* (*it mostly corresponds to July-August*). Despite the toddy palm workers get along with their life earning moderate income, they had to suffer social and economic hardship during the stopping time of toddy palm related work.

In the early week of month *Nayon* (*it mostly corresponds to June- July*) when working with *yaung* fruit stalks comes nearly to an end, the workers start their work for *thee-yint*. In the mid rainy season when mature fruit stalks are abundant, it is not easy to carry ladders from one toddy palm to another as the rain called *Phauk-seit Mun-te* has been raining incessantly. Even when toddy palm climber can carry the ladders, his foot with mud may happen to slip when stepping up the rungs. They may also face with the danger that when they take fruit stalks in downward bent position in order to place them on toddy palm frond; they may fall down due to loss of balance. Only *sa-ya-khaing*³³ is usually bruised for sap. If bruising the tip and touching the fruit stalks are thorough, there may happen to be unable to produce toddy sap from the fruit stalks. Additionally, there may also

³²See Photo (18)

³³The first and foremost fruit stalk or bunch appeared from female toddy palm

happen by chance of falling down from toddy palm tree because of biting the *Oo-htok-kyo*³⁴ by green vipers, tuckoos, squirrels and rats, and because of stepping up the bamboo rungs without knowing of being eaten by worm.³⁵ The fruit stalks are needed to scrape with the stem three to four times every two or three days if toddy palm fruits are growing because of needing pressure in bruising fruit stalks or because of pulp growth by the rain.³⁶ Even though such bruising method is effective and good, female toddy palm may happen to produce no toddy sap if it is not in conformity with weather at the time of *htan-phyat*³⁷ which may perform fourteen of fifteen days after bruising work. It is the time to start work of *htan-phyat* at the end of *Kasone* and at the beginning of *Nayon*.³⁸ On the day to cover sap pots, the surfaces of prepared fruit stalks or *htan-sa* are to cover securely in the sap pots plucking four or five toddy palm fruits. If the covering is not secure the surface may dry because of wind and sun. In plucking the mature toddy palm fruits down, it is needed to follow right method. Unskillful toddy palm workers may face with difficulties in plucking the mature fruits with knife which may damage their bodies, hands and even eyes as the working needs force.³⁹ Therefore, there sometimes occur events that some toddy palm climbers lose their lives and some become disabled persons by falling down from top of the tree.

Based on weather condition, the yield of sap of female toddy palm trees differed year by year. Despite thirty female toddy palms have been bruised, it is difficult to produce toddy sap from fifteen toddy palms. Again, from each female

³⁴String of *Htan-shaw* twine tied in the form of elove hitch at the top of *yin-swe* ladder

³⁵Amar, 2002, 189

³⁶Interview with U Myint Htay, Toddy palm climber, age 48, Kuhtup Village, Yezagyo Township, Magway Division (23-4-2011)

³⁷Cutting the fruit stalks of female toddy palm trees

³⁸Lin Thu, 1986, 118

³⁹Interview with U Aung Myint, Toddy palm climber, age 59, Nyaung-sauk Village, Yezagyo Township, Magway Division (23-4-2011)

toddy palm, only one or two prepared fruit stalks can be produced sap. It is very rare to find female toddy palm that can produce sap from three or four fruit stalks. Although more toddy sap from female toddy palm tree can be produced for a long time then that from male toddy palm fruit stalks, the productivity is less. The toddy sap can be obtained from the beginning of month *Nayon* until the beginning of *Thadingyut* (*it mostly corresponds to* October-November). However, throughout the toddy palm working season the time of tapping sap from female toddy palm trees was the raises.⁴⁰ In the working time for female toddy palm trees, if they occur strong monsoon wind, the sap pots are used to broken and damaged because of striking against the stem of toddy palm or each other. Moreover, if toddy palm climbers put the toddy palm trees without climbing for they are afraid of daily continuous wind blowing, they can not obtain toddy sap happening *nap-pyet*⁴¹ for the trees.⁴² Thus as it may cause socio-economic hardship for their daily family life, the toddy palm climbers had to climb the trees facing troubles and taking risk without a chance to fear of wind.

After finishing sap collection from mature fruit stalks, some toddy palm climbers continue to collect the sap of *a-pwet-yee* and *a-ti*.⁴³ In doing so as it is the time out of the working season, they had to face with difficulty of less obtaining of toddy sap in the years of bad weather. The work for *a-pwet-yee* and *a-ti-yee* was not done mainly by the toddy palm workers. Thus, they used to collect toddy sap only for eight months of toddy palm working season, and boil *Htan-nyet*. During that eight months, if one viss of *Htan-nyet* can buy one *pyi* (small basket) of rice it

⁴⁰Interview with U Aye Lwin, Toddy palm climber, age 58, Inn-taing Village, Nyaung-U Township, Mandalay Division (25-4-2011)

⁴¹The condition in which toddy palm fruit stalks have not been cut because of something else like wind or rain

⁴²Interview with U Tin Oo, Toddy palm climber, age 43, Kambar-ni Village, Nyaung-U Township, Mandalay Division (25-4-2011)

⁴³Toddy sap obtained by cutting fruit stalks in non-working season of toddy palm.

would be convenient for food, cloth and shelter of toddy palm workers. If the price of *Htan-nyet* is higher than a basket of rice it would be more convenient for them and vice versa.⁴⁴ In the rest four months, they have no leisure as they will be busy with cutting fire-wood, preparing for toddy palm climbing, buying equipments for toddy palm work, making *yin-htaung* and *yin-swe*, etc. However, as they earn money only for eight months and there is no income for the remaining months, their social standard is very inferior and condition poor just like a proverb that "*Yin-htaung htaung pyaung, Yin-htaung Hle-mwe*" (While *yin-htaung* ladder is being stood, they are well off, when being laid down, become impoverished).

In order to obtain regular productivity of toddy sap, toddy palm climbers climb and cut fruit stalks in the morning and evening two times. In a toddy palm garden if a toddy palm climber is put to work in the place of usual toddy palm climber who can not climb and tap toddy sap because of his unhealthy condition or of other reasons, as the former can not cut the male inflorescence and fruit stalk in the same thickness, it may happen stopping of toddy sap production temporarily or sometimes permanently.⁴⁵ Therefore, toddy palm working is said to be an occupation that end the relations between the relatives as there is no chance to meet with his relatives, and take part in village affairs. In the rainy season, toddy sap pots are covered with *Palmyra* palm fronds so as not to mix with rain water. On the other hand, toddy palm climbers had to keep their sap pots away from the danger of young men who probably thief toddy sap whenever there is donation ceremony or pagoda festival in the village.⁴⁶ Although toddy palm workers had to work facing with such troubles and difficulties, their social status is found to be still inferior and poor.

⁴⁴Amar, 2002, 190

⁴⁵Maung Maung Phyu, 1967, 311

⁴⁶Interview with U Aung Myint, Toddy palm climber, age 46, Nyaung-sauk Village, Yezagyo Township, Magway Division (23-4-2011)

In toddy palm business, it can not be performed by a climber alone. It also needs *myu-o-kauk* or toddy sap pot collector as well as *Htan-nyet* boiler. Indeed, it is a kind of family-based business. Toddy palm climbers usually put their children to the work as *myu-o-kauks* who also face with difficulties and troubles like toddy palm climbers. The toddy sap pot collectors must have more efforts than the climbers, who are to reach to the heap of sap pots before the dawn in the morning. Toddy pots so arranged to be heated and smoked before hanging to receive toddy palm juice for remove insects by *myu-o-kauks*.⁴⁷ If there are ashes and dust stuck at the interior base of the sap pots, *myu-o-kauks* are to clean them with clothes as that may cause the *Htan-nyet* tasteless or untasty. Then they are to attach *Kyophye*⁴⁸ or one loop of rope to each sap pot. And then barks of large timber tree (*shorea obtusa*), persimmon and thorny tree, and watery lime liquid are to be put into each sap pot. In doing so, it should be in accordance with the weather and more or less productivity of toddy sap. On the hot and humid days and nights a large amount of the said items must be added. If it is less in adding them, they would have faced with sap fermenting problem. Actually, the job of *myu-o-kauk* is to work moving to and from the heap of sap pots, toddy palm grove, the *Htan-nyet* boiling stove, etc.

Moreover, *myu-o-kauks* as well as toddy palm climbers has to face with adverse effects of hot season. It is that they are working with pouring sweat under the heat of the sun without taking a rest under a shade. If toddy palm work is late until getting dark in the evening because of strong wind blowing, the sap pot collector has to throw light for the climber. As the former has to keep following the climber from one toddy palm to another in the dark it is worried about the danger of snake for them. Nevertheless, the climbers has no chance to absent from workplace even though there is raining with strong wind as they had to climb the toddy palm in accordance with the time and condition. Thus the *myu-o-kauk* has

⁴⁷See Photo (20)

⁴⁸Rope to be attached to sap-pot to tie or hang

also to accompany with toddy palm climber, inevitably. It is therefore obvious that they had to go through many difficulties.

In toddy palm business, the *Htan-nyet* boiler is essential. Generally, the wife of toddy palm climber used to work *Htan-nyet* boiling.⁴⁹ There are also difficulties in boiling *Htan-nyet*. Only when the boiling method is systematic one can obtain good and tasty *Htan-nyet*. In boiling *Htan-nyet* from toddy sap if the pan is happened to put down early from the stove the *Htan-nyet* would have been *ye-nu*⁵⁰ and thus broken into pieces. Similarly, if the pan is happened to put down late from the boiling stove, the *Htan-nyet* would have been *ye-yint*⁵¹ and thus its standard will be inferior and tasty bad. Moreover, the boiled *Htan-nyet* must have been rolled into rounded shape within fifteen or twenty minutes. If one can not do so the boiled *Htan-nyet* may become hard and solid. In rolling thus it is needed to have skill based on tactile sense and care. Only then the price of *Htan-nyet* will high for equality in size and weight.⁵² Therefore, the *Htan-nyet* boiler is found to have worked facing difficulties concerned to the toddy palm work.

As toddy palm business is a kind of family-based occupation, all the family members have to get up at four o' clock in the morning to perform *Htan-nyet* boiling, sap-pots collecting, toddy palm climbing, etc. Although, the whole family of toddy palm climber had to work with fire pouring sweat by suffering hardship, the social standard of them was inferior for they earn a less amount of income.

Other Occupations of Toddy Palm Worker's Family

After the ending of toddy palm working season, as toddy palm worker's income is insufficient for the whole family, housewife and children had also to work other

⁴⁹See Photo (21)

⁵⁰Breakable *Htan-nyet* because of low degree of fire

⁵¹Dark colored *Htan-nyet* because of high degree of fire

⁵²Interview with Daw Phwa Kyi, Toddy palm boiler, age 45, Htan-pin-chan Village, Chauk Township, Magway Division (26-4-2011)

jobs. As there are eight months only for toddy palm related work, they have no income for the remaining four months. Thus, they had to go to other regions where groundnut is grown and work as groundnut pickers or pickers and paid paddy and crop field labours in harvesting work and farm-land work. On the other hand, some persons who do not go to other regions make toddy palm related items such as *htan-khauk-pha*, mat, fan, cup, chair, table, bead of toddy palm frond, various kinds of basket, etc. Only then, living expense would be resolved. Those who performed toddy palm business together with farmland plantation got some vegetables. Some toddy palm climbers also did breeding of such animals as chicken, pig, cow, and goat.⁵³ Although they had to do all these work the whole year round without any leisure, it was just sufficient for living expense of their families. In comparison with other poor manual workers their condition is found to be not bad. Nevertheless, the condition was just for sufficiency, now some toddy palm workers are found to stop working toddy palm business, and change to agricultural work.⁵⁴

The Health and Education of the Family of Toddy Palm Workers

The toddy palm workers used to wear *pasoe* or man's lower garment girding their loins and wrapping their waist with a towel or an old *pasoe*. Because of such wrapping for a long time and because of the adverse effect of sitting on the edges of several toddy palm tree, they are afflicted with strangury, urinal diseases, rheumatic, etc effecting blood circulation. Also the *Htan-nyet* boilers, who have to suffer heat from the stove, are afflicted with heat prostration.⁵⁵ Generally, toddy palm climbers and workers were not accustomed to going dispensary and clinic and having treatment with doctors for just a little unhealthy condition as they were

⁵³Tin Myint, 1972, 151

⁵⁴Interview with U Aye Myint, Toddy palm climber, age 46, Nyaung-sauk Village, Yezagyo Township, Magway Division (23-4-2011)

⁵⁵San San, 1989, 187-188

poor as well as busy. In accordance with the tradition of rural region, as they used to be cured only with folk-medicines their diseases are not effectively healed. Thus, it is found that the toddy palm worker families had no knowledge concerning health. As they were busy with the work mentioned above, they had no time to send their children to schools. As they had to put their children to work as toddy sap pot collectors it is very rare to find the sons and daughters who could follow education beyond elementary classes.⁵⁶ By the economic condition and less foresight, the sons, daughters, and wives of toddy palm workers, and they themselves are still uneducated.

The Belief of Toddy Palm Workers

The toddy palm workers usually start their climbing on Saturday. If they were busy on Saturday and thus could not climb the toddy palm trees, they used to climb the trees on the next day making two or three notches on the stem of toddy palm with knife. Before they start their climbing, they used to pay homage to forest spirit, mountain spirit, and all other benevolent spirits, and pray that "When the hands slip, may the foot be firm, while the foot slip and fall, may the hands be firm," offering first cooked rice and curries.⁵⁷ Moreover, the toddy workers make figures of a toddy palm, and of the implements like *yin-htaung* and *yin-swe*, and putting them in a new earthen pot, hang it on the shelf before the house or top of the main column of the house, and offer it to the Diety called Ponmagyi. It was a tradition of predicting about the incoming monsoon within one year. The tradition of prediction had it that if the wind comes on the first day, there could be good rain in the onsetting of the monsoon, that if the wind comes on the second day, there could be good rain in the middle of the monsoon season, and that if the wind comes on the third day, there could be good rain in the later part of the monsoon

⁵⁶Tin Myint, 1972, 151-152

⁵⁷Amar, 2002, 182

season, and that if no wind comes on any day at all, there could be drought in the coming season.⁵⁸ It can be said that the family members of toddy palm workers were less in devotion to the Buddhist religion for they had to work the whole day. It would be said that the more they were less belief in religion, the more they would follow spirit-worship. It is assumed that some would break such precepts as killing others and serving intoxicating drinks out of five Buddhist precepts. But toddy palm climbers and workers also did such meritorious deeds as holding novitiating ceremonies for their sons and daughters, building and donating rest-house and pagoda as much as possible whenever they met with the years in which the price of *Htan-nyet* was high and weather good.⁵⁹ Therefore, toddy palm workers are found to be the devotees in Buddhism as they provided the religion whenever they got along with money by the Myanmar religious tradition.

Tradition and Nature of the Family of Toddy palm Worker

The toddy palm workers went through hardship and difficulties as well as pleasurable and peaceful moments in their life. They enjoyed the delight of having helping from others. It is found that at the rights under moon light they invited each others and entertained with toddy sap in order to have enjoyment. By the nature of rural life, toddy sap is a kind of pleasurable drink. Therefore, it is also found that the families of toddy palm workers had had many friends. When a cow died and killed a pig for meat, they used to do that in the toddy palm grove. At that time, toddy palm workers always got pork including innards gratins. By the

⁵⁸Hanthawady U Ba Yin, *Myanma Le- ya Ta-khwin* (The Myanmar Cultivated Lands), Thiri Mingalar Press, January 1976, p 147, 164 (Henceforth: Ba Yin, 1976)

⁵⁹(a)"*Ngwe-che Thet-ka-yit Sa-chok-mya*" (Money lending Contracts), *Salay Pan-pu Yoke-sone Kyaung Pitakat Taik, Parabaik*, MS, No.13,17 (Henceforth: *Salay Pi, pu-* 13, 17)

(b)"*Ngwe-che Thet-ka-yit Sa-chok-mya*" (Money lending Contracts), *Koe-saung Kyaung Taik, Parabaik*, MS, No.27 (Henceforth: *Koe-saung, pu-* 27)

tradition of rural life, when villagers went out collectively a hunt for rabbit, partridge, jungle fowl, monitor lizard, agama, rat snake, etc., the toddy palm workers also got their quota though they did not take part in the hunting. The carrying of water from ponds and wells to be used in the toddy palm fields was very difficult for it is too far. However, this problem was solved by some persons who like toddy sap so much by carrying water on their back or with water barrels. Thus, the toddy palm workers got along with the water insufficient problem.⁶⁰ Moreover, as toddy palm climbers could sing any song they like on the top of toddy palm trees, they had fully got the enjoyable feeling of freedom.

The Relations between Toddy Palm Workers and Toddy Palm Grove Owner

Most of toddy palm workers who made their livelihood with toddy palm business did not possess their own toddy palm groves, except some persons. However, though some toddy palm workers had been the owners of toddy palm fields in their parent's time, when their parent passed away; they had to borrow money from others by mortgaging the toddy palm trees.⁶¹ Moreover, not only because of the loss of toddy palm trees but also because of inconvenient condition in daily needs, many toddy palm fields were lost again by borrowing money for several times. Therefore, it was that toddy palm workers had not got their own toddy palm fields. They had to ask for the permission to work or climb toddy palm trees from the owners under the term "*htan-khan*". A toddy palm worker with many family members used to ask for permission to work over one hundred toddy palm trees or at least sixty. After getting the right to work or climb, they had to give rent to the

⁶⁰Interview with U Tha Shein, Toddy palm climbers, age 52, Htan-pin-chan Village, Chauk Township, Magway Division (26-4-2011).

⁶¹Interview with U Aye Thaung, Toddy palm climbers, age 57, Kuhtup Village, Yezagyo Township, Magway Division (23-4-2011)

owner as *htan-su* or a share for toddy palm.⁶² Only after getting the bilateral agreement toddy palm workers had got the right to climb the toddy palm trees. However, toddy palm owners mostly looked down on the tenants in relation.

After asking for the right to climb the trees, the owners handed over their toddy palm trees. But, the tenants used to climb only the selected trees they liked. The owner used all the products from the remaining toddy palm trees such as fruits, toddy palm fronds, shoots, etc. In giving rent or *htan-su* to the owner, there were two systems: *yee-hle* and *pin-pyat*.

Under the *yee-hle* rent, the tenant had to give the owner *Thon-yet-ta-yet* (3 days per 1 day) or *Le-yet-ta-yet* (4 days per 1 day) as a rent. The toddy palm workers enjoyed three days' product over four days' labour that was because of-

1. Using effort and labour of all the members of toddy palm workers family in toddy palm business
2. Bearing expenses for *yin-htaung*, *yin-swe*, sap pots, rope, pan, etc
3. Bearing expenses or labour for firewood to be used in boiling *Htan-nyet*.⁶³

It was that the owner had been obtaining *Htan-nyet* as a share without paying any expense or labour. They became wealthy by enjoying peacefully and leisurely the benefit got from toddy palm trees for up to over sixty to seventy years. However, because of the exploitation of the owners, the workers became poorer and poorer.

Although the *yee-hle* rent has been using in Nyaung Oo and Kyaukpa-daung townships where toddy palm business is done for lucrative purposes, it is found to be different from one place to another. In Kyaukpadaung Township, *Htan-nyet* giving rent of two days per one day or one day per one day has been

⁶²Interview with U Kyaw Nyunt, Toddy palm climbers, age 55, So-twin-gyi Village, Myaing Township, Magway Division (22-4-2011)

⁶³Lin Thu, 1986, 178-179

used. Under two days per one day *Htan-nyet* giving rent, the tenant had to pay in advance for the expense of buying working instruments; if toddy sap that was obtained by producing for three days was 150 viss after boiling daily, the tenant had got 100 viss and the rest went to the owner. Under one day per one day *Htan-nyet* giving system, working instruments were to be bought by the owners paying in advance for expense; if two days' production was 100 viss of *Htan-nyet*, the allotment was half by half i.e. 50 viss each for the tenant and the owner.⁶⁴ Thus, it is known that the tenant had to pay in advance not only labour but the expense for the toddy palm business. Moreover, depending on the attitude of the owners over the tenants, as the later had to pay for the rent, those who had not possessed their own toddy palm fields were hard up and poor.

In Yezagyo Township, there was also payment of toddy palm sap as rent for working. In Pakokku, Yezagyo and Myaing townships, the tenants had to give all the *Htan-nyet* boiled to the owner who, after selling the *Htan-nyet*, paid two-third of income to the workers.⁶⁵ This rent was usually used when the tenant had been dependent on the owner. As the tenants were exploited by the owners, they are found to have never freed from poverty. Despite the relations between the owners and tenants were different from one region to another, consequence was the same.

There was a kind of payment for rent in the form of piecework over toddy palm or *pyin-pyat*. In other words, it was that the owner asked for a fixed amount of *Htan-nyet* over a single toddy palm for one year. In this rent, the tenant had to pay 2.5viss of 3 viss of *Htan-nyet* over a toddy palm tree without considering male or female tree. However, both the owners and the tenants did not wish to practice the piecework rent. Because it is very rare to get sap from female toddy palm and

⁶⁴Hla Shein, "*Htan-pin Hwet Pyit-si-mya hint Htan-lok-tha to Ba-wa*" (Toddy products and the life of toddy palm workers), *Ngwetaryee Magazine*, No.127, Janaury 1971, p. 59 (Henceforth: Hla Sein, 1971)

⁶⁵San San, 1989, 181

because there may be sterile female toddy palm that can not produce sap at all.⁶⁶ Thus the tenant owners never use piecework system over female toddy palm, but they do for male ones. Actually, the owners thought that if they use piecework system over female toddy palm, they would suffer or get grievance. It is found that as they did not wish to take grievance, the tenants had to face with economic hardship.

Sometimes, the owner let the tenant work for four or five female toddy palm trees being uncollectively on a spot under the piecework rent. In doing so, the owner let work only four or five main fruit stalks and the rest ones and *let-tha-khaing*⁶⁷ are set aside for him. It is found therefore that the owners never consider the grievance of the tenants and have goodwill towards them.. When toddy sap has been tapped from female toddy palm worked under piecework rent, the tenants are to pay 2.5 viss of *Htan-nyet* per one toddy palm tree for a season to the owners. But if there was no sap collected, the tenants did not need to pay *Htan-nyet* to the owners.⁶⁸ Even though he had no right to pay the produce to the owners, he lost his labour for preparing the toddy palms to reach the workable stage.

Apart from piecework rent, there is also a rent in which the tenant needs to pay 250 viss of *Htan-nyet* to the owner for the whole of toddy palm groves. In some area of KyaukpadaungTownship, that rent is usually followed. By the act of land possession right by the cultivator, the tenant does not need to pay dry plantation crops yielded from the land of toddy palm trees worked.⁶⁹ The tenants had to pay the products of the toddy palm trees as they are of a kind of long-lived type.

⁶⁶Interview with U Kyaw Myint, Toddy palm climber, age 42, Nabyin Village, Taungtha Township, Mandalay Division (3-5-2011)

⁶⁷The last fruit stalk that comes out from female toddy palm

⁶⁸Lin Thu, 1986, 182-183

⁶⁹Tin Myint, 1972, 151

In addition to the above mentioned rents, there is also *ko-win rent*, tenant rent on behalf of the owner, in which the owner is to pay for the expense of toddy palm business related instruments and items in advance while the tenant is to cut the fruit stalks on behalf of the owner. Under this rent the owner pays only for capital, the tenant has to do not only making ladders but preparing and cutting of toddy palm fruit stalks. Here, the owners are to take responsibility for boiling *Htan-nyet*, collecting sap pots as well as buying or collecting firewood. The owners pay the tenants one day's wage out of three days' labour. If both of them agree to enjoy the benefit every other day, one who would take his turn first must boil the *Htan-nyet* himself. It was that also the fuel to be used in boiling must their own firewood. After preparing every necessary work for toddy palm business, if the tenant, who has been acted as worker on behalf of the owner, quite from the job for various reasons, for instances, because of hostile relations or bad health condition, he would not have the right to enjoy benefit. In that situation, if the owner replaces the tenant with another one, he is to pay that second tenant one day's wage for three days' labour.⁷⁰ Thus, it is found that in the relation between the owner and the tenant, only the later had to take grievance for the tenants.

If the owner lives far away from toddy palm fields, he let the toddy palm workers work under fixed product tenant rent which is usually found mostly in Meiktila, Myingyan, Pakokku and Sagaing and a few in Kyaukse townships. Under this rent, the tax is to be paid by the owner in cash and by the tenant in the kind of *Htan-nyet* in May and June when the productivity is the most. In paying tax so, one viss of *Htan-nyet* per one toddy palm is to be levied in the region where tenants are few; and three to four viss of *Htan-nyet* is to be collected from the region where toddy palm workers are many in numbers.⁷¹ The rent to be paid by that rent is found to be fewer than that of fixed quota tenant rent.

⁷⁰Lin Thu, 1986, 183-184

⁷¹San San, 1989, 187-188

Moreover, toddy palm business was performed also by fixed quota tenant rent which is followed in Meiktila, Myingyan and Pakokku and Sagaing Townships mostly and found a few in Kyaukse and Magway Townships. By that rent the tenant has to pay the owner one-third of total *Htan-nyet* product. The tax is to be collected from the owner and the tenant has to pay for the expense of the business and use the labour of the whole family members.⁷² Some owners take one day's boiled *Htan-nyet* out of three days' product, and some one-third of daily *Htan-nyet* product. If the owner lives in the same village, he takes the *Htan-nyet* daily.

The tenancy of fixed price is also used in toddy palm business which can be found mostly in Myingyan and Magway townships and a few in Kyaukse, Meiktila, Sagaing and Pakokku. The rent rate is from 0.25 *Kyat* to 0.50 *Kyat* for one toddy palm.⁷³

There is also a fixed share rent with which the tenants and toddy palm owners perform the toddy palm business. This rent is mostly followed in Sagaing and Pakokku and found a few in Meiktila, Myingyan and Kyaukse. Under this rent the tax is to be paid by the owner and two parties have to take responsibility for the expense half by half so that both can divide *Htan-nyet* half by half.⁷⁴

On the whole, toddy palm grove owners and tenants were to follow a certain agreement of contract made between them. Such contractual deeds could be found in *Parabaiks* written down in the period under study. We cannot say that these terms described in them were unjust. From the social point of view, both of the toddy palm grove owners and their tenants could enjoy benefits from the

⁷²Interview with U Aung Khin, Toddy palm climber, age 52, Deh-bya Village, Pakokku Township, Magway Division (15-4-2011)

⁷³San San, 1989, 183

⁷⁴Interview with U Kyaw Nyunt, Toddy palm climber, age 55, So-dwin-gyi Village, Myaing Township, Magway Division (22-4-2011)

production of the toddy palms agreeably. Tenants had the right to work on the land beneath the toddy palm trees for growing variety of crops without any payment of tenancy to the land owners.

The toddy palm workers who work as tenants came to face with economic hardship as soon as the toddy palm working season is ended. Thus, they are found to have borrowed money in advance under the system of paying *Htan-nyet* only by the time of its season. Indeed, the workers know that they would suffer in borrowing money by paying back *Htan-nyet*. However, because of having problem for food, cloth and shelter and worrying that the owner would not permit to work for the next year and because of various other reasons, they had to take advance money by two kyats profit over 100 viss of *Htan-nyet*. In the toddy palm season, if current price of *Htan-nyet* is 12 Kyats per 1 viss, the loan under *Htan-nyet* payment is to be deduced with 10 Kyats. In such borrowing by taking grievance, it is rare to borrow money with willingly; the tenants have to do every work without complain and have to put up a pledge with even two or three *pe* weighted gold worn by the sons or daughters of the workers.⁷⁵ Thus, it is obvious that the toddy palm owners usually deal with upper hand to the workers without consideration and sympathy.

In Konbaung Period, when toddy palm owner hired a climber, if there had been injuring and suffering at work environment, the owner had responsibility to give compensation to the worker. If the hired climber fell down from top of the tree and was died before giving wage for climbing to take fruits, fronds, fruit stalks, etc., the owner had to compensate for value of life as well as wage. If the heired climber did not die, the owner was to cure him. But, the worker was died after paying wage; the owner did not need to compensate him. If a half of wage was left to be paid to the worker, the owner needed to pay a half of life- value and for the death, and if not die needed to be cured. When the owner put the climber's

⁷⁵Tin Myint, 1972, 59-60

son who was under ten years old, to climb the tree, without knowing the guardian, if the son fell down from the tree and died, the owner must compensate for the life-value and funeral expenses whether it was given wage or not. But if the guardian know about that and had already given wage, the owner had no responsibility, and if there left a half of wage to be paid, the owner had to pay a half of live-value. And if the wage had not been paid yet, the owner needed to pay full-life-value; and if the climber suffered something broken or wounded the owner were to cure him. On the other hand, if the climber was one of the relatives and died while climbing, the owner needed to pay only for funeral expense, and to cure if something wounded.⁷⁶ Thus, it is found that although the owner had had no consideration towards the toddy palm climbers, they, by the rural tradition, used to pay compensation for the injuring and suffering at workplace.

The Relations between Toddy Palm Workers and *Htan-nyet* Dealers

The toddy palm climbers, who have been working by climbing toddy palm at the risk of life, do their work only eight months a year. In accordance with the proverb that "while ladders have been standing, well off; when lying down, poor," the toddy palms workers had to face with life-making problems in the remaining four months soon after the toddy palm season. To solve those problems the tenant-workers had to sell *Htan-nyet* to the local dealers taking money in advance. On 2 October 1884, a woman from Jhoh Village sold 100 viss of molasses, *tha-ka*⁷⁷ with 8 *Kyats* to a man from Thaung-byin Village taking advance-money.⁷⁸ As she could not repay the loan for hardship, she had to sign a contract on 6 March 1885

⁷⁶U Maung Maung Theik, "*Konbaung-khit-u Lu-ne-mhu A-che-a-ne*" (Social Conditions in Early Konbaung Period), *Lu-mhu-ye Theik-pan Journal*, 1969, p.53 (Henceforth: Maung Maung Theik, 1969)

⁷⁷A thick brown liquid of *Htan-nyet*

⁷⁸"*Htan-nyet Ngwe-kyo-yu-ywe Yaung-thaw Sa-chok*" (*Htan-nyet* selling contract taking advance), Thaung-byin Village, *Parabaik MS*, No.4 (Henceforth: Thaung-byin, *pu*- 4)

that she will pay 100 viss of *Htan-nyet*.⁷⁹ However, as she could not pay yet both made an agreement to take a bull.⁸⁰ Therefore, the life of toddy palm workers is found to have fallen into impoverished state.

Moreover, on 9 February 1885, a man from Malehchin Village sold 100 viss of *Htan-nyet* with 10 *Kyats* taking money in advance. They had agreed that *Htan-nyet* is to be paid on 5 March.⁸¹ In selling *Htan-nyet* by taking money in advance, it is found that buying and selling was made by signing agreement pacts. On 3 November 1884 as the current price of 100 viss of *Htan-nyet* was 17 *Kyats*,⁸² the toddy palm workers were suffered exploitation of local dealers who controlled them by giving advances with *pinhtaung*⁸³ system over local products. The workers had also considered to the local dealers as their benefactors. As a result, they did not sell the produced *Htan-nyet* to the dealers and brokers from other regions than local dealers.

But, also the dealers and brokers exploited toddy palm workers who did not take advances. If current price was 17 *Kyats*, the merchants bought the *Htan-nyet* with 15 *Kyats* exploiting 2 *Kyats* from the workers.⁸⁴ Thus, from the ancient days onwards, although the workers have been impoverished by all side exploitation, the brokers and merchants become wealthy.

By the tradition, the Myanmar dealt their commodities by visiting other towns and villages and going out pilgrimage. But in 1868, King Mindon replaced free-selling system with royal-buyer system, *A-we-taw Sanit*. In order to have the

⁷⁹Thaung-byin, *pu*- 4

⁸⁰Thaung-byin, *pu*- 4

⁸¹Thaung-byin, *pu*- 4

⁸²Toe Hla, 2004, 142

⁸³Crop or product paying system when it is in season

⁸⁴"*U Boe Kyi hma U Bo Thit htan pe-sa*" (Letter from U Boe Kyi to U Bo Thit), Salay *Pan-pu Yoke-sone Kyaung Pya Taik*, *Parabaik* MS, No.127 (Henceforth: Salay *Pya*, *pu*- 127)

development of buyer system, King Mindon gave aids by borrowing 20,000 *Kyats* of *A-yin-taw*⁸⁵ letting organize merchant associations, societies and companies. Because of such capital borrowing, the rich and wealthy persons, and merchants had to submit 110,000 *Kyats* of income tax yearly starting from the month of *Tawthalin* (*it mostly corresponds to* September-October). They also had to make bail bonds that they will hand over the right to work if there is someone who can pay more tax than the mentioned amount and that they will accept original penance if they can not pay full tax.⁸⁶ Moreover, they had to make further bail bonds with local authorities and chief Buddhist monks.⁸⁷ However, according to the *parabaik* records, it is known that the rich and wealthy persons, merchants and local dealers had broken the bonds.

The first breakers of the bail bond were local dealers. By the royal-buyer, as merchants and companies had to buy all local products, sweepingly, the chance to get profit for local dealers became fewer. Therefore, the local dealers, in order to get profit and to make free trade with Lower Myanmar broke the bonds without giving goods to the buyer-company.⁸⁸ Consequently, the local authorities had to issue orders to sell the goods to the company.⁸⁹ But, as local dealers did not sell to the company, the tax collectors barefacedly levied profit over each commodity

⁸⁵Initial outlay

⁸⁶"*A-we-taw-mya i Khan-wun-chok-mya*" (Bail Bonds of Royal-Buyers), *Salay Pan-pu Yoke-sone Kyaung Pya Taik, Parabaik* MS, No.127, 165 (Henceforth: *Salay Pya, pu-* 127, 165)

⁸⁷"*Tha-htay Tha-kywe-mya i Khan-wun-chok-mya*" (Bail Bonds of Rich and Wealthy Persons, *Salay Pan-pu Yoke-sone Kyaung Pya Taik, Parabaik* MS, No.165 (Henceforth: *Salay Pya, pu-* 165)

⁸⁸"*Salay Myo-wun i A-meint-sa-mya*" (Orders of Salay Township Officer), *Salay Pan-pu Yoke-sone Kyaung Pya Taik, Parabaik* MS, No.13 (Henceforth: *Salay Pya, pu-* 13)

⁸⁹*Salay Pya, pu-* 13

waiting at ports and street corners.⁹⁰ Although they had made bail bonds that they would not collect profit, they broke the regulations put in the bonds so as to get more income taxes that were to be submitted to the king. Thus, local dealers complained to local chief monks about the action of the rich and wealthy persons. On 8 October 1868, the chief monks sent a letter to settle the problem by coming someone out of five rich merchants.⁹¹ Thus, they later had to give promise at the chief monks that they will make dealing without using power.⁹² Thus, the relations between local dealers and company were not reconciled. To settle the problems, U Boe Kyi from Salay joined with company of the richman Maha Zawtika, the wealthy man Manizawta Mahathala, U Poke Si, U Thar Ywel and U Shwe Yan for *Htan-nyet* business.⁹³ The members of the buyer-company, with the help of local authorities, dealt the commodities using their power. On 7 May 1877, Village Headman Nga Tharwa issued an order in Gway-cho Village that everyone must certainly sell *Htan-nyet* by taking advance money. Out of 110 toddy palm workers, seven persons namely Nga Yay, Nga Shwe Paw, Nga Pheit, Nga Mhai, Nga Lin and Nga Bo Kyi were caught and put in stocks in Gway-cho Village jurisdiction area for opposition the order. The workers complained the event to the local chief-monks.⁹⁴ Thus, venerable monks asked for pledge from royal buyers of the

⁹⁰"*Salay Myo Gaing-Ok, Gaing-htau to htan Kon-the-le-mya i pe-sa*" (Letter from Merchants to the Chief Monks of Salay Town), *Salay Pan-pu Yoke-sone Kyaung Pya Taik, Parabaik* MS, No.13 (Henceforth: *Salay Pya, pu- 13*)

⁹¹"*Salay Myo Gaing-Ok, Gaing-htau to htan pe-sa*" (Letter to the Chief Monks of Salay Town), *Salay Pan-pu Yoke-sone Kyaung Pya Taik, Parabaik* MS, No.169 (Henceforth: *Salay Pya, pu- 169*)

⁹²*Salay Pya, pu- 127, 169*

⁹³*Salay Pya, pu- 127*

⁹⁴"*Hteik-ton-khat-hta-lu Khun-na-yauk Sa-yin pha-ya*" (List of Seven Men who have been put in stocks, My Lord!), *Salay Pan-pu Yoke-sone Pitakat Taik, Parabaik* MS, No.13 (Henceforth: *Salay Pi, pu- 13*)

company making further agreement pacts.⁹⁵ In this way, Buddhist venerable monks stood on the side of poor toddy palm workers.

Similarly, in Nyaung Oo Village of Bagan jurisdiction, the authorities physically tortured and persecuted the workers as like as dictators to sell *Htan-nyet* certainly under duress. By the order of *Hlut-taw*, Chinese merchant U Mar Lein who had been based in Nyaung Oo as a member of bi-literal joint venture of buyer-company intimidated the workers to sell *Htan-nyet* certainly coming with his followers who were holding swords, spears, and guns. In accordance with the usual way of the In-charge of Town and Town Headman, the workers who did not want to sell *Htan-nyet* were caught, beaten and reviled.⁹⁶ Therefore, the workers from Bagan jurisdiction united opposed U Mar Lein selling no *Htan-nyet* absolutely. The then productivity of *Htan-nyet* from Bagan was 4,000,000 viss per year.⁹⁷ Because of the perpetration of U Mar Lein the *Htan-nyet* market of Bagan and Linnpin Village collapsed.⁹⁸ The workers secretly sold *Htan-nyet* to local dealers who were not the members of *Htan-nyet* buyer-company. They also did not sell off the *Htan-nyet* to U Mar Lein, absolutely.⁹⁹ Bagan and other towns' headmen and local chief monks also disliked U Mar Lein. Thus, the company dismissed him paying a year's salary for public dislike, money misusing, and for

⁹⁵Salay Pya, pu- 127

⁹⁶(a)"U Boe Kyi hma U Bo Thit htan pe-sa" (Letter from U Boe Kyi to U Bo Thit), Salay Pan-pu Yoke-sone Kyaung Pya Taik, Parabaik MS, No. 7 (Henceforth: Salay Pya, pu- 7)

(b)"U Boe Kyi hma U Bo Thit htan pe-sa" (Letter from U Boe Kyi to U Bo Thit), Salay Pan-pu Yoke-sone Pitakat Taik, Parabaik MS, No. 13 (Henceforth: Salay Pi, pu- 13)

⁹⁷"U Boe Kyi hma pe-sa-mya" (Letters from U Boe Kyi), Salay Pan-pu Yoke-sone Pitakat Taik, Parabaik MS, No.53 (Henceforth: Salay Pi, pu- 53)

⁹⁸"U Boe Kyi hma pe-sa-mya" (Letters from U Boe Kyi), Salay Pan-pu Yoke-sone Kyaung Pya Taik, Parabaik MS, No.168 (Henceforth: Salay Pya, pu- 168)

⁹⁹Salay Pi, pu- 53

the selling of *Htan-nyet* to local dealers by the toddy palm workers.¹⁰⁰ It was an open expression of workers and local dealers that U Mar Lein was unable to exert his authority over the people of Bagan region though he had got the right to buy *Htan-nyet* by the instructions of royal orders. It is found that the said system was not beneficial for the workers in comparing with the former one and that the royal buyers had exploited the workers by using power.

The toddy palm business is performed for eight months a year. At the beginning of *Htan-nyet* season in 1881, though the price for 100 viss of *Htan-nyet* was 12.5 *Kyats*, it reached up to 14 *Kyats* to 17 *Kyats* at the end of season.¹⁰¹ In 1881, the current price of *Htan-nyet* in Singu was from 14.5 *Kyats* to 24 *Kyats* at most.¹⁰² Because of the demand of *Htan-nyet* from Lower Myanmar, there occurred confrontation between local dealers and buyer-company in regard to income tax. In that problem the toddy palm works had been innocent victim of the fight. The workers had suffered both the exploitation of local dealers and persecution of the buyer company. That is why the life of toddy palm workers was unable to have freedom from hardship.

The Relations between Toddy Palm Workers and Money Lenders

The toddy palm workers who possessed toddy palm fields, had to mortgage their toddy palm trees when they needed money because of less productivity of toddy sap by abnormal weather, low *Htan-nyet* price, social problems, and bad economic condition. Both the workers and money lender regarded the toddy palm trees as like as gold or money; whenever they needed money they used to mortgage them in the community. For instance, on 14 April 1846, a young man from Pyawbwe

¹⁰⁰"*U Boe Kyi hma U Shu Tan htan pe-sa*" (Letter from U Boe Kyi to U Shu Tan), Salay *Pan-pu Yoke-sone Pitakat Taik*, *Parabaik* MS, No.116 (Henceforth: Salay *Pi, pu*- 116)

¹⁰¹"*Sint-gu Htan-nyet-taik-ya Sa-yin*" (List of *Htannyet* Collected in Sint-gu), Salay *Pan-pu Yoke-sone Kyaung Pya Taik*, *Parabaik* MS, No.167 (Henceforth: Salay *Pya, pu*- 167)

¹⁰²Salay *Pya, pu*- 167

Village, Ma-hlaing Township, mortgaged his three toddy palm and coconut trees to Ma Thuza with 3 *Kyats* of *Ywet-ni*, in need of money. Three years after mortgaging, as the young man could not redeem his trees, he had to make a new agreement with witness and clerks that now the trees were possessed by Ma Thuza.¹⁰³ In such mortgaging of toddy palm, the mortgage rate for an individual toddy palm was 1 *Kyat* and the interest rate was 1 viss of *Htan-nyet* per one toddy palm. And it is found that if it had been for three years of mortgage, the mortgagor had to redeem the mortgaged. Besides, U Aung from Yezagyo Township, in need of money, mortgaged his own land, coconut and toddy palm trees to Daw Pu with the rate of 1 *Kyat* per a single toddy palm.¹⁰⁴ It is found that the money lender accepted the mortgages by signing contracts giving priority to their own interest and taking a large profit.

In Salay, U Phyto mortgaged over thirty male and female toddy palm to Ma Aye Thaung in 1867 with 30 *Kyats*. But, after mortgaging, the former did not pay the toddy palm trees as well as *Htan-nyet* got from them to the later. Therefore, Ma Aye Thaung warned after a month later that U Phyto must redeem the trees or else, he must compensate for the mortgage in accordance with the traditional custom of the town. Thus, the man had to make pledge that he will redeem the trees.¹⁰⁵ In Salay, it is found that the mortgage rate was 1 *Kyat* per a tree and the interest rate was 1 viss of *Htan-nyet* for one toddy palm tree; after a month later the mortgage should be redeemed. Thus, it is obvious that the money lender asked for their interest by various ways in order not to lose the mortgages they had mortgaged.

In Sagaing, a man mortgaged 100 toddy palms to Ko Htoo with 30 *Kyats* on 13 November 1869 for which the former had to pay 100 viss of *Htan-nyet* to

¹⁰³Pyone, *pu*- 147

¹⁰⁴Cultural, *Parabaik*

¹⁰⁵"*Htan-pin paung Thet-ka-yit Sa-chok*" (Toddy palm Mortgage Contract), Salay *Pan-pu Yoke-sone Kyaung Pya Taik*, *Parabaik* MS, No.15 (Henceforth: Salay *Pya*, *pu*- 15)

Ko Htoo yearly.¹⁰⁶ Such payment in kind of *Htan-nyet* was yearly interest rate i.e usually 100 viss of *Htan-nyet* for the money lenders. In lending money on interest, the interest rate was 5 *Mus* (0.5 *Kyat*) for 100 *Kyats* as well as in mortgaging toddy palm, it is found to take 1 viss of *Htan-nyet* per one toddy palm tree. In Depayin Kweh Village, Ko Htoo, the donor of monastery, was the one who accepted toddy palm mortgage most. He, during a period from 17 January 1866 to 28 September 1885, had accepted mortgage for 3050 toddy palm trees.¹⁰⁷ Thus, it is assumed that Ko Htoo might be the one who become wealthy by exploiting over toddy palm workers.

Maung Phyo from Lay-htaung-ken Village, Nga-zun Township, mortgaged twenty toddy palm trees to Ma Yin, a sponsor of monk, with 25 *Kyats* of 1 *Kyat*-coin on 18 June 1884.¹⁰⁸ It is found that in mortgaging toddy palm the rate was more than 1 *Kyat* in Nga-zun Township. It is assumed that it would be because of a large number of toddy palm trees and workers existed in Nga-zun Township.

In Taungtha Township, a woman from Magyipin Village, in need of money, mortgaged fifty toddy palm trees to a man from Sinthay Village with 1 *Kyat* per a tree in 22 August 1885.¹⁰⁹ In Kyaukpadaung Township, Ko Ke from Ywathit Village, Pinwa, also mortgaged twenty-five male and female toddy palm trees to Me Zatoke, the mother of Pinla Village Headmen and wife of Gunner-clerk, with 25 *Kyats* on 11 November 1885. In doing so, they made an agreement that three viss of *Htan-nyet* must be paid yearly, and that if the mortgage would be redeemed within three years, the man must pay 5 *Mus* (0.5 *Kyat*) interests per

¹⁰⁶Za-wa-na, *Parabaik*

¹⁰⁷Za-wa-na, *Parabaik*

¹⁰⁸"*Htan-pin paung Thet-ka-yit Sa-chok*" (Toddy palm Mortgage Contract), Ngwe-In Village, *Parabaik* MS, No.1, Aye Aye Myat Collection (Henceforth: Aye Aye Myat, *pu*-1)

¹⁰⁹"*Htan-pin paung Thet-ka-yit Sa-chok*" (Toddy palm Mortgage Contract), *Parabaik* MS, No.4, U Jatila Collection (Henceforth: Jatila, *pu*- 4)

month for 10 *Kyats*. It was done with witnesses, clerks and donors of pagoda and rest house from other villages.¹¹⁰ Therefore, toddy palm mortgaging is found to have done by signing contracts at the present of headmen and elders who had integrity as was done in mortgaging gold. And it is found that the money lenders had made contracts at the present of the elders so as to get benefit from the toddy palm workers by various means. In the social system of rural region it can be said that the power of Buddhist monks influenced on the society as well as the money lenders such as the donors of pagoda, rest house, etc had had a moderate influence on the people.

In Tartaing Village of Pakhangyi Township, Ma Ngwe Taing mortgaged thirty-two toddy palm trees to Ko Paik of Kyikan Village with 80 *Kyats*.¹¹¹ Thus, it is found that the mortgagor got 3 *Kyats* for one toddy palm tree in mortgaging. It is also found that the benefit was to be paid in the kind of *Htan-nyet* and mortgage must be redeemed after three years. Therefore, it is assumed that the reasons for differences in mortgaging rate were because of the differences in region where people had been worked toddy palm business with lucrative purpose and its location in central points. According to the research findings, November saw the maximum cases of mortgage of toddy palms, probably because of the toddy season being over. The cases of such mortgage were the lowest in February and April probably because those seasons were the toddy seasons. The owners of toddy palms usually mortgaged the palms in need of money either to use money for such social needs as the wedding or donation ceremony or to pay the taxes, and the mortgages were transacted in the form of contracts systematically. In the mortgage of toddy palms, only half of the current prices was offered. During Konbaung Period, one toddy palm was priced at least 0.3 *Kyat* and at most 1 *Kyat*.

¹¹⁰Central, *pu*- 1869

¹¹¹"*Htan-pin paung Thet-ka-yit Sa-chok*" (Toddy palm Mortgage Contract), Pakhangyi Archeological Survey, *Parabaik*, MS, No.2 (Henceforth: Pakhangyi, *pu*- 2)

The prices of mortgage of the toddy palm varied from region to region, probably because the type of currency used in Konbaung Period differed, or regions differed according to the basis of making toddy a commercial business or not, or because of the plentifulness or scarcity of toddy palms. Some people did not mortgage the toddy palms to the local owners of their own region, but to the money lender of another region, probably because of good social dealing and being offered more money, or having friendship with them. Those who accepted the mortgage of toddy palms were well-off people, pagoda donors, merchants, brokers and headmen. The maximum term of period of mortgaging the toddy palms was 3 years: only the term of period of 3 years was up, one had the right to retrieve one's ownership. A few cases show that, as in the case of land mortgage, additional loans were made in need of money. In cases of toddy mortgage, if the debtor died within the period of mortgage, there was no right to reclaim the mortgage: though the ownership could descend to the next generations, there was no chance to reclaim the mortgage. It was signed that if there arose any interference to the mortgage, the owner was to pay the cost of mortgage. It was observed that the creditor or money lender had taken as much advantage on the debtor as possible. The rate of interest on the mortgage of a toddy palm was: 3 viss of *Htan-nyet* per toddy palm, or interest of 5 *Mus* per 10 *Kyats* of the loan. It is assumed that, within 3 years of mortgage, interest was to cover up the grievance of the money lender. It was also observed that the debtor had to comply with the will of the money lender over the rate of interest. Though the general term of mortgage was 3 years, as far as research has been done, only few cases show the act of retrieving the mortgage. So, as the owners could not afford to do the retrieval of the mortgage, the owners of toddy palms and plantations were then degraded into the life of tenant toddy workers. According to the toddy palm mortgages, it is obvious that the creditors such as merchants, town headman, etc., took benefits with various mortgage rates and contracts in line with time and place. Thus, the life of toddy palm workers and their living standard was inferior and poor.

The toddy palm workers mortgaged not only toddy palm trees, but they also made mortgaging of toddy palm lands. On 2 February 1743, U Ywel, donor of rest house, mortgaged his toddy palm land to Ko Shin Tu with 20 *Kyats* weighed *Ywet-ni* for three years' term, in need of money. Then on 13 May 1761, he took 5 *Kyats* additional money over the mortgaged land.¹¹² U Ba Yin from Myotha Village also mortgaged his land with four toddy palm trees to Maung Nyo from Thabyaytha Village with 20 *Kyats* of *Ywet-ni*. Then on 4 April 1870, he took 5 *Kyats* additional money. Again, on 6 November 1881, his heirs took 10 *Kyats* as additional money.¹¹³ Thus, it can be said that some creditors gave additional money with consideration and sympathy in mortgaging land of toddy palm trees.

Also in Salay, there was mortgaging of toddy palm lands. U Boe Kyi from Salay possessed many land through money lending and accepting land mortgage. In gold mortgaging the interest was 2 *Mats* (0.25 *Kyat*) per month for 10 *Kyats* and in money lending without mortgage item. The interest was 5 *Mus* (0.50 *Kyat*) per month for 10 *Kyats*. But in accepting toddy palm land mortgaging, the right to work on the land and toddy palm tree was usually taken as an interest basing on the amount of mortgage and price of land.¹¹⁴ It was a kind of tenant system.

The persons who wanted to mortgage their land and toddy palm trees had to come with headmen who would recommend them, and with villagers' witnesses who had integrity. If the amount of money for mortgage was few, it was needed to

¹¹²"*Htan-taw Mye-paung Thet-ka-yit Sa-chok*" (Toddy palm Land Mortgage Contract), Ngwe-inn, *Parabaik*, MS, No.2, Daw Aye Aye Myat Collection (Henceforth: Aye Aye Myat, *pu*-2)

¹¹³Bo Kyi, *pu*- 1

¹¹⁴(a)"*Ngwe-che Thet-ka-yit Sa-chok*" (Money Lending Contract), Salay *Pan-pu Yoke-sone Kyaung Pya Taik*, *Parabaik*, MS, No.15, 173 (Henceforth: Salay *Pya*, *pu*- 15, 173)

(b)"*Ngwe-che Thet-ka-yit Sa-chok*" (Money Lending Contract), Salay *Pan-pu Yoke-sone Pitakat Taik*, *Parabaik*, MS, No.47,48 (Henceforth: Salay *Pi*, *pu*- 47, 48)

give U Boe Kyi a little amount of rent and vice versa. The tenant year was not less than three years. The tenant period is found to be five, seven, ten and up to twenty years, respectively.¹¹⁵ In mortgaging, village headmen, witness and villagers who had integrity were to be included in order to have bi-literal agreement on the tenant period. There also found in mortgaging without item that the mortgagors had to give their toddy palm land appraising the price for they could not redeem the land.¹¹⁶ Here, the price for one toddy palm tree was valued 1Kyat only.

There is no evidence found that U Boe Kyi let the tenants work on the lands he had accepted mortgage. However, on 4 September 1879, Ko Kwel mortgaged a toddy palm land to U Boe Kyi with 20 *Kyats* per year without tax payment. He asked for U Boe Kyi to allow him to work as a tenant on the land he mortgaged during three years. Then he gave U Boe Kyi 20 *Kyats* per year. They make a contract in which both agreed that if either U Boe Kyi or Ko Kwel failed to follow the contract, the breaker must compensate 100 *Kyats*.¹¹⁷ Therefore, the former owner were to work as tenant by paying rents for land and working if he wished to do so. And to get permission to work, the workers had to make bail bonds. Thus, it is found that the money lenders exploited over toddy palm workers for their own interest by making various bail bonds.

¹¹⁵(a)"*Htan-taw Mye-paung Thet-ka-yit Sa-chok*" (Toddy palm Land Mortgage Contract), *Salay Pan-pu Yoke-sone Pitakat Taik, Parabaik*, MS, No. 23, 47, 48, 76 (Henceforth: *Salay Pi, pu-* 23, 47, 48, 76)

(b)*Salay Pya, pu-* 15, 173

¹¹⁶(a)"*Ngwe-che Thet-ka-yit Sa-chok*" (Money Lending Contract), *Salay Pan-pu Yoke-sone Pitakat Taik, Parabaik*, MS, No.13, 17 (Henceforth: *Salay Pi, pu-* 23, 47, 48, 76)

(b)"*Ngwe-che Thet-ka-yit Sa-chok*" (Money Lending Contract), *Koe-Saung Kyaung Taik, Parabaik*, MS, No.27 (Henceforth: *Koe-Saung, pu-* 27)

¹¹⁷*Salay Pya, pu-* 173

The Values of Toddy-palm Trees

The toddy palm workers mortgaged toddy palm lands as well as sold toddy palm trees when they did not well in business. On 10 July 1828, Shin Hnin Yoe sold eleven toddy palm trees to the Town Headman Min Zeyya and his wife with 20.50 *Kyats* for each.¹¹⁸ In selling so, they had appraised the trees at the present of headman who had probity. Therefore, it is found that the toddy palm owners had to sell their toddy palm trees with which they worked for their livelihood. Moreover, on 8 November 1830, the monastery donor Me Ei sold toddy palm trees and land from Hten-pin-chan to Town Headman Min Zeyya and wife with 20 *Kyats*.¹¹⁹ Thus, even monastery donors are found to have sold toddy palm trees when they needed money. There was also selling of 97 toddy palm trees, two mango trees, and one date-palm with 35.75 *Kyats* making contract.¹²⁰ Therefore, it is also found that town headmen made their livelihood also with renting toddy palm trees to tenant by buying toddy palm trees.

On 20 April 1884, the sons and daughters of U Pho and Ma Thwe sold thirteen toddy palm trees possessed by their parents to Ko Pho Tha from Tar-taing Village with 63 *Kyats* of 1 *Kyat* coins. In selling so, they made bi-literal agreement contract at the present of venerable monk giving the In-charge 1 *Kyat* each in accordance with tradition.¹²¹ Thus, the sons and daughters of toddy palm owners are found to have sold toddy palm trees of their parents due to the need of money. However, in Konbaung Period, although we have found many mortgaging of toddy palm trees and toddy palm lands, evidence for selling them are found few. The reasons were that the mortgage price was different in mortgaging and that the toddy palm business was a traditional family work. The mortgagors had had the

¹¹⁸U Tun Yi, *Konbaung-khit Ngwe-che Thet-ka-yit-mya* (Money lending Contracts of Konbaung Period),Vol.3, Yangon, 1999, p.45 (Henceforth: Tun Yi,1999)

¹¹⁹Tun Yi , 1999, 49

¹²⁰Tun Yi , 1999, 31

¹²¹Pakhangyi, *pu*- 2

right to take additional money from money lenders if the price of mortgaged toddy palm trees and land rose by the time being. Moreover, the heirs of the former mortgagor, whether how long it had been, had the right to redeem their toddy palm trees or land from the mortgagee or his heirs or they had the right to take additional money for mortgaged land and toddy palm trees as their prices become high by the time being. That is why we have found a few of permanent selling custom. Moreover, it was because that the toddy palm trees were very important for the livelihood in the society of Konbaung Period and that the owners, when they needed money, made only mortgage agreements. It is found that only when they could not afford to redeem, they did selling.

Legal Cases on Toddy Palm Trees

Apart from mortgaging and selling of toddy palm trees, there usually performed apportionment of inheritance in Konbaung Society. For instance, on 11 April 1871, the sons and daughters did inheritance dividing to ancestral property of toddy palm trees taking twelve each. In doing so they divided and took by categorizing male, female and fields of toddy palm.¹²² Thus, it is found that in doing apportionment of inheritance, dividing was made by the quantity of toddy palm as well as field of toddy palm trees.

The seven heirs of Ko Chein from Pakhangyi took their inheritance of toddy palm trees possessed by their ancestors on 11 February 1877. In apportioning so they divided in the forms of big or small toddy palm, *Htan-nyet* obtainable toddy palm, toddy palm of the east, west, south or north, etc, making notches on the stem of trees with axe.¹²³ In order not to happen cases on inheritance, they were so done. It is found that the inheritance pattern was different from place to place.

¹²²Mya Thida, *pu*- 1

¹²³Pakhangyi, *pu*- 2

Nevertheless, there were legal cases on inheritance relating to toddy palm in the society of the Konbaung Period. As an instance, it is found that the headman of Gway-cho Village said that the ancestral property of toddy palm lands and gardens which were worked by three successive generations, were of royal land. Thus, the heirs of the land complained that accusatory saying to the governor of Salay-Pakhangyi stating relative lineage documents. As the case did not reach to the completion at that stage, the heirs appealed to the magistrate of *Hlut-taw*, Min Hla Kyaw Thu. Only by 1867, the case had reached to completion letting the headman of Gway-cho Village gave 1250 *Kyats* of 1-*Kyat*-coin to the heirs.¹²⁴ Therefore, headmen are found to have related arbitrarily over the people using their authority.

Moreover, it is found that village headmen had made the ancestral land of Maha Thaman, the Town Headmen of Salay, as royal possession.¹²⁵ Then, although 100 toddy palm trees from Pyinma Village and toddy palm land from Htanpintha Village belonged to a Buddhist nun called Me Min Khway, village headmen made them as royal lands. Therefore, the heirs of the nun complained of the event to local chief monks. Again the chief monks and assistant chief monks reported the case to Queen Sein Tone sending a homily letter.¹²⁶ Only then the heir had got the right to possess the land with toddy palm trees stating that the lands are not of royal property and which ought to be possessed by the heirs. Also in this

¹²⁴"*Htan Le-ya-mye A-mwe Khwe-we-hmu Thet-ka-yit Sa-chok*" (Toddy-palm Land Inheritance Case Contract), Salay *Pan-pu Yoke-sone Pitakat Taik*, *Parabaik*, MS, No.48 (Henceforth: Salay *Pi*, *pu*- 48)

¹²⁵"*Htan Le-ya-mye A-mwe Khwe-we-hmu Thet-ka-yit Sa-chok-mya*" (Toddy palm Land Inheritance Case Contracts), Salay, *Parabaik*, MS, No.13, U Maung Maung Latt Collectin (Henceforth: Maung Maung Latt, *pu*- 13)

¹²⁶"*Thi-la-shin Me Min Khwe i Htan Le-ya-mye A-mwe hmu Sa-chok mya*" (Buddhist Nan Mei Min Khway's Toddy-palm Land Inheritance Case Contract), Salay *Pan-pu Yoke-sone Kyaung Pya Taik*, *Parabaik*, MS, No.13 (Henceforth: Salay *Pya*, *pu*- 13)

way, the village headman had made their interest acting unjustly towards the people.

In Kyaukpadaung Region, the owners of toddy palm, in order to last 5000 years of *Tha-tha-na*, donated the trees as enclosures for pagoda, monastery and sima, erecting four stone pillars in 1848. Then in 1852, the venerable monk himself planted toddy palm trees with his followers and donated them to the *Tha-tha-na*. The four monks had to cultivate the toddy palm trees for over forty years. After that, Nga Aung Pyay who was said to the heir, robbed the trees and climbed for his interest. Thus, the four monks complained the robbery of toddy palm trees to the assistant chief monks of Kyaukpadaung. The later judged to let the monks possessed the toddy palm land and trees. Then in 1892 Nga Aung Pyay asked for the monks the right to climb the trees promising that he will pay ten baskets of *Htan-nyet*. But in 1893, he failed to keep his promise. Thus, the monks complained the case again to the assistant chief monk. This time, the venerable monk reported the case to the in-charge of the region and let the four monks enjoyed the possession of the land and profit from it.¹²⁷ It was just that the heir motivated by inordinate greed, gave troubles to the monks. In addition, there occurred litigation regarding toddy palm possession among heirs. Finally, Maung Phoe Maung, the headman of Kyaukpadaung and U Shan Phyu, the donor of pagoda, had to settle the case by giving compensation of 1250 *Kyats* of 1 *Kyat* coin to the heir.¹²⁸ Thus, in the society of Konbaung Period, there sometimes occurred litigation concerning inheritance on toddy palm trees and toddy palm land as they were crucial things for socio-economic life.

Legal Cases on Toddy Palm Land

Apart from toddy palm inheritance cases, there were litigations in regard to the mortgaging of toddy palm trees, mango trees and crop land. On 12 September

¹²⁷Mya Thida, *pu*- 1

¹²⁸Salay *Pi*, *pu*- 48

1875, a man mortgaged 1 toddy palm , 1 mango tree , 5 lemon tree , banana and crop land from jujube garden for a life span. Thus, there had been litigation that the mortgagee did not give the right to redeem the trees and land. He allowed redeeming only the remained trees by counting original date of mortgaging and letting redemption do with 31 *Kyats*. Then, after the death of the mortgagee, the mortgaged items were allowed to redeem with 13.5 *Kyats*. The case was settled at the present of assistant chief monk U Guna from Dakkhinavan Monastery of Salay by judging that if the mortgagee had planted additional trees, let the mortgagor repay for them by appraising the price.¹²⁹ Therefore, it is known that there was a life span mortgage agreement over toddy palm trees and the practice that only when the mortgagee was died, the items could be redeemed.

Similarly, on 13 April 1879, there was litigation between Sinka Village Headman Nga Mheh and the monk Shin Thuta. The headman said that *Thawtapan* toddy palm field had been enjoyed by five generations of Buddhist monks; that small toddy palm trees were planted only at the time of his teacher venerable monk; and that all the toddy palm and coconut trees and land were donated to the *Tha-tha-na* by the king and ministers so as to last 5000 years of *Tha-tha-na*. At that time, the assistant chief monks allowed the four possessor-monks to continue possession of the toddy palm land as there was no usual census records submitted.¹³⁰ Therefore, local chief monks are found to have acted as mediators if the headmen governed over the people, unjustly.

In conclusion, the toddy palm business was an essential livelihood for the people of rural region in Upper Myanmar. It can be said that the toddy palm

¹²⁹"*Htan,Tha-yet Le-ya-mye A-mwe hmu Sa-chok*"(Toddy-palm, Mango, Land Inheritance Case Contract), Salay *Pan-pu Yoke-sone Kyaung Pya Taik, Parabaik*, MS, No.142 (Henceforth: Salay *Pya, pu- 142*)

¹³⁰"*Shin Thuta hnint Hsin-ka Thu-gyi Nga Hme, Htan-mye-a-hmu Thet-ka-yit Sa-chok*" (Shin Thuta and Sinka Village Headman Nga Mheh's Toddy-palm Land Case Contract), Salay *Pan-pu Yoke-sone Pitakat Taik, Parabaik*, MS, No.71 (Henceforth: Salay *Pi, pu- 71*)

business was a hereditary occupation that based on the life-long experience. It was also a kind of work that needed to invest the life of toddy palm climbers for there often happened falling down from top of the trees and losing of life. Thus, the life of toddy palm workers can be said to be very hard. Usually, they faced with the problem of obtaining less toddy palm sap because of birds, hot or cold weather condition, strong wind and the wounds caused by sword on the fruit stalks. Actually, it was very difficult to get full pot of toddy sap from the fruit stalks. The toddy palm workers had to work nearly eight months a year. When toddy sap was in season, they had to work consistently living in the toddy palm fields outside the village. In accordance with their rural tradition, they lived peacefully seeking happiness and amusement. With their close friends, they enjoyed meals and toddy sap at nights under moon light. It was also a pleasant one that they song songs happily and freely at working and climbing time. When we make judgment on the life of toddy palm workers, it is found that their social and living standard was very low because of living separately outside the village together with the whole family; climbing toddy palm trees without avoiding the adverse effects of the sun and rain; and curing with folk medicines under unhealthy condition. It is also found that the sons and daughters of toddy palm workers could not attend school and follow education. They were not only illiterate but also not as much in devotion to religion. They are found to have practiced only nat-sprit appropriation and worshipping. Mostly, there were a few persons who had possessed toddy palm land. The rents for tenant work were to be paid in the forms of giving *Htan-nyet* half by half; one day's product for two days' climbing; one day's product for tree days' climbing; and one day's product for four days' labour. Although the price for climbing was varied in accordance with the region, the inferior status of the life of toddy palm workers was no different. In working as tenants, the workers had to pay not only labour but for expenses of preparing toddy palm trees and related work. If toddy palm climbers could not climb the trees any more for a reason, they

would certainly lose their labour as well as expenses for work. It is found that they had no right to enjoy benefit as much as they had exerted effort. The honesty of the social custom of rural regions was that the workers or tenants even admired the money lenders as their benefactors who lent money by taking interest. It is because of the fact that most of toddy palm workers used to sell faithfully their *Htan-nyet* only to the toddy palm owners or mortgagees with the price belittled by the later. There were also persons who mortgaged their land as well as toddy palm trees so as to borrow money. But the mortgaging types were different from region to region. Nevertheless, the usual price for toddy palm mortgage was one *Kyat* per one toddy palm tree, in some region, for example in Pakhangyi Township, it was up to three *Kyats*. Naturally, there found legal cases in regard to toddy palm land and toddy palm trees. When we study those legal cases it is found that most of the cases were settled by reconciling of Buddhist monks which was a cultural tradition of the rural society. In religious faith, it is also found that although there was worshipping of Nuts or spirits, the people used to accept the admonishment and reprimand of the venerable monks. Despite the life of toddy palm workers were very hard and harsh; they found contentment with the life of toddy palm climbers. They climbed toddy palm trees singing folk songs on top of the trees, and made their livelihood with as they were having contentment.

CHAPTER THREE

ECONOMIC CONDITIONS OF TODDY PALM WORKERS

During the Konbaung Period, there grew plenty of toddy palm plantations in the rural areas of Central Myanmar. Such plantations enabled the local people to earn income in the forms of vocational livelihood and business concerning toddy in the rural society.¹ So in Myanmar rural areas, the livelihood of toddy climbing and *Htan-nyet* boiling can be considered as the second form of livelihood. The toddy palm climbers who made their sole livelihood of toddy climbing and *Htan-nyet* boiling, the toddy palm climbers who combined the toddy business and farming, and the toddy palm climbers who combined toddy business and the domestic business earned money for family income. The owners of toddy plantations who did toddy-related business, the capitalists and the brokers and traders, also made fortune. So plenty of income was earned from uncultivated, virgin lands where paddy was not grown. Toddy therefore has played an important role for the common people of Central Myanmar since in the early history of Myanmar.² In the rural areas during Konbaung Period, livelihoods were made by manufacturing toddy and toddy products on a commercial basis, so toddy business was of the second importance in the Myanmar rural economy.

Livelihoods; Economic conditions of the toddy palm climbers

The toddy palm climbers who made their living in toddy climbing differed from one region to another in the number of toddy palms they could climb. In such

¹Toe Hla, 2004, 135

²Toe Hla, 2009a, 143-144

townships as Yezagyo, Myaing, Kyaukpadaung, Taungthar, Nahtogyi and Mahlaing, where *Htan-nyet* boiling as the main livelihood, a standard- skilled toddy palm climbers could climb about 100 toddy palms within eight months of getting the seeping toddy sap: an average number of 40 male toddy palms and 40 female toddy palms, the total number being 80.³ The number of toddy palms that a toddy palm climber could climb was locally called "*Ta-yin-tet*".⁴ Thus, the toddy palm related terms were *Ta-yin-tet*, and *Na-yin-tet*.⁵ Generally, the number of 30 to 50 toddy palms, which was a toddy palm climber's labour contribution, was referred to as "*Ta- yin- tet*". Since the number of toddy palms that a toddy palm climber could climb varied, the number of toddy palms identified for one *Ta-yin- tet* number of toddy palms varied from one region to another. But a toddy palm climber could climb a few if they grew along the embankments of the paddy fields, or farms.

In toddy palm climbing, a number of paraphernalia are needed. A ladder called *yin-htaung* is made of bamboo, and it is carried from one palm to another. So a toddy palm climber needs at least two *yin-htaungs*. One *yin- htaung* lasts for three years only.⁶ Beside, the *yin-htaungs*, a hanging ladder called *yin-swe*, made of bamboo, is also needed. A toddy climber who climbs 40 toddy palms for cutting the spadix of male toddy palm and fruit stalk of female toddy palm for the tapping toddy sap needs 50 *yin-swes*. A *yin-swe* lasts for 3 years only.⁷ It is dangerous for a toddy palm climber to climb a toddy palm and cut the spadix of male toddy palm and fruit stalk of female toddy palm for the tapping toddy sap

³San San, 1989, 75-76

⁴Toe Hla, 2004, 138

⁵Ma Kyan, *Konbaung Khit A-khun- taw-ye-ya* (Affairs on Konbaung revenue), Yangon, Tawwin Myoma Press, March 2009, p.172 (Henceforth: Kyan, 2009)

⁶Ludu, U Hla, *Kyun-taw Sa-ti-pwe-sa* (I, Broker of Steel), Mandalay, Kyi-pwa-ye Bookhouse, August 1970, p.260 (Henceforth: Hla, 1970)

⁷Lin Thu, 1986, 49

without using the *yin-swes*. A toddy palm climber needs three kinds of knife: sharp ended knife (*Dah-chun*), open-blade knife (*Dah-pwint*) and the cutting sharp-blade knife (*Dah-hni*). The knife and its sheath could last for 5 to 6 years only. The *Dah-hni*'s blade must be sharpened as sharp as the head-shaving blade: if its blade gets a little dull, the fibers could be ruffled up, blacking the tapping toddy sap.⁸ A seat called *Ka-laing* is useful for serving for the toddy palm climber in pressing down the palms around, or giving a lining of the young spadix of male toddy palm, and in pinioning the spadix of male toddy palm, the tool called *Htan-hnyet* or pinion it is used for pressing the juicy spadix of male toddy palm in the season for pinioning the spadix of male toddy palm. A tool locally called *Htan-htu* or *Zauk-khauk* is used for gently hitting the fruit stalk or bunch of toddy palms in holding the toddy sap tapping from young and ripe fruits stalks.⁹ Besides, though a bamboo strip called *Hni-kwin*, *So-ngok* or *thud* and the steaming pot called *Paung-chaung* seem minor, they are essentials.¹⁰ Moreover, small earthen pots called *Myu-o* are also needed for holding the toddy sap. Toddy palm climber who could climb 40 toddy palms needs 250 to 300 *Myu-o* or sap pots. As these pots are fragile, and can break because of the weather or of the birds and little creatures, such pots are purchased every year.¹¹ So toddy palm climbers need large capital for the tools and paraphernalia in toddy climbing. Moreover, toddy climbing is not an easy task: step by step must be taken carefully.

A toddy palm climber carries the toddy climbing paraphernalia, and climbs up the toddy palm once in the morning and the second time in the evening to hold the tapping toddy sap. The content of water in the toddy can be high or low. The toddy palms growing along the Ayeyarwaddy, the Chindwin and ponds and lakes

⁸Amar, 2002, 181

⁹San San, 1989, 80-81

¹⁰Lin Thu, 1986, 82-83, 142-143

¹¹Amar, 2002, 182

and places where water stands, have high content is not usually prepared for boiling *Htan-nyet* because a lot of firewood has to be used for fuel for boiling the toddy sap, and because the *Htan-nyet* obtained has the colour of red, and is not of good quality and because only about 20 *Kyat-thas* of *Htan-nyet* is obtained from boiling one *Myu-o* or small pot of toddy sap. Such toddy sap disqualified for *Htan-nyet* making is sold either in the form of sweet toddy sap (*Htan-ye Cho*) or in that of fermented toddy sap (*Htan-ye Kha*).¹² Since there has been existed the habit of drinking toddy liquor in Myanmar rural areas, some local people make a living by selling toddy sap and toddy liquor. But the toddy palm climbers who make a living by toddy climbing need not only a number of paraphernalia but also large sum of money for investment. Moreover, they have to pay for the toddy tax, and if the toddy plantation is not their own, they have to pay for the tenant farming tax.¹³ So though they find it easy to solve the financial problems in the eight months of toddy climbing, they are in financial difficulties in the remaining four months.

Those who make a living not only by toddy climbing but also *Htan-nyet* boiling need toddy climbing paraphernalia, as well as things for *Htan-nyet* boiling. Two huts are needed for preparing *Htan-nyet*. About 400 to 500 bamboos are needed for one season of toddy business in order to build huts and to make toddy-related tools. One *Htan-nyet* preparing hut can be used for two years only.¹⁴ It is also necessary to build *Htan-nyet* kilns for preparing *Htan-nyet*: about 150 bricks, slabs of rock, earth,¹⁵ and water are needed. Slabs of rock as the load of a cart are needed. One cart of earth is also needed. Four men are to be employed for the task. About three or four kilns are built. One *Htan-nyet* boiling kiln lasts for 2 to 3

¹²Lin Thu, 1986, 97-98

¹³Mentioned in Chapter 2

¹⁴Amar, 2002, 181

¹⁵sticky soil

years.¹⁶ The toddy workers still from Nyaungyan Period use the traditional implements such as *yin-htaung*, *yin-swe*, *Ka-laing*, large pots and small pots related to toddy work. In some places, iron cauldrons, instead of earthen large pots, were used. An iron cauldron of the breadth of 14 inches or two metal cauldrons are needed for preparing *Htan-nyet*. They can be used for about 3 years' service only. About 25 small earthen pots called *Phyin-o* are needed every year, because they are used for warming the toddy sap. Besides, about 10 large earthen pots called *Ywet-o* or *O-Toke* are also needed. They are used to be put in the toddy sap already warmed.¹⁷ Those pots can break for some reason or other, so such pots are purchased every year. So lots of investments are needed, and so is the firewood as fuel for preparing *Htan-nyet*. Some forms of fuel can be obtained in the toddy plantation: the dry palms, dry stems, and trash from the toddy palms are useful as fuel. But they are not enough. The toddy palm climbers have to find some more fuel. According to the rough estimate, about half of the load of a cart of firewood is needed for one day to prepare toddy sap that comes from one single toddy palm. A cart of firewood can feed fuel for only two days for a toddy palm climber who can climb about 80 palms. So, for one toddy palm season, a toddy palm climber needs 40 to 50 carts of firewood.¹⁸ Though there is nothing to worry about for those who own the firewood grove of their own, those who do not own such one have to search for sufficient fuel for preparing *Htan-nyet* for the next year.

In the end of *Tawthalin* and in the early month of *Thadingyut*, the toddy season is over, and the toddy palm climbers, making a living in other forms of livelihood, have to search for firewood. Especially, in the months of *Tazaungmon*, *Nattaw* (it mostly corresponds to December-January), and *Pyatho*, they are in the hot search for firewood. In some regions, there are plenty of forests and bamboo

¹⁶Lin Thu, 1986, 150-151

¹⁷Hla, 1970, 260

¹⁸Amar, 2002, 181

groves. Such forest wastes as twigs and dry branches, thorny twigs and dry trash are collected. But in some regions, there are only toddy plantations, and no forests for getting firewood. Firewood is a problem in such regions. Cotton plant stalks and pigeon-bean plant stalks are used as firewood. Moreover, dry scarab, leaves and bean husks, etc, are collected as much as possible.¹⁹ If not so, firewood has to be purchased at high prices. In some years, as the *Htan-nyet* does not fetch good prices, the earning does not cover the cost, and the debt of firewood cost is not settled.²⁰ So the problem of firewood is solved by all means. Some toddy palm climbers cut the big trees for firewood for trees for firewood for boiling *Htan-nyet*, then, leads to deforestation.²¹ The fact that toddy palms are often called as the tree for the cause of deforestation derives from the toddy palm climbers' reckless deeds.

The toddy palm climbers must to use the following means in order to stop deforestation in getting firewood for boiling *Htan-nyet*:

- (1) Searching for toddy plantation products
- (2) Collecting the twigs and thistles obtained from trimming of forests
- (3) Searching for the natural growth such as *Paung-syi*, *Me-yaing*, *Nga-laing-kyaw* and *Paung Phwe-sa*, which hinder the growth of forests
- (4) Making use of stalks of sesaman, chili, pigeon beans, millet, cotton and husks of beans obtained from agriculture
- (5) Collecting the various kinds of agricultural trash, and dry leaves
- (6) Using rubber waste from industrial disposal

Then, the toddy palm climbers can save money while measures will be taken to stop the deforestation.

¹⁹Lin Thu, 1986, 159-161

²⁰Interview with U Aung Htoo, Toddy palm climber, age 43, Nyaung Sauk Village, Yezagyo Township, Magway Division (23.4.2011)

²¹Lin Thu, 1986, 160-161

In order to get quality *Htan-nyet*, to stop the fermentation of toddy sap and to obtain clear toddy sap, *Thit-ya* bark is used in preparing *Htan-nyet*. So the toddy palm climbers cut off the *Thit-ya* bark in cutting down the trees for firewood. Besides *Thit-ya* bark, barks of *Te*, *In-gyin*, *Hta-naung* and *Mi-chaung*, as well as lime, are used in various regions. About 3 baskets of lime are needed for one season of toddy climbing,²² while 3 cart loads of *Thit-ya* bark are needed.²³ Though *Htan-nyet* obtained from the use of lime is not of bad quality, its quality is not as good as that of *Htan-nyet* obtained from the use of *Thit-ya* bark. Toddy palms growing by inland areas away from rivers, creeks, ponds and lakes yield the rate of producing *Htan-nyet*. Boiling of one *Myu-o* pot of toddy sap can obtain up to 30 *Kyat-thas* of *Htan-nyet*. Toddy sap with low content of water is thick and very sweet. Besides, it produces high amount of *Htan-nyet* from boiling, and needs only a few amount of firewood, thus yielding white and clean *Htan-nyet*, and saving fuel.²⁴ So the toddy palm climbers living in deep inland regions make a living by boiling *Htan-nyet*.

The toddy palm climbers who make a living by *Htan-nyet* boiling starts their work of collecting toddy sap, starting from early February till mid- October through the season of early spadix of male toddy palm, pinioning the spadix of male toddy palm, young fruit season and ripe fruit season, for 8 months.²⁵ The toddy palm climbers who make a living by climbing 80 toddy palms can collect toddy sap for nearly 45 days from February to mid- March, and the yield of toddy is very good only for 25 days. In the early male fruit season, one toddy palm yields 1.5 *Myu-o* pots to 2 of toddy sap per day. From this is obtained 10 to 12 viss of

²²San San, 1989, 174

²³Hla, 1970, 259

²⁴Lin Thu, 1986, 97-98

²⁵Mentioned in Chapter 2

Htan-nyet. About 300 viss of *Htan-nyet* at the rate of 12 viss per day are obtained. In the early and late period of that season, since the tapping of the toddy sap is low, 5 viss per day and 100 viss of *Htan-nyet* are obtained in the remaining 20 days. So in the season of early make spadix of male toddy palm season, the total 400 viss of *Htan-nyet* are obtained.²⁶ In the season of spadix of male toddy palm pinioning, toddy sap can be collected for nearly 3 months from mid- March to mid- June. The tapping of the toddy sap is good only for about 2 months. In the season of spadix of male toddy palm pinioning, one toddy palm yields toddy sap of 1.5 to 2 *Myu-o* pots per day, and one toddy palm yields 10 to 15 viss of *Htan-nyet*. About 900 viss of *Htan-nyet* are obtained at the rate of 15 viss per day, but in the remaining month, the yield declines, so 210 viss of *Htan-nyet* are obtained at the rate of 7 viss per day. So the total 1110 viss are obtained in the season of spadix of male toddy palm pinioning.²⁷ The toddy sap can be collected for the young fruit season from early April to end of June. Only about 5 out of 40 female palms can yield toddy sap, producing 1 to 1.5 *Myu-o* pots of toddy sap per year.²⁸ As the toddy sap of young fruit has low yield of toddy sap, no estimate can be made on the yield. Toddy sap for ripe fruit season can be collected for about 4 months (120 days) from mid- June to mid- October. The yield of toddy sap is good only for about 75 days, and 1125 viss of *Htan-nyet* are obtained at the rate of 15 viss per day. In the remaining 45 days, the yield of toddy sap is low, so 315 viss of *Htan-nyet* are obtained at the rate of 7 viss per day. So the total of *Htan-nyet* for

²⁶Interview with U Kyaw Nyunt, Toddy palm climber, age 55, So-dwin-gyi Village, Myaing Township, Magway Division (22.4.2011)

²⁷Interview with U Myo Lin, Toddy palm climber, age 38, Bone- Bwe Village, Chauk Township, Magway Division (26.4.2011)

²⁸Interview with U Kyaw Soe, Toddy palm climber, age 40, Kya- Be Village, Hseik Phyu Township, Magway Division (13.4.2011)

ripe fruit season is 1540 viss.²⁹ So a toddy palm climber who can climb 80 palms can get only 3050 viss of *Htan-nyet* for the whole season of toddy climbing. The toddy sap yielded from a female toddy palm is 1 time higher than that from a male toddy palm the following table shows the average production of *Htan-nyet* in one toddy climbing season.³⁰

Table -I

Average production of *Htan-nyet*

Kinds of Toddy palm Industry	Yield per palm average in a season
Early Htanbo (male toddy palm)	12 viss
<i>Hnyet</i> (male toddy palm)	25 viss
Young fruit (female toddy palm)	20 viss
Ripe fruit (female toddy palm)	32 viss

Source: Interviewing with toddy palm climbers

The toddy palm climbers have to make much investment in equipment and firewood fuel in boiling *Htan-nyet*. They are faced with such problems as low toddy sap yield, low rate of *Htan-nyet* produced, and low prices of *Htan-nyet*, in the years of bad climatic conditions. So those who make a living by *Htan-nyet* boiling have high cost of investments while the amount of *Htan-nyet* obtained is only about 3050 viss. Such *Htan-nyet* boiling is a family business in which all the family members are involved. Moreover, the *Htan-nyet* they sell at the trading centers is purchased at unfairly lowered prices by the local brokers and traders, and companies. Moreover, if they do not have toddy plantations, they have to pay

²⁹San San, 1989, 172

³⁰Interview with U Khin Hlaing, Toddy palm climber, age 56, De Pya Village, Pakkokku Township, Magway Division (13.4.2011)

the charges of tenant farming,³¹ as well as tax on toddy.³² So, as the family members of toddy palm climbers earn very low income, their economic conditions are poor and unsatisfactory. Though they found life easy only for 8 months of toddy season, since they do not earn income in the remaining 4 months, the wife and children go to other regions and have to work as coolies in the fields and farms. So, though they work without a break by means of *Htan-nyet* boiling, their income is just for the survival of the family. But they are better off, it compared with the life of other unemployed, poor villagers.

Such toddy palm climbers do the toddy climbing only in the late winter, free from farm and work at fields and in the summer before the rainfall. As they work in fields and on farms under the toddy palms, they get the harvest of crops. So it is assumed that the toddy palm climbers who combine toddy climbing with their farm work can find life more comfortable than the ordinary toddy palm climbers who mainly did toddy climbing.

Some toddy palm climbers make medium- size local ward-robies with toddy palm leaves and outer layer of petiole when they are not engaged from toddy palm business. In the Central Myanmar regions, such a traditional product called *Htan-khauk-pha* is used for keeping clothes, a box of flint, lady's toilet things, or betel casket, etc.³³ Moreover, in his novel *Hma-taw-pon*, Sayagyi Thakhin Ko Taw Hmaing describes how the Central Myanmar regions *Htan-khauk-pha* was used as a travelling bag: "Shouldering my *phar* box of burden, I was unable to return home, my Central Myanmar regions home, soon."³⁴ Thus, in Central Myanmar regions, the *Htan-khauk-pha* had been in widespread use for keeping things. The local product of such kind produced from Pakokku and Pakhan Region had been

³¹Mentioned in Chapter 2

³²Yi Yi, 1966, 98

³³Toe Hla, 2004, 141

³⁴Nan Nyunt Swe, 1974, 45

popular.³⁵ But there may have been existed such kind of livelihood of making those containers. As such containers were used for various purposes during Konbaung Period those who made such local boxes may have earned extra family income. But as they could do this livelihood only when free from toddy work, they could just manage to survive.

Besides *Htan-khauk-pha* boxes, the toddy palm climbers do livelihood by weaving leaves or bud of toddy palm hats. Such a livelihood is that of making fine products out of the local raw materials of the Central Myanmar regions. Moreover, it is a form of livelihood that greatly supports the economy of the proletarian class. This work is divided roughly into two parts: (1) manufacturing raw materials done by the poor people, and (2) producing fine products done by the well- off people only. There is no need to make much investment in the part of manufacturing raw materials. Only a little money is needed for buying toddy bud rims. But it is not very easy because many steps have to be taken: fresh toddy bud is stretched out, and dried in the sun until 50 woven toddy bud frames are obtained. Such frames are supplied in a wholesale scale. One worker can do 4 frames a day. As all the family members, young and old, can do this work skillfully, it fetches a kind of family income to support a family. In order to produce fine products, many sewing machines are needed, and the order is given to the skilled daily wagers. A skilled sewing machine worker can sew one hat per five minutes. He or she can sew 50 to 150 hats per day. Then, the hats need to have a ventilation hole and stitch works. A worker can make holes on 100 hats per day while a stitch work worker can finish 100 hats per day.³⁶ Such traditional hats are being manufactured in Yone- si

³⁵Pakhan Kyaw, *Pakhan- gyi A-kyauung- Thi -kaung-sa-ya* (Some interesting knowledge on Pakhangyi), Yangon, Karya Thukha Press, September 1972, p.179 (Henceforth: Pakhan Kyaw, 1972)

³⁶Thein Toe, "A-nya-htan-phu Ok-htok" (Central Myanmar's toddy bud hat), *Myawaddy Magazine*, Vol.10, No.9, July, 1971, p.147-150 (Henceforth: Thein Toe, 1971)

Gyi Village, Taungthar Township, Myingyan District.³⁷ So making palm hats can give employments to the local people in the Central Myanmar regions, fetching much income. It can be said that such a livelihood can contribute to the economy of the Central Myanmar regions. Such a business earns only a few wages for the toddy palm climbers and daily wagers while the capitalists make much profit. So the toddy palm climbers who combine toddy climbing and hat- making can just make both ends meet.

There were toddy workers who made a living by making the petiole of toddy palm into chairs and tables. In Central Myanmar regions, among various kinds of handicrafts are included the handicraft of making *Htanbalèt* chairs and tables as an income- generating business. It needs low capital, but earns high income with low labour. On both sides of the road near the railway junction in North Nyaung Nga Pin Village on Yangon- Mandalay Highway, chairs made of toddy products are put on market, thus making contributions to the family income. In the months of *Tazaungmon* and *Nattaw*, when the toddy climbing starts, the toddy palms are purchased from Kyokya In Village, Nyaungkon Village, Naung War Village, Tabye Thar Village and Kyee Chaung Village, where there are plenty of toddy palms. The handicraft of making toddy palm chairs has been handed down from generation to generation: the chairs are strong, standing against the termites and being very healthy and comfy.³⁸ Moreover inexpensive chairs and tables are serviceable for at least five years. The business is divided into two types: rough products and fine products. If the raw materials are ready, five to six chairs can be made in one day. So though it is a domestic business, it can fetch

³⁷Thein Toe, 1971, 151

³⁸Maung Zaw, "*De- tha-hwet Htan-let-mya ah Mi-tha-su Ta-paing-ta-naing Khon-a-myo-myo Pyu-lok Yaung-cha-chin-phint Si-pwa-ye A-hsin-pye Toe-tet-hlet-shi*" (Life is comfortable through selling home-made chairs of local toddy palms), *Myanmar Alin Newspaper*, 11.10.2012, Vol. 52, No. 11, p.2 (Henceforth: Zaw, 2012)

much income.³⁹ It brings extra income for the peasants and toddy workers of Central Myanmar. So it can be said that the families of toddy workers who make their living by that handicraft may find it better to make a living economically.

There live some toddy palm climbers who made a living by weaving toddy palm baskets, large baskets ("*Taung*") and cane balls. Palm baskets and large baskets are widely used as containers. So such a business earns income for peasants and toddy palm climbers in rural areas. As composed in the poet U Saung's *Lwun-Chin* about the use of toddy palm baskets in rural areas:

"As the flowers of red silk- cotton tree fall, Mi Zan Hla, are you coming along to collect the flowers.

When the palm basket holding three *Seits* overflows with red flowers,

We shall go home happily."⁴⁰

If there are raw materials ready for weaving palm baskets and large baskets, 5 to 6 baskets can be finished in one day. Such palm baskets can hold even water, and lasts from 5 to 7 years, so local people of rural areas in the Central Myanmar regions have been widely using them. The palm baskets, products of Mahlaing region are very popular.⁴¹ Moreover, there has existed weaving of cane balls according to the tradition of Myanmar rural areas.⁴² It can be said that such business mainly earn income for the peasants and toddy palm climbers' families in the Central Myanmar regions. But since the toddy palm climbers have to work

³⁹Mg Mitzu, Panhlaing, "*A-nya Htan-let-pat Ka-la-haing Lok-ngan*" (Central Myanmar's toddy chair enterprises), *Myawaddy Magazine*, Vol.19, No.4, February 1971, pp.45-47 (Henceforth: Mitzu, 1971)

⁴⁰U Aye Maung, Professor, *Ka-bya Pan-kon* (A Garland of Poem), Yangon, Myanmar Union Press, 1956, p.101 (Henceforth: Aye Maung, 1956)

⁴¹Maung Maung Phyu, 1962, 228

⁴²Thein Toe, 1968, 148

without a break in their toddy business, they cannot focus on their livelihoods. So the toddy palm climbers, it is assumed, can earn only for their survival.

Some toddy palm climbers make livelihoods by weaving mats, fans and toys. In Central Myanmar regions, as the toddy palm leaves mat, and toddy palm strip mats are cheap, and they are easily available, and fit into the rural customs and traditions, and as they can be used for a long time, large numbers are used. Mats of various designs and sizes are woven.⁴³ Weaving such traditional maps can earn income for the peasants and toddy palm climbers in the rural areas. Moreover, fans woven of palm leaves are put on market.⁴⁴ Partly because they fit in the hot and dry climate of the Central Myanmar region, partly because the price is reasonable, and partly because they are the symbol of rural tradition, toddy palm leave fans are mostly used. Besides the fans, palm leaf beads, fish shape memento, balls, large fish- shape memento, and school of little fish memento are hand-woven. Such mementoes are put on sale widely during the Shwe Sar Yan Pagoda Festival of Queen Saw Mon Hla lying on Mandalay- Maymyo road. Young toddy palm leaves are coloured and are hand woven into toys and beads- the colourful toys being children's favourite. Not less than 5000 palm beads are sold during the festival. Such mementoes are mostly hand-made in Nyaung Wun Village and Hsat- Tha Village, four miles to the west of Kyaukse, and are sold during the Shwe Sar Yan Pagoda Festival. The pilgrims and holiday makers coming to the Pagoda Festival wear such toddy palm beads necklaces as a symbol of the Pagoda Festival.⁴⁵ So it can be said that such a business is a kind of business that the peasants and toddy palm climbers in the Central Myanmar regions can rely or for earning income. But those who do this business as a livelihood sell their products in a wholesale basis only to the traders, brokers and shopkeepers. If they need

⁴³Amar, 2002, 179-180

⁴⁴Maung Maung Phyu, 1967, 327

⁴⁵Amar, 2002, 179-180

capital, they borrow money from them at interest.⁴⁶ So the traders, brokers and shopkeepers purchase the products at reduced price but they sell then at high price, making profit. Thus, they exploit the handicraftsmen. The former make profit on the business while the toddy palm climbers who combine such domestic business with toddy climbing can earn only wages of labour.

Besides such livelihood, there also exist small-scale livelihoods such as making traditional snacks of toddy sap called *Mont-let-saung*,⁴⁷ and toddy liquor into vinger,⁴⁸ entwining strips of toddy palm into ropes of various kinds,⁴⁹ and chopping the stalks into small pieces to be used in tobacco cuttings.⁵⁰

Besides then businesses, *Htan-nyet* is brewed into liquor and spirit as livelihoods. Though it goes against the Buddhist's teachings to drink liquor, it is a common custom to drink liquor in the Central Myanmar regions. *Htan-nyet* and glutinous rice or *Hsin-ton-ma-nwe* creepers are mixed, and soaked to get the first mixture called *Sein- yi*. Then, according to the traditional way, it is put in steaming puts, and the steam is cooled down to get the liquor.⁵¹ Such liquor is used by the traditional medico of the olden times for preparing medicines.⁵² Besides, *Htan-nyet* is prepared for making spirit. In order to make spirit, brown sugar slab or *Htan-nyet* and rice are needed.⁵³ Such spirit is needed for antiseptic for healing

⁴⁶Mitzu, 1971, 48

⁴⁷Maung Maung Phyu, "Htan-ye" (Toddy palm juice), *Ngwetaryee Magazine*, No. 42, December, 1963, p.183 (Henceforth : Maung Maung Phyu, 1963a)

⁴⁸Amar, 2002, 179-180

⁴⁹Maung Maung Phyu, 1962, 229

⁵⁰U Nyunt Lu, "*Htan-ta-pin- lon A-thon-cha-ni*" (Usefulness of the whole toddy palm)", *Myawaddy Magazine*, Vol.5, No.7, May 1957, p.126 Henceforth: Nyunt Lu, 1957)

⁵¹Pyae Phyo Thet, 2003, 44

⁵²Saya Tin, *Lu- tain A-twet Tha-ba-wa Dhamma Hse Pyin-nya* (Natural medicine for all human beings), Yangaon, Loke Thar Press, December 1978, p.174 (Henceforth: Tin, 1978)

⁵³U Kyaw Myint, *Bama Hse Kyan* (Medical treatise of Myanmar), Yangon, Yawgi Press, No date of Publication, pp.147-148 (Henceforth: Kyaw Myint, no date)

bruises and swelling and abscess not only by the traditional Myanmar medicos but also in Western medicine.⁵⁴ The Myanmar people have used *Htan-nyet* as snacks, drinks and for medical purposes.⁵⁵ So such businesses can earn income for those who do such businesses as livelihoods.

Economic conditions of the toddy palm climbers

The majority of the toddy palm climbers who make a living by toddy climbing do not own a toddy plantation. Only some own plantations. The majority without having a toddy plantation of their own have to pay charges for toddy climbing or for tenant to the owner. The toddy climbers have to invest the labour of at least three family members, toddy related investments and fuel.⁵⁶ So the toddy palm climbers gradually get impoverished. But the owners get *Htan-nyet* as their lion's share without making investment in labour and money. So the owners of toddy plantation get rich from the yield of toddy palms for 60 to 70 years. But during Konbaung Period, the toddy plantation owners have to pay the toddy taxes.

The toddy taxes varied from one region to another during Konbaung Period. The taxes were paid in local traditions. In 1635, in the west of Ku Phyu Village, tax of two *Htans* (weight equivalent to that a man could carry over shoulder) of *Htan-nyet* per climbing of one toddy palm was to be paid. In the village of Pyinsi Thone- set Chauk- si Thar, however, toddy tax was paid at the rate of 1 viss and 50 *Kyat- thas* of *Htan-nyet* per climbing of one toddy palm.⁵⁷ In that period, the toddy tax was paid in terms of *Htan-nyet*, and the amount of *Htan-nyet* to be paid varied from one region to another.

⁵⁴Kyaw Myint, no date, 147-148

⁵⁵*Palm Jaggery*, 1951, 10

⁵⁶Mentioned in Chapter 2

⁵⁷Khin Cho, 1987, 22, 74

During Konbaung Period, in the Province of Bagan, toddy taxes varied from one place to another. In 1765, 2 *Mats* were paid for toddy tax in Karbar Ni Village, Nyaung Gyt Village and Mye Thin Twin Village. But the amount of charges to be paid to the *Ye-sa* (clerk) and *Taing-sa* (officer appointed as surveyor) varied: in Kabar Ni Village and Nyaung Gyt Village, 8 *Mus* were paid to the *Ye-sa*, but 1 *Mu* in Mye Thin Twin Village. In Nyaung Gyt Village and Mye Thin Twin Village, 1 *Mu* was paid to the *Taing-sa*, but up to 8 *Mus* was paid to him in Kabar Ni Village.⁵⁸ But in 1784, only 1 *Mu* was paid to *Ye-sa* and *Taing-sa* in Kabar Ni Village.⁵⁹ So, even in the same village, the rates of taxes paid changed in the course of time.

In 1765, in Taung Pon Village, Nyaung Hla Village, Kyat Village and Le-yar Village, in the Province of Bagan, only 1 *Mat* was paid per one toddy palm for toddy tax, and no charges were paid to the *Taing-sa* and the *Ye-sa* officers.⁶⁰ In the villages Ye-myet, Nga-laing, Ku, Phalan O, Myin Wun, Sabe, Ye-kyi, Let-pyan, and Tant-kyi, only 1 *Mat* was paid for one toddy palm. In the villages Phalan O, Ku and Tant-kyi, 1 *Pe* was paid as the charge of service to the *Ye-sa*. In Tant-kyi Village, 8 *Mus* was paid to the *Ye-sa*, and 1 *Mu*, to the *Taing-sa*.⁶¹ But in 1784, in Tant-kyi Village, only 1 *Mu* was paid to the *Ye-sa*, but no charges were paid to the *Taing-sa*.⁶² In 1765, in Ye Myet Village, Ku Village, Phalan O Village and Let-pyan Village, only 1 *Pe* was paid to the *Taing-sa*. In Ye-kyi Village and Sabe Village, only 1 *Pe* was paid to the *Ye-sa* and the *Taing-sa*. In Myin Wun Village, 1 *Mu* was paid to the *Taing-sa* and the *Ye-sa*. In Tin-kat Village, 1 *Mat* was paid to

⁵⁸Trager and Koenig, 1979, 206-207

⁵⁹Yi Yi, 1968, 360

⁶⁰Trager and Koenig, 1979, 224-225, 236, 246

⁶¹Yi Yi, 1966, 96

⁶²Trager and Koenig, 1979, 266

the *Taing-sa* and the *Ye-sa*.⁶³ In Taung-pon-tan and Nga Kyaw Tan Villages, the toddy tax was 1 *Mat* at the fixed tax. Moreover, 1 *Pè* was paid to the *Ye-sa*; 1 *Pe* to the *Taing-sa*; 1 *Pe* to the *Ye-sa* and the *Taing-sa*; 1 *Pe* to the *Taing-sa*; 1 *Mu*, to the *Ye-sa* and *Saw-sa*; 1 *Mu*, to the *Saw-sa* and the *Taing-sa*; 1 *Mat* to the *Ye-sa* and 1 *Mat* to the *Taing-sa*, etc.⁶⁴ So, even in the one province of Bagan, toddy taxes varied from one village to another. Moreover, in the course of time, the rates of charges to the *Ye-sa*, *Taing-sa*, and the *Saw-sa* were different.

The toddy tax was paid either in terms of cash or in terms of *Htan-nyet*. In Thaphan- Khar Village, when the maintenance was given to the pagoda, the local people had to pay 1 basket of *Htan-nyet*, and in the years when no maintenance of the pagoda was made, 1 *Kyat* was collected from each family for the donation for the general service of the pagoda.⁶⁵ In paying the toddy tax, either money or *Htan-nyet* or copper was paid. In Pyun Village, 12 *Kyats* of copper per one toddy palm was paid. Different charges were paid to *Ye-sa* and *Taing-sa*: 8 *Mus* to *Ye-sa*; 1 *Mu* to *Taing-sa*; 25 *Kyats* to *Ye-sa*; 25 *Kyats* to *Taing-sa*; 8 *Mus* to *Taing-sa*; 1 *Mu* to *Ye-sa*; 1 *Mu* to *Taing-sa*; and 50 *Kyats* of *Htan-nyet* to *Ye-sa*; and 50 *Kyats* to *Saw-sa*, etc.⁶⁶ In 1765, in Pun Village, 25 *Kyats* 2 *Mats* of copper was paid; 25 *Kyats* to *Ye-sa*; and 25 *Kyats* to *Taing-sa*.⁶⁷ In 1765, in Pun Village, only 2 *Kyats* 1 *Mat* of copper was paid, and no charges were paid to the *Taing-sa* and the *Ye-sa* and the *Ye-sa* any more.⁶⁸ In In-taing Village, in 1784, 2 *Mats* in cash was paid as toddy tax. Moreover, 1 *Mu* each was paid to the *Ye-sa* and the *Taing-sa*. In Ngathayauk Town, toddy tax was paid: not only 2 *Mats* in cash but also 1 viss of

⁶³Trager and Koenig, 1979, 211-212, 229-231, 237, 239, 243-244, 246

⁶⁴Yi Yi, 1966, 96

⁶⁵Yi Yi, 1966, 96

⁶⁶Yi Yi, 1968, 355-356

⁶⁷Yi Yi, 1968, 355-356

⁶⁸Trager and Koenig, 1979, 209

Htan-nyet; *Htan-nyet* and 1 *Mu* were paid to the *Taing-sa*.⁶⁹ In Nyaung-gyit Village, the toddy palm climbers had to offer 15 pieces of snack to the *Wut-thein* Monastery in order to get permission for climbing the toddy palms.⁷⁰ So, in the Province of Bagan, tax was paid in money, copper and *Htan-nyet*, and the traditional and local customs differed from one village to another. The tradition of requesting to permits toddy climbing also differed from one place to another. The rate of payment to the *Taing-sa* and the *Ye-sa*, according to the *Sit-tans*, had gradually declined, and finally, no payment of such kind was made.

In Sint-ku Township, in the Zetawun Monastery and the Kantaw Monastery of the Nagayon Pagoda, there grew toddy groves of two climbing. No tax needs to be paid for them. In Ywathar Myo-kye, in Mye-than-taung Village, at Khe-Minga Monastery, one-tenth of the yield from 25 toddy palms dedicated to the religious purposes ("*Wut Htan*") was paid to the in charge of the religious services ("*Wuttakan-Thein*").⁷¹ Not every village had the toddy tax. In the villages where the toddy tax was paid, 1 *Mat* or 2 *Mats*, etc. in cash was paid for one climbing of the toddy palms.⁷² In Sint-ku Township, there existed villages where there was no need to pay the toddy taxes.

In the Province of Tayun-taing, in 1784, there grew toddy palms which needed to pay the toddy tax: 1 *Mu* of copper as the main tax ("*Khun-ma Kye*"), 75 *Kyats* for the Headman, 25 *Kyats* to the *Ye-sa* and 25 *Kyats* to the *Taing-sa* collected by the in charge of toddy plantation ("*Htan-Gaung*") for one climbing of toddy palms, and the taxes were submitted to the West Royal Custom Office.⁷³

In 1802, for the toddy palms in the royal land, for one climbing, 3 *Mats* of main tax, 75 *Kyats* for *A-ke* (In-charge), and 75 *Kyats* to the *Ye-sa*, were paid to

⁶⁹Trager and Koenig, 1979, 269-270

⁷⁰Yi Yi, 1966, 96-97

⁷¹Yi Yi, 1968, 359-360

⁷²Toe Hla, 2004, 139

⁷³Yi Yi, 1966, 96-97

the *Ka-thaung-myaung Taik*. In 1802, in Tayun-taing Town, 2 *Mats* of the Main Tax and 1 *Pe* for the *Ye-sa* were paid.⁷⁴ In that town, besides the toddy tax, pure *Htan-nyet* was also to be supplied: 10 viss of kiln- made *Htan-nyet*, 10 viss of pure *Htan-nyet*, 10 viss of *Khapaung-se Htan-nyet*, and 10 viss of *Magyi- kwe Htan-nyet* were supplied to the West Royal Customs Office before *Tagu*, the Month of the New Year, every year. The *Htan-nyet* supplied was collected by the Office of the West Royal Office, and was submitted to the Interior Royal Chamber at the following share rate: 4 viss of *Htan-nyet* to the Officer.⁷⁵ But in 1802, 12 viss of *Htan-nyet* were supplied to those who submitted *Htan-nyet* to the West Customs Office.⁷⁶

The Sanghas in the general religious service requested 2 *Mats* in cash for one climbing of toddy palms in Taung- shae Village and Sha- myein Village in Tayun-taing Town. The toddy taxes on the royal lands were: 3 *Mats* of the main tax, and 75 *Kyats* for the *A-ke Ye-sa*. *Htan-nyet* and 25 *Kyats* of copper were paid over the sale of one toddy palm.⁷⁷ In Taung-sin Town, 1 *Mu* of toddy tax was paid while 75 *Kyats* of copper per 10 toddy palms was paid. If not the toddy tax, *Htan-nyet* was to be supplied. Besides *Htan-nyet*, 25 *Kyats* of copper was supplied.⁷⁸ The Town Officers and the Town Constables collected the tax and supplied it to the *Ka-thaung-myaung Taik*.⁷⁹ Besides the toddy tax, *Htan-nyet* was supplied. In Taung-she Village, 25 *Kyats* of main tax and 12 *Kyats* and 2 *Mats* for the *A-ke Sa-ye* per one kiln of *Htan-nyet* were paid. In Taung- sin Town, 5 viss of *Htan-nyet* per year for one climbing of toddy on the religious land were supplied to the *Wut-*

⁷⁴Trager and Koenig, 1979, 284-285

⁷⁵Yi Yi, 1966, 96-97

⁷⁶Trager and Koenig, 1979, 284-285

⁷⁷Trager and Koenig, 1979, 287, 293

⁷⁸Yi Yi, 1966, 97

⁷⁹Trager and Koenig, 1979, 276-277

thein or In charge of the Religious Land.⁸⁰ In the Province of Tayun-taing Town, except the toddy plantations of the *Pyi-soe*, *Daing-khaung*, A-nauk Village Headman, Tharaphi Village Headman, Kamma Village Headman, and Pahtokan Village Headman, all the toddy plantations had to supply 1 *Mu* of main tax, and 75 *Kyats* for collected the tax, per 10 toddy palms, 25 *Kyats* of main tax per one pot of *Htan-nyet*, and not the charge for the *A-ke-sa*, was paid.⁸¹ It can be said that the headmen and the *Pyi-soe* had the right of exemption from paying the toddy tax.

Also in the Province of Salay Town, there grew toddy palms which had to pay the tax. In 1783, in Salay Myoma, taxes were paid: 75 *Kyats* of copper of main tax per one toddy palm, 7 *Kyats* 2 *Mats* as extra money, 7 *Kyats* 2 *Mats* for the Headman, 7 *Kyats* 2 *Mats* for the *Ye-sa*, 2 *Myu-o* pots and 2 *Kalats* of *Htan-nyet* as presents. The total cash 90 *Kyats* and *Htan-nyet* were supplied. In 1803, the same rate of tax was paid.⁸² In 1784, in Pya Village, there grew 60 toddy palms for the supply to the headman and other toddy palms. Taxes were paid: 75 *Kyats* of copper of fixed Tax, 7 *Kyats* 2 *Mats* as extra, 7 *Kyats* 2 *Mats* for the *A-ke*, 7 *Kyats* 2 *Mats* for the *Ye-sa*, 7 *Kyats* 2 *Mats* for the Pat charge, and as presents, 2 *Myu-o* pots and 2 *Kalats* of *Htan-nyet*. The total tax paid was 100 *Kyats*. In 1802, the same tax rate was paid as in 1784.⁸³ In Khwe Cho Village, the tax for one climbing of toddy on the religious lands was paid 7 *Kyats* 2 *Mats* more than that paid in Salay Myoma. The total tax of 97 *Kyats* 2 *Mats* was paid to the in-charge of the religious land. But in 1803, only 1 *Myu-o* pot and 2 *Kalats* of *Htan-nyet* were paid as presents.⁸⁴ In the villages of Salay Town, the same toddy tax was paid, but the rates of charges paid to the *A-ke* and the Headman, as well as amount of presents were different.

⁸⁰Yi Yi, 1966, 97

⁸¹Trager and Koenig, 1979, 279-280

⁸²Yi Yi, 1966, 96

⁸³Yi Yi, 1968, 355

⁸⁴Trager and Koenig, 1979, 332

In Twinthin Province, in Sha-hton Village, in 1784, the toddy tax of 5 viss of copper per one climbing was paid. The toddy palm climbers also had to pay 50 *Kyats* of copper for toddy climbing.⁸⁵ In Twinthin Province, besides the toddy tax, various rates of tenant farming were paid for toddy climbing.

In Mye-sun Village at the entrance of Kyaukpadaung, *Htan-nyet* was supplied, and no toddy tax was paid. Four toddy incharges collected 1 basket of pure *Htan-nyet* and 10 viss of small *Htan-nyet* pieces, and supplied them to the West Customs Office before *Tagu*, the Month of the New Year.⁸⁶ In 1802, according to the age-old tradition, 12 baskets of pure *Htan-nyet*, 120 viss and 300 small pieces were supplied, but no toddy tax was paid.⁸⁷ So, in Kyaukpadaung Township, no toddy tax was paid, but only *Htan-nyet*.

In Myingyan District, in Kyauk Hsauk Village, no tax was paid, but 25 *Kyat-thas* of *Htan-nyet* per one toddy palm over the sale of toddy palms was paid.⁸⁸ In Salin Kathu Village, in Myingyan district, 25 *Kyat-thas* of *Htan-nyet* per one toddy palm were paid every year as the toddy tax.⁸⁹ In Nya- Thayauk Town, instead of the toddy tax, *Htan-nyet* was paid, according to the age-old tradition. From the royal lands, the *A-nauk-wun Sa-yes* had to supply the total tax of *Htan-nyet* of 140 viss: 10 pure white *Htan-nyet* per year, as well as 10 viss of *Na-sha Htan-nyet*, 10 viss of *Khapaung-se Htan-nyet*, 10 viss of kiln *Htan-nyet*, and 100 viss of *Htan-nyet* for the royal serve. Tax of 10 viss of *Htan-nyet* to the *Wun-sa* and 5 to the *Ye-sa* were paid. In religious lands, not only *Htan-nyet* but also the royal tax was paid: 1 basket of *Htan-nyet* and 2 *Mats* in cash were paid to the *Wut-thein* for one climbing. While 1 viss of *Htan-nyet* and 1 *Mu* were paid to the

⁸⁵Trager and Koenig, 1979, 259

⁸⁶Yi Yi, 1966, 97

⁸⁷Trager and Koenig, 1979, 307-308

⁸⁸Trager and Koenig, 1979, 293

⁸⁹Trager and Koenig, 1979, 299

Taing-sa, no tax was paid to the *A-po-a-ke*.⁹⁰ So, according to the local tradition, there existed payment of more or less toddy tax, supply of various kinds of *Htan-nyet* and no supply of toddy tax in some villages.

Apart from the toddy tax and *Htan-nyet*, tax of Jan of *Htan-nyet* was also supplied. In Lower Myanmar, in Sittaung, Taung-ngu, Mattama and Hanthawaddy, there existed gardens where betel leaves, betel fruits, coconut, banana, durian, jack fruit, and mango, etc., were grown.⁹¹ So, presents from 32 Mottama towns were supplied in the Month of Wakhaung: jam of *Za-deik-pho* nut, coconut jam, jack fruit jam, lotus stalk jam, one basket of nine jams, each of betel nut jam, banana, and mango jam.⁹² So it is observed that gardens made jam with *Htan-nyet*, and supplied the tax.

In Upper Myanmar, in Sagaing, Kyauksè, Mattaya and the surrounding areas of the royal capital, there had been existed gardens belonging to the King, queen, and princes. There existed 65 gardens which paid the tax, which went to the Senior Queen only and not to the royal revenue.⁹³ So, it can be said that the tax money from the tax-paying gardens went to the Senior Queen.

During Konbaung Period, the fruits yielded from the royal lands in the distant regions with no royal granary were paid in cash. The cash from the fruits was submitted to the Royal Granary: 1 *Pe* per one toddy palm was paid.⁹⁴ Moreover, in the hilly farms, the royal lands depending on the good or poor quality, 3 to 6 baskets per one *Pe* were collected. Depending on the fruits grown on those hilly farms, the land tax was paid once a year, and after forming the areas of toddy palms and betel palms into *Pe* areas, tax was collected at the rate of 10 to

⁹⁰Yi Yi, 1966, 97

⁹¹Kyan, 2009, 171

⁹²Yi Yi, 1966, 108

⁹³Kyan, 2009, 171

⁹⁴Tun Aung Kyaw, *Myanma Naing-ngan Mye-khun Tha-maing* (The History of Myanmar Land Revenue), Yangon, GEC Press, 1995, pp.80-81 (Henceforth: Tun Aung Kyaw, 1995)

40 baskets of paddy per one *Pe*.⁹⁵ So the hilly farms where the toddy palms were grown were formed into *Pe* areas, and the tax was supplied in the form of toddy.

In 1857, King Mindon collected the *Tha-tha-me-da* tax in the new system of tax of collected by the ratio of 1:10. Those who did plantation in fields, farm, alluvial land, coconut, toddy and betel had to pay one-tenth of the yield, while those without the ownership were collected 3 *Kyats* each, depending on how the local people could afford to pay. In towns and villages of prospering economy, the tax rate was raised while it was reduced in under loped regions. The towns and villages where drought, fire outbreak and plague broke out were exempted from taxation. The disabled and the crippled and the senile were exempted from tax collection. No tax amount was prescribed by the royal capital, but the experienced judges in respective towns and villages were appointed, and were ordered to submit reports on how much tax is collected. They had to pledge that their decision was right and fair. Then, a secret enquiry was made on the number of toddy plantations and the annual production of *Htan-nyet* in Kyaukpadaung Township.⁹⁶ If any house was left out in the report upon the enquiry, punishment was given to the officer concerned.⁹⁷ In King Mindon's reign, the toddy tax was collected at the rate of 1 *Pe* per one toddy palm that the toddy palm climbers climbed and sliced the fruit.⁹⁸ So the toddy tax collected during King Mindon's reign had declined.

⁹⁵Tun Aung Kyaw, 1995, 81-82

⁹⁶Central, *pu*- 1285

⁹⁷Daw Myint Myint Than, "*Mindon- min Let- htet Ok- chok- ye hnint Si-pwa- ye A-che-a-ne* (Administration and Economic Conditions under King Mindon's reign)", *Literature and Social Science Journal*, March, 1968, p.70 (Henceforth: Myint Myint Than, 1968)

⁹⁸Kyan, 2009, 21

King Mindon collected the *Tha-tha-me-da* tax in 1857 at the rate of 1 *Kyat*, 3 *Kyats* or 6 *Kyats* per one house.⁹⁹ In 1858, the rate was 1 *Kyat* per one house.¹⁰⁰ Starting from 1860, 100 *Kyats* was collected over 10 families. 100 *Kyats* was paid after making adjustments among the 10 families, rich or poor.¹⁰¹ In 1864, King Mindon was enacted the law that how was an acted to collect the *Tha-tha-me-da* tax on the suburban areas, urban and rural areas through the town officer and the forest officers. No tax was collected on the grove of below 10 toddy palms, or coconuts or betel palms. One out of 10 yielded fruits was to be paid only if more than 10 were grown. The tax could be paid either in terms of the yield of the current prices.¹⁰² On 12 March 1864, the headman, village in-charge ("*Ywa- Ok*") and *Ywa-khaung* were to make a report on the exact number of the fields and garden plants. They were to pledge on the current statistics, and were to swear: if the statistics were just a make-up, they be to suffer in hell after death; if the statistics were correct, they be to enjoy the wealth of the present life. Similarly, the tax collectors were to make such a pledge.¹⁰³ On 4 October 1864, the *Ywa-khaung* and the *Mye-khaung* in Hseik Phyu Region hard to make a pledge that the number of houses submitted in their records had no house left, and if there was any left, they would receive due action.¹⁰⁴ In Hseik Phyu Village, there were 1060 toddy palms where the toddy climbing could be done and 662 where the toddy climbing could not. In Hseik Phyu Ywama and Ywa Thit Village, there were 424 toddy

⁹⁹Kyan, 2009, 179

¹⁰⁰Tun Aung Kyaw, 1995, 94

¹⁰¹Kyan, 2009, 179

¹⁰²"*Thit-sa Dheik-htan Chok-so-chet*" (Pledge), *Parabaik* MS, No.10, U Maung Maung Latt's Collection (Henceforth: Maung Maung Latt, *pu*- 10)

¹⁰³"*Thit-sa Dheik-htan Chok-so-chet*" (Pledge), *Salay Pan-pu Yoke-sone Kyaung Pya Taik*, *Parabaik* MS, No.4 (Henceforth: Salay Pya, *pu*- 4)

¹⁰⁴Salay Pya, *pu*- 4

palms for toddy climbing and 426 toddy palms not yet for doing so.¹⁰⁵ Tax of 1 *Pe* per one toddy palm was collected.¹⁰⁶ Moreover, also in Koe-Htauk Village, tax of 1 *Pe* per one toddy palm was collected.¹⁰⁷ Similarly, also in Ta-nyaung Village, one-tenth yield from fields, farms and toddy plantations was collected by the local chief, and submitted as royal revenue on 2 November 1864.¹⁰⁸ Since 1867, tax of 10 *Kyats* per one house was collected.¹⁰⁹ In 1867, King Mindon collected tax of 3 *Kyats* per house in Myingyan.¹¹⁰ So, the rate of tax collection varied from one region to another.

According to the *Tha-tha-me-da* Law dated 30 April 1867, King Mindon issued a royal order on 22 May 1868, that the number of tax-paying houses, families and sub-families be collected correctly. According, records were made on the fields, farms, alluvial lands, toddy, coconuts and salt resources, etc.¹¹¹ The local men of integrity were classified in terms of *Kye-the* (Junior tax collector), *Kye-lat* (Middle-rank tax collector), and *Kye-gyi* (Senior tax collector). Prescriptions were mentioned, that fair tax collection be made, that collecting more than the due amount of tax be avoided.¹¹² Moreover, the first installment of the tax was collected in *Nayon* and *Waso*. The second installment, as it was

¹⁰⁵"*Htan-khun Kauuk-khan-hmu sa-yin-mya*" (Toddy Tax Statistics), *Salay Pan-pu Yoke-sone Kyaung Pya Taik, Parabaik* MS, No.19 (Henceforth: *Salay Pya, pu- 19*)

¹⁰⁶"*Htan-khun Kauuk-khan-hmu sa-yin-mya*" (Toddy Tax Statistics), *Salay Pan-pu Yoke-sone Pitakat Taik, Parabaik* MS, No.17 (Henceforth: *Salay Pi, pu- 17*)

¹⁰⁷*Salay Pya, pu- 19*

¹⁰⁸"*A-we-taw-mya i Khan-wun-chok-mya*" (Bail Bonds of Royal Buyers) *Kyaukpadaung, Parabaik*, Ms, No.4, Mya Thida Collection (Henceforth: *Mya Thida, pu- 4*)

¹⁰⁹Tun Aung Kyaw, 1995, 94

¹¹⁰Khin Mar Swe, "History of Kyaukpadaung Township (1886-1948)", PhD Dissertation, Department of History, University of Mandalay, February, 2010, p.134 (Henceforth: Khin Mar Swe, 2010)

¹¹¹Kyan, 2009, 184

¹¹²Tun Aung Kyaw, 1995, 94

ordered on 22 May 1868, must be settled in the presence of the headman, *Ywa- Ok* and Head of Ten Families in the months of *Pyatho* and *Tabodwe*.¹¹³ A person who failed would be first, tied with a rope, and if he or she continued to fail, be imprisoned, and if he or she continued to fail, be freed.¹¹⁴ In 1868, the *Hlut-taw* handed the Governor of Bagan and Salay a letter of appointment, that Minister Maha Raza Thingyan was given the duty to collect the *Tha-tha-me-da* tax.¹¹⁵ In Myingyan, tax of 5 *Kyats* per house was collected. 3 *Kyats* per house which grew mango and toddy was collected.¹¹⁶ So the *Tha-tha-me-da* was collected, that the toddy tax was collected on each house according to the occupation.

On 19 April 1871, King Mindon enacted the law concerning the *Tha-tha-me-da* Tax: according to this law, the *Mahadan Wun* was to collect the tax; the value of farms and fields must be assessed by the experienced local man of integrity; the kinds of tax were person tax, farmland and alluvial land tax, tax on coconut, sugarcane and toddy, etc.¹¹⁷ According to the royal order announced by the *Na-khan* Nemyo Yarza Sithu, tax of 1 *Mu* per one toddy palm was collected.¹¹⁸ So in 1857, King Mindon collected tax of 1 *Pe* per one toddy palm, and tax of 1 *Mu* per one palm in 1871. So it is observed that more than half of the former tax rate was collected.

¹¹³Kyan, 2009, 184-185

¹¹⁴Tun Aung Kyaw, 1995, 94

¹¹⁵"*Bagan Salay Hna-myo-wun htan pe-sa*"(Letter of appointment to the Governor of Bagan and Salay), *Salay Pan-pu Yoke-sone Kyaung Pya Taik*, *Parabaik* MS, No.86, (Henceforth: *Salay Pya, pu- 86*)

¹¹⁶Khin Mar Swe, 2010, 131

¹¹⁷*The Royal Orders of Burma (AD 1598-1885)*, Edited & Translated by Dr Than Tun, Vol. VIX (AD 1811-1819), Kyoto, The Centre for Southeast Asian Studies, Kyoto University, 1989, pp.739-744 (Henceforth : *ROB*, VIX)

¹¹⁸(a) *ROB*, VIX, 747

(b)"*A-meint-daw-mya*" (Royal Orders), *Salay Pan-pu Yoke-sone Kyaung Pya Taik*, *Parabaik* MS, No.80 (Henceforth: *Salay Pya, pu- 80*)

During King Thibaw's reign, the administration was divided into 10 Department Administration in 1882, and there came into existence the Department of Agriculture. Tax was collected under the list of the Royal Fields, Ancestral Fields and the Gardening Lands, etc. Those who grew toddy, coconut and mango in gardening lands had to pay the taxes.¹¹⁹ During King Thibaw's reign the lands of toddy and betel plantations were formed into the measurement of *Pe*, and tax was collected, like on the paddy fields, at an average tax of 10 to 40 baskets of paddy.¹²⁰ But on 16 January 1885, King Thibaw enacted the law of Gardening Lands ownership in virgin, uncultivated lands, which was similar to the Land System Reform Laws of the British government of Lower Myanmar: if coconuts, toddy and betel palms, the perennial trees, the tax would be exempted for 12 years. Only after 12 years, one-tenth yield would be collected.¹²¹ Moreover, King Thibaw exempted the tax on the toddy palms grown along the embankments of the paddy fields.¹²² It can be said that King Thibaw may have exempted tax on the toddy palm climbers for 12 years out of his sympathy.

The *Tha-tha-me-da* tax system practiced by the Myanmar Kings being very much fit into the Myanmar people's needs, even the British continued to practice the system till 1893.¹²³ During the Colonial Period, the British appointed the CIS in order to know the exact number of toddy palms, and the second collector pointed out that what the first collector had made a list was wrong. After such

¹¹⁹Kyan, 2009, 163-164

¹²⁰U Tin, Bagan Assistant Inspector, *Myanma-min Ok-chok-pon Sa-tan hnint Bodawpayagyi i Ya-za-that-khaw A-meint-taw-tan-gyi* (Administration System under the Myanmar Kings and Bodawpaya's Royal Order known as *Yazathat*), Yangon, Department of Culture, 1983, p.28 (Henceforth: Tin, 1983)

¹²¹*Hlut-taw Hmat-tan* (Record of *Hluttaw*), U Aung Thein, Taw Sein Kho (ed), Yangon, Government Printing and Stationery, 1960, pp.52-57 (Henceforth: *Hmat-tan*, 1960)

¹²²*Hmat-tan*, 1960, 23

¹²³Myint Myint Than, 1968, 70

statistics, the British did not collect the toddy tax, considering the difficulties of the toddy palm climbers.

Economy of the Capitalists

During Konbaung Period, the toddy palm climbers had the problems of different kinds: paying the toddy taxes; high cost investment and low income; low prices of *Htan-nyet*; low yield of toddy sap and low production of *Htan-nyet* resulting from unfavorable climate; and social problems. Then, out of financial problems, they had to pawn their toddy palms to the money lenders.

In Mahlaing Township, on 4 April 1864, the mortgage was made at the rate of 1 *Kyat* per one toddy palm. The agreed terms signed in the contract were: the mortgaged property would be retrieved after the term of 3 years.¹²⁴ In Yezagyo Township, on 11 December 1852, the mortgage was made at the rate of 1 *Kyat* per one toddy palm.¹²⁵ Also in Salay Town, in 1867, the mortgage was made at the rate of 1 *Kyat* per one toddy palm. But the one viss of *Htan-nyet* was to be paid for interest and the mortgage was to be retrieved after one month's term.¹²⁶ So the toddy palm climbers mortgaged their toddy palms at various kinds of interest, while the money lenders, taking advantage of the weakness of the toddy palm climbers, signed contracts of mortgage, and the toddy palm climbers finally could not retrieve the mortgage because of the double interests, and were faced with financial difficulties.

In Sagaing on 13 November 1869, 100 toddy palms were mortgaged for 30 *Kyats* at the interest rate of 1 viss of *Htan-nyet* per one toddy palm.¹²⁷ In borrowing the money, the interest of 5 *Mus* per 100 *Kyats* was to be paid while 1

¹²⁴Pyone, *pu*- 147

¹²⁵Cultural, *Parabaik*

¹²⁶Salay *Py*a, *pu*- 15

¹²⁷Za-wa-na, *Parabaik*

viss of *Htan-nyet* per one toddy palm was to be paid. In Di-pe-yin-kwe Village, the Donor of the Monastery Ko Htoo took the interest of 1 viss of *Htan-nyet* per one toddy palm.¹²⁸ He was the one who received most of the toddy palm mortgaged: from 17 January 1866 to 28 September 1885, 3050 toddy palms were accepted as mortgage.¹²⁹ The study of such mortgage shows that higher price was paid when the toddy palms that would soon yield juice were put on mortgage, that depending on where the price of *Htan-nyet* was good or bad, high or low prices were offered. Though the toddy men's economic condition deteriorated gradually, the money lenders made profit on the toddy mortgage, and made economic progress.

In Ngazun Township, on 18 June 1884, the mortgage was made at the rate of 1 *Kyat* and 25 *Pyas* per one toddy palm.¹³⁰ As there were many money lenders who accepted the toddy mortgage, competing with one another. In Taungthar Township, on 22 August 1885, the mortgage was made at the rate of 1 *Kyat* per one toddy palm.¹³¹ In Kyaukpadaung Township, on 11 November 1885, the rate of mortgage was 1 *Kyat* per one toddy palm. The rate of interest was 5 *Mus* per month on 10 *Kyats*, plus 3 viss of *Htan-nyet*, to be paid by the toddy men.¹³² As the money lender put priority to their own, and took much interest from the toddy men, the poor toddy men finally lost their ownership of the toddy plantations, and had to work as tenant workers on their formerly owned plantations.

In Patheingyi Township, the mortgage rate was 3 *Kyats* per one toddy palm.¹³³ The interest rate was 1viss per one toddy palm, and the mortgage was to

¹²⁸"*Htan-pin paung Thet-ka-yit Sa-chok*" (Toddy Mortgage Contract), *Parabaik*, Ms, No.6, Daw San San Win Collection (Henceforth: San San Win, *pu*- 6)

¹²⁹*Za-wa-na, Parabaik*

¹³⁰Aye Aye Myat, *pu*- 1

¹³¹Jatila, *Parabaik*

¹³²Central, *pu*- 1869

¹³³Pakhankyi, *pu*- 1

be retrieved after 3 years. The mortgage rate of the toddy palms varied depending on the rise and fall of the price of *Htan-nyet* in the preceding year, and according to the regional customs. Moreover, the interest rate was paid according to the local customs. The traders and money lenders gave priority to their own welfare rather than the toddy climbers, and made profits, so the toddy plantation owners could not retrieve the toddy mortgage, and were faced with the economic problems.

The toddy palm climbers who combined the toddy business with farming had to mortgage their farms when faced with the financial problem. On 2 February 1743, the toddy palms and farm were mortgaged at 20 *Kyats* for 3 years' term, and on 13 May 1761, once again, another 5 *Kyats* was borrowed.¹³⁴ Moreover, on 4 April 1870, the land with 4 toddy palms was mortgaged for 20 *Kyats* and again, 10 *Kyats* was borrowed in addition.¹³⁵ As the toddy men mortgaged their farms and when faced with the financial problem, once again borrowed additional sum of money, they finally could not afford to retrieve the mortgage, and let so their ownership. So, after having lost the toddy palms and the farms, the toddy men became more impoverished.

In Salay Town, in the case of toddy land mortgage, depending on the mortgage money according to the value of the mortgaged land, the right of using the land with limited span of years was taken as the interest.¹³⁶ If the sum of mortgage money was much, the year of enjoying the yield on the mortgaged land could be either 5 or 7 or 10 or 20 years.¹³⁷ There were also cases in which the debtor who borrowed the loan without the mortgage property failed to settle the debt, and had to have his toddy land assessed in value and let it go to the money

¹³⁴Aye Aye Myat, *pu*- 2

¹³⁵Poe Kyi, *pu*- 1

¹³⁶(a)Salay *Pya*, *pu*- 15, 173

(b)Salay *Pi*, *pu*- 47, 48

¹³⁷(a)Salay *Pya*, *pu*- 15, 173

(b)Salay *Pi*, *pu*- 23, 47, 48, 76

lender. The value assessed on the toddy palms included in the toddy plantation was 1 *Kyat* per one toddy palm.¹³⁸ So the toddy plantation owners had to sell their plantations, not in current prices, but at the price of which their property had been mortgaged. As the money lenders had exploited the toddy workers, the latter was faced with financial difficulties.

In order to do toddy climbing once again, the toddy men had to pay 20 *Kyats* per year as charge of tenant farming. If not so, they signed a contract of agreement that the value of 100 *Kyats* would be paid back, and requested permission.¹³⁹ So the money lenders got the charges of tenant farming by all means for their benefits, the toddy plantation owners become those with no ownership, and they went through the tough times.

After having mortgaged the toddy palms and the plantations, the toddy men, being faced with the economic difficulties, finally had to sell the toddy plantations. On 10 July 1828, the sale was made at the rate of 20 *Kyats* and 2 *Mats* per one toddy palm.¹⁴⁰ On 8 November 1830, the toddy palms and the land in the toddy plantation were sold to the town headman for 20 *Kyats*. On 20 April 1884, 13 toddy palms were sold for 63 *Kyats*.¹⁴¹ In the society of Konbaung Period, though many cases of toddy palm mortgage have been found, only a few cases of sale existed. As the toddy men met economic difficulties, when they mortgaged their ancestral toddy plantations and could not retrieve them, they became landless. Moreover, because it was impossible to cut down the palms, and clear the land for plantation, there were few chances for the poor toddy men, who finally became ownerless and did toddy climbing as tenant toddy palm climbers. So

¹³⁸(a)Salay Pya, *pu*- 13, 17

(b)Koehsaung, *pu*- 27

¹³⁹Salay Pya, *pu*- 173

¹⁴⁰Tun Yi, 1999, 45

¹⁴¹Tun Yi, 1999, 31

though the toddy men found their life a bit easy during the toddy season, they were faced with the economic difficulties when they were off from their toddy business.

When they mortgaged the toddy plantations, they were exploited by the money lenders. Besides, when they sold *Htan-nyet*, they were once again exploited by the traders and the brokers.

Economy; Economic conditions of the Traders and Dealers

(a)*Htan-nyet* Trading

The toddy men sold *Htan-nyet* for 8 months, which was the toddy season starting from *Tabodwe* to *Thadingyut*. They seldom sold their products directly to the *Htan-nyet* dealers and brokers. The local dealers had paid them deposit money in advance in the *Pin-htaung* System, and had them under control. The toddy men, on the other hand, considered the local traders as their benefactors, so they sold *Htan-nyet* to the local village dealers only, who went hut to hut and collected the daily products of *Htan-nyet*, purchased them, and transported the products to the *Htan-nyet* dealers and traders of towns and cities every two or three days, by cart or boat. In some regions, according to the local customs, *Htan-nyet* was sold directly to the businessmen or via the brokers. The merchants also exploited the toddy men over the *Htan-nyet*. These toddy palm climbers have since in the olden times been exploited till to the present day so while they get poorer than ever, the traders and dealers have made a fortune.

In *Htan-nyet* trading, Pakokku, a trading centre, was a jetty where about 21 cargo boats and about 150 ordinary cargo boats got anchored.¹⁴² On 15 September 1830, in Pakokku over 300 boats harboured in that jetty.¹⁴³ It was a trading centre

¹⁴²Dr Toe Hla, "*Tha-maing Hte-ka Pakokku, Pakokku Hte-ka Tha-maing* (Pakokku in the History, History in the Pakokku), *Pakokku Magazine*, Yangon, Sarpay Lawka Press, 1981, p.37 (Henceforth: Toe Hla, 1981)

¹⁴³Win Soe, "History of Pakokku Township (1886-42)", Ph.D Dissertation, Department of History, University of Mandalay, August 2010, p.4 (Henceforth: Win Soe, 2010)

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where *Htan-nyet* from Myaing, Yezagyo, and Yaw Regions was traded.¹⁴⁴ So Pakokku was a trading centre for Upper and Lower Myanmar.

Myingyan was also a trading town where *Htan-nyet* from the villages in the province of Sameikkhon, Taungthar, and Yone-sin, etc. The *Htan-nyet* traders of Myingyan lent money to the *Htan-nyet* traders in rural areas without taking interest. Then, the rural *Htan-nyet* traders lent money to the toddy palm climbers.¹⁴⁵ Moreover, Nyaung Oo was also a town of *Htan-nyet* trading, where *Htan-nyet* from such villages as Sintku, Salay, and Kyauk-ye in Bagan Province was traded. Meiktila was also a town where *Htan-nyet* from such villages as Mahlaing, Wuntwin, Pintale and Te-su, was traded. In Mahlaing, the Chinese traders paid brokerage to the local traders, and did trading.¹⁴⁶ Shwebo also was a town where *Htan-nyet* from the villages in its province was traded.¹⁴⁷ Tada Oo was also a principal *Htan-nyet* trading centre. The *Htan-nyet* traders from Mandalay also lent money to the toddy man via the local traders.¹⁴⁸ The merchants lent money to the toddy men, and when on purchase, reduced the prices lower than the current prices. The *Htan-nyet* traders of Mandalay purchased *Htan-nyet*, paying brokerage to the traders and brokers of Tada Oo. The merchants got rich by making profit on the goods that they had purchased from the brokers.

During King Mindon's reign the purchasing agent system was changed, so the purchasing agent company was established. In order to make more, systematic trading system, King Mindon made sure in 1854, that the weights, measurements and holding was standardized all over the country. Free trading was allowed in

¹⁴⁴Salay *Pi, pu*- 53

¹⁴⁵San San, 1989, 147-148

¹⁴⁶San San, "Wundwin in Socio- economic Perspective (1885- 1949)", MA Thesis, Department of History, University of Mandalay, May 2000, p.36 (Henceforth: San San, 2000)

¹⁴⁷Williamson, 1924, 87-88

¹⁴⁸San San, 1989 , 148

Upper Myanmar and as in the olden times, every five day bazaar and pagoda fairs were the centres for *Htan-nyet* trading.¹⁴⁹ Then, there were various kinds of *Htan-nyet* and prices.

(b)Kinds of *Htan-nyet* and Prices

Htan-nyet varies on colour, hardness and size in Central Myanmar. The best kind of *Htan-nyet* was the smallest, whitest and hardest. Most of the *Htan-nyet* in Myanmar are the kind of *Htan-nyet* called *Lon-chan*. From Monywa, Shwebo and Sagaing were produced big *Htan-nyet* balls called *Pan-taw-chin*, each weighing 10 to 15 *Kyat- thas*. *Htan-nyet* of size is too big no get melted. But it is a little inferior in quality to the *Lon- chan Htan-nyet*, and is cheaper.¹⁵⁰ The *Lon-chan Htan-nyet* is about the size of a betel nut, and is brown in colour. In regions of main production of *Htan-nyet*, *Htan-nyet* divided into three: *Lon-the* (small size), *Lon-lat* (medium- size) and *Lon-gyi* (large size).¹⁵¹ Other kinds are *Htan-nyet-phyu-sok* (small white *Htan-nyet* ball), *Ye-ma-hti Htan-nyet* (*Htan-nyet* untouched with water), *Khapaung- se Htan-nyet*, *Magyee- kwe Htan-nyet*, *Nwa-sha Htan-nyet*,¹⁵² *Mye-pe Htan-nyet* (Peanut *Htan-nyet*), *Na-phat Htan-nyet*, *Pyaung-phu Htan-nyet*, *Zaung-chan Htan-nyet*, *Zee Htan-nyet* (Plum *Htan-nyet*), *Noe Htan-nyet* (Milk *Htan-nyet*), and *Pauk Pauk Htan-nyet* (Popcorn *Htan-nyet*).¹⁵³ But such kinds are sold only in small scale, fetching higher prices. Depending on the quality of *Htan-nyet*, the prices differed. The kind of *Htan-nyet* produced and traded in maximum scale has been *Lon-chan Htan-nyet* only.

¹⁴⁹Myint Myint Than, 1968, 86

¹⁵⁰San San, 1989, 137

¹⁵¹Myint Tun Maung, "*Htan- tha-ma Waw- ha-ra-mya* (Vocabulary on toddy worker)", *Ngwetaryee Magazine*, Vol.3, No.42, January 1970, p.31 (Henceforth: Myint Tun Maung, 1970)

¹⁵²Yi Yi, 1966, 98

¹⁵³Maung Maung Phyu, "*Htan-nyet* (Palm sugar)", *Ngwetaryee Magazine*, Vol.5, No. 47, May 1964, p.186 (Henceforth : Maung Maung Phyu, 1964)

The price of *Htan-nyet* of Central Myanmar changed according to the price of *Htan-nyet* in Yangon and Pyay of Lower Myanmar. Many *Htan-nyet* traders and dealers and purchasing agents purchased the *Htan-nyet* according to the current prices of Yangon: when the current prices were high, they did high prices; when the prices were down, they cut the prices at cheaper rates.¹⁵⁴ So the *Htan-nyet* trading of Yangon had controlled the *Htan-nyet* trading of the *Htan-nyet*-producing regions of Central Myanmar.

The price of *Htan-nyet* was the lowest in the season of maximum toddy production, and the price was the highest in low *Htan-nyet* production.¹⁵⁵ The high or low prices of *Htan-nyet* depended also on the high or low prices of such commodities as sugar cane and sugar. The price of *Htan-nyet* is cheap in the years of high *Htan-nyet* production, and is high in the years of low *Htan-nyet* production.¹⁵⁶ The high or low prices of *Htan-nyet* depended on the high or low demand of the traders, and the high or low amount of incoming *Htan-nyet*. While the *Htan-nyet* dealers offered a bid, the traders cut the prices. So the price of that bid was the current price of that day for the incoming *Htan-nyet*.¹⁵⁷ So the prices of *Htan-nyet* changed from day to day. So the prices of *Htan-nyet* changed according to the demand of Lower Myanmar, the yield of *Htan-nyet*, and the high or low prices of other commodities.

(c)Store and System of Weight

As the toddy palm climbers are almost always in shortage of money, they cannot store the *Htan-nyet* but sell it daily or every two or three days. So they need only

¹⁵⁴(a)"*Kon-we Sa-yin-mya*" (Lists of Goods Purchased), *Salay Pan-pu Yoke-sone Pitakat Taik, Parabaik* MS, No.5, 9, 12, 15, 16, 57, 67, 72 (Henceforth: *Salay Pi, pu-* 5, 9, 12, 15, 16, 57, 67, 72)

(b)*Salay Pi, pu-* 53

¹⁵⁵Maung Maung Phyu, 1964, 185

¹⁵⁶*Salay Pi, pu-* 53

¹⁵⁷San San, 1989, 151

large earthen pots to keep the *Htan-nyet* without the need of a storehouse. Some local traders and traders can store the *Htan-nyet* by building storehouse, or granaries.¹⁵⁸ The *Htan-nyet* brokers and traders in *Htan-nyet* - producing towns in Central Myanmar built a structure called *Si*. *Htan-nyet* was purchased in the maximum *Htan-nyet* production, and was sold in the end of the *Htan-nyet* season, the time when the price of *Htan-nyet* went highest. If the *Htan-nyet* is stored for long, its quality can go poor and lose weight. The dealers and brokers, if they see that the prices will not go higher, do not store the *Htan-nyet* for long.¹⁵⁹ In order to make much profit, the dealers and brokers purchase the *Htan-nyet* at cheap prices in the *Htan-nyet* season, and sell it when the prices go high. The *Htan-nyet* is traded in terms of viss all over the country. The *Razu* Balance was used for weighing the *Htan-nyet* in boiling *Htan-nyet* Villages.¹⁶⁰

(d)Transportation

Htan-nyet from Central Myanmar was transported in various forms of transportation. During Konbaung Period, *Htan-nyet* produced from the regions along the Ayeyawaddy and the Chindwin was transported by cargo boats, small boats, and traditional Myanmar boats and by cart. Then, in 1860, King Mindon made affords to better the transportation. In 1860, transportation was done by the Irrawaddy- Flotilla steamers from Lower Myanmar.¹⁶¹ In 1864, King Mindon purchased one steamers and in 1865, another steamer.¹⁶² Before 1867, there were

¹⁵⁸Pakhan Kyaw, 1972, 173

¹⁵⁹Interview with U Lu Nyunt, palm sugar trader, age 68, Yezagyo Town, Magway Division (10.4.2012)

¹⁶⁰San San, 1989, 154-155

¹⁶¹Myint Myint Than, 1968, 90

¹⁶²Mya Mya, "A-htet-auk Myanma Naing-ngan Kon-thwe-ye Tha-maing 1853-1885" (Trade and Commerce history of Upper and Lower Myanmar, 1853-1885), MA Thesis, Department of History, University of Yangon, December 1971, p.khu- khuu (Henceforth: Mya Mya, 1971)

only 4 steamers carrying goods from Lower Myanmar to Mandalay.¹⁶³ In 1868, the steamers drove along the Ayeyawaddy up to Mandalay and Bhamo, so the transportation in Upper Myanmar had improved.¹⁶⁴ In 1869, the steamers of that company drove from Yangon to Mandalay three times a month.¹⁶⁵ King Mindon, taking the aid of the western technician, built 10 steamers.¹⁶⁶ With the guidance of the engineers of Britain, France and Armenia, ships were built at the dockyards of Yangon and Syrian (Thanlyin).¹⁶⁷ In 1869-70, the steamers of the Irrawaddy Flotilla Company drove 67 plies up and down the river while King Mindon's steamers went 36 plies up and down.¹⁶⁸ In 1870-71, two Indian General Steamers plied up and down in competition.¹⁶⁹ Starting from 1 January 1871-72, the steamers drove to Mandalay once a week and from Mandalay to Bhamo once a month. There were 133 plies of steamer and 19442 plies of the local boats and sampans.¹⁷⁰ In 1875-76, the Irrawaddy Flotilla Company extended the number of steamers: 11 steamers and 20 cargo- attached steamers.¹⁷¹ In 1881, the number of the Irrawaddy Flotilla's steamers increased to 29 steamers and 44 cargo steamers.

¹⁶³J.S.Furnivall, *Colonial Policy and Practice*, New York, University Press, 1956, p.48 (Henceforth: Furnivall, 1956)

¹⁶⁴Myint Myint Than, 1968, 90

¹⁶⁵Fytche, 1978, 291

¹⁶⁶J. Russell Andrus, *Burmese Economic Life*, London, Stanford University Press, 1947, p.98 (Henceforth: Andrus, 1947)

¹⁶⁷U Kyaw Sein, *Myanma Si-pwa-ye* (Economy on Myanmar), Yangon, Myanmar Translation Society, 1953, pp.249-250 (Henceforth: Kyaw Sein, 1953)

¹⁶⁸*Report on the Trade and Customs of British Burma for the Year 1869-70*, Rangoon, the Chief Commissioner Office Press, 1871, p 37 (Henceforth: R.T.C.B.B., 1871)

¹⁶⁹*Report on the Trade and Customs of British Burma for the Year 1870-71*, Rangoon, the Secretariat Press, 1872, p 37 (Henceforth: R.T.C.B.B., 1872)

¹⁷⁰R.T.C.B.B., 1872, 30

¹⁷¹*Report on the Trade and Customs of British Burma for the Year 1875-76*, Rangoon, Printed at the Government Press, 1877, p 37 (Henceforth: R.T.C.B.B., 1877)

Every year, these steamers transport 300 goods. Among the goods were the products of Upper Myanmar such as *Htan-nyet*, cotton, petroleum, jade, leather, teak, precious stones, seal wax, brown sugar slab, cotton wares, silk wares, sesame oil, cutch and beans mainly, while the goods from Lower Myanmar were potteries and utensils, pounded fish, dried fish, salt, rice, foreign make cotton, cotton wares, silk, woolen clothes, silk wares and liquor, etc.¹⁷² During Konbaung Period, the transportation between Upper and Lower Myanmar had gradually improved. With the improvement of the transportation, the trading also improved.

(e)Trading

In the trading during Konbaung Period, *Htan-nyet* and *Htan-nyet* products were important sales goods of the Central Myanmar regions. They were also important for bartering the local products in townships. The local products were exchanged mainly in the annual village pagoda festivals, every- five- day bazaar and local *Nat-* propitiation ceremonies. Among such barter goods were *Htan-nyet*, *Hta-khauk-pha*, toddy-strip basket, large basket, farm-related toddy products, domestic goods and toddy sap snacks, etc.¹⁷³ So, the local products were exchanged in nearby towns and villages.

Not only in barter but also trading took place in cargo boats up and down the Ayeyawaddy. *Htan-nyet* was the main trading good. During King Badon's reign, Nga Po, merchant of Bagan, did trading of *Htan-nyet* up and down the river in large and small boats.¹⁷⁴ The merchant U Shun had the right of monopolizing the business of *Htan-nyet* in the Royal Capital, Sagaing, Pinya, Mingun and Inwa.¹⁷⁵ In 1812, Nga Shun, of Nyaung pin- zay Quarter, the Royal Capital, had

¹⁷²Mya Mya, 1971, 11

¹⁷³Win Soe, 2010, 89

¹⁷⁴ROB, V, 246

¹⁷⁵Toe Hla, 2004, 140

the right to monopolize the business of *Htan-nyet*.¹⁷⁶ Not only the traders from Bagan and Amarapura, but also the *Htan-nyet* merchants U Tun Wa and U Shwe Thar from Pakhangyi did trading up and down the river in 30 cargo boats and 20 small boats.¹⁷⁷ So in trading between Upper and Lower Myanmar, Yenangyaung jetty was a jetty where goods were loaded. In that jetty the *Htan-nyet* from Magway, Kyaukpataung, Taungtwingyi, Pathanago, and Myinkun Towns was transported as the second larger good.¹⁷⁸ So *Htan-nyet* was main trading goods between Upper and Lower Myanmar trading.

In 1852, there broke out the Second Anglo- Myanmar War and when the British had occupied Bago, two routes for trading between Upper and Lower Myanmar were mainly used: the waterway route along the Ayeyawaddy and the inland route passing Bago- Taung-ngu Ningyan (now Pyinmana) without using the Sittaung.

Of those two routes the route along the Ayeyawaddy was more commonly used.¹⁷⁹ The Ayeyawaddy route mainly served for trading. In Thayet Town and Taung-ngu Town, the border guard posts were stationed. Moreover, there were also such guard posts in Mottama, Pathein, Minton, Tamu- khanpat, Hman- Aung and the Headquarter Guard posts of the Shan State.¹⁸⁰ The near of Kyauk- taing Guard post checked the incoming loaded carts, boats and horses. Then, a pass ticket was issued: one ticket for 1 *Kyat* for charge.¹⁸¹ So, in Thayet Guard Post, *Htan-nyet* as Inwa product was transported to Lower Myanmar, and the tax

¹⁷⁶Toe Hla, 1993, 132

¹⁷⁷*The Royal Orders of Burma (AD 1598-1885)*, Edited & Translated by Dr Than Tun, Vol. VIII (AD 1811-1819), Kyoto, The Centre for Southeast Asian Studies, Kyoto University, 1988, p.275 (Henceforth :*ROB*, VIII)

¹⁷⁸Kyaw, 1996, 213

¹⁷⁹Mya Mya, 1971, *kar*

¹⁸⁰Kyan, 2009, 112

¹⁸¹Kyan, 2009, 22

collected on the *Htan-nyet* was the second highest.¹⁸² So it was found that *Htan-nyet* was one of the main goods for Upper and Lower Myanmar trading.

Among the mainly exported goods were included *Htan-nyet* and brown sugar slabs.¹⁸³ In order to strengthen the economy of Upper Myanmar, King Mindon monopolized the British- Myanmar trading. But he allowed free trading in Upper Myanmar. The King's agents opened the purchasing centres for the goods that the British agents of Lower Myanmar would purchase, and sold the goods to the British at higher prices.¹⁸⁴ The goods of the British exported to Upper Myanmar were not to be sold directly to the Myanmar people, but the British merchants must sell them via the King's agents, who reduced the prices. This displeased the British merchants. But despite King Mindon's monopoly of the trading, the British- Myanmar trading had improved from year to year.¹⁸⁵

Though the British-Myanmar trading had been improving, the British merchants were not pleased with the monopoly of the Myanmar government and its high tax rates. But in 1856-57, the value of goods exported from Upper Myanmar to Lower Myanmar was 2321124 *Kyats*. The amount of *Htan-nyet* and molasses was nearly 2 lakhs, being the third largest in value.¹⁸⁶ The *Htan-nyet* and molasses were the maximum exports, being the value of 340 970 *Kyats* and being nearly two times higher than *Htan-nyet* and molasses exported in 1856-57.¹⁸⁷

¹⁸²Guy-Lubeight, 1979, 44

¹⁸³Mya Mya, 1971, 11

¹⁸⁴Myint Myint Than, "*British - Myanma Kon-thwe-ye, 1853-78*" (Anglo-Myanmar Trade Relations, 1853-78), Vol.6, Part.3, *Tekkatho Pyin-nya Pa-de-tha Periodical*, 1971, p.155 (Henceforth: Myint Myint Than, 1971)

¹⁸⁵Myint Myint Than, 1971, 88

¹⁸⁶Mya Mya, 1971, 36

¹⁸⁷*Report on the Trade and Customs of British Burma for the Year 1868-69*, Rangoon, the Chief Comissioner Office Press, 1869, pp.7-9, Appendix (c) and (d) (Henceforth: *R.T.C.B.B.*, 1869)

Htan-nyet and molasses were the second largest exports. Every year, *Htan-nyet* and molasses of over 2 lakhs in *Maung* of weight were exported to Lower Myanmar. From 1867-68 to 1872-73, *Htan-nyet* and molasses of 1363 759 *Maungs* were exported. The list of an export is as follow:¹⁸⁸

Table - II
Exported from Upper Myanmar to Lower Myanmar

Years	Properties	Maungs	Kyats
1867-68	<i>Htan-nyet</i> and molasses	219790	633462
1868-69	<i>Htan-nyet</i> and molasses	183142	525842
1869-70	<i>Htan-nyet</i> and molasses	212891	613407
1870-71	<i>Htan-nyet</i> and molasses	216172	621145
1871-72	<i>Htan-nyet</i> and molasses	271202	789643
1872-73	<i>Htan-nyet</i> and molasses	260562	71745
Total	<i>Htan-nyet and molasses</i>	1363759	3900904
Average	<i>Htan-nyet and molasses</i>	22729	65015

Source: *R.T.C.B.B.*, 1867-68, 45; *R.T.C.B.B.*, 1869-70, 29; *R.T.C.B.B.*, 1871-72, Appendix-VIII; *R.A.B.B.*, 1872-73, Appendix, H

In 1867-68, the population of Lower Myanmar was 2300000.¹⁸⁹ *Htan-nyet* and molasses, the necessary food stuff for this population were exported from Upper Myanmar. So *Htan-nyet* and molasses of over 2 lakhs *Maungs* were exported every year.¹⁹⁰ The people's needs were, thus, fulfilled by having the exchange of goods between Upper Myanmar and Lower Myanmar.

¹⁸⁸Mya Mya, 1971, 126-127

¹⁸⁹*Report on the Administration of the Province of British Burma for the year 1870-71*, Rangoon, Printed at the Secretariat Press, 1872, p.39, Appendix (c) and (d), (Henceforth: *R.A.B.B.*, 1872)

¹⁹⁰Mya Mya, 1971, 128

In order to fulfill these needs, on 10 November 1862, the British sent the Chief Commissioner Col. Phayre¹⁹¹ to Myanmar;¹⁹² on 25 October 1867, Chief Commissioner Sir Albert Fytche,¹⁹³ and signed British-Myanmar trading contracts. So King Mindon allowed free trading of goods, except petroleum, teak and precious stones on 13 May 1869. But King Mindon lent advance deposit to the Myanmar merchants and traders and continued to monopolize the goods indirectly.¹⁹⁴ He may have issued investment money for the monopoly.

In 1868, King Mindon issued 20, 000 coins for investment to the rich men, group of traders and companies for *Htan-nyet* trading, and got their pledge for supplying 110, 000 of profit per year by the month of *Tawthalin*. Negotiation was made with King Mindon, and the *Htan-nyet* was purchased at the current prices, and exported to Lower Myanmar. Pledge was signed respectively, that the terms of purchasing system laws be followed.¹⁹⁵ Moreover, pledges were signed in regions where they would do trading.¹⁹⁶ But on 7 February 1865, the Trader Nga Shwe Thee of Hseik Phyu Ywa-ma spread rumours in villages where he went to do trading. So Salay Myo Ok confined him at the pole in punishment, and made him promise that he would not do such deed in the future, or he be punished for crime.¹⁹⁷ That trader had deceived the local dealers, by telling those lies.

As the local traders had placed *Htan-nyet* under the control of supplying the yield at harvest time, the toddy palm climbers had to do trading with them, and not

¹⁹¹Colonel Phayre

¹⁹²Myint Myint Than, 1971, 88

¹⁹³Sir Albert Fytche

¹⁹⁴Myint Myint Than, 1971, 89

¹⁹⁵Salay Pya, *pu*- 127

¹⁹⁶Salay Pya, *pu*- 127

¹⁹⁷"Nga Shwe Thee Khan-wun-chet"(Confession of Nga Shwe Thee), Salay *Pan-pu Yoke-sone Kyaung Pya Taik*, Parabaik MS, No.7 (Henceforth: Salay Pya, *pu*- 7)

to the purchasing agent company. So the local authorities issued order that the local traders were to do trading only at the jetties where the purchasing agent company would be waiting for the purchase and that severe action would be taken to any who did secret trading with Lower Myanmar.¹⁹⁸ But since the local traders did not purchase the companies, the purchasing company waited at the jetties and trading route gates, and collected the commission fees depending on the type of goods in order to cover up the amount of commission fees to be supplied every month, to the Myanmar King.¹⁹⁹ So the *Gaing-Ok* and *Gaing-Htauk Sayadaws* sent letter of warning to the purchasing agents to avoid from collecting commission fees.²⁰⁰ Moreover, Min Thado Mingyi Mahar Min Kyaw Min Khaung sent a letter to Maha Raza Thingyan, Governor of Bagan and Salay. That letter included the facts concerning *Htan-nyet* trading: the Rich Man Maha Zotika, the Wealthy Man Maha Zota Maharsala, who held permit of *Htan-nyet* trading, were not to put pressure on the *Htan-nyet* dealers; no commission fees were to be collected; goods were to be purchased at current prices; the terms included in the pledge contract were to be followed, etc.,; a report on the current situation was to be submitted to the royal ear.²⁰¹ Such an action stopped the pressures on the toddy men, resulting from the clashes between the local traders and the purchasing agent company.

In order to stop further clashes, the purchasing agent company collaborated with the local traders, namely the local traders of Sale U Boe Kyi, U Bo Thit, and Maung Nga Cheik, as well as the Chinese trader U Set Kyi of Mandalay, and the trader U Shu Tan of Yangon. The goods mainly exported by U Boe Kyi and Group

¹⁹⁸Salay Pya, pu- 13

¹⁹⁹Salay Pya, pu- 127

²⁰⁰Salay Pya, pu- 127

²⁰¹"*Hlut-taw A-meint-sa*" (The Order of *Hluttaw*), Salay *Pan-pu Yoke-sone Kyaung Pya Taik*, Parabaik MS, No.127 (Henceforth: Salay Pya, pu- 127)

to Lower Myanmar were cutch, *Htan-nyet*, plum, tamarind, beans and leather.²⁰²

As goods on exchange, they imported dried fish, pounded fish, salt, betel, foreign cotton and various folds of cotton.²⁰³ U Boe Kyi and Group gradually monopolized the whole market down the river in *Htan-nyet* trading. Their base camps were:

- (1) Taloke Town, Myingyan Village Jetty
- (2) Pakokku- Kun Village Jetty where *Htan-nyet* of Yaw came
- (3) Bagan- Nyaung Oo Village Jetty
- (4) Sint- ku Town Jetty where *Htan-nyet* of Kyaukpadaung came
- (5) Sale Town Jetty
- (6) Hsin-phyu- kyun Village Jetty in Salin Town
- (7) Yenanchaung Town Jetty and
- (8) Min Hla- Kyauktaing Royal Guard post.²⁰⁴

The *Htan-nyet* which came in Myingyan Jetty were to be purchased by U Bo Thit. He was responsible for supervising the *Htan-nyet* trading which was related to the *Htan-nyet* Tax Office at Min Hla Kyauk-taing Royal Guard post.²⁰⁵ The Chinese trader Ko Wun Yu was responsible for Pakokku- Kun Village Jetty.²⁰⁶ Ko Bo Chit was responsible for the service necessary in Pakokku- Kun Village and Nyaung Oo Village, and collaborated with U Mar Lein, the chief purchasing agent of

²⁰²Salay *Pi, pu-* 5, 9, 12, 15, 16, 57, 67, 72

²⁰³"*Thin-baw-tin Kon-sa-yin-mya*" (Lists of Cargo Goods), Salay *Pan-pu Yoke-sone Pitakat Taik, Parabaik* MS, No.16, 53, 74, 77, 79 (Henceforth: Salay *Pi, pu-* 16, 53, 74, 77, 79)

²⁰⁴(a)"*Htan-nyet-we Sa-yin-mya*"(List of *Htannyet* Purchased), Salay *Pan-pu Yoke-sone Kyaung Pya Taik, Parabaik* MS, No.167, 168 (Henceforth: Salay *Pya, pu-* 167, 168)

(b)"*Htan-nyet-we Sa-yin-mya*" (List of *Htannyet* Purchased), Salay *Pan-pu Yoke-sone Pitakat Taik, Parabaik* MS, No.13, 53 (Henceforth: Salay *Pi, pu-* 13, 53)

²⁰⁵Salay *Pi, pu-* 13, 53

²⁰⁶"*U Boe Kyi i pe-sa-mya*" (U Boe Kyi's letters), *Parabaik* MS, No.7, 14, U Boe Kyi Collection (Henceforth: U Boe Kyi, *pu-* 7, 14)

Nyaung Oo Village.²⁰⁷ U Boe Kyi took the lend in trading for Salay, Sint-ku, Hsinphyu Kyun and Yenanchaung Jetties.²⁰⁸ *Htan-nyet* purchased by various responsible agents was transported to various regions of Lower Myanmar. In order to sell the products of Upper Myanmar and to import the products of Lower Myanmar, the goods were exported under the supervision of U Shu Tan and Ko Toe Maung of Yangon.²⁰⁹

The *Htan-nyet* purchasing company stationed the office at Min Hla Kyauk-taing Royal Guard post, and collected the commission fees and the tax. If a person did not want to pay such taxes, he or she must purchase the *Htan-nyet* at Min Hla Kyauk-taing. Some local traders, avoiding paying the taxes, went down the river secretly, and transported the *Htan-nyet* to Lower Myanmar to make much profit. So U Boe Kyi issued an order that if a trader could not show the regional dispatch letter, he or she must be stopped at Min Hla Kyauk-taing and must pay the taxes.²¹⁰ According to the border trade laws, the dispatch letter of goods transportation permit had to be taken from the town headman and the village headman. Those dispatch letters were handed at Upper Min Hla Royal Guard post. So, U Boe Kyi appointed Ko Pyi Lat, Ko Sit Han, Ko Lugi, Ko Shwe Thar and Ko Thaik of Min Hla to serve duties at Min Hla Royal Guard post. The traders were to pay the fees at the Auk Guard post and Mingun Guard post.²¹¹

²⁰⁷Salay Pya, pu- 168

²⁰⁸"U Boe Kyi i pe-sa-mya:"(U Boe Kyi's letters) Salay Pan-pu Yoke-sone Kyaung Pya Taik, Parabaik MS, No.14 (Henceforth: Salay Pya, pu- 14)

²⁰⁹"Auk-son Thin-baw-tin Htan-nyet Sa-yin-mya" (List of *Htan-nyet* aboard the steamer going down), Salay Pan-pu Yoke-sone Kyaung Pya Taik, Parabaik MS, No.14 (Henceforth: Salay Pya, pu- 14)

²¹⁰"U Boe Kyi i A-si-yin Khan-sa-mya" (Reports of U Boe Kyi), Salay Pan-pu Yoke-sone Kyaung Pya Taik, U Boe Kyi Parabaik MS, No.1 (Henceforth: Salay Pya, pu- 1)

²¹¹Salay Pi, pu- 53

The Min Hla Kyauk-taing Royal Guard purchasing Centre even found it hard to pay the cost of *Htan-nyet* when the products of *Htan-nyet* were plentiful.²¹² That guard post was stop and purchase the goods, and the sole authority went to the Tax Officer Esaman In.²¹³ The purchasing company had already greased the palm of the tax officer with such a far- sightedness. Moreover, the region over which the purchasing company established by U Boe Kyi and Group launched its business covered the area starting from Taloke Town till Min Hla Kyauk-taing Royal Guard post, over regions along the river on both sides: such regions were identified as the Fifth Department down the River Region. The region was under the responsibility of the District Officer of Mekkhaya, *Myo-sa-min* Mingyi Thura Maha Min Khaung Thamein Payan.²¹⁴ It was under the administration of Hlethin Interior Minister.²¹⁵ U Boe Thit, who had been familiar with the Hlethin Interior Minister, was assigned the duty to supervise the Min Hla Kyauk-taing Royal Guard post.²¹⁶ It can be said that such measure taken showed the far- sightedness of the purchasing company.

²¹²U Maung Maung Latt, *Salay Pan-pu Yoke-sone Kyaung Tha-maing Sa-tan* (Papers on Wood turner from Salay Pictorial Monastery), Yangon, Sarpay Beikman Press, 1994, p.55 (Henceforth: Maung Maung Latt, 1994)

²¹³"*Htan-nyet Kon-thwe-hmu hnint Pat-thet-ywe A-we-daw-mya i pe-sa-mya*" (Letters of the Purchasing Agent concerning the Palm sugar Trading), *Salay Pan-pu Yoke-sone Pitakat Taik, Parabaik* MS, No.53 (Henceforth: *Salay Pi, pu-* 53)

²¹⁴U (Maung Maung) Tin, *Konbaung-set Ma-ha Ya-za-win-taw-gyi* (The Great Chronicle of the Konbaung Dynasty), Vol.III, Yangon, Ledi Mandai Press, 1968, pp.627-628 (Henceforth: (Maung Maung) Tin, 1968)

²¹⁵"*Hle-thin A-twin-wun htan U Boe Kyi i Hlauk-ha-sa*" (Report of U Boe Kyi to the Lethin Interior Minister), *Salay Pan-pu Yoke-sone Kyaung Pya Taik, Parabaik* MS, No.168 (Henceforth: *Salay Pya, pu-* 168)

²¹⁶"*Hle-thin A-twin-wun htan U Bo Thit i Hlauk-ha-sa*" (Report of U Bo Thit to the Lethin Interior Minister), *Salay Pan-pu Yoke-sone Pitakat Taik, Parabaik* MS, No.53 (Henceforth: *Salay Pi, pu-* 53)

U Boe Kyi had to collaborate with the foreign traders who did not understand the tradition and customs of Myanmar, who were not basically familiar with the nature of Myanmar products, and who did not heed the exhortations of the venerable *Gaing-Ok* and *Gaing-Htauk Sayadaw*. Naturally, U Set Kyi misunderstood him, but U Boe Kyi continued to work for the welfare of the company. Nyaung Oo Village was a region which controlled the *Htan-nyet* produced from Bagan Region, and from Poppa, as well as Yaw *Htan-nyet* which did not go to Pakokku- Kun Village. Bagan produced *Htan-nyet* of about 4000,000 per year.²¹⁷ U Mar Lein who was assigned duty at Nyaung Oo Jetty, bullied the toddy men, so the Nyaung Oo market of *Htan-nyet* almost went down. So U Shu Tan of Yangon assigned duty to U Boe Kyi to supervise the *Htan-nyet* trading in Nyaung Oo. Then, the Chinese trader U Set Kyi misunderstood U Boe Kyi, who had to give explanation.²¹⁸ Since U Mar Lein could not purchase the *Htan-nyet* in Bagan, he had to purchase it in Sint- ku Town. So, U Boe Kyi sent a letter, solving the problem, that no *Htan-nyet* was produced in Sint-ku, and that because the follow agents of the same company competed in the market, the market was spoiled.²¹⁹

The purchasing company reduced the prices according to the royal order issued by the *Hlut-taw*. They were reluctant to purchase the goods at higher prices according to the time and circumstances. So, U Boe Kyi having paid the charge of cutting the toddy fruit at a higher rate purchased the *Htan-nyet* at 14 *Kyats* and 2 *Mus*, and sent the goods to Pye.²²⁰ So it can be said that U Boe Kyi could manage well so as not to affect the welfare of the purchasing company.

U Boe Kyi bought *Htan-nyet* in Sint- ku, and carried it by boat and by cart to Salay Jetty. Then, systematic packing was done at the rate of 52 viss of palm

²¹⁷Salay *Pi, pu-* 53

²¹⁸Salay *Pi, pu-* 53

²¹⁹Salay *Pya, pu-* 13

²²⁰"*U Boe Kyi i pe-sa-mya*" (Letters from U Boe Kyi), Salay *Pan-pu Yoke-sone Kyaung Pya Taik*, U Boe Kyi, *Parabaik* MS, No.12 (Henceforth: Salay *Pya, pu-* 12)

sugar per one Kiln. He also sold it if any one turned up and purchased at in Sint-ku.²²¹ U Boe Kyi purchased the *Htan-nyet* from the jetties of Sint-ku, Hseik Phyu and Salay cash- down within 3 days.²²² In order to transport the orders from Lower Myanmar, he controlled Salay, Kyaukpadaung, Sint-ku, Bagan- Nyaung- Oo, Koe Htauk- Hseik Phyu and Salin Region in purchasing *Htan-nyet*.²²³ The ships by which U Boe Kyi and Group transported *Htan-nyet* to Lower Myanmar were Yadana Yin Kyaw, Ayeyawaddy, Sekkya Yemon,²²⁴ Tulut Yin Kyaw, Shwe Myo, Tulut Yin Pyan, Thuriya, Yankin Taung, Alaungpaya, Shin Saw Pu, Yen-an Sèkkyar, Duwan, Thunan, Baraman, Panthae, Edin and Tarliphu.²²⁵ The regions of Lower Myanmar where U Boe Kyi and Group transported *Htan-nyet* were Yangon, Hinthada, Myan Aung, Nyaungdone, Pyay and Thayet Towns.²²⁶

The toddy business lasts only for eight months a year. In the early *Htan-nyet* season, the price fetched 12 *Kyats* and 5 *Mus* per 100 viss of *Htan-nyet*, but the price fetched 14 *Kyats* to 12 *Kyats* in the end of the *Htan-nyet* season. In 1243 Sint-ku *Htan-nyet* purchase list, the price fetched from 14 *Kyats* and 5 *Mus* to even 24 *kyats*.²²⁷ Such high prices on purchase resulted from the greater demand of *Htan-nyet* from Lower Myanmar.

According to the *Parabaiks* of U Boe Kyi, kept at Salay *Pan-pu Yoke-sone Kaung Pya Taik*, the *Htan-nyet* exported to Lower Myanmar from 8 April 1880 to 1 November 1881, within 8 months, was the amount of 4946 Kilns, which weighed

²²¹"U Boe Kyi i Kon-we Sa-yin-mya" (U Boe Kyi's Purchased Goods), Salay *Pan-pu Yoke-sone Pitakat Taik*, U Boe Kyi, *Parabaik*, MS, No.14 (Henceforth: Salay *Pi, pu*- 14)

²²²(a)"U Boe Kyi i Kon-we Sa-yin-mya" (U Boe Kyi's Purchased Goods), Salay *Pan-pu Yoke-sone Pitakat Taik*, U Boe Kyi, *Parabaik*, MS, No.12 (Henceforth: Salay *Pi, pu*- 12)

(b)See Appendix (II)

²²³Maung Maung Latt, 1994, 56

²²⁴See Appendix (III)

²²⁵Maung Maung Latt, 1994, 54-55

²²⁶Maung Maung Latt, 1994, 54

²²⁷Salay *Pi, pu*- 12

257620.50 viss.²²⁸ According to the records kept at the Repository of the Buddhist Scriptures, the weight of *Htan-nyet* exported to Lower Myanmar from 14 March 1880 to the end of November, 1881 was 299469.50 viss. Such an amount of *Htan-nyet* was only the list of *Htan-nyet* that U Boe Kyi alone undertook to transport from Salay Jetty.²²⁹ Hsin Phyu Kyun Village Jetty under Salin Town transported up to *Htan-nyet* of 33 Kilns.²³⁰ So the lists of goods transported at Taloke Town - Myingyan Village Jetty, Pakokku- Kun Village Jetty, Bagan- Nyaung Oo Village Jetty, Salin- Hsin Phyu Kyun Village Jetty and Yenanchaung Jetty and Min Hla Kyauk-taing Royal Guard post have not yet been discovered. It is assumed that the amount transported by the whole company may have been at least one to three times higher than the amount of *Htan-nyet* transported from Salay Jetty. In order to ensure in the Purchasing Agent System and the Border Trading System, with the support of the Hlethin Interior Minister, the purchasing agent company engaged in purchasing *Htan-nyet* and other goods had stood firmly. Moreover, they become purchasing agents who purchased the royal taxes to be collected according to the Border Trading System with some limit, and shared the profits. The purchasing agent company came into clash with the local traders when collecting the commission fees. But the victim was the toddy men only, who suffered from the exploitation of the local traders and the bully of the purchasing agent company which had full authority. So the life of the toddy men went into deep poverty.

(f) Trading Tax

During Konbaung Period, tax was collected not only on toddy palms but also on *Htan-nyet* trading. King Badon sold the permit for tax collection to the private's hand in order to obtain high tax money. Then, Nga Po of Bagan, who got this

²²⁸Salay Pya, pu- 12, 14

²²⁹Salay Pi, pu- 14, 53, 168

²³⁰Salay Pi, pu- 168

permit, won the bid for the permit on 2 December 1806.²³¹ In King Badon's reign, *Htan-nyet* tax was collected on those who did *Htan-nyet* trading in large and small boats along the Ayeyawaddy. So Nga Po submitted the *Htan-nyet* tax to the Pahtotawgyi *Htan-nyet* Granary of the Royal Capital: 1500 viss of *Htan-nyet* per one large boat, and 1000 viss per one small boat per year- the total viss being 3000.²³² In *Htan-nyet* trading up and down in small and large boats tax was collected on *Htan-nyet*.

As U Tun Wa and U Shwe Thar, the *Htan-nyet* merchants of Pakhangyi Region, also did *Htan-nyet* trading, they paid tax on *Htan-nyet*. They plied the trade in 30 large boats and 20 small boats. They paid the tax of *Htan-nyet* of 48, 000 viss in total: 1200 viss per one large boat and 600 viss per one small boat.²³³ So the tax on *Htan-nyet* must not have been not of fixed kind, but flexible kind.

The *Htan-nyet* tax was paid not only in terms of *Htan-nyet*, but also in terms of cash. The trader U Shun had the sole right to do *Htan-nyet* trading in the Royal Capital, Sagaing, Pinya, Mingun and Inwa. So he paid the tax of 25 viss of silver per year to the Royal Treasury: the equivalent of gold was 139 *Kyat- thas*.²³⁴ In 1812, Nga Shun, of Nyaung Pin Zay Quarter of the Royal Capital, paid 85 viss of silver per year as the *Htan-nyet* trading tax.²³⁵ So not only *Htan-nyet* but also silver cakes were paid in collecting the *Htan-nyet* tax. The form of paying the tax in terms of *Htan-nyet* had gradually declined while the form of paying in cash (silver) had increased.

Tax was also collected on the goods in trading at Yangon Jetty. On 8 March 1827, among 74 goods on which the tax was collected at 2 *Kyats* and 5 *Mus* per

²³¹ROB, V,1042

²³²Toe Hla, 2004, 140

²³³Toe Hla, 1993, 132

²³⁴Toe Hla, 2004, 140

²³⁵Toe Hla, 1993, 132

the value of 100 *Kyats* were included *Htan-nyet*.²³⁶ So the jetty tax for *Htan-nyet* trading was paid at the rate of 2 *Kyats* and 5 *Mus* per the value of 100 *Kyats*.

In order to strengthen the economy of Upper Myanmar, King Mindon made efforts to obtain much tax from the British- Myanmar trading without collecting taxes on his people. So in Amarapura and Min Hla Towns, 10 % tax was collected on the imported goods from Lower Myanmar while 6 % was collected on the exported goods to Lower Myanmar.²³⁷ About 2 lakhs of tax money were collected on the imports and the exports.²³⁸ The British merchants were not pleased with the monopoly of King Mindon on trading and with the heavy tax. So on 10 November 1862, the British signed a contract with King Mindon on not collecting taxes on the imports and the exports but giving permission on free trading. So though the British government abolished the tax system on its side, the Myanmar government continued the tax system.²³⁹ In 1868, King Mindon issued the capital of 20, 000 coins to the purchasing agent company for *Htan-nyet* trading and collected the revenue of 110, 000 coins per year.²⁴⁰ King Mindon as it is observed had collected the *Htan-nyet* tax in various forms in order to develop the economy of Upper Myanmar. But though the *Htan-nyet* and toddy business earned incomes to the state, no measures were taken for the improvement of the toddy men's lives.

In order to develop the trading and economy, King Thibaw gave exemption to the 23 kinds of goods from tax collection at jetties, guard posts and bazaars on 25 May 1884: among the goods were included tobacco, *Htan-nyet*, and oil, as well as fairs.²⁴¹ So King Thibaw did not collect tax on *Htan-nyet* in 1884. But no

²³⁶Kyan, 2009, 100-101

²³⁷Mya Mya, 1971, 36

²³⁸Myint Myint Than, 1971, 88

²³⁹Myint Myint Than, 1971, 88

²⁴⁰Salay Pya, *pu-* 127

²⁴¹(a)(Maung Maung) Tin, 1968, 432

(b)Kyan, 2009, 118-119

measures were taken for freeing the toddy palm climbers from the deep pit of poverty.

To sum up, the toddy climbing and *Htan-nyet* boiling was the second livelihood in Myanmar rural areas. In most of the villages in Upper Myanmar, people have made livelihood by toddy climbing and toddy business. It was observed that the benefits went more to the *Htan-nyet* traders than to the toddy palm climbers. Most of the toddy palm climbers had few own toddy plantations. They had to pay the tenant for toddy climbing. Those without the ownership of toddy plantations had to purchase the necessary paraphernalia, thus costing much investment. Moreover, as they had to pay the toddy tax, their family income was cut out. The toddy business has involved all the family members. When the price of *Htan-nyet* is not good, the family could not enjoy what they deserve from their hard work. To study the toddy business, the families have enough income during the eight months of the toddy climbing, and they have to switch their livelihood to other forms of livelihood, especially the business of making chairs, and various forms of wardrobe, hats, baskets and large baskets, toys, beads and mats of toddy palm strips. In some pagoda fairs, especially in the Shwesaryan Pagoda Festival, such toys, necklaces, and fans were sold in maximum number. So the toddy related handicraft fetches more income than the toddy climbing, and does not demand labour. During Konbaung Period, the study of the toddy tax reveals that taxes differed from one region to another: the toddy tax was paid in terms of *Htan-nyet*, or silver or red copper. In toddy climbing in the royal lands, various sizes of *Htan-nyet* were submitted to the West Royal Custom Office. The taxes yielded from the tax- paying gardens belonging to the King, Queen and princes did not reach the state- owned office. During King Mindon's reign, in 1857, tax was collected at the rate of 1 *Pe* per one palm, and in 1871, 1 *Mu* per one palm. Such an increase of the tax may have affected the economy. During King Thibaw's reign, as the tax on toddy was exempted for 12 years, the economy of the toddy

men may have been considerably improved. The progress of a native on depends on the good economic conditions of the lower class, which can not enjoy what they deserve from their labour. The toddy palm climbers did not possess the toddy plantations throughout the periods. The toddy business is costly, and its prosperity depends on the weather conditions and the prices of *Htan-nyet*. So their life had improved very little. A handful of purchasing agents had controlled the *Htan-nyet* trading and made profit by all means. During Konbaung Period, trading took place mostly along the waterway route, via Myingyan, Salay, Salin, Hsinphyu Kyun, Bagan, Nyaung Oo. Jetties along the Ayeyawaddy, *Htan-nyet* of 229469.50 viss were transported to Lower Myanmar by ships and boats in 1881. Only handful of purchasing agents made profit while the life of the toddy palm climbers remained in deep poverty, as usual. The economy of the toddy palm climbers who had only the means of toddy climbing for survival has not improved, through time and changes and their socio- economic life had stood low in poverty forever.

CHAPTER FOUR

USEFULNESS OF TODDY PALM

All the parts of a toddy palm are useful for a man. A toddy palm is very useful in every day social life including in religious affairs. Before the introduction of writing papers, toddy palm leaves were used in writing for correspondence, for contracts and for a birthdate of a baby. Moreover, It is a kind of tree that provides a rich variety of snacks or food for man: the food obtained from the toddy palm can either be taken directly or enjoyed occasionally.¹ While almost everyone relishes the food and snacks produced from the toddy palm, there are also those who prefer using the toddy products as their commodities. All the toddy products greatly contribute towards the means of living for men. In making objects for domestic use or man's use or farm use, the toddy and the toddy products are useful additions or contributions.² So it can be said that there is no Myanmar who has never used the toddy products. Toddy is useful for food of men, shelter for living or dwelling, for furniture and tools for general use, animal food and things for general use.³ While *Htan-nyet*, toddy fruit, and toddy sap contain vitamin and other minerals necessary for the sufficient nutrition of man, the toddy products are useful for the practice of Myanmar traditional medicine.⁴ Moreover, it is observed that toddy palms and toddy products have been playing an important role in the economy of Myanmar. In addition, the toddy products made a great

¹Lin Thu, 1986, 49

²Maung Maung Phyu, 1962, 409

³Thein Toe, "*Htan Saik-pyo-ye*" (Toddy palm agriculture), *Myawaddy Magazine*, Vol.4, No. 18, January 1970, p 87 (Henceforth: Thein Toe, 1970)

⁴*Palm Jaggery*, 1951, 9

contribution to the military affairs in the aspect of politics: the fortress built of toddy trunks; banker made of toddy trunks and light containers hand-woven with strips of toddy palms, which were used as knapsacks in the march to the battlefield. (See the royal order of King Badon issued on.)

The Usefulness of Toddy in the Social Field

(a)Usefulness in religious affairs

In 308 BC, 1,000 venerable monks held the Third Buddhist Synod at the *Asoka-yama* Monastery. Then, a missionary of five *Mahatheras* was sent to Suvanna-bonmi in present-day Myanmar. These *Mahatheras* who reached Thuwannabhumi, encountered that the people were under constant threat of cannibals whom they called *Bilu* or orgre. In order to ward off them they made miniature figures of sphinxes (*Manussaiha* - lion body with human head) and gave them to the people in order to be hung around their necks.⁵ People being free from the threat of cannibals took refuge to the Buddhist missionaries. So boys and girls used to draw figure of Sphinx on the toddy palm leaves or salu leaves and put them on their heads so as to scare away the ogress's threat.⁶ So, as the five venerable monks who had come for the propagation of the Buddha *Tha-tha-na* successfully dispelled the threat of the ogress, the Buddhism found way to prosper in Myanmar. So, in order to propagate the Buddha *Tha-tha-na*, the use of toddy palm played a significant role.

In the inscriptions inscribed from Bagan Period to Nyaungyan Period, religious edifices such as pagodas, monasteries, Sima Halls, *Cetis*, stupas, fire barricades, repository of the Buddhist Scriptures, the Buddhist images and lakes were built in donation in order to perpetuate the Buddhist's Teachings beyond the 5000 year length of Buddhist Era and among the donations more prominent were

⁵man's head with lion's body

⁶*Pe-sa*, 1999, 20-21

the toddy palm groves.⁷ The majority of the donations suggest that there was no donation in which the donation of toddy palms was not included, since toddy was one of the essential donations. As they are perennial trees, they were donated so that the benefits from the toddy products would contribute to the maintenance of the religious edifices. So it is observed that toddy palms were useful as an important donation for the perpetuation of the Buddha *Tha-tha-na*. While toddy palm was a useful donation for the Buddhist edifices, the molasses obtained from the toddy were useful in the construction of such buildings. The molasses were used as cement in masonry work of the architecture of art. The inscription of the Tantkyi Pagoda of King Aniruddha reads that the cement of those days was prepared by mixture of *Ohn-ton*, molasses, lime, sand, sinmon, *mon-nyim* rice, red silk cotton, cotton, glue made of buffalo hide and *Par-lyèt*.⁸ Such cement was prepared in building the *Ta-ke* (Reredos of the throne for the Buddha image), the Buddha images, *Ceti*, cave shrine, pagoda and monastery.⁹ Such mortar was prepared and used in constructing such ancient pagodas as the Shwe-zigon and the Anandar.¹⁰ As toddy palm molasses were useful in preparing mortar for building religious structures, so also was the *Htan-nyet* in whitewashing. Proper amount of sweet toddy sap or *Htan-nyet* was used in the mixture in white washing the religious edifices so that the white washing could last long.¹¹ It can be said that sweet toddy sap or liquid of *Htan-nyet* was used because it had the quality of having the white washing lime plaster stuck on the surface more firmly, and not easily fall away.

⁷Mentioned in Chapter 1

⁸San San, 1989, 47-48

⁹(a)Nyunt Lu, 1957, 125-126

(b)Maung Maung Phyu, 1964, 188

¹⁰Lin Thu, 1986, 39

¹¹Maung Maung Phyu, 1964, 188

Toddy was useful not only for white washing but also for giving protection to the pagodas under the process of gilding from the heat of the sun and the blow of the wind.¹² So toddy palms were used as protection at the work site where gilding was being done to a pagoda.

The toddy palms were donated not only for the maintenance of pagodas and monasteries but also for the support of alms food, yellow robes, monastery and medicine for the monks.¹³ The benefits gained from such toddy palm plantations, as it can be assumed, were donated to the monks for their maintenance in order to do religious works of teaching scriptures and meditation as well without worry. After listening to the sermon of a venerable monk about the meritorious deed of a great King named King *Vassandra*, the audience, being moved by the king's bountiful donations made donations of objects, along side with 214 toddy palms.¹⁴ In the ordination ceremonies, monks were also donated the eight kinds of the essentials of monkhood.¹⁵ Moreover, the 108 features of Lord Gottama's Foot sole included a design of a todddy palm fan for monk.¹⁶ So toddy palm was useful for ordinating the monks.

Even since the times of Lord Buddha, He granted permission to His Disciples, the revered monks, to have a kind of light food called *Sa-tu-ma-du* as nutritious food for Monks: the light food is prepared with molasses, honey, butter and sessamum oil.¹⁷ So molasses were useful as nutritious food for the monks who were carrying out the religious affairs. Molasses had been nutritious food for the

¹²Nyunt Lu, 1957, 125

¹³Mentioned in Chapter 1

¹⁴Toe Hla, 2004, 178

¹⁵Pakhan Kyaw, 1972, 179

¹⁶San San, 1989, 48

¹⁷(a)Nyunt Lu, 1957, 125

(b)Lin Thu, 1986, 39

monks.¹⁸ Moreover, *Htan-nyet* can serve the monks as a treat for preparing juices such as tamarind juice, plum juice and bael juice, as well as plum jam and tamarind jam.¹⁹ *Htan-nyet* is donated to the monks for the treat to be taken in the afternoon and in the evening.²⁰ Moreover, sweet toddy sap can serve the monks at any time.²¹ Some monks prepared lime juice with *Htan-nyet* for a treat.²² Fermented toddy sap²³ was prepared, and served to the monks as the curry of *Htan-pon-ye*.²⁴ So it is observed that the toddy products were useful as a treat for the monks who were performing the religious affairs till beyond the Buddhist Era 5000.

Toddy was useful not only as a treat for monks but also the monk's residence. In order to create a favourable atmosphere in the pagoda and monastery precincts in the Central Myanmar's rural areas, toddy palms were grown in donation.²⁵ Moreover, in building a monastery, the toddy trunks were used for the beam and prups²⁶ while the toddy plams were used for roofing and walls.²⁷ Toddy plams were used for roofing and walls in constructing not only monasteries but also

¹⁸Nan Nyunt Swe, 1974, 45-48

¹⁹(a)Soe Myint, "*Htan-hwet-sa-thauk-bwe*" (Toddy Product Snacks), *Ngwetaryee Magazine*, No. 226, April 1979, p 132 (Henceforth; Soe Myint, 1979)

(b)San San, 1989, 47

²⁰Nyunt Lu, 1957, 125

²¹Toe Hla, 2004, 135-136

²²Maung Maung Phyu, 1963a, 183

²³One handful of glutinous rice is heated in a frying pan, and is soaked in a little toddy sap for about 7 days. Then, the mixture is fermented, and the *Hta-ye - lyin* is obtained

²⁴Soe Myint, 1979, 132

²⁵San San, 1989, 98-99

²⁶"*Phone-gyi Kyaung Te-hsauk-yan Kon-pit-si Sa-yin-mya*" (List of items to build a Monastery), *Parabaik* Ms, Khin Nyunt Collection (Henceforth: Khin Nyunt, *Parabaik*)

²⁷Nyunt Lu, 1957, 125

Zayats or public rest house.²⁸ As the toddy plam can resist the heat, giving out the feeling of coolness, using the toddy plams for roofing and walls has been a healthy practice for the local people of the Central Myanmar regions. As the toddy palms can absorb the heat, it can make a cooling effect despite the blazing summer heat of the Central Myanmar regions. So the toddy palm roofed and walled monasteries are cool and favourable for doing meditation. The fencing of the monasteries was made by growing toddy palms and toddy palm matting.²⁹ So toddy palm and toddy products were useful for building a monastery for the monks in promoting the Buddha *Tha-tha-na*.

In the pagoda festivals as the Central Myanmar regions, alms food and curries were offered in a monk's alm bowl. The cups for holding curries were hand- woven with toddy palm leaves. The toddy palm leaves are fresh and clean and easily available, and there is no need to go shopping. So it saves the expenses. The bottom of the alm bowl was hand- woven with toddy palm strips.³⁰ In the pagoda fairs, *Htan-nyet* was usually made offerings.³¹ So the toddy and toddy products were used as offerings in the pogada fairs of the Central Myanmar regions.

Not only in the pogada fairs but also in the *A-hlu* or donation and ordination ceremonies of the the Central Myanmar regions, toddy was very useful. According to the traditional Myanmar customs, in the ordination ceremonies, the toddy bud was used in designing the tobacco leaves into the shape of a Hamilton's carp.³² The monk's fan, included in the eight essentials of monkhood was made of toddy palm. The betel casket, the flower pot and the *Kan-hsaung* pots placed reverently

²⁸Nyunt Lu, 1957, 125

²⁹Tin Tin Mya, 2006, 13

³⁰Maung Maung Phyu, 1962, 227

³¹Lin Thu, 1986, 29-30

³²Nyunt Lu, 1957, 125

on the dais for monk's seat were decorated with tender toddy palm leaves in the dangling little toys of parrot figure and as a cushion band. In order to put in the *ka-nu* sticks and the *ta-pu* sticks used for toilet by the monks, a small box of toddy palm leaves were woven manually with tender toddy palm leaves.³³ In building an awning for ceremonies and mess halls, the toddy palms were used for roof and walls; the toddy palm strip, for tying; the toddy palm strip mat for flooring.³⁴ So in the list of guests' presents or contributions to a donation or *Shin-pyu-a-hlu* ceremony contained relatives' present in the form of *Htan-nyet*.³⁵ So in the *A-hlu* ceremonies of the Central Myanmar regions, the toddy and toddy products were useful. In order to perpetuate the Buddha *Tha-tha-na* till beyond the B.E 5000, toddy and toddy products were useful in religious affairs in the Central Myanmar regions.

Moreover, in wedding ceremonies in the Central Myanmar rural areas, the parents from both sides used to give presents to their sons and daughters in the form of toddy palms and fields.³⁶ So in performing the worldly affairs, toddy and toddy products were useful in the Central Myanmar rural areas.

(b)Usefulness in Religious Beliefs

According to the traditional Myanmar customs, the Myanmar people have confessed the Theravada Buddhism. In Sagaing, Poe Win Hill, Pakokku, Myingyan and Bagan, where Buddhism prospered, large numbers of toddy palms

³³Nan Nyunt Swe, 1974, 47

³⁴Nyunt Lu, 1957, 125

³⁵(a)"*A-hlu Ku-pant Sa-yin*" (List of contributions to the Ahlu Ceremony), Hsin- in Village, *Parabaik* MS, No. 17, U Khin Collection (Henceforth: Khin, *pu*- 17)

(b)Ni Ni Khin, "Agrarian Society of Shwebo Township (1752 -1885)", Ph.D Dissertation, Department of History, University of Mandalay, July 2010, p.101 (Henceforth; Ni Ni Khin, 2010)

³⁶Maung Maung Phyu, 1962, 227

were grown and donated. Both Mahayana and Theravada Buddhisms had been related to the toddy. So in those regions, toddy and toddy products were mostly used.³⁷ While Buddhism was at the core of the Myanmar people's heart, they also had the cult of animism. Those who had such cult were related to the toddy. They had the tradition of not holding a Deity propitiation ceremony on the day of the *A-hlu* ordination ceremony.³⁸ The fermented toddy sap, *Htan-nyet* snacks, and molasses were made offerings to the Deities.³⁹ The Deity mediums having drunk the toddy sap, gave replies of the Deity to the questions posed by the laymen.⁴⁰ The content of the songs sung in propitiation to the deities included the subject of toddy sap.⁴¹ There also existed a tradition of selling the toddy products in the diety propitiation festivals and pagoda festivals. During the Shwesaryan Pagoda Festival of Mandalay, also known as the Diety Propitiation Festival of Queen Saw Mon Hla, a variety of presents and toys such as the figures of fish, fan, decoration hall (*Ta-gun-lon*), and beads, all hand-woven with toddy palm leaves were sold.⁴² In the Central Myanmar regions, the cult of the propitiation of deities or animism has still existed till today. The toddy products as it is observed were useful in propitiating the deities. So these products were useful in the religious beliefs of Mahayana, Theravada Buddhism and animism.

(c) Usefulness in literary works and inscribing

The toddy palm leaves, like the palms of talipot have to be prepared for inscribing on them.⁴³ The toddy bud is folded in the middle, and is pressed. When it has been

³⁷Mentioned in Chapter 1

³⁸Pakhan Kyaw, 1972, 166-167

³⁹Yi Yi, 1968, 368

⁴⁰Amar, 2002, 63

⁴¹Thet Lwin, 2003, 103

⁴²Amar, 2002, 77-78

⁴³Min Thu Wun, 1955, 8

pressed hard enough, it is placed on the smoking rack, and is dried. When it has got dried, it is ready for inscribing.⁴⁴ During Bagan Period, the letter of order sent from the *Gaing-Ok* and the *Gaing-Htauk Sayadaws* to their junior monks, the money loan *Thet-ka-yit* contracts, horoscopes, and the letters of orders sent from the officers to their subordinates were inscribed on the toddy buds. According to inscriptions, the toddy palm inscription was referred to as evidence.⁴⁵ It is observed that the toddy bud was useful for inscribing during Bagan Period.

During Taung-ngu Period, King Taung-ngu ordered the disputants to note down the case history on the toddy palms, and then, a decree was made, as in the age-old procedure.⁴⁶ So inscribing on the toddy palms was useful in jurisdiction, as well.

In A.D. 1329, when the second founder of Yadanapura King Nyaungyan succeeded to the throne, the *E-ka-paik Yatu* on the 12 kinds of royal duties written by Kinwun Minister mentions that bundles of toddy bud palm were made ready for inscribing or writing.⁴⁷ So there existed a tradition of using toddy buds for writing during King Nyaungyan's reign.

During King Thalun's reign, in 1629, it was assumed that using the palms of talipot meant a disgrace and bad luck since as a saying "*Pe-ta-thi-kyee-ta-tha*" goes, a talipot palm, usually dies after bearing fruits once, and accordingly, the talipot bud palms were no more used in the correspondence of royal affairs in the royal palace, the *Hlut-taw* and the royal office, but only the toddy buds were used for writing. Moreover, assuming that a toddy palm could grow for a hundred years, it not damaged, and that a toddy palm brought grace and auspiciousness,

⁴⁴*Pe-sa*, 1999, 72-74

⁴⁵San San, 1989, 48

⁴⁶Tun Nyo, 2007, Hsaw

⁴⁷Lin Thu, 1986, 43-44

and so the toddy buds were used for inscribing the letters of the royal palace, and royal offices of the *Hlat-taw*.⁴⁸ So the toddy buds were useful for inscribing royal letters in the royal palace. The toddy palm letter was of two types: *Sa-chun* and *Sa-khwe*.⁴⁹ All the Royal Orders were inscribed on the long young toddy bud: one line in one toddy bud palm in correct spelling which was called *That-son-ye*, spelled in the original letters. Such kind of writing was known as *Ta-gyaung Sa-chun* ("One line letter with a pointed end"). The letters sent to the gazetted officers by the ministers of the *Hlat-taw* had two lines inscribed on one bud palm: it was called *Hna-gyaung Sa-chun* ("two-line letter"). Such letters with a pointed end were kept either in the form of not coiling or in the coiled form.⁵⁰ The letter type was called *Sa-khwe* ("coiled letter"). The coiling system of such letters had a tradition: a letter of royal order from the royal palace must be coiled at the size of one cubit wide roll; a letter from the *Hlut-taw*, at the size of one finger length roll; a letter from the royal office, at the size of one fist length roll and a letter from a junior minister, at the size of seven inches or *Thits* of roll.⁵¹ The address must be written carefully so that it would not appear to the eyesight in an upside down form. A letter from the royal palace must always bear the badge of the Peacock or a Brahminy Duck.⁵² So the toddy palm was useful for inscribing letters for the royal palace and the offices of the *Hlut-taw*.

King Alaungpaya officially announced the alluvial land outside the *Hman-Aung* Gate of Yadanapura the Golden Inwa Capital as the *Phone-taw-phyit Kyun*

⁴⁸Myat Kyaw, 1993, 16

⁴⁹Those pointed letters were not made of one single sheet of toddy palm, but two folds folded in the middle

⁵⁰*Pe-sa*, 1999, 72-74

⁵¹Myat Kyaw, 1993, 16

⁵²*Pe-sa*, 1999, 73

on 4 February 1754 in his Royal Order inscribed on a one- line letter.⁵³ Moreover, when the positions of *Kyaing-yon-gyi* and *Kyaing-ton Shan* lords were appointed, the order inscribers sealed the names at the edge of the letter as a sign of appointment.⁵⁴ So, in appointing the positions of Shan lords, the toddy palm was used for inscribing letters.

Moreover, the records of money loan and land mortgage and other businesses were inscribed on the toddy buds. The date of birth, day of entering novicehood, day of entering monkhood and horoscope were also inscribed on the toddy bud palms.⁵⁵ In addition, during the reign of King Wunbe San-in, there broke out an uprising in the royal circle, and in order to dispel the dangers, the venerable Ngayane *Sayadaw* inscribed the Pali texts of *Ah-da-na-ti-ka Sut-tan* and the mantras on the Buddhist's Eight Conquests on a toddy palm that not a crow had rested on and the palms were hung at the corner poles of the king's rest hall or *Kun-sin* of the royal chamber.⁵⁶ So the toddy palms were also used for inscribing the Pali texts so as to dispel the impending dangers.

Moreover, the poets also used the toddy bud palms to inscribe their verses and *Pyos*.⁵⁷ So it can be said that the toddy buds had made a contribution in their service for the cause of the perpetuation and development of Myanmar literature, alongside with the sheets of talipot. The toddy buds have still exerting their influence on Myanmar people and Myanmar literature.

⁵³(Maung Maung) Tin, 2004, 117

⁵⁴Yi Yi, 1968, 350

⁵⁵*Pe-sa*, 1999, 73

⁵⁶Than Htut, "Nyaungyan Hse-set hnint Ba-tha A-yu-wa-da-ye" (Ten successive Kings of Nyaungyan and their religious ideas), *Than Tun 75th Birthday Gift Sha-Sha-Phwe-Phwe-Myanma Tha-maing*, Vol. II, Yangon, Thein Htaik Yadanar Press, 1996, pp.101-102 (Henceforth: Than Htut, 1996)

⁵⁷Lin Thu, 1986, 44

(d) Usefulness in food and snacks

In the Central Myanmar regions, toddy fruits which are neither too young nor too much ripe are taken out to enjoy the juice of young toddy fruits. One toddy fruit contains three seeds. Though toddy fruit may be either white or black, it tastes the same.⁵⁸ Young tender fruits taste sweet and creamy, and are a seasonal snack.⁵⁹ It is usually prepared with young tender tamarind sprouts for curry, or as a soup.⁶⁰ Its preserve is either fried or cooked for a dish.⁶¹ It can be mixed with molasses, and boiled to toddy seed jam for snack.⁶² Toddy nut (*Hta-thi-zan*) has vitamins B-1, metal and fat. It is used to produce jelly and soft drink at Hlaingdat Canning factory in Thazi. Similarly, jelly and soft drink are produced by using the toddy nut in China. Some snacks are made by toddy nut after mixing with sugar, egg, etc.⁶³ The ripe toddy fruits are made into tender delicacies called *Hta-thee-mont*.⁶⁴ Moreover, like making pudding, the ripe toddy fruit snack is made by baking.⁶⁵ Such a snack has high content of nutrients. The *Hta-thee-mont* snack of Yezagyo region, having delicious taste is sold on a commercial scale.⁶⁶ The toddy fruit is useful, therefore, for being made as a rich variety of snacks.

The toddy fruits are usually eaten in the form of *Hta-pin-myit* or toddy shoots⁶⁷ which can be eaten after being baked or fried.⁶⁸ A break of the *Hta-pin-*

⁵⁸Pyae Phyo Thet, 2003, 10

⁵⁹Soe Myint, 1979, 131

⁶⁰Hla Sein, 1971, 58

⁶¹Maung Maung Phyu, “*Htan-thee*” (Toddy Fruit), *Ngwetaryee Magazine*, No. 39, September 1963, p.174 (Henceforth : Maung Maung Phyu, 1963b)

⁶²Soe Myint, 1979, 132

⁶³Knin Khin Sann, 2008, 66

⁶⁴Maung Maung Phyu, 1963b, 174

⁶⁵Hla Sein, 1971, 58

⁶⁶Amar, 2002, 187

⁶⁷Toddy shoots as food for embryo but not for the young root, stem or palm

⁶⁸Tin Tin Mya, 2006, 10

myit and a bite with a gulp of plain tea would be a time of luxury for the rural folks. The *Hta-pin-myit* is also a seasonal food of the countryside.⁶⁹ It is also made a curry cooked in the mixture of beef or pork and lobatum bean.⁷⁰ The most productive region of *Hta-pin-myit* is Myingyan.⁷¹ It is prepared in a variety of ways for snacks.

The toddy seeds burried in the ground have sprouts of four- five inches after three to four weeks. If the toddy seed is cut open, the tender milky white *Htan-san-chi-htwe* is obtained,⁷² which tastes sweet and creamy enough for everyone's snack. It can be fried in oil and sprinkled with sugar for serving.⁷³ The *Htan-ok-nauk* is also eaten as snack or medicinal food. The tender toddy crust is also eaten as snack.⁷⁴ So the toddy products were useful as various kinds of snack for the rural folks.

The toddy sap is drunk not only by monks, but also by laymen, young and old. It is prepared as toddy sap *Mont-let-saung* snack juice.⁷⁵ Moreover, the toddy sap is prepared into vinegar and is used for spraying on the tobacco leaves at cherrot-making business, and for cooking curry.⁷⁶ If the fermented toddy sap is used in making vinegar, it takes only two days for the purpose.⁷⁷ The *Hta-ye-lyin* is also used in preparing salad, like horse gran paste,⁷⁸ or cooked in mixture of

⁶⁹Soe Myint, 1979, 132

⁷⁰Pyae Phyo Thet, 2003, 10

⁷¹Tun Hla Aung, “*Htan-pin-myit*” (Toddy shoot), *Myawaddy Magazine*, No. 2, November 1975, p.99 (Henceforth: Tun Hla Aung, 1975)

⁷²Maung Maung Phyu, 1963a, 174

⁷³Sein Tin, 1969, 42

⁷⁴Lin Thu, 1986, 36

⁷⁵Maung Maung Phyu, 1963a, 186

⁷⁶Amar, 2002, 48

⁷⁷Maung Maung Phyu, 1963a, 183

⁷⁸Soe Myint, 1979, 132

meat. It can serve not only the laymen but also monks.⁷⁹ Molasses taste sharp and have cloying taste.⁸⁰ It is taken either as snack or in combination with the Myanmar traditional medicine.⁸¹ So the toddy products are useful as snacks and food. In rural areas of Myanmar, *Htan-nyet* is eaten as a favourite snack. *Htan-nyet* has the 14% content of sugar.⁸² So, as a replacement of sugar, *Htan-nyet* is used in preparing snacks, medicine and nutrition. *Htan-nyet* is made in a variety of size and purposes: big, medium, small, rough, fine, and tamarind- mixed, etc., according to different regions.⁸³ Only if fresh toddy sap is boiled will fine *Htan-nyet* be obtained. The *Htan-nyet* of Thanpyar Chaung Village in Yezagyo Township is well known as high quality white or *wun-phyu*, *Htan-nyet* of Thanpyar.⁸⁴ Peasants and workers feel refreshed after eating some *Htan-nyet* and gulping down a cup of cool water.⁸⁵ *Htan-nyet* has many useful ways. In some rural areas, refined *Htan-nyet* called *Htan-nyet- phyu-sok* is eaten as a snack. It can be used as a replacement of sugar in making tea or coffee without giving out the smell of *Htan-nyet*: it tastes creamy and sweet.⁸⁶ Such a refined *Htan-nyet* of white hue is made only with the toddy sap of female toddy palm trees.⁸⁷ The kind of *Htan-nyet* called *Ye-ma-hti Htan-nyet* (*Htan-nyet* prepared without a touch of water) demanding a skilful hand and trying the patience, is prepared only for the

⁷⁹San San, 1989, 48

⁸⁰Maung Maung Phyu, 1964, 186

⁸¹Soe Myint, 1979, 133

⁸²Khaine Pann Wit Hmon, "Some Plants Uses as Fodder in Mandalay Division", M.Res Theses, Department of Botany, University of Mandalay, 2004, p.175 (Henceforth: Khaine Pann Wit Hmon, 2004)

⁸³Myint Tun Maung, 1970, 31

⁸⁴Lin Thu, 1986, 162

⁸⁵Hla Sein, 1971, 58

⁸⁶Maung Maung Phyu, 1964, 186

⁸⁷San San, 1989, 91

donation to the monasteries.⁸⁸ Moreover, other kinds of *Htan-nyet* are *Htan-nyet*, *Khapaung-se Htan-nyet*, *Magyee-Kwe Htan-nyet*, and *Nwa-sha Htan-nyet*.⁸⁹ *Htan-nyet* is prepared as snacks in many various forms. There is scarcely any Myanmar snack that is prepared without the use of *Htan-nyet*.⁹⁰ *Htan-nyet* is mixed with peanut, popcorn, *Hsaung-chan*, maize, sesamum paste, bean paste, coconut, and plum and milk power.⁹¹ Mixed with tamarind, *Htan-nyet* is prepared into tamarind toffee, tamarind jam, and tamarind juice, mixed with plum, as plum toffee, plum flakes, and plum juice, etc.⁹² *Htan-nyet* is usually used for making Myanmar traditional food or snacks, namely *Tha-ku*, *Jone-yo*, *Mont-let-kauk*, *Mont-kyet-U* snacks for children,⁹³ *Kaye kaya*, *Mont-si-kyaw*, *Mont-lon-ye-paw*,⁹⁴ *Hto-mont*, *Mont-phet-htok* and *Mont-let-saung*.⁹⁵ The Myanmar traditional snacks are usually made of the use of *Htan-nyet*. In the olden days, a visitor to a Myanmar house was usually entertained with such kinds of snacks and *Htan-nyet*, just like entertaining a guest with coffee and tea in the modern days.⁹⁶ So the toddy products were useful as essential foods and snacks in entertaining a guest. The toddy products were useful either as curries or snacks for the rural folks.

Moreover, in the form of liquors, fermented toddy sap called *Htan-ye-kha* is prepared. In the Central Myanmar regions, men, young and old drink fermented toddy sap. As there are plenty of toddy palms in the regions, toddy sap is plentiful which is drunk for relaxation. A visitor was usually entertained with the fermented

⁸⁸Sein Tin, 1969, 80

⁸⁹Yi Yi, 1966, 98

⁹⁰Sein Tin, 1969, 86

⁹¹Maung Maung Phyu, 1964, 186

⁹²Soe Myint, 1979, 133

⁹³Lin Thu, 1986, 30

⁹⁴Pyae Phyo Thet, 2003, 9

⁹⁵Nyunt Lu, 1957, 126

⁹⁶Maung Maung Phyu, 1964, 186

toddy sap in the Central Myanmar region, which was a favourite both for the guest and the host. The fermented toddy sap is strongly bitter sweet, and delicious, enabling person the resistance to the heat. Moreover, it was a kind of inexpensive tonic for the people.⁹⁷ It goes well with baked beef steaks, and roasted farm mouse. The tradition of drinking fermented toddy sap or palmyra toddy in the Central Myanmar regions is mentioned in *Lwan-chin*:

"With a bite of roasted farm mouse,
The more I feed chilly,
The more I take a relish of palmyra toddy"⁹⁸
"Chewing the baked beef steak,
Gulping down the juice with one stroke"⁹⁹
"My blessed physique feeling indisposed,
You little rascal,
Take a bottle for my sake,
And buy some palmyra toddy at five *Mus*."¹⁰⁰

In the Central Myanmar regions, local people mostly drink toddy sap obtained from their own toddy plantation. They scarcely buy the liquor from others. The local people share among themselves. When are goes wild, they try to pacify among themselves.¹⁰¹ In the Central Myanmar regions, palmyra toddy was drunk as intoxicant beer in the Myanmar tradition and custom.

⁹⁷Hla Sein, 1971, 57-58

⁹⁸Maung Maung Tin, 1965a, 50

⁹⁹Maung Maung Tin, 1965a, 50

¹⁰⁰"*Sabba Gi-ta-kam-ma Pa-ka-tha-ni Treatise*" (Sabba- Gitakamma- pakathani: Treatise), U Myint Kyi (ed), Yangon, Than Lwin Oo Press, 1999, p.499 (Henceforth: Myint Kyi, 1999)

¹⁰¹Hla Aung, "*Konbaung khit Lwan-chin-kabya-mya hma- Myanma A-nya Kye- let-hton-tan Da-hle-mya*" (Nostalgic Poetry of Konbaung period and Central Myanmar rural customaries), Ph.D Dissertation, Department of Myanmar, University of Mandalay, June 2003, p.144 (Henceforth: Hla Aung, 2003)

Htan-nyet is also used as manufacturing raw materials in sugar mill and distilleries. There are 14 states that owned sugar mills in Myanmar, there are still no mills that produce sugar from toddy sap or *Htan-nyet*. While cane sugar is consumed all over the World, toddy sap or *Htan-nyet* is only a traditional diet in Myanmar. Foods that are produced with sugar are also consumed all over the World.¹⁰² Foods that are produced with *Htan-nyet* are only in Myanmar. Therefore, it is necessary to try for the World recognition for *Htan-nyet* as a daily diet.

Htan-nyet is prepared into liquors.¹⁰³ Though drinking toddy sap and liquors is forbidden by God as one of the sing, such tradition in the upcountry regions still exist toddy. In making friends, toddy and liquor was supposed to have played a role more important than giving a treat of other food stuffs. Toddy and liquors were used as intoxicants for the country folks.

Palmyra toddy, liquor, beer and wine, etc, bring bad consequences instead of good effects on the Myanmar country folks. In the months of *Tabaung* and *Tagu* when toddy sap is plentiful, people, young and old drink palmyra toddy and liquors.¹⁰⁴ Young people drink liquors when feeling happy or depressed or accompanied by friends, or out of some reasons. Since palmyra toddy is drunk, not for the medicinal purpose, but for intoxication, there took place more crimes in regions of plentiful toddy palms during the reason of plentiful yield of toddy sap, as noted in the records of criminal cases.¹⁰⁵ Such drinks affect one's health, and some die young. So it can be said that drinking palmyra toddy and liquor can bring about bad consequences for the state and the whole population.

¹⁰²U Khin Maung Htay, "*Myanmar Toddy palm Plantation and Production*", *Yenan Chaung Decree Collage Magazine*, Yangon, Ayeyar Wun Press, 2012, p.245 (Henceforth: Khin Maung Htay, 2012)

¹⁰³Nyunt Lu, 1957, 126

¹⁰⁴Maung Maung Phyu, 1963a, 188

¹⁰⁵Sein Tin, 1969, 104

But if toddy is brewed as beer and wine and exported, this can fetch the foreign income. So attempts were made to produce toddy wine from sweet toddy sap. Such wine tastes like the British apple wine, giving a fragrant smell, and is superior to the traditional palmyra toddy. Such wine- making out of palmyra toddy saves the cost of *Htan-nyet* boiling, and fetches income for the toddy climbers.¹⁰⁶ So if toddy is exported in the form of beer and wine, it will bring benefits to the state and make contributions to the toddy climbers.

(e)Usefulness as the cattle and swine fodder

The toddy products were useful not only for the nutritious food and juice for men, but also for the fodder of cattle and swines. When the food for the cattle was scarce, the tender young toddy palms were sliced and fed to the cattle in rural areas.¹⁰⁷ The female inflorescence and young; mesocarp of toddy palm fruit were used for the cattle fodder.¹⁰⁸ Moreover, the juicy seed in the toddy fruit is eaten by men, while the remaining husks of the fruits are fed to the cattle.¹⁰⁹ Some cut the seeds of the toddy fruits and fed the cattle which liked such food, because after eating such food, the cattle began to look shiny in the hide overnight and gain weight, free from the diseases.¹¹⁰ Ripe toddy fruits are mixed with water and are fed to the cattle.¹¹¹ In preparing such food, care must be taken not to get the lime in the mixture, because it would solidify the paste of the ripe toddy fruit, and do

¹⁰⁶Khin Htay Myint, "*Hta-ye-cho hma Waing-chet-lok-chin*" (Boiling from Toddy sap to Wine), *Science and Technology Journal*, Vol.1, No.2, June 1968, p.278 (Henceforth: Khin Htay Myint, 1968)

¹⁰⁷Khaine Pann Wit Hmon, 2004, 176

¹⁰⁸Lin Thu, 1986, 30

¹⁰⁹Sein Tin, 1969, 104

¹¹⁰Maung Maung Phyu, 1963b, 173

¹¹¹Khaine Pann Wit Hmon, 2004, 176

harm to the health of the animal. The oxen that have a chance to be fed with such ripe toddy fruit paste look shiny in the skin, and gain weight.¹¹² Moreover, the poor quality juice and the juice of toddy which could not be made into *Htan-nyet* because of the poor quality sweet toddy sap and the distilled liquor water are dissolved in water, and are fed to the cattle and swines, which grow in weight and have shiny skin.¹¹³ So the toddy products were very useful for the fodder of cattle and swines, as well as the forms of social commodities.

Usefulness as the Social commodities

(a) Usefulness for buildings

In the Myanmar society, families have built their own for a long time. In the Central Myanmar regions, houses were built for their own families. Such houses are generally simple: toddy palm leaves, bamboo and thatch, which are easily available in their surrounding, are used for building. The toddy stem is soft in the inner part, but hard and resistant even to the salty water in the outer part.¹¹⁴ As it can resist the termite bites or insects; it is a long-lasting and economical wood for the common people.¹¹⁵ So the toddy stem is used for the pole, cross beam, *yauk* beam, ridge pole (*Khaung-tan*), principal rafter (*Daing*), *Hmya*,¹¹⁶ floor edge (*Kha-pan*), *Hsint* or floor joint and beam (*Yetma*).¹¹⁷ As the toddy wood is hard and easy to crack, no nail can be driven in. So it must be holed, and fixed in with cross beams for building. If the toddy stem used as a propping pole touches the ground, can last only for about ten years. So it is rarely used as a prop. If used

¹¹²Pyae Phyo Thet, 2003, 11

¹¹³Maung Maung Phyu, 1963b, 173

¹¹⁴Tin Tin Mya, 2006, 5

¹¹⁵Thein Toe, 1968, 147

¹¹⁶Toe Hla, 2004, 144

¹¹⁷Amar, 2002, 177

above the ground, it can last for about 50 to 60 years. In building a house, expect the floor and high beam; the other parts can be made of toddy wood.¹¹⁸ The female toddy palm is harder than the male. So the wood of female toddy palm is usually chosen. Besides houses, cattle hut, rack for keeping the fodder, cart hut, hut, etc, are building of toddy wood.¹¹⁹ The toddy wood is used for the fencing of the houses and the village gate post. The male toddy wood used for the fencing could last up to seven years, and a female toddy wood, up to ten years.¹²⁰ Toddy woods were mostly used in building houses in country areas because of its hardness and compatibility with the hot weather of the Central Myanmar regions, availability and being less costly than other woods. So the toddy woods were mostly used in building houses, hut, cowshed, cart shed, and rack for preparing cattle fodder, etc.

Besides the toddy wood, the toddy palm is also an important object of construction for the proletarian class. The *Lwan-chin* poems of the poet U Gyi of Konbaung Period describe how the toddy palms were used as roof and walling in the houses of the Central Myanmar regions.

"A ramshackle house
 With a damaged roof top
 Of scattered toddy palm roofing,
 It's *A-chin* touching the ground"¹²¹
 "With bamboo strips as wall,
 And the toddy palms as roof"¹²²
 "A house adorned with toddy palms,
 Obtained from above,

¹¹⁸Sein Tin, 1969, 25

¹¹⁹San San, 1989, 100-101

¹²⁰Sein Tin, 1969, 25

¹²¹Aye Maung, 1956, 111

¹²²Myint Kyi, 1999, 422

As the roof and the walls"¹²³

"With *A-chin* close to the ground,
And the toddy palms covering around
This is my beloved man's house"¹²⁴

"Thatch- roofed
And a reed walling"¹²⁵
"The toddy palm used
For covering the roof-top"¹²⁶

In the Central Myanmar regions, toddy palm leaves are used for roofing and walling probably because they are plentiful or because they are inexpensive. The palms leaves and petiole of male, female and wild toddy trees were used as roofs and walls. About 400- 500 big palms were needed to build a four- room hut, 600 palms to be used if wild toddy palms. Such a hut can last three to four years.¹²⁷ As the toddy palm roofed and walled hut can absorb the heat, the people inside can live comfortably.¹²⁸ Naturally, one can feel cool as one steps into such a hut. The toddy palms, combined with the thatch, were also used for roofing. But the thatch can not be directly used for roofing, like the toddy palms but with the aid of the toddy bud strips called *Hta bhu nhi* tied.¹²⁹ So in the Central Myanmar regions during Konbaung Period, few huts were thatch- roofed, but toddy palm-roofed mostly.

¹²³Aye Maung, 1956, 110

¹²⁴Aye Maung, 1956, 109

¹²⁵U Maung Maung Tin, *Dha-le Ba-tha Te-ka-bya-mya* (Verses and Songs, the Traditional Customs), Yangon, Sarpay Beikman Press, 1965, p.50 (Henceforth: Maung Maung Tin, 1965b)

¹²⁶Maung Maung Tin, 1965b, 34

¹²⁷Lin Thu, 1986, 42-43

¹²⁸Amar, 2002, 179

¹²⁹Williamson, 1924, 75

Besides the roof and walls of a hut, there, in front of the hut, is built an attached shed, palm- roofed, where the country folks, the peasants, gathered and discussed religious and village affairs, as well as family affairs.¹³⁰ It can be said that the toddy palms are mostly used in the Central Myanmar regions because plenty of palms can be purchased at inexpensive prices, because it can stand the blazing heat because it takes a short time to do building, because even a child can learn how to do roofing or walling of palms, and because a palm hut or houses is cool and comfortable inside. Moreover, as the toddy palms can resist the hot weather with coolness of atmosphere, it is a blessing of nature that protects people's health in the tropical regions.

Not only the toddy palms but also the toddy bud strips and palm strips called *Htan sho nhi* are useful for thatch roofing.¹³¹ These strips are useful for tying the bamboo poles and the thatches.¹³² So these strips are essential things of constructing a building like hut or house. The palm strips are useful for roofing and tying the edges of the floor.¹³³ They are used in tying the cross beams, poles, floor edges and *Daing*.¹³⁴ The toddy palms are made into matting and are used for fencing.¹³⁵ In making a staircase base of a house, the cement is prepared with a mixture of molasses, and *Htan-nyet*. Moreover, the cement for a well, a pond or a tomb is prepared with molasses and *Htan-nyet*.¹³⁶ So the toddy products are the only objects of construction for building a house, a hut, a rack, a well, a pond or a tomb. Naturally, though the houses and huts do not look grand, people can live comfortably in accordance with the local climate and weather conditions. While it

¹³⁰Hla Sein, 1971, 57

¹³¹Maung Maung Phyu, 1962, 225

¹³²Sein Tin, 1969, 15, 22

¹³³Hla Sein, 1971, 57

¹³⁴Lin Thu, 1986, 42

¹³⁵Pyae Phyo Thet, 2003, 11

¹³⁶Nyunt Lu, 1957, 125

can be assumed that the poor people cannot afford to build grand or decent houses, it must be said that the mindset of contentment can bring about living in contentment and peace of mind.

The toddy wood are also used not only for buildings, but also for water embankment and bridge for crossing a creek or gutter.¹³⁷ Moreover, the toddy woods are also used as embankment of a reservoir, and boat¹³⁸ and water trough,¹³⁹ etc. Now, it has also found a market as a walking stick.¹⁴⁰ It is also used as a base for cutting the cattle fodder.¹⁴¹ So the toddy woods were useful for building houses, and as farmer's domestic commodities.

(b)Commodities

The hats woven of toddy palm leaves were popular in the Central Myanmar region in order to protect oneself from the blazing heat.¹⁴² Such a hat was worn by local people, young and old. It is woven in various sizes and shapes and brands. In Thauung-thar Township, Yone-si Gyi Township¹⁴³ in Myingyan District and Salay,¹⁴⁴ the hats of toddy palm leaves were mostly woven and distributed to market. Such a hat can last about three years.¹⁴⁵ So the villages in the Central Myanmar regions were such local hats because the hats are cheap, and strong and cool and healthy since the toddy buds can absorb the heat. Thus, it is observed that

¹³⁷Pyae Phyo Thet, 2003, 11

¹³⁸*Myanma Swe-zon Kyan* (Encyclopaedia Birmanica), Vol.V, Yangon, Myanmar Translation Society, 1971, Third Edition, p.225 (Henceforth : *Swe-zon*, 1971)

¹³⁹Nan Nyunt Swe, 1974, 48

¹⁴⁰Nan Nyunt Swe, 1974, 48

¹⁴¹Nyunt Lu, 1957, 126

¹⁴²Maung Maung Tin, 1965*b*, 34

¹⁴³Thein Toe, 1971, 151

¹⁴⁴Maung Maung Phyu, 1962, 225

¹⁴⁵*Swe-zon*, 1963, 224

the hats of toddy bud strips were useful for resisting the heat of the Central Myanmar region.

People in the Central Myanmar rural areas use mats of the stripped frond from the petiole of toddy palm called *Htan sho pya*.¹⁴⁶ Mats are used for various purposes: covering on the floor, walling, storing the crops for farm work, donating to the monastery, and giving as a present to friends and acquaintance.¹⁴⁷ It kept or used carefully, the mat looks shiny and bright, and can be used for long. So the people in Central Myanmar regions have used mats of *Htan sho pya* because of their cheapness, tradition and lastingness. Those mats are useful as a domestic commodity, a farm implement and a present.

In Central Myanmar regions, a tradition has it that a ripe toddy seed is cut in the middle, and is used as a cup or ladle in taking oil, spices or fish sauce.¹⁴⁸ Moreover, the two halves are fit into one another as the body and the cover, for the use as a pickled tea casket for grandpa and grandma who like picked tea leaves.¹⁴⁹

Some use such caskets for putting in the lime for betel- chewing.¹⁵⁰ So the toddy seeds were useful as a casket or as a cup or ladle. Such a cup is also used for putting in grease at the loom.

Circular base for pots called *Ka-yut-khwe*, it is used as a base for placing a pot of rice, pot of water and other kitchen- wares: it is woven of the petiole of toddy palm and its fibre.¹⁵¹ It is one of the essentials in rural areas.

The outer layer of petiole of toddy palm are woven into *Pa-chou* or muzzles by the local peasants. They prevent the cattle from eating the plants and

¹⁴⁶Nyunt Lu, 1957, 126

¹⁴⁷Amar, 2002, 179-180

¹⁴⁸Nyunt Lu, 1957, 126

¹⁴⁹*Ka-bya-yin Sar-yin Let-ywe-sin* (The Selected Poetry and Literary), U Chan Mya (ed), Mandalay, Hla Kin and Son Press, 1960, p.140 (Henceforth: *Let-ywe-sin*, 1960)

¹⁵⁰U Sein, *Sa-hso-taw-gyi-mya i Te-gyi Bwe-gyi Ka-bya Lin-ka-mya* (Great Poet's classical poetry), Yangon, Sarpay Beikman Press, 1965, p.37 (Henceforth: Sein, 1965)

¹⁵¹Maung Maung Phyu, 1962, 227

fruits that the farmer does not want them to.¹⁵² Then, the cattle will work harder. So the toddy products are useful in farm work.

A *Hsai-htan* or basket and shoulder is used with the base of toddy palm leaves are called *Htabalet*. The errand boy of monastery carry the alms food in trays hung from the yoke over the shoulders, while bundles of wood or water pot or oil pot are also carried by means of a yoke of toddy stem.¹⁵³ A toddy *Hsai-htan* is useful in carrying things according to the traditional local practice.

The *Htabalet* was used as a *Hta-poe* or yoke, as well. A yoke is used to carry water, goods¹⁵⁴ and pots of toddy sap.¹⁵⁵ A yoke is an essential thing for every house in the Central Myanmar region.

In the Central Myanmar region, the *Htabalet* is made into a ladle, which was used traditionally for preparing *Htan-nyet* and curry.¹⁵⁶ A ladle is an essential utensil in the Central Myanmar region.

According to the tradition of Myanmar rural areas, women usually wear Thanaka paste. A young petiole of toddy palms is hammered, and then as toilet brush is used for smoothing the paste.¹⁵⁷ It can also be used as a painting brush or grooming the sweating horse.¹⁵⁸ According to the rural customs, toddy palms were useful in many ways.

In the Central Myanmar region, leaves and petiole of toddy palm is woven into balance holders, and such balances are used in selling goods.¹⁵⁹ So the toddy products are useful in trading in the Central Myanmar regions.

¹⁵²Nyunt Lu, 1957, 126

¹⁵³Pyae Phyo Thet, 2003, 25

¹⁵⁴Hla Sein, 1971, 57

¹⁵⁵Lin Thu, 1986, 42

¹⁵⁶Pyae Phyo Thet, 2003, 25

¹⁵⁷San San, 1989, 98

¹⁵⁸Nyunt Lu, 1957, 126

¹⁵⁹Pyae Phyo Thet, 2003, 25

The petiole of toddy palm are made in the design of clippers, and used for peeling off the seed ground nut, husks for the next year's plantation.¹⁶⁰ So the toddy clippers are useful for farm work.

The toddy palm leaves is made in a variety of fans: the fans for a monk and the fans used in the royal affairs. The long- handle fans were used as an emblem of the ministers of the monarchical days.¹⁶¹ Fans were woven for marketing, as well.¹⁶² Such fans were used because they are suitable for the hot weather of the Central Myanmar region, and because of the tradition. So fans were useful not only for people but also for monks and the royal affairs.

A toddy palm leaves is used for a reed of an oboe.¹⁶³ Toddy products are necessary for making oboes, one of the essential instruments of the Myanmar orchestra.

In the Central Myanmar regions, gold and silver jewelleries are worn by people. But while the well-to-do wear such gold jewelleries; the poor village girls wear beads of toddy palm,¹⁶⁴ toddy bracelet, toddy eardrop,¹⁶⁵ toddy necklace, toddy ring, and toddy watch¹⁶⁶ as fancy accessories. Toddy palm leaves is useful as fancy accessories in the rural social customs.

In rural areas, the outer layer of petiole of toddy palm are made into a broom.¹⁶⁷ The outer layer of petiole of toddy palm is used to tie the handle of the broom, thus making a strong broom. The sword sheaths were also wrapped round with the outer layer of petiole of toddy palm.¹⁶⁸ So the outer layer of petiole of toddy palm were useful in commodities.

¹⁶⁰Sein Tin, 1969, 38

¹⁶¹Nan Nyunt Swe, 1974, 48

¹⁶²Maung Maung Phyu, 1967, 327

¹⁶³Thein Toe, 1968, 149

¹⁶⁴Amar, 2002, 78

¹⁶⁵Sein, 1965, 36

¹⁶⁶Maung Maung Tin, 1965b, 37

¹⁶⁷Thein Toe, 1968, 150

¹⁶⁸Nyunt Lu, 1957, 126

The toddy climbers and poor commoners wore slippers with the petiole of toddy palm.¹⁶⁹ Thus, the toddy products were very useful for local people.

In rural areas, the outer layer of petiole of toddy palm were entwined into ropes for use. The fibres in the middle of the petiole were entwined into a rope.¹⁷⁰ Moreover, there existed a tradition in which the toddy husks were entwined into a rope.¹⁷¹ The different kinds of ropes were rope to fetcher the ox, rope going into the nostrils of the ox, rope for fetching water at the well, rope to tie the water bucket,¹⁷² the loop of rope for the plough, rope to tie the plough, rope to tie the cart,¹⁷³ etc., for domestic use and farm work use and for the use in toddy climbing. Moreover, the cow herds used the outer layer of petiole of toddy palm as a snare to catch birds and preys.¹⁷⁴ So the toddy products are useful for farm work, toddy work and domestic commodities.

The toddy palm leaves were also used as the cart tripod.¹⁷⁵ Toddy palms are also useful in making a Myanmar cart.

The toddy filters called *Htan sit kyaw* were also used in making a spinning wheel.¹⁷⁶ Thus, toddy fibres were useful in the traditional weaving art.

The toddy oil obtained from the toddy seeds is used in putting in the axel of the wheel.¹⁷⁷ The toddy seeds were useful for farm work.

The spadix of male toddy palm sliced into tobacco stalks, and are used in making traditional cheroots and cigars.¹⁷⁸ According to the rural tradition, the spadix of male toddy palm are useful in smoking.

¹⁶⁹Amar, 2002, 133

¹⁷⁰Swe-zon, 1963, 225

¹⁷¹Maung Maung Phyu, 1962, 229

¹⁷²Nyunt Lu, 1957, 126

¹⁷³Lin Thu, 1986, 42

¹⁷⁴Nan Nyunt Swe, 1974, 45

¹⁷⁵Myint Tun Maung, 1970, 30

¹⁷⁶Maung Maung Phyu, 1962, 228

¹⁷⁷Maung Maung Phyu, 1963b, 174

¹⁷⁸Nyunt Lu, 1957, 126

The outer layer strip of petiole of toddy palm is woven into a cane ball in the age-old tradition.¹⁷⁹ So the outer layer strip of petiole of toddy palm is useful in making a cane ball for the traditional game.

In the rural areas, the poor people used the ash of the spadix of male toddy palm for tooth paste, body soap and soap for washing clothes.¹⁸⁰ The toddy palms are used for wrapping the fish and meat not to get them rotten.¹⁸¹ So the toddy products are used for the household commodities and garments and residence in rural areas.

(c)Containners

The outer layer strip of petiole of toddy palm was used as baskets in different sizes and designs. Such baskets are strong and inexpensive, so they are widely used in the Central Myanmar regions.¹⁸² So such toddy palm baskets are useful for putting in things and carrying them.

A palon basket is woven with the outer layer strip of petiole of toddy palm and is used for shopping, putting in the kitchenwares and domestic commodities.¹⁸³ So palon baskets are useful for putting in objects.

The toddy palm leaves are painted and designed in a chequered, being woven for putting in objects. It has a sling strip, putting in plum *toffee*, plum flakes and *Htan-nyet*. It is put on market.¹⁸⁴ It is also used as small boxes carried in travelling.

In Central Myanmar regions, the leaves and the outer layer strip of petiole of toddy palm are woven into a container called *Pha* which can be useful for

¹⁷⁹Thein Toe, 1968, 147

¹⁸⁰Nyunt Lu, 1957, 126

¹⁸¹Nyunt Lu, 1957, 125

¹⁸²Pyae Phyo Thet, 2003, 33

¹⁸³*Swe-zon, 1963, 224*

¹⁸⁴Maung Maung Phyu, 1967, 327

keeping clothes; the smaller container for containing betel casket or lighter.¹⁸⁵ The toddy palm containers are used for selling plum toffee and plum flakes and *Htan-nyet* all over the country.¹⁸⁶ The *Phas* produced from Pakokku and Pagan are quite well known.¹⁸⁷ A *Pha* is light and strong, protecting the goods from wind, dust and rain, as a reliable portable hand bag.¹⁸⁸ Various kinds of *Pha* were useful as the commodities for the country folks.

In Central Myanmar regions, *Hta-khauk-taung* is used as box of *Htan-nyet*, box of thanakar barks, container for storing tamarind, container for the cattle fodder, etc.¹⁸⁹ *Hta-khauk-taung* are strong and water-tight. *Hta-khauk-taung* of Mahlaing was very popular.¹⁹⁰ *Hta-khauk-taung* were useful as a commodity for the rural folks.

The outer layer strip of petiole of toddy palm woven into *pok* basket is useful for storing the farm products, keeping rice in *A-hlu* ceremonies in the Central Myanmar regions.¹⁹¹ So the *Poks* were useful as containers for farm work and social affairs.

The stem of the toddy palm is cut, the inner fibres are taken out, and the hand-made *Sa-kyin* container or trough is ready to use for putting in the fodder for cattle and swines. Such a long container can feed two to three cattles. It is cheap, and is easy to make by oneself, or easily available. It can last about ten years.¹⁹² It is an essential thing for the country folks. Though it may crack, it is still serviceable. Soil and sand can be put into it and flowers like roses, Gamone

¹⁸⁵Toe Hla, 2004, 141

¹⁸⁶Pakhan Kyaw, 1972, 179

¹⁸⁷Maung Maung Phyu, 1962, 226

¹⁸⁸Amar, 2002, 179

¹⁸⁹Hla Sein, 1971, 57

¹⁹⁰Maung Maung Phyu, 1962, 226

¹⁹¹Amar, 2002, 179

¹⁹²Maung Maung Phyu, 1967, 327

(Chinese green), coriander and betel nut can be grown in it.¹⁹³ So the toddy products were useful not only as a container for the farm work but also for agriculture.

(d)Furniture

The petiole of toddy palm were used as tables brimmed with palm strip. It is cheap in prices, and is easy to make. The toddy stem is cut, and is also used as a table.¹⁹⁴ As the furniture of the rural areas, the toddy products were useful. There were toddy workers who made a living by making toddy chairs and tables.

Chairs with or without handles and beds are also made the petiole of toddy palm. They are comfortable and relaxing. They are not only cheap but also long-lasting in use.¹⁹⁵ They are also healthy pieces of furniture.

The upper part of the toddy stem was used as a seat.¹⁹⁶ The toddy stem and the petiole of toddy palm are very useful in making furniture for domestic use. In rural areas, the toddy products were very useful in the Myanmar tradition.

(e)Pots

The toddy palm bottom is holed in the middle, with the fibres taken out, and it is ready to serve as a water tank.¹⁹⁷ In summer, the water inside such a natural toddy water tank is very cool. So the toddy stem in Central Myanmar region is suitable to the climate.

The stem of the toddy palm is made a hole, with the fibres taken out, and it can serve as a flower vase. A tradition existed, in which roses, Chinese green and

¹⁹³Lin Thu, 1986, 40-41

¹⁹⁴Pyae Phyo Thet, 2003, 33

¹⁹⁵Mitzu, 1971, 45

¹⁹⁶Pyae Phyo Thet, 2003, 38

¹⁹⁷Lin Thu, 1986, 40-41

garden croton, etc., are grown as an adornment to the country house.¹⁹⁸ Those who have an eye for the beauty of the rural tradition use such flower vases. So the toddy palms were useful for agriculture.

Some toddy products are useful for making toys. The tender toddy palm leaves are hand woven into the design and form of toddy box, toddy basket, fan,¹⁹⁹ figure of parrot, bird, fish, beads, necklace, sling bag²⁰⁰, toy wind mill, and tiny little containers called *pok*²⁰¹ as children's toys. Besides the toddy palm, the outer layer strip of petiole of toddy palm were woven into cane-ball²⁰², basket, scales, mats, *pha*.²⁰³ The petiole of toddy palm served as a straddling horse or cow in a child's wonderful realm of imagination. It also serves as a cart. The toddy fruits are poked into with a stick, and then the country children play them as a wheel-rolling game.²⁰⁴ The tender cores inside the toddy root can be designed into fans,²⁰⁵ figure of bird, figure of dog,²⁰⁶ figure of deer,²⁰⁷ etc. This is the unique handicraft of the country folks. There existed a tradition in which children eat the baked toddy shoots and compete creating unique children's art of work. So the toddy palm was very useful in making children's toys.

(f)Horoscope

Throughout Myanmar, there has existed a tradition in which a Myanmar Buddhist records the birth place, time of birth, date, month and year of birth related to a

¹⁹⁸Pyae Phyo Thet, 2003, 41

¹⁹⁹Maung Maung Phyu, 1967, 327

²⁰⁰Pyae Phyo Thet, 2003, 46

²⁰¹Amar, 2002, 77-78

²⁰²Thein Toe, 1968, 147

²⁰³Amar, 2002, 77-78

²⁰⁴Nan Nyunt Swe, 1974, 47

²⁰⁵Sein Tin, 1969, 12-13

²⁰⁶Tun Hla Aung, 1975, 99

²⁰⁷Amar, 2002, 78

child's birth, inscribing the records on a toddy bud sheet with a stylus of bronze. It is called *Yet- chok* (A brief record of the date of birth) or *Hmat-sa* (A written record).²⁰⁸ Based on what is inscribed on a *Yet- chok*, a horoscope is prepared. So every house of a Myanmar Buddhist has a tradition of keeping *Yet-choks* and horoscopes. Such a tradition still prevails, without going into oblivion. The astrologers calculated and prepared the magic squares related to the owner of the horoscope in favour of his or her luck, success, fame, wealth and power.²⁰⁹ Such tradition of inscribing the horoscope on a toddy bud or toddy leave existed widely during Konbaung Period. The well- known country poet U Kyaw Hla of Maung-htaung mentioned in his *Than-cho* verses how preparing such horoscopes helped result in the benefits in the worldly affairs.²¹⁰ In the tradition and customs of Myanmar, a horoscope has served as a mirror portraying the past, the present and the future of the owner of that horoscope. So there existed a tradition in which the owner of the horoscope consulted the astrologer to calculate and predict about the kind of person whose date of birth would be a good match to him or her in the affair of matrimony.²¹¹ These horoscopes are smeared with saffron in order to highlight the inscribed letters, and then they are smeared with oil dregs so as to be long- lasting. Then, these horoscopes are placed reverently like one's life and soul at a high place indoor, free from any disturbance. In the rural areas during the Konbaung Period, there existed a tradition in which the *yet- choks* of the family members are inscribed and their horoscopes are prepared.

²⁰⁸Aung Thein (Hsin- phyu- kyun), *Kye-let-yoe-ya Myanma-hmu Dha-le-mya* (The Traditional Rural Customs of Myanmar), Yangon, Sarpay Beikman Press, 1990, p.33 (Henceforth: Aung Thein, 1990)

²⁰⁹Daw Tin Ma Ma Naing, *Man-tekkatho, Za-ta- pon-san-mya* (Symbols of Horoscope), Yangon, Sarpay Beikman Press, 1992, p.28 (Henceforth: Tin Ma Ma Naing, 1992)

²¹⁰U Kyaw Hla, *Than-cho Ka-bya-mya* (Lyric Poems), Yangon, Sarpay Beikman Press, 1969, pp.79-80 (Henceforth: Kyaw Hla, 1969)

²¹¹Maung Maung Tin, 1965a, 26

While a horoscope was prepared for the record of a person's date of birth, there also existed a tradition in which the event and year of founding a village were recorded in the form of a horoscope. In 1838, when Hin Khut Kon Village of Htee Lin Township, Magway Division, was founded, a horoscope of toddy bud palm was prepared: the horoscopes contained magic squares which would help develop the economy and social status of the village and to dispel the impending dangers, and to ensure security of the locality.²¹² The traditional belief that keeping such a horoscope would help succeed in all worldly affairs had exerted a strong influence on the society of Konbaung Period.

(g)Usefulness in the medical practice

These have been plenty of toddy plantations for the Myanmar people while toddy was very useful for the natives of India and Srilanka, where there prospered the toddy civilization, in order to prepare medicines and to prepare tonic (Drugs or therapies for the rejuvenation of the body) and longevity and strength medicines.²¹³ Thus, all the parts of a toddy palm are useful.

The internal juvenile parts of the toddy crown called *Naga-u-gaung* ("The Dragon- head") or *Htan-ohn-nauk* cleans the bladder.²¹⁴ The tender *Htan-ohn-nauk* is very delicious, energizing and stretching the life- span.²¹⁵ So it is useful in preparing medicines of longevity and strength such as *Rasajara* Medicine,²¹⁶ *Vezikarana*²¹⁷ and others.²¹⁸ The *Htan-ohn-nauk* can cure the heart burn, Fatigue,

²¹²Tin Ma Ma Naing, 1992, 28

²¹³Venerable Ashin Nagasein, *Pon-pya Hse A-bi-dan* (Pictorial medical dictionary), Vol.2, Yangon, Kyaw Win Swe Press, 1960, p.45 (Henceforth: Nagasein, 1960)

²¹⁴U Than Nyunt, *Magway Taing A-twin-shi Hse-phet-wun Nwe-myet-thit-pin-mya hnint Hse-pyit-si-mya Let-twe-ku-hton-mya* (Medicinal plants and Herbs in Magway Division and their Remedies), Yangon, Sein Shwe Press, December 2005, p.37 (Henceforth: Than Nyunt, 2005)

²¹⁵Nagasein, 1960, 44

²¹⁶Tonic for Longevity of life

²¹⁷Tonic and Energizer for Longevity of life

²¹⁸Than Nyunt, 2005, 38

Tuberculosis (*Myit-chauk* sore),²¹⁹ poisoning and leprosy, etc.²²⁰ Moreover, it can cure malaria fever and skin diseases.²²¹

The toddy palm is medicinal. A wet toddy palm leave is squeezed, and drinking the squeezed liquid can cure gonorrhoea disease.²²² The ashes of the toddy palm (The weight of 1 *Pe*) one *Pe* of asafoetida (*Shein Kho*) and 3 plates of rice water can be mixed: the hyperlipidaemia disease²²³ can be cured with this mixture.²²⁴

The male inflorescence of toddy palm are useful in preparing medicines. *Hta-ye-cho* is used and is stirred with the male inflorescence of toddy palm in melting the zinc²²⁵ and the zinc ashes are useful. In preparing the zinc ashes, instead of the male inflorescence of toddy palm, the mixture can be stirred with the toddy palm leave or toddy bud. That zinc ash is mixed in rain water until it turns into a milky liquid, which can be used as the eye drop. That eye drop is medicinal: good eye sight; clear eye sight; curing of trachoma; *Kyet-su* disease (Vitamin A deficiency); and eye diseases.²²⁶ The milky juice can cure the poisoning. The ashes of the male inflorescence of toddy palm can be used as a medicine for indigestion, flatulence, scabies and abrasion, itchy diseases, as well as salt.²²⁷ If the ashes are mixed with keroscene for smearing, abrasion, itchy diseases, scabies,

²¹⁹TB

²²⁰Nagasein, 1960, 37

²²¹Pyae Phyo Thet, 2003, 46

²²²Venerable Ashin Nagasein, *A-che-pyu Hse A-bi-dan* (The Fundamental Traditional Medical Dictionary), Yangon, Mingalar Press, March 1967, p.291 (Henceforth: Nagasein, 1967)

²²³Disease of gaining overweight

²²⁴Nagasein, 1960, 43

²²⁵Chemical

²²⁶Nagasein, 1960, 40

²²⁷*Let-twe-a-thon-cha Hse-phet-wun A-pin-mya-paung-chok* ("Anthology of Medicinal Plants and Herbs for Practical Use"), Yangon, Ministry of Myanmar Traditional Medicine Department, January 2003, p.735 (Henceforth: *Tai-yin-hse*, 2003)

itchy diseases,²²⁸ and hot blooded called *Thwe- pwet* disease²²⁹ can be cured.²³⁰ Moreover, if mixed with coconut oil, it can cure the abrasion, scabies and itchy diseases.²³¹ If the ashes of the male inflorescence of toddy palm, amaranth leaves and *Htan-nyet* are mixed and crushed, and one plum size of the medicine took regularly can cure the whooping cough.²³² The ashes of male inflorescence of toddy palm are useful for preparing such diseases as Ascites (*Ye- phyin*),²³³ stroke (*Le ngan*)²³⁴, *Thee-che- ngan*,²³⁵ *Tha- lake- ngan*²³⁶ *Thwe- ngan*²³⁷, *A-pok- ngan*,²³⁸ etc including *Hi-lein-da-sun-na* medicine²³⁹ and others.²⁴⁰ If the dry male inflorescence of toddy palm are ground with a little salt, the paste can cure the frackles.²⁴¹ Moreover, the minced pieces of the dry male inflorescence of toddy palm, it smoked in a cheroot, can melt foul and pus, and cure the nasal blockage²⁴² completely.²⁴³ So the male inflorescence of toddy palm are very useful for curing many diseases.

²²⁸Sein Tin, 1969, 20

²²⁹Disease of blood impurities

²³⁰Pyae Phyo Thet, 2003, 46

²³¹*Tai- yin-hse*, 2003, 736

²³²Kyaw Min Thaw, *Hse-phet-a-thon-wun A-pin hnint Pyit-si-mya* (Medical plants and its products), Yangon, Kaung-san Press, 2010, January, p.128 (Henceforth: Kyaw Min Thaw, 2010)

²³³Tin, 1978, 291

²³⁴delirium of fever due to Vata Jvarapralapa

²³⁵delirium of fever due to Pitta Jvarapralapa

²³⁶delirium of fever due to Kapha Jvarapralapa

²³⁷delirium of fever due to Rakta Jvarapralapa

²³⁸delirium of fever due to impaired nutritional disease Jvarapralapa

²³⁹Antiseptic Medicine

²⁴⁰Hla Shein, 1971, 58

²⁴¹Venerable Ashin Nagasenabivansa Maha Thera (ed.) *Salay U Ponnya i That-ta-wa-tha Hse-lin-ka hnint A-bwint* (Salay U Ponnya's lyric medical treatise on any living being), Yangon, Hanthawaddy Pitakat Taik, 1972, pp.21-22 (Henceforth: Naga, 1972)

²⁴²*Phat-sa-o-na* or *Hteik-kat-na*

²⁴³Tin, 1978, 83

The toddy flowers are useful for preparing the diseases of excessive phlegm (Kapha), cough and indigestion.²⁴⁴ They are used in preparing *Rasajana* medicine, as well. They are also used in preparing medicine for impotence²⁴⁵ and urinary disease.²⁴⁶ The pollens of the toddy flowers, it crushed and mixed with honey for a sip can cure poor eyesight (Blurred vision), hardness of hearing (deafness) and wrinkling.²⁴⁷ So, even the toddy flowers can cure many diseases.

Drinking the sap obtained from the bunch of toddy flowers can cause urination, and even cure Ascites disease.²⁴⁸ Mincing the bunch and putting the pieces in the cigar and smoking can cure the nasal blockage.²⁴⁹ Moreover, if the ashes of the flower bunch are taken orally, this can cure the bladder (*Pitta*) disease.²⁵⁰ Moreover, if the ashes of the toddy fruit bunch are taken as medicine, the heart burn²⁵¹ can be cured.²⁵² So different parts of the toddy palm make contribution to the Myanmar traditional medicine.

The tender toddy seed can remove the phlegm, and cure the gastric and bladder disease. The asthma, Haemorrhagic blood disease can be cured by eating the green tender toddy fruit the husks of which have been removed, and which is mixed with sugar.²⁵³ The tender toddy fruit can help digestion, polyurea and

²⁴⁴U Ba Thin, *Shu-taw-mu Hse A-bi-dan Let-twe-ku-hton Hse-Kyan* (Shutawmu medical dictionary and its practices), Yangon, Eissathaya Pitakat Press, 1984, p.207 (Henceforth: Ba Thin, 1984)

²⁴⁵Nagasein, 1960, 37

²⁴⁶Nagasein, 1960, 43

²⁴⁷Kyaw Min Thaw, 2010, 111

²⁴⁸Ba Thin, 1984, 223

²⁴⁹Pyae Phyto Thet, 2003, 46

²⁵⁰Nagasein, 1960, 44

²⁵¹Heart blood boiling up; Fast heart beat; rise of blood pressure or *hna lone pu pan chin*

²⁵²Nagasein, 1967, 92

²⁵³*Tai-yin-hse*, 2003, 736

causing a feeling of a little intoxication.²⁵⁴ So the tender green toddy fruit is useful in preparing medicines for much urination (polyurea) and high blood pressure (hypertension).²⁵⁵ It can also cure the inflammation²⁵⁶ completely,²⁵⁷ as well as ulcer and sore and Tuberculosis (*Kha-ya-ru*)²⁵⁸ completely.²⁵⁹ If one feels weak (fatigue), has a heart burn or has a dysuria, *Shaung-ta-khin* diseases,²⁶⁰ one should taken tender toddy fruits, and feel cool and comfortable.²⁶¹ The soup of tender toddy fruit can naturally moisten the body, cure the flatulence, and generate phlegm. But it can give a good appetite. It can generate the prolactin.²⁶² The fibre stuck in the husk of the toddy fruit can cause constipation, and cure diseases of blood, flatulence and bladder. It can also cure the injury, pyrexia and Tuberculosis, leprosy and *Ratta-peik* disease.²⁶³ But it can stiffen the muscles, with more urination and more sperm.²⁶⁴ The over- ripe toddy fruit can cause indigestion, and problem of flatulence.²⁶⁵ The sap obtained from the green toddy fruit can cure hiccup²⁶⁶ and Ascites disease.²⁶⁷ The minced husk of the green toddy fruit fed to the cattle can cure the diseases of the cattle.²⁶⁸ The ripe toddy fruit is medicinal: it

²⁵⁴Nagasein, 1960, 36-37, 43

²⁵⁵Tin Tin Mya, 2006, 14-15

²⁵⁶swelling disease or *manna*

²⁵⁷*Tai-yin-hse*, 2003, 734

²⁵⁸TB

²⁵⁹Nagasein, 1960, 43

²⁶⁰Acute

²⁶¹Maung Maung Phyu, 1963b, 173

²⁶²Nagasein, 1967, 291

²⁶³Haemorrhagic Blood Disease

²⁶⁴Ba Thin, 1984, 207

²⁶⁵*Tai-yin-hse*, 2003, 734

²⁶⁶Nagasein, 1960, 45

²⁶⁷*Tai-yin-hse*, 2003, 735

²⁶⁸Sein Tin, 1969, 71

can cause indigestion, energize and generate the urine and sperm. It can cause drowsiness.²⁶⁹ It is useful for the tonic and purgative.²⁷⁰ If the body is smeared with the paste of the ripe toddy fruit, the skin diseases like vesicles, scabies, sweat- fungi and acnes can be cured, and one can enjoy a beautiful skin.²⁷¹

The flesh of the toddy or toddy wood is useful in alchemy and medicine. The mixture of the flesh of toddy and the fibres can be made into toddy sculphur, which is the best chemical for attracting the arsenic, which can easily melt the copper or iron. If the miraculous arsenic ball begins to accumulate, it can be attracted by the toddy sulphur. The crust on the arsenic ball can cure many diseases. Through it, *A-bba-ya Theik-di Powers*²⁷² can be obtained.²⁷³ The charcoal power of toddy stem can cure the diarrhoea and dysentery.²⁷⁴ So the flesh of the toddy can make contribution to the alchemy.

The toddy palm is useful for preparing medicines and for alchemy. According to the term of alchemy, the *Htan-nyet* is called *Na-wun-Te-zaw*: *Htan* stands for No.10; *nyet*, No.8; if 18 is divided by 9, the result is zero.²⁷⁵ The medicine, *Pa-de-tha Lay-pa* prepared from the four kinds of toddy, coconut, betel and talipot palm is the best to depovering the iron in supernatural alchemy. A hermit by the name of Tapase prepared the *Rasayana* medicine out of those *Pa-de-tha* medicine ashes: with the salt of that *Pa-de-tha* medicine, iron and mercury can be prepared, which can bring about magic powers, as mentioned in the *Weiz-zar-da-ra* Treatise. In preparing medicine of *Rasayana*, according to the venerable

²⁶⁹*Tai-yin-hse, 2003, 734*

²⁷⁰Tin Tin Mya, 2006,,14-15

²⁷¹Nagasein, 1960, 36-37

²⁷²Cure of all kinds of diseases

²⁷³Nagasein, 1967, 292

²⁷⁴San San, 1989, 98

²⁷⁵Journal - Kyaw Ma Ma Lay, *Hse-pyin-nya Hsaung-pa-mya* (Articles on traditional medicine), Yangon, Thiha - Yadanar Press, January 1962, p.125 (Henceforth: Ma Ma Lay, 1962)

Singazar *Sayadaw*, the ashes of the four *Padetha* kinds are prepared, being mixed with sweet toddy sap, as mentioned in p.93 of the *Law-ki Theikk-pa Weiz-za-hto* Treatise. The traditional medico Saya San cured all diseases with the ashes of *Lekcha* obtained from the iron ball. Moreover, the *Kyauk-hse-dan* is crushed into powers, mixed with the liquid of tender toddy fruits, and mercury is obtained. That mercury was supposed to serve as a medicine for all seasons. With the ripe toddy fruit, and *Kyauk-hse-dan*, some mercury can be obtained.²⁷⁶ So the toddy palm, tender toddy fruit, ripe toddy fruit and toddy sap were important ingredients for alchemy.

The toddy shoots and the toddy sap are useful for preparing the ganorrhoea (*Ri-dula*) diseases completely.²⁷⁷ It is useful for preparing medicines for the jaundice.²⁷⁸ The toddy shoot is used in preparing medicine for urine disease and anxiety. The toddy shoot is also useful in preparing medicines that ensure pregnancy.²⁷⁹ It is also useful for medicines of child disease,²⁸⁰ as well as for the chronic disease.²⁸¹ It can cure internal burning, fatigue, Tuberculosis, poisoning, and leprosy.²⁸² It is therefore, useful in preparing different kinds of medicines.

The toddy shoots can cure the flatulence, and generate sperm, energize, help digest and sleep soundly, thus stretching the longevity.²⁸³ It is like a tonic.²⁸⁴ So the baked toddy shoot or boiled one with a touch of salt can be taken to cure

²⁷⁶Nagasein, 1960, 38

²⁷⁷Kyaw Min Thaw, 2010, 10

²⁷⁸Tin, 1978, 109

²⁷⁹Naga, 1972, 6-7

²⁸⁰Tin, 1978, 266-267

²⁸¹Naga, 1972, 41-42

²⁸²Nagasein, 1960, 43

²⁸³*Tai-yin-hse*, 2003, 735

²⁸⁴Nagasein, 1967, 292

the indigestion, flatulence and anaemia (low blood pressure).²⁸⁵ It is useful for preparing the tonic.²⁸⁶ Those who suffer from paralysis, stroke and diabetes should eat toddy shoots for nutrition.²⁸⁷ The tender toddy albumen called *Hta-chi-htwe* is delicious. It can generate urine, and cure the flatulence.²⁸⁸

Though the toddy sap can not do digestion, it can generate urination, clean the bladder and seduce sleep. It can intoxicate.²⁸⁹ It can cause diarrhoea.²⁹⁰ As its content of *sacrine* or sugar is a hundred percent, it can energize.²⁹¹ Those who suffer from the irritability (increased pitta dosha disease), cough, dysuria and oliguria should add a little sugar in the toddy sap and drink for the cure of those diseases.²⁹² So not only people young and old but also monks should drink toddy sap, in order to have no trouble in urination and prevent diarrhoea. The fermented toddy sap can generate the gall and cure the flatulence.²⁹³

The bitter toddy sap generates the heat in the gall, and intoxicates more. It can help digest and cure the flatulence.²⁹⁴ One can often urinate and have normal bowel movements.²⁹⁵ So a person who has problems of urination (dysuria), high blood pressure (hypertension) and oversleeping (somnolence) should have proper amount of drink.²⁹⁶ Then one can have normal urination and bowel movements

²⁸⁵*Tai-yin-hse, 2003, 735*

²⁸⁶Nagasein, 1967, 292

²⁸⁷Pyae Phyo Thet, 2003, 46

²⁸⁸*Tai-yin-hse, 2003, 735*

²⁸⁹Tin Tin Mya, 2006, 15

²⁹⁰Pyae Phyo Thet, 2003, 46

²⁹¹Sein Tin, 1969, 71

²⁹²*Tai-yin-hse, 2003, 736*

²⁹³Nagasein, 1960, 43

²⁹⁴Nagasein, 1967, 292

²⁹⁵Sein Tin, 1969, 105

²⁹⁶*Tai-yin-hse, 2003, 735*

and get relieved from high blood pressure and enjoy the decline of the body heat or temperature.²⁹⁷ In his treatise, "*U-tu-bow-za-na Thin-ga-ha*," the Yaw Interior Minister U Poe Hlaing wrote thus: one cup of fermented toddy sap can turn down the flatulence; two cups make one feel and behave like a sage; three cups can make one feel like a daring hero; four cups can make one feel like a tiger and five cups can make one crawl like a dog.²⁹⁸ A drink of *Pin-kya-ye* toddy sap can help digest, generate urination and loose bowel. It can refresh the brains and make one feel relaxed.²⁹⁹ Moreover, the bitter toddy sap contains vitamin, and if a pregnant woman takes a daily regular drink of it at the amount of a tea saucer, she can have normal blood pressure and flatulence, gain weight and keep healthy, and can make an easy delivery. A thin person, if he takes it as a medicine, can gain weight.³⁰⁰ So a proper amount of drinking fermented toddy sap is medicinal and healthy.

A daily taking of molasses can help digest.³⁰¹ Molasses are useful for curing the menorrhagia.³⁰² For the diseases such as bleeding pile, flatus (*lay-chauk-na*)³⁰³ or constipation (*Sa-myin-na*)³⁰⁴, molasses and honey were useful.³⁰⁵ So the toddy products are useful not only for preparing medicines but also for oral taking in combination with other medicines.

Htan-nyet is useful not only for preparing the traditional Myanmar medicine but also for the diet. There are two kinds of *Htan-nyet*: male and female. The male type of *Htan-nyet* has high content of *Pa-hta-wi* property,³⁰⁶ tastes less

²⁹⁷Tin Tin Mya, 2006, 15

²⁹⁸Maung Maung Phyu, 1967, 437

²⁹⁹Maung Maung Phyu, 1967, 435

³⁰⁰Sein Tin, 1969, 103

³⁰¹Hla Shein, 1971, 57

³⁰²Tin, 1978, 207-208

³⁰³*Lay-chok*, or problem of flatulence

³⁰⁴*Wun-chok*, or constipation

³⁰⁵Tin, 1978, 155

³⁰⁶Property of earth

sweet, hard and easy to digest, and enables natural body moisture and energizes,³⁰⁷ and constipates.³⁰⁸ So this type is used in preparing medicines as energizer, butter-added medicines, pumpkin- added medicines, traditional purgative called *chet-hse*, boiled sago, glutinous rice snack and banna snack, etc.³⁰⁹ On the other hand, the female type of *Htan-nyet* has higher content of *Ar-baw* property,³¹⁰ and it tastes very sweet and is not very hard in texture.³¹¹ It can cause easy bowel movements.³¹² So this type is usually used in preparing ascites disease, *Thwe-phyin*, many kinds of inflammation,³¹³ and menstrual regulation,³¹⁴ so that effective medicines can be obtained. *Htan-nyet* has high content of iron,³¹⁵ as well as high content of vitamin B-2.³¹⁶ It can dispel the phlegm, and calm down the heat of the gall and air (vata), cause better blood circulation and generate sperm.³¹⁷ So in preparing medicines for blood disease, heart disease and resistance to cold (heat tolerance), *Htan-nyet* is useful.³¹⁸ If one suffers from the bowel disorder (diarrhoea), one can dissolve *Htan-nyet* in water, and salt, add the solvent with glucose, and has a drink for cure.³¹⁹ Moreover, *Htan-nyet* is useful in preparing the following medicines: dysentary,³²⁰ menopausal disorder,³²¹ dehydration diseases,³²²

³⁰⁷Nagasein, 1960, 34

³⁰⁸Than Nyunt, 2005, 95

³⁰⁹Than Nyunt, 2005, 95- 96

³¹⁰property of liquid or water

³¹¹Nagasein, 1960, 34

³¹²Than Nyunt, 2005, 95

³¹³Medicines to reduce the body swelling

³¹⁴Than Nyunt, 2005, 95- 96

³¹⁵Tin, 1978, 55

³¹⁶Tin, 1978, 61

³¹⁷Nagasein, 1960, 34

³¹⁸Kyaw Min Thaw, 2010, 152

³¹⁹Kyaw Min Thaw, 2010, 166

³²⁰Kyaw Min Thaw, 2010, 27

³²¹Kyaw Min Thaw, 2010, 10, 84

³²²Tin, 1978, 135

indigestion, constipation, flatulence,³²³ knee pain, back pain, mump, bronclntis,³²⁴ excess of phlegm, dried phlegm (bronchiectasis), losing of voice (bronchiolitis), tonsillitis,³²⁵ pain due to menstrual disorder,³²⁶ loose bowel disorder (diarrhoea),³²⁷ swelling fever (odema with illness), influenza, bloating screation, indigestion,³²⁸ ring worm, sweat fungi, frackles, vitiligo,³²⁹ constipation,³³⁰ piles,³³¹ urinary stone, urinary diseases, food poisoning, hepatitis jaundice,³³² leprosy,³³³ worms infestation,³³⁴ bronchiolitis,³³⁵ rabies,³³⁶ body swelling (odema),³³⁷ chest pain,³³⁸ malaria,³³⁹ *Htan-nyet* is useful. Moreover, in preparing such medicines as traditional antipyretic medicine, *Rasayana*, tonic, blood pressure regulator, blood purifier, medicine for menstrual regulation and drug for menstruation and laxative, *Htan-nyet* is useful.³⁴⁰ A thin person who wants to put on weight and get fat should eat some *Htan-nyet* every time he or she has finished a meal.³⁴¹ So *Htan-nyet* is useful in preparing medicines.

³²³Tin, 1978, 109

³²⁴Tin, 1978, 93

³²⁵Tin, 1978, 84

³²⁶Tin, 1978, 94

³²⁷Tin, 1978, 52

³²⁸Tin, 1978, 44-45

³²⁹Kyaw Min Thaw, 2010, 182

³³⁰Kyaw Min Thaw, 2010, 197- 198

³³¹Kyaw Min Thaw, 2010, 134- 135

³³²Kyaw Min Thaw, 2010, 122- 123

³³³Tin, 1978, 144

³³⁴Kyaw Myint, no date, 51

³³⁵Tin, 1978, 153

³³⁶Tin, 1978, 137

³³⁷Tin, 1978, 139- 140

³³⁸Tin, 1978, 130- 131

³³⁹Tin, 1978, 106

³⁴⁰Than Nyunt, 2005, 91- 92

³⁴¹Nagasein, 1967, 95- 96

Htan-nyet is useful not only for preparing medicines but also for diet. These who have a chest pain should drink a mixture of *Htan-nyet* and boiled papaya leaves; those who have a bad habit of oversleeping should drink a mixture of *Htan-nyet* and lime juice; those who often have to climb trees should drink a mixture of tamarind leaves and *Htan-nyet*; those who have to work under the blazing sun should have some *Htan-nyet* and some onion, as the effective diet.³⁴² Those who suffer from jaundice should eat male type of *Htan-nyet* and pineapple.³⁴³ Those who have a stroke have to eat *Htan-nyet* as diet.³⁴⁴ Moreover, *Htan-nyet* is useful for preventive measures for measles, chicken pox, *Pe Thida* (small pox), and preventive medicine (prophylactic) for children.³⁴⁵ So *Htan-nyet* is useful in preparing preventive medicines.

The *Htan-nyet* liquor is useful in preparing medicines. The neurasthenia can be cured by the mixture of that liquor and medicines for ointment;³⁴⁶ the rabies can be cured by taking orally the mixture of the liquor and the medicines and ointment;³⁴⁷ the stroke can be cured by the mixture of the liquor and medicines to be taken orally or ointment.³⁴⁸ Those who have a menstrual disorder should orally take the medicines mixed with the liquor;³⁴⁹ those who have a stroke and low sex drive should drink the mixture of medicines and the liquor; thus the traditional medicos have used the toddy liquor for the medicines.³⁵⁰ So in preparing the medicines for various diseases, the toddy products and parts of the toddy palm are very useful for preparing the medicines, diet and alchemy.

³⁴²Tin, 1978, 71

³⁴³Tin, 1978, 109

³⁴⁴Tin, 1978, 114

³⁴⁵Kyaw Min Thaw, 2010, 76

³⁴⁶Tin, 1978, 174

³⁴⁷Tin, 1978, 135

³⁴⁸Tin, 1978, 113- 114

³⁴⁹Naga, 1972, 7-8

³⁵⁰Naga, 1972, 57

Not only Myanmar medicines but also western medical disciplines have used surgical spirit as an antiseptic to cure the sores. That surgical spirit is prepared with the use of *Htan-nyet*.³⁵¹ But, among the list of food poisons are: combination of dairy products and toddy fruit, dairy products and liquor, yogurt and toddy fruit, pork and toddy sap, lablab bean and molasses, pigeon bean and molasses, banana and toddy sap, *Htan-nyet* and *Thabye* fruits.³⁵²

Usefulness in politics

Usefulness in military affairs

The toddy stems are useful in founding the Third Myanmar Empire. During Konbaung Period, King Alaungmintaya, U Aung Zeya, was able to organize the entire Myanmar country that had remained all scattered and disorganized after Inwa had gone into a ruin: Altogether 46 villages in the surrounding of Moke-Soe-Bo Village were organized, and a fortress of toddy stems stretching over 470 *tars* of distance was built, and U Aung Zeya could successfully defeat the Mon troops armed with modern weaponry.³⁵³ As he already knew the hardness of the toddy stems that could resist the bullets, U Aung Zeya was able to make his conquest with his base camp of toddy stem fortress. The toddy palm has fibres inside, and a hard surface, so the older it grows, the thicker the surface.³⁵⁴ As the texture of the toddy can last for years in hardness, the toddy stems may have been used to make a fortress. So the toddy palms were useful in the political purposes.

In Central Myanmar regions, in the army is sentry posts and the people police force stations on guard, the earthwork embankments were walled up with

³⁵¹Kyaw Myint, no date, 147-148

³⁵²Tin, 1978, 73, 182, 202, 309

³⁵³Williamson, 1924, 21

³⁵⁴San San, 1989, 100

cut-up toddy palm stems.³⁵⁵ As the toddy stem is hard, the bullet flying at moderate speed can not penerate the embankment. The toddy stick was also used as a lance.³⁵⁶ So the toddy palms were useful for making weapons for military purposes.

Besides the toddy stem, the *Hta-khauk-pha*, containers hand- woven with leaves and the outer layer of petiole of toddy palm were useful as knapsacks for the soldiers.³⁵⁷ On 26 September 1810, King Badon issued a royal order that 30,000 to 40,000 *Hta-khauk-phas* were to be woven as knapsacks for the soldiers by cutting the toddy palms to the west of Mingun.³⁵⁸ Moreover, on 2 October 1808, a royal order was issued, that the toddy palms in the parks of Nga-me, Kyaukse, Nabekyu, Pyawt, Mu-tha, Bagyi, Thant-sin, Thayai, In-be, and Munar in order to make *Hta-khauk- phas*.³⁵⁹ On 22 October, 1808, a royal order was issued to weave *Hta-khauk-phas* of the size enough to be carried by two people at each end.³⁶⁰ So, as the *Hta-khauk-phas* were very useful in the march, it can be said that King Badon had issued a number of royal orders. Such an *Hta-khauk-pha* was double fold woven with the toddy palm strip and the tender toddy palms, so it is light and strong and unbreakable. It is safe from rain, wind and dust, free from termites and insects, and is long- lasting. Though it may be thrown from high above, it does not break. It is good for keeping the clothes from tear and wear.³⁶¹

³⁵⁵Sein Tin, 1969, 23

³⁵⁶Nyunt Lu, 1957, 126

³⁵⁷Toe Hla, 2004, 141

³⁵⁸ROB VI, 586

³⁵⁹ROB VI, 589

³⁶⁰ROB VI, 585

³⁶¹(a)Ni Ni Khin, 2010, 50

(b)Williason, 1924, 147- 148

So it is assumed that the Myanmar soldiers had used the square- shaped *Hta-khauk-phas* as knapsacks. So the *Hta-khauk-phas* were useful in warfares for the national defence.

Usefulness in Economy

Usefulness in toddy business

The toddy climbers usually use a large number of the toddy products in order to save the cost and because of its availability the toddy palms are used in making huts for *Htan-nyet* boiling. Moreover, the other parts of the palm are used in making such a hut. A toddy palm- roofed hut can last for four to five years.³⁶² So the toddy palm is used for making shelter and boiling *Htan-nyet*.

The toddy climber's paraphernalia such as *yin-htaung* and *yin-swe* are made of the outer layer strip of petiole of toddy palm or palm strip. The *Htan-hnyet* is also made by tying the loop- shaped toddy palm strip.³⁶³ When the *Yin-swe* is hung against the upper part of the palm, the toddy palm strip as the *Oo- htok*³⁶⁴ rope is tied at a distance of nearly one inch. As the *kha-phan* rope,³⁶⁵ one inch thick rope of the toddy palm strip is used.³⁶⁶ In cutting the tender male inflorescence is made into a loop at a distance of about one inch. In making an *Hta-pho-hnyet*, the male inflorescence of toddy palm are gathered by using the young toddy palm leaves.³⁶⁷ The toddy products are very useful for the toddy climbers.

Not only for the toddy climbers but also for those assigned to collect the small toddy pot called *Myu-o*, the toddy products are very useful. The latter uses

³⁶²Lin Thu, 1986, 42

³⁶³Thein Toe, 1968, 147- 148

³⁶⁴Toddy palm strip rope tying the yin swe shaung- pho- htok with a dried gourd

³⁶⁵Toddy palm strip rope tying the yin swe against the stem

³⁶⁶Lin Thu, 1986, 49

³⁶⁷Sein Tin, 1969, 66

the toddy palm filters to clean the toddy sap. The toddy palm filters are used for broom- making while the dry palms and the *Hta-sit-hmwe* are used in heating the *Myu-os*.³⁶⁸ Besides the *Myu-o-kuauk*, the *Htan-nyet* boilers find the toddy products very useful: the pieces called *Htan-phat-sa*, husks called *Hta- phon- khun*, dry palms, *Hta-sit-kyaw*, *Hnin-let*, *pat-khwa*, male inflorescence of toddy palm and the toddy filters are used in boiling *Htan-nyet*.³⁶⁹ Moreover, the toddy fruit husks are used as firewood.³⁷⁰ In order to stir the *Htan-nyet* liquid, the toddy palm stalk is used as a ladle. In preparing the kind of no- water- touch *Htan-nyet*, the raw *Htan-nyet* surface is cut with a hard dry toddy fruit stem as it chopped by a knife so that the triangle- shaped no- water- touch- *Htan-nyet* pieces are obtained.³⁷¹ In making white *Htan-nyet*, the raw *Htan-nyet* surface is crushed to powder with the use of toddy fruits.³⁷² The powder is then rolled into white *Htan-nyet* balls. So even in boiling *Htan-nyet*, the toddy products are useful.

In the toddy plantation, when the hot *Htan-nyet* fresh from the oven is tasted, a clean toddy bud, and not a spoon, is used for taking it to the mouth.³⁷³ Moreover, in preparing fresh toddy sap or *pin-kye-ye*, four to five leaves of the toddy bud are put into the *Myu-o* pot.³⁷⁴ The toddy men use the toddy palm strip as a snare in catching the prey.³⁷⁵ The toddy palm strip and the toddy husk are entwined into a rope of various types.³⁷⁶ The toddy strip baskets are used in

³⁶⁸Lin Thu, 1986, 167

³⁶⁹Maung Maung Phyu, 1967, 32

³⁷⁰Maung Maung Phyu, 1963b, 174

³⁷¹Maung Maung Phyu, 1963b, 187

³⁷²San San, 1989, 90

³⁷³Lin Thu, 1986, 28

³⁷⁴Maung Maung Phyu, 1963a, 186

³⁷⁵Nyunt Lu, 1957, 125

³⁷⁶Nan Nyunt Swe, 1974, 47

putting the *Htan-nyet*.³⁷⁷ The toddy filters are used as covering for the *Htan-nyet* baskets and kilns.³⁷⁸ The toddy palm strips or *Hnis* are used as a circular cushion base for the water pot.³⁷⁹ The toddy palm stalk is used to carry the water pot or *Myu-o* pots. The toddy palm strips are used as the strappings of slippers.³⁸⁰ So the toddy palm is useful for the shelter of the toddy climber's family, their food and their domestic and business implements made of the toddy products.

Besides the toddy climbers, the toddy palms and the toddy products are useful for the businessmen and brokers, as well as for rich people who accepted the mortgage of the toddy plantations.³⁸¹ The toddy palm is also useful for the village headmen who ruled the rural areas and for the state. So the toddy is a useful tree for the social aspects, economy and politics.

To sum up, the Central Myanmar region and the toddy palm are inseparable for the rural social life. The toddy climber's families have to rely on the toddy palm and its parts. Almost all the country folks can not do without the toddy palm in building their houses. Not only their houses but also the daily commodities and foodstuff come from the toddy palm, which is very useful. The toddy is also useful for the cattle, which are reliance for the people of the upcountry regions. This no one can not deny. It is assumed that the majority of the country people have known the medicinal effects of the toddy. The toddy is useful for preparing the tonic and the medicine of longevity of life in India and Srilanka, Myanmar's neighbouring countries: it is also useful in preparing such medicines as longevity of life, tonic, malaria, skin disease, and nasal congestion in Myanmar. All the parts

³⁷⁷Pakhan Kyaw, 1972, 177

³⁷⁸(a)Maung Maung Phyu, 1962, 228

(b)Sein Tin, 1969, 21

³⁷⁹Maung Maung Phyu, 1963b, 228-9

³⁸⁰Amar, 2002, 133

³⁸¹Mentioned in Chapter- 3

of a toddy palm -from the root to the palm -are medicinal. It is assumed that the value of the toddy in the discipline of medicine should be placed under a research. As the toddy is plentiful in many places of the Central Myanmar region, it can stand against the severe weather conditions. If the toddy comes to assume the significance as a medicinal plant or tree, it will make contributions to the economy of the state.

CONCLUSION

Toddy palm fossils were found along with the other fossils in the Central Myanmar or *A-nya* Region. Toddy originated in Asia: it came to Myanmar through Indian Buddhists of regions where the toddy civilization developed. Moreover, since 308 BC, there existed the tradition of drawing figures on the toddy palm leaf in Thahton Town. So in Thahton and Srikestra (Thayekhittaya), ancient Mon and Pyu towns, Buddhism flourished. The toddy civilization reached Bagan via Thahton. It was related both to Mahayanism and Theravada Buddhism. So it is observed that the toddy civilization prospered in Sagaing, Po Win Hill, Pakokku, Myingyan and Bagan in Myanmar, where Buddhism prospered.

Throughout the history from pre- historic period to Konbaung Period, as far as research has been done on inscriptions, *Sit-tans*, Royal Orders and *Parabaiks*, toddy palm made great contributions in religion, politics, military affairs and economy. Toddy was grown as a from of livelihood during Konbaung Period. In the rural areas, toddy was an income- generating tree in virgin lands where it was impossible for rice plantation. So it partially supported the lives of the Myanmar people of rural areas. Moreover, its products are useful to make shelter, foodstuff, furniture, animal fodder and farm implements. In addition, *Htan-nyet*, one of its products is very useful for making offertories to the Buddhist, whitewashing the pagodas, and buildings, making offertories to monks, making snacks in seasonal festivals, preparing traditional medicines, entertaing the guests as a treat, eating as snacks when taking a break from transplanting, preparing liquor, etc. So toddy has been of great significance in Myanmar rural society.

Toddy workers have done the toddy livelihood from generation to generation. The procedure of making *Htan-nyet* demands patience and skill. The toddy livelihood is very risky and dangerous. It is difficult to obtain full toddy sap either from the molesting of birds, of the heat and cold weather of strong wind or lack of skill.

To make a study of the life of a toddy worker, the toddy workers live separately with the family outside the village when engaged in the toddy season. They eat vegetables they can find in the countryside and the prey they could hunt. They wear dirty clothes as they are too busy. They have to climb the toddy palms twice a day in the rain and the heat. When their health breaks down, they take quack medicine they could lay their hands on. Their children do not have the privilege of education or time for schooling. They are illiterate. Their practice of Buddhism is perfunctory, while their worship of deities and spirits (animism) is stronger. So the life of the toddy workers is very low.

The majority of the toddy worker families do not own a toddy plantation. There are quite a few with own plantations. They are mostly tenant workers; according to the local tradition, they could enjoy the benefit of one day's work out of two day's work or three day's. The charges of toddy climbing vary from region to region. In short, though times may change, the low life of the toddy climbers does not change, because they have to pay the expenses of preparing and capital in addition to their labour. If one could not continue one's work under some circumstances, one's labour charges and expenses would be all gone. So they can not enjoy the fruits of their labour, and risk of life. On the other hand, the owners of the toddy plantations can enjoy the benefits for 60 to 70 years and get rich.

During the toddy season, only when they get one *Pyi* of rice over one viss of *Htan-nyet*, they can have their meals, and they have to choose either lunch or dinner. So saving money is quite out of the question. When one's health breaks down, or when one wants to novitiate one's adult sons, or when one's sons and daughters get married, or in funeral or natural disasters, or in unfavourable

climatic conditions for toddy work, they find it impossible to survive, and finally have to mortgage their toddy palms or plantation. Then the money lenders take various kinds of interests, and have the poor toddy worker sign various contracts out of their ego-centered motives. But the toddy worker consider the money lenders as his benefactor, because he sells his products only to the money lender or those who have made them tenant workers, and who purchase their products at a price lowered more than the current price.

The study of the cases of inherited toddy palms shows that such cases were normally settled through the negotiation of the local abbot, which was the custom of the Myanmar rural areas. Though in the worship of the deities, the country folks usually heeded to the exhortations of the local abbots.

Though their life is hard and rough, the toddy workers enjoy their "homely joys": they might drink toddy sap, sing songs climbing up the palm. Thus, they are contented. Happy are these men whose wish and care are bound with the toddy palms. They are so much contented. They are illiterate, and are so busy. So, burying their life in the toddy plantation and family life, they have no experience of visiting other cities. They are not broad minded, lacking outside knowledge, and one exploited by the owners of the toddy plantation, brokers and traders. Their life remains in poverty because their livelihood can only partially contribute for their survival and because government has collected taxes and done anything for the improvement of their life. Besides, because the toddy business has been controlled by the traders, brokers, toddy plantation owners and money lenders, they can not get themselves out of the pit of poverty.

During the Konbaung Period, because of the restrictions of the feudal system, the low amount of production for export to foreign, and too much dependence only on the domestic economy sufficiency, the toddy business did not improve as much as it should. Also in the Colonial Period, sugar cane plantations were grown in extended acres, and sugar became more in demand, so the

consumption of *Htan-nyet* had declined, putting hindrances to the improvement of toddy business.

Today, with modern developments, roads, bridges and urban areas are being built in extended number, resulting in the damage of many toddy plantations. Beer civilization and others have begun to take place in regions of toddy plantations, with the increase of beer stations in urban and rural areas, thus, imposing difficulties on the toddy business and those who have to depend on it. So, in order to stretch the survival of toddy workers, plastic containers already in use in India may replace the *Myu-o* pots to reduce the expenses. The government may introduce the natural gas fuel stoves. The government loans may be issued to the toddy workers. Associations of toddy workers may be organized for manufacturing the toddy products for the urban market and running shop, on the roadside. Collective toddy business may be set up for the toddy workers. Thus, by uplifting the life of toddy workers, measures should be taken for the toddy civilization to continue to exist in the future.

Today, some toddy palm workers of young generation, being equipped with outside knowledge, have begun to pick up other livelihoods or income-generating jobs. Cane sugar has replaced *Htan-nyet* in many aspects like making snacks. Toddy products have gone out of popularity, while modern furniture such as chair, table, basket and fan are now easily available. The toddy plantations are located far away, so toddy sap is not easily available, and can be obtained only in the toddy season. Naturally, the toddy business has gradually been in decline, moving towards oblivion. So we should seriously consider the survival of the toddy business and culture. Today, the government has been implementing the plans of poverty alleviation and rural area development. The role of peasants, and all types of workers including toddy palm climbers has not yet given proper recognition till to the present. Licensed toddy shops in modern style should be opened in parallel with modern liquor houses and bars. Because of the overwhelming beer gardens

in every town and villages, toddy which is a kind of medicine to natives gradually dies out. We should upgrade our traditional toddy by preserving and tinning them and make attempts to export them. If otherwise, it will totally disappear. To save our traditional toddy culture, a remedy should be immediately prepared. Since toddy is fermented without any chemical, there is no side-effects by consuming them. So an attempt should be made to replace toddy to any other liquor or intoxicants. The usefulness of toddy products should be promoted among the civilians, and measures be taken for the availability of the toddy products for the widespread use. Stalls may be built of toddy palms and toddy products, thus preserving the traditional toddy civilization, while toddy sap stalls may be opened in cities and research may be done on how to sustain the quality of fermented toddy sap. In addition, as the toddy palms can retain the natural moisture, it gives cool shade, and shelter for the birds who might be the carriers of seeds, harbingers of forests. So toddy palms can preserve soil and climate, contributing towards the establishment of a green environment, enhancing the eco-system. So toddy plantations should be grown in systematic plans for the greening of the tropical regions. So that the toddy business will continue to exist and the sustainability of the toddy civilization will have been protected.



Photo (1)

Unmatured palm trees Near Taungthaman Lake

Photo by Dr Toe Hla



Photo (2)

Fermented toddy in earthen pots

Photo by the Researcher (20. 4. 2011)



Photo (3)

Varieties of palm sugar prepared for consumption

Photo by the Researcher (24.4. 2011)



Photo (4)

Fancy goods made of palm leaves in the form of blossomed flower and stars.

Photo by Dr Kalar Lu (28. 4. 2012)



Photo (5)

Star-shaped decorations made of palm leaves

Photo by Dr Kalar Lu (28. 4. 2012)



Photo (6)

A Parrot figure made of palm leaves to fancy children

Photo by Dr Kalyar Lu (28. 4. 2012)

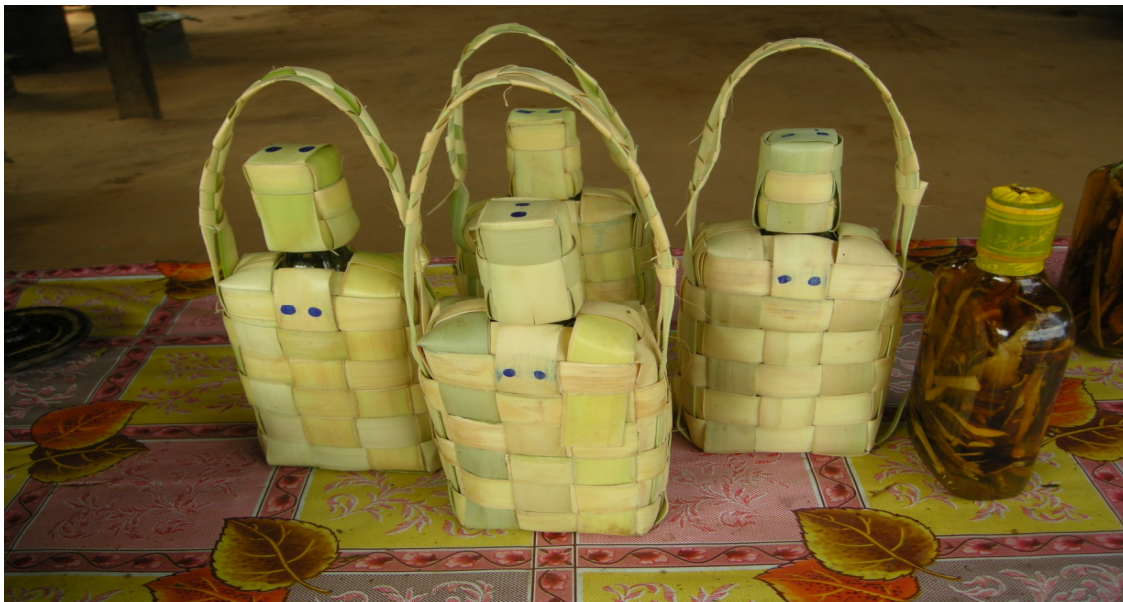


Photo (7)

Palm sugar containers made of palm leaves

Photo by Dr Kalar Lu (27. 4. 2012)



Photo (8)

Hta-khauk-pha - toddy palm boxes

Photo by the Researcher (20. 4. 2011)



Photo (9)

Toddy palm mats

Photo by Dr Kalar Lu (27. 4. 2013)



Photo (10)

Large baskets (*Taung*) in various shapes and sizes

Photo by Dr Kalar Lu (27.4. 2013)



Photo (11)

Baskets in various shapes and sizes

Photo by Dr Kalar Lu (27. 4. 2013)



Photo (12)

A Cradle, made of toddy palm stalks

Photo by the Researcher (12. 6. 2013)



Photo (13)

Toddy Palm sugar cake

Photo by the Researcher (10. 5. 2013)



Photo (14)

Flower Vases in various shapes and sizes

Photo by the Researcher (19. 5. 2013)



Photo (15)

Cow trough made of a stem of toddy palm

Photo by the Researcher (20. 5. 2013)



Photo (16)

Two Lovers Underneath a Twin-toddy palm tree

Photo by Dr Toe Hla

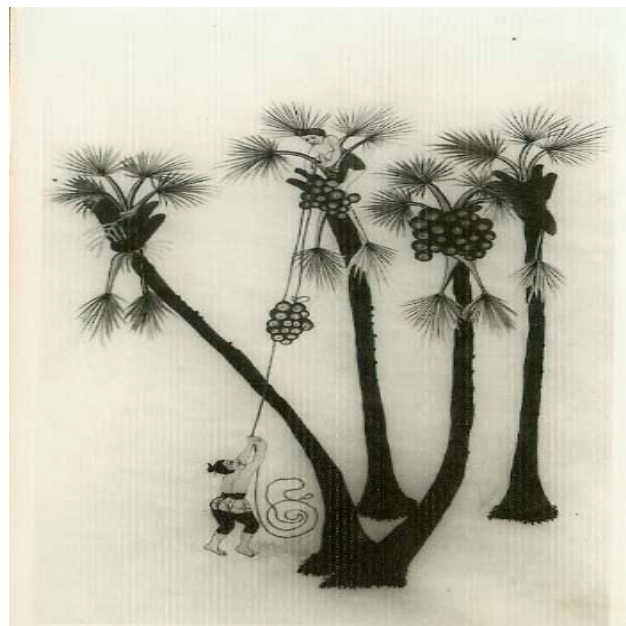


Photo (17)

Bringing down a bunch of toddy fruits

Reproduction of the above wall painting by the Archaeological Dept
(Wall painting inside north proch of Kyauktawgyi Temple, Amarapura)



Photo (18)

Knives and a hummer used in preparing and tapping for toddy sap

Photo by the Researcher (30. 4. 2010)



Photo (19)

Tools used in preparing toddy palms

Photo by the Researcher (10. 4. 2010)



Photo (20)

Toddy pots so arranged to be heated and smoked

Photo by the Researcher (10. 4. 2010)



Photo (21)

Toddy palm boiling in big iron pans

Photo by the Researcher (10. 4. 2010)

Appendix (I)
List of grown up toddy palms in Myanmar

District	Year	Seeping	Grown-up palms		percentage
			Non-seeping	Total	
Lower Chindwin	1928-30	225662	793278	1018940	17.87%
Sagaing	1915-18	264938	211777	476515	8.38%
Meikhtila	1907-10	130695	174107	304802	5.35%
Myingyan	1909-13	602871	297237	900108	15.82%
Pakokku	1927-31	771549	664883	1436431	25.20%
Shwebo	1918-23	154749	407094	562954	9.87%
Kyauk- se	1919-22	35463	117491	152954	2.68%
Minbu	1904-07	55674	143161	198835	3.49%
Magwe	1915-19	88322	98938	187260	3.28%
Taung-ngu	1910-13	10776	8314	19090	0.34%
Thayet	1913-16	35431	40289	75720	1.33%
Pye	1911-16	73765	203513	277278	4.86%
Other districts		40105	50918	91023	1.60%
Total	2490000	2490000	3211000	5701000	44%

Source: Director of Agriculture, Burma, *Palm Jaggery*, 1951, 2

Appendix(II)

List of *Htan-nyet* purchase at Salay Jetty, Hseik Phyu Village, Sinku Town within 3 days (14 of Tabaung ME 1242)

Price	Name	Weight	Cost
14 Kyats 5 Mus	Ko Shwe Lin, Ko Taung	783.50	113Kyats 6Mus
14 Kyats 5 Mus	Ko Kyaing	36.00	5 Kyats 2 Mus
14 Kyats 5 Mus	Ko Tha Aung	398.00	57 Kyats 3Mus
14 Kyats	Poe Tha Bu	1948.00	270Kyats 9Mus
14Kyats	Ko Shwe Maung	153.50	20 Kyats 4Mus
14 Kyats	Ko Kyaw	1679.00	235 Kyats 1 Pe
14 Kyats	Siku Broker Wife	2870.00	401Kyats 8Mus
13 Kyats 5 Mus	Ko Pyi	869.00	117Kyats 3Mus
13 Kyats 5 Mus	Ko Tha Zan	650.00	128Kyats 2Mus
13 Kyats	Ko Kyaw Tha	885.00	115 Kyats
14 Kyats 5 Mus	Ko Htoo, Ko Taung	1542.00	223Kyats 6Mus
13 Kyats	Ko Te, <i>Htan-nyet</i> Ko Thaung	766.00	99 Kyats 5Mus
13 Kyats	Ko Mone, <i>Htan-nyet</i> , Ko Thaung	554.00	72 Kyats
13 Kyats	Ko Poe Ko Thaung paid	235.00	30 Kyats 5Mus 5Pe
12 Kyats 5 Mus	Ko Thar Khaing Ko Thaung	639.50	79 Kyats 9Mus 9 Pe
13 Kyats	Ko Kyaw Wa, East	995.00	129Kyats 3Mus 3Pe
	305, Total <i>Htan-nyet</i>	15530.50	2106Kyats 8Mus 1 Pe
	25 Hmus, Ko The Tun <i>Htan-nyet</i> Ko Thaung	587.50	73 Kyats 4 Pe
	Grand Total	15918	2180 Kyats 3 Pe
Transportation charge (Du Win & Tu Lut Yin Pyan Ships 315)			

Source: Salay, *Pi*, pu, 12

Appendix (III)

List of Cargo of *Htan-nyet* from *Awetaw* Company of U Boe Kyi aboard the streamer to Lower Myanmar (Sample)

Yangon No. 44

ME 1242	14 waxing of <i>Tagu</i> , Cekkyar Yemon streamer		
Down	List of <i>Htan-nyet</i> transported to Pyay Town		
12 <i>Kyats</i> 5 <i>Mus</i>	50 Pos of <i>Htan-nyet</i>	1265	328 <i>Kyats</i> 1 <i>Mus</i> 1 Pe
	Original fees		31 <i>Kyats</i> 2 <i>Mus</i> 2 Pe
	Labour charges		11 <i>Kyats</i>
	Cost of Large Bamboo container		8 <i>Kyats</i> 5 <i>Mus</i>
	Total		378 <i>Kyats</i> 9 <i>Mus</i>
Pyay Town No.5			

Source: Salay, *Pyay*, *pu*- 173

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List of Personal Interviewee

No	Name	Age	Status	Date	Address
1	U Than Aung	54	Toddy palm climber	28.12.2010	Kyat Toe
2	U Win Aung	56	Toddy palm climber	26.4.2011	Shwe Hlaing
3	U Hla Aung	48	Toddy palm climber	14.4.2011	Gawin lay-taing
4	U Tin Win	50	Toddy palm climber	14.4.2011	Gawin lay-taing
5	U Myint Htay	48	Toddy palm climber	23.4.2011	Kuhtup
6	U Aung Myint	59	Toddy palm climber	23.4.2011	Nyaung-sauk
7	U Aye Lwin	58	Toddy palm climber	25.4.2011	Inn-taing
8	U Tin Oo	43	Toddy palm climber	25.4.2011	Kambar-ni
9	Daw Pwa Kyi	45	Toddy palm boiler	26.4.2011	Htan- pin-chan
10	U Aye Myint	46	Toddy palm climber	23.4.2011	Nyaung-sauk
11	U Tha Shein	52	Toddy palm climber	26.4.2011	Htan- pin-chan
12	U Aye Thaung	57	Toddy palm climber	23.4.2011	Kuhtup
13	U Kyaw Nyunt	55	Toddy palm climber	22.4.2011	So-twin-gyi
14	U Kyaw Myint	42	Toddy palm climber	3.5.2011	Nabyin
15	UAung Khin	52	Toddy palm climber	15.4.2011	Deh-bya
16	U Aung Htoo	43	Toddy palm climber	23.4.2011	Nyaung-sauk
17	U Myo Lin	38	Toddy palm climber	26.4.2011	Bone-Bwe
18	UKyaw Soe	40	Toddy palm climber	13.4.2011	Kya-Be
19	U Khin Hlaing	56	Toddy palm climber	13.4.2011	Deh-bya
20	U Lu Nyunt	68	Toddy palm climber	10.4.2012	Yezagyo
21	Dr Htay Win	51	Professor, Geology	20.7.2012	University of Lashio
22	Dr Kalar Lu	43	Lecturer, Botany	10.9.2013	University of Mandalay