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## CONTENTS

### Articles

- Chris BAKER      Protection and Power in Siam:  
PASUK Phongpaichit      From *Khun Chang Khun Phaen* to the Buddha Amulet ..... (215)
- Nobpaon Rabibhadana      Seeking Haven and Seeking Jobs:  
Yoko HAYAMI      Migrant Workers' Networks in Two Thai Locales ..... (243)
- Noboru TOYOSHIMA      Emergent Processes of Language Acquisition:  
Japanese Language Learning and the Consumption of  
Japanese Cultural Products in Thailand ..... (285)
- Yunita T. WINARTO      Agrometeorological Learning Increasing Farmers' Knowledge  
Kees STIGTER      in Coping with Climate Change and Unusual Risks ..... (323)
- Bimo Dwisatrio  
Merryana Nurhaga  
Anom Bowolaksono
- MIZUNO Kosuke      *Talun-Huma*, Swidden Agriculture, and Rural Economy  
Siti Sugiah Mugniesyah      in West Java, Indonesia ..... (351)
- Ageng Setiawan Herianto  
TSUJII Hiroshi
- Bounthanh KEBOUALAPHA      *Imperata* Grassland Mapping in Northern Uplands of Lao PDR:  
Thaworn ONPRAPHAI      Area, Distribution, Characteristics, and Implications  
Attachai JINTRAWET      for Slash-and-Burn Cultivation ..... (383)
- Suchint SIMARAKS  
Anan POLTHANEE

### Book Reviews

- David G. MARR      Philippe M. F. Peycam. *The Birth of Vietnamese Political Journalism:  
Saigon 1916–1930*. New York: Columbia University Press,  
2012, xiii + 306p. .... (401)
- Veerayooth Kanchoochat      Erik Martinez Kuhonta. *The Institutional Imperative:  
The Politics of Equitable Development in Southeast Asia*.  
Stanford: Stanford University Press, 2011, xxiii + 342p. .... (403)
- Allan LUMBA      Megan C. Thomas. *Orientalists, Propagandists, and Ilustrados:  
Filipino Scholarship and the End of Spanish Colonialism*.  
Minneapolis and London: University of Minnesota Press,  
2012, 277p. .... (407)
- LOH Kah Seng      Patrick Daly, R. Michael Feener, and Anthony Reid, eds.  
*From the Ground Up: Perspectives on Post-Tsunami and  
Post-Conflict Aceh*. Singapore: Institute of Southeast Asian Studies,  
2012, xxxi + 262p. .... (411)

- Hilary HOWES Paige West. *From Modern Production to Imagined Primitive: The Social World of Coffee from Papua New Guinea*. Durham and London: Duke University Press, 2012, xvii+316p., with illustrations, endnotes, and index. .... (413)
- JPaul S. MANZANILLA Tilman Baumgärtel, ed. *Southeast Asian Independent Cinema*. Hong Kong: Hong Kong University Press, 2012, 304p. .... (416)
- Ronald D. RENARD Ardeth Maung Thawngmung. *The “Other” Karen in Myanmar: Ethnic Minorities and the Struggle without Arms*. Lanham: Lexington Books, 2012, xxxii+197p. .... (421)
- Kurniawati Hastuti Dewi Sonja van Wichelen. *Religion, Politics and Gender in Indonesia: Disputing the Muslim Body*. New York: Routledge, 2010, xxvi+154p. .... (425)
- Jacqueline Aquino SIAPNO R. Michael Feener, Patrick Daly, and Anthony Reid, eds. *Mapping the Acehnese Past*. Leiden: KITLV Press, 2011, xvi+292p. .... (429)
- HUANG Jianli Kah Seng Loh, Edgar Liao, Cheng Tju Lim, and Guo-Quan Seng. *The University Socialist Club and the Contest for Malaya: Tangled Strands of Modernity*. Amsterdam: Amsterdam University Press, 2012, 347p., with bibliography and index. .... (432)

# Protection and Power in Siam: From *Khun Chang Khun Phaen* to the Buddha Amulet

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The main purpose of this article is to argue for the importance of *protection* as a concept for understanding religion, power, and social structuring in Thai tradition. Protection is a prominent motif in the Thai folk epic, *The Tale of Khun Chang Khun Phaen*, and the work describes a range of practices and devices sought to provide protection against various sources of danger. The article traces the origins of this “knowledge” and its modern adaptation into the Buddha amulet.

**Keywords:** Siam, Thailand, protection, power, amulet, supernaturalism

Today in Thailand the wearing of an amulet (พระเครื่อง *phra khrueng*), a small image of the Buddha or of a famous monk usually enclosed in some form of casing and attached to a cord or chain worn around the neck, is among the most widespread of religious practices.<sup>1)</sup> The principal benefit of such amulets is protection from dangers of various kinds, verging into a more positive desire for good fortune. In *Khun Chang Khun Phaen (KCKP)*, a massive folk epic dating back to the late Ayutthaya era, the demand for protection against dangers is a dominant theme, and many devices are used for this purpose.

In the study of religion, power, and social ordering in Thai society, the key concepts have been merit and power, prowess, patron-client ties, kingship, and so on.<sup>2)</sup> All these concepts betray a top-down view, a focus on explaining why certain people are powerful. The concept of protection comes into play when the angle of vision switches to bottom-up and concentrates on what people seek from religion, power, and social institutions. In historical study, the nature of the few sources available (chronicles, laws) has favored

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- 1) The term “amulet” is sometimes used to describe protective devices of all kinds. In this article, the term refers to this specific type.
- 2) Some of the most important works defining the field have been Akin (1996), Tambiah (1976), Hanks (1962), Wolters (2008), and Ishii (1986).

the top-down view. However, literary sources that emerged from a popular tradition offer the possibility of moving outside this straitjacket. Similarly, in contemporary study, the concept of protection or security has emerged with increasing attention to the analysis of popular religious practice. In his recent pathbreaking work, Justin McDaniel argues that besides the well-known Buddhist qualities of non-attachment, compassion, and enlightenment, everyday practice points to “the importance of security and protection (*khwam plotphai, kan pongkan*), abundance . . . , graciousness . . . , and heritage” (McDaniel 2011, 219).

In this article, we trace the concept of protection from the late Ayutthaya era to the present. The early sections analyze the meaning and prominence of protection in *KCKP*, and the range of devices and practices deployed in its pursuit. The later sections trace the emergence of the modern amulet and the changing role of the Buddha in the business of protection.

### *Khun Chang Khun Phaen as a Source*

*KCKP* is a long folk epic that developed in an oral tradition of storytelling for local audiences. The plot, set in the provincial urban society of central Siam, is a love triangle ending in tragedy. Khun Phaen is handsome and dashing but his family was ruined after his father was executed by the king for an error on royal service. Khun Chang is the richest man in the local town but fat, ugly, and crass. The two compete for the lovely Wanthong. Khun Phaen woos and weds her, but Khun Chang then uses his wealth and court connections to take her away. The rivalry continues through two pitched battles, two court cases, trial by ordeal, jail, treachery, abduction, and other mayhem. Tiring of this disorder, the king summons the three and commands that Wanthong be executed for failing to choose between the two men.

Probably the tale originated around 1600 and developed in an oral tradition of storytelling for local audiences, becoming hugely popular by the eighteenth century, and very long (21,000 lines excluding late sequels). It was then adopted by the court, converted to written form, extended with new episodes and sequels, and embellished with fancier poetry. The first printed edition appeared in 1872, but the work is known today through an edition published in 1916–17 by Prince Damrong Rajanubhab, half-brother of King Chulalongkorn.<sup>3)</sup>

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3) Today there are many printed versions of the same text; the best known is published by Khurusa-pha, a government textbook printer, in three volumes.

Works like *KCKP* that develop through repeated interaction between performers and audiences over a long period, as did many of the classics of world literature, come to reflect the tastes and values of their society. While the court revisions greatly changed the surface of *KCKP*, the plot, tone, structure, and rhythm of the work retained much of their original character. The epic is a rare document that reflects the society and mind-set of premodern Siam.

### Protection in *Khun Chang Khun Phaen*

Throughout the tale, characters seek protection (คุ้มครอง *khum-khrong*, ป้องกัน *pong-kan*) against risks, dangers, and threats (เสี่ยง *siang*, ภัย *phai*, อันตราย *antarai*, คุกคาม *khuk-kham*) in order to ward off sorrowful hardship (ทุกข์ *thuk*) and achieve peaceful contentment (สุข *suk*). They look for someone whom they can depend on (พึ่ง *phueng*), and who will feed or support them (เลี้ยง *liang*). When the father of a main character dies, his servants lament “We have lost our protector,” and fear harassment by local officials (p. 47).<sup>4</sup> When news arrives that the hero, Khun Phaen, has died on a military campaign, his mother-in-law’s first thought is “Who’ll protect us?” (p. 228). When a father announces he will give his daughter to Khun Phaen, she protests, “My lord and master, do you no longer protect your child?” (p. 207). To gain admittance to a bandit gang, a man begs the chief, “I want to live in your lair and shelter under your protection from now on” (p. 1178). On the eve of a marriage, a father orders, “Protect and enjoy her, my son” (p. 1247). When Khun Phaen comes under attack by his rival, Khun Chang, he asks himself, “How can I protect myself?” (p. 316) and goes off to acquire the tools to extract his revenge—a powerful sword, horse, and personal spirit.

The three main sources of danger are defined in the second chapter recounting the deaths of the three main characters’ fathers. The first source is nature, especially the wild forest; the father of the heroine, Wanthong, dies from a forest fever contracted on a trading expedition. The second is human wickedness; Khun Chang’s father is killed by a professional bandit gang. The third is authority; Khun Phaen’s father is executed by the king.

Finding protection from the third source of danger, authority, is the key organizing principle of the social structure known as *sakdina*, at least when seen from below, the angle of vision of the key characters in *KCKP*. Men donate some or all of their labor to a patron in return for protection from various forms of authority. In the classic form of

4) All page references to *KCKP* refer to Baker and Pasuk (2010).

*sakdina*, men become dependents (ไพร่ *phrai*, ทาส *that*) in the service of a *khun nang* noble. Khun Phaen's father is an effective patron in the provincial town of Suphanburi because he has an official post as a soldier and recognition from the king. As a result, local officials "shook their heads [and] knew never to cross him" (p. 8). After the father is killed, his servants lament that, "nobody dared bully us, because everyone feared Khun Krai. But now they'll all come and push us around" (p. 35). But this classic form of patronage is not the only one. The same principles apply in many other circumstances. After being branded as an outlaw, Khun Phaen places himself under the patronage of a provincial governor who plans to employ him as a guard. The chief of a bandit lair gives shelter to fugitives who in turn must work as robbers. An abbot urges Khun Phaen to stay in the monkhood because the robe is protection against the dangers of conscription.

The model for the role of protector is a parent's custodianship of children, and especially the male in the combined role of father, husband, and householder. Good parents protect their children from all dangers, even the menace of sun, wind, and insects. Husbands shelter their wives like the spreading branches of a bo tree ("Oh, little bo tree shelter of your darling wife . . . , " p. 748). Women cannot usually take the role of protector as wives (and children) are legally the property of the husband. Marriage is a transfer of the daughter from the protection of the father to that of the husband. The usual word for marriage seen from the male side is คู่ครอง *khu-khrong*, "partner-rule-protect."<sup>5)</sup>

The paternal role is a metaphor for other relations of protection. In *KCKP*, the word for father, *pho*, is used as a pronoun between ward and protector. Wives address their husbands as *pho*. Khun Phaen addresses his official patrons, Phramuen Si and Phra Phichit, as *pho*, and they reciprocate by addressing him as a child. After Khun Phaen secures the release of 35 convicts from jail to serve as soldiers, they address Khun Phaen as *pho*.

The ability to serve as a protector depends on personal qualities, wealth, and political connections. Wanthong's mother prefers Khun Chang over Khun Phaen as a suitor-protector because Khun Chang has wealth and connections in the Ayutthaya court while Khun Phaen is poor and fatherless. Later, after Khun Phaen has won a military victory, a village headman in the north presents Khun Phaen with his daughter in anticipation that Khun Phaen will win royal favor and social advancement.

The king is at the apex of this official pyramid of protection. Two of the main items of royal regalia, the sword and multi-tiered umbrellas, are symbols of protection. In the invocations that preface the king's appearances in *KCKP*, he "protects the mass of the

5) Today คู่ครอง *khrong* has acquired a broader and softer meaning, but the definition in Pallegoix's early nineteenth-century dictionary is "to rule, to govern, to repress."

populace and soldiery so they are joyful” (p. 506) and “offers protection to the great and small throughout the world” (p. 402) so well that other territories eagerly seek the same shelter. In court formalities the king is addressed as “lord protector,” “divine protector,” or “paramount protector.” The young Khun Chang is taken to be presented as a royal page so that he will enjoy royal protection.

But political power is double-edged. It contains the ability to protect, but also the potential to threaten. This is true at all levels of the social structure, but as the summit of the political order, the king is both the most effective protector and the most terrible threat. Khun Phaen’s father has status in his home town because he is a soldier in royal service, but when he commits an error, the king orders his execution and the seizure of his property and family. All the major character in the tale, and many of the minor ones, lose life, liberty, property, rank, spouse, or kin at the hands of the king. Although the monarch is also a giver of rank and property, particularly to those who bring him victory in war, this aspect receives much less emphasis in *KCKP* than his capacity to deprive.<sup>6)</sup>

## Education

Patronage is only one way to seek protection and is not wholly effective. To combat all three sources of danger (nature, human wickedness, and authority), skills and devices also come into play. Before undertaking any risky exploit (a journey, marriage, war), characters in *KCKP* seek protection for themselves in various ways. They use methods of divination in order to locate dangers in time and space so they may be avoided. They adorn themselves with protective devices and recite formulas that have supernatural power to avert various forms of threat including weapons, fierce animals, and the malicious intentions of enemies.

Around the age of 14, Phlai Kao (the future Khun Phaen) enters the *wat* as a novice to gain education in these skills and devices. He is intent upon following in his late father’s footsteps as a soldier. The skills and devices are primarily for use in war, but also have application in everyday life.

His primary training is at Wat Som Yai in Kanburi:<sup>7)</sup>

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6) Late Ayutthayan history is strewn with stories of great nobles who lose position, possessions, and life in succession disputes and court intrigue.

7) Kanburi is the name used in *KCKP* for the old site of Kanchanaburi, 17 kilometers west of the modern town. This frontier outpost was abandoned in the wars of the late eighteenth century and never reoccupied.

The novice studied to read and write. With diligence, he soon mastered Khmer, Thai, arithmetic, the main scriptures, calculating the sun and moon, and translation of texts. (p. 58)

Even this basic course of reading, writing, arithmetic, and languages includes some astrology. When the abbot discovers that he has a bright pupil, he adds some fundamentals of supernaturalism:

The abbot had nothing left to tell him. He patted Kaeo on the back and the head and said, “That’s the end of my gut, my dear Novice Kaeo.

There’s only the big treatise with the heart formulas<sup>8)</sup> and mantras. I’ve been collecting them since I was a youth. Until now in my old age, I haven’t shared them with anyone.

This is the extent of my knowledge. Because I’m fond of you, Kaeo, I’ll pass it on to you. There’s everything—invulnerability, robbery, raising spirits—something for every occasion.” (pp. 58–59)

Phlai Kaeo absorbs the abbot’s treatise but knows there is more to learn. After all, Kanburi is a border outpost, and the abbot had collected his knowledge on his own. Phlai Kaeo moves to Suphanburi, his old family home, which is a long-established religious center. There he studies with two renowned abbots who had earlier taught his own father. In this secondary stage, he first attends Wat Palelai, where the emphasis is on scriptures and pedagogy.

Novice Kaeo had an agile mind beyond compare, and was diligent without being told. After three months of practice, he had sermons down by heart.

Whether it was the Mahachat, sermons on the teachings, or anything else, he spoke beautifully with a peerless choice of words, and a voice as charming as a cicada. Wherever he gave sermons, people loved to come and listen. (p. 61)

As a talented student, he also takes evening classes in intermediate supernaturalism.

In the evenings he went to the main kuti to pay his respects, attend to the abbot, and take instruction: how to make a sword for war; how to transform a thorny branch into a buffalo charm; how to enchant dummy soldiers; how to charm a woman so that once their eyes had met, her heart would be captivated and she would never forget.

His master laughed. “Young Kaeo, I know you’re interested in the stuff about being a lover. Don’t do damage to people’s wives but old maids and widows, take them!

I’ll teach you everything about sacred mantras and formulas. You’ll be a real gem.” He spat out the betel he was chewing and passed it to Novice Kaeo to eat the remains. Then the master hit him with a pestle, almost chipping his skull. “There! It didn’t crack or bruise. Like hitting a stone.” The master rolled about with laughter. (p. 61)

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8) A form of mantra abbreviated for easy memorization and quick application.



Shortly after, Phlai Kaeo moves to Wat Khae where Abbot Khong takes his studies to the tertiary stage.

The abbot promptly began to instruct him on everything:  
 putting an army to sleep and capturing its men; summoning spirits; making dummies with power to fight courageously; writing *pathamang*;<sup>9)</sup> concealment; invulnerability; undoing locks and chains;

all the arts of victorious warfare; all knowledge for overcoming enemies with no hope of resistance; calculating auspicious times for any action; enchanting tamarind leaves to become wasps; expertise in all covert war tactics; commanding troops in hundreds of thousands; defeating whole territories; the Great Beguiler mantra to induce strong love;

stunning people; invisibility; gaining the strength of a lion; withdrawing *athan*<sup>10)</sup> protective powers and preventing their replacement; and keeping spirits to act as spies.

He studied all branches of knowledge, reciting both old and new repeatedly to commit to memory. (pp. 124–125)

In the course of this education, Phlai Kaeo has learned the basics of reading, writing, arithmetic, and languages, then more advanced courses on divining and manipulating the supernatural forces which operate in this world. He makes only limited use of these skills in his early career: he summons up a spirit when he needs a quick ride through the air; he uses love mantras to seduce women; in his first military campaign, he is aided by his body's ability to resist weapons. Supernaturalism plays a very minor role in this stage of the story, but that changes dramatically when his rival, Khun Chang, gains advantage by using the power of his money and his political connections at court. Khun Phaen then turns to supernaturalism to protect himself against these powerful forces.

The skills that Khun Phaen learns and deploys can be roughly divided into two types: divination of supernatural forces, and manipulation of these forces.

## Divination

The main technique for divination depends on astrology, signs read from the position of celestial bodies. In Siam, the royal court imported the Indian system of astrology known as Jyotisha, meaning "light, heavenly body," probably via Sri Lanka (see Fig. 1).<sup>11)</sup> It also

9) The first letter of a mantra or formula, usually in Pali or old Khmer. This is basic training for making yantra (see below).

10) See below.

11) The standard modern work with details of two methods of calculation is Wisandarunakon ([1965] 1997). This manual was originally prepared for the court in 1923 using new methods of calculation. It was republished in 1965 and presented to the king.

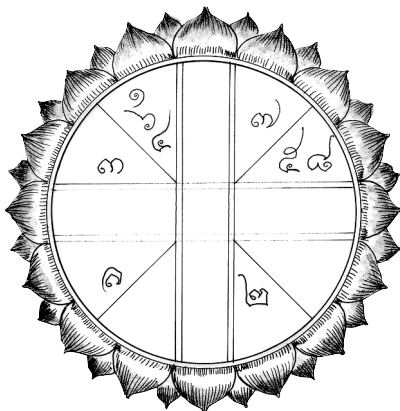


Fig. 1 Jyotisha Diagram

imported Brahmins to use the technique, and rewarded them with high posts in the nobility. The Jyotisha system plots the path of nine heavenly bodies (sun, moon, five planets, and two imaginary planets) against a map of the sky divided into 12 houses named after constellations. Each house represents a certain mental aspect (stability, tolerance, love, judgment, etc.), and each heavenly body represents a certain aspect of life (ego, wealth, mind, etc.). A reading taken at birth determines which of the heavenly bodies will influence which aspects of that life. Reading of the position of these influential bodies at a future time can then be used to divine events.

This technique can be applied to individuals, cities, kingdoms, anything for which a “birth” time can be identified. But the calculations are extremely taxing, and the court practitioners had made the system infinitely complex by giving meaning to subdivisions of measurement and to various interactions between the heavenly bodies in play.<sup>12)</sup>

The divinations made by Khun Phaen and his teachers and battle foes do not use fully fledged Jyotisha, but other systems which are based on the same principle of locating heavenly bodies within a map but which require much simpler forms of calculation. Several of their predictions seem to use the method known as *mahathaksa* (มหาทักษา), meaning “great skill.” To construct the birth chart, all that needs to be known is the *lagna*, the celestial body rising on the eastern horizon at the time of birth or, in an even simpler variant, the day of the week. The other bodies are assigned to their spheres of

12) In Siam in 1687–88, Simon de La Loubère acquired a document describing the calculations for the sun and moon. He had it translated into French and examined by M. Cassini of the Royal Academy of Sciences, who pronounced the technique “ingenious.” The calculations appear similar to those used in Thai astrology today. The document is not found in the English translation of La Loubère, but in Jacq-Hergoualc’h (1987, 488–503).

influence in simple sequence. To examine the forces acting at any future point, another chart can be made in the same way. In alternative versions, the calculation of which bodies are influential at any time is made through a simple arithmetical progression from the birth chart.

Astrology is only one of many systems of divination used in *KCKP*. Two others also focus on identifying auspicious and inauspicious times. The Circles method depends on the intersections between lunar and solar calendars. The conjunction of certain days in the week and certain dates in the (lunar) month are prescribed as auspicious, and others as inauspicious (Baker and Pasuk 2010, 319, note 23). The Three-Tiered Umbrella uses the birth-year and age to locate a certain position on a chart where each segment is associated with a legendary episode (mostly from the *Ramakian*) with metaphorical meaning (*ibid.*, 208, note 4). Nowadays, charts setting out the results of these and similar methods are published in manuals such as *Phrommachat*.<sup>13)</sup> Possibly something similar is indicated when manuals are mentioned in *KCKP*. In the 1680s, La Loubère wrote that an “Almanac which he [the king] causes Annually to be made by a *Brame* [Brahman] Astrologer, denotes to him and his Subjects the lucky or unlucky days for most of the things they used to do” (La Loubère 1793, 66).

Besides these divinations based on aspects of time, Khun Phaen and other characters in *KCKP* gather many different omens from nature. They look at the clouds for shapes that predict success or failure. They examine the breath through their nostrils to gauge the chances of success in any endeavor and to determine what direction to head when starting out. They listen to sounds made by insects and animals, which are categorized as propitious or unpropitious in manuals. They study the brightness of the stars and the halo of the moon to predict the outcome of warfare or other exploits. They tease meanings out of dreams that foretell events not only in the immediate future but over decades ahead. They interpret omens that come from visual oddities (seeing someone without a head) or unusual events (a staircase breaking). Many of these omens and signs are documented in old manuals, including various versions of the *Manual on Victorious Warfare* (ตำราพิชัยสงคราม *tamra phichai songkhram*), a military treatise.<sup>14)</sup> What is striking is the sheer *variety* of these predictive methods. At decisive moments, the characters in *KCKP* will use not one but several.

13) There are several compendia of astrology and other predictive techniques published under this title. See for example Hora Burajan (2006).

14) The most extensive and accessible edition is *Tamra phichai songkhram chabap ratchakan thi 1* (2002). Parts of a manual are reproduced in facsimile and French translation in Pattaratorn (2011).

## Manipulation

Khun Phaen is also educated in methods to manipulate the hidden forces in the world. These methods can be classified into three types: formulas; powerful devices found in nature; constructed devices.

The formulas may be spoken out loud or chanted under the breath (often several times) and then blown. Phlai Kaeo is specifically trained in using *hua jai* (หัวใจ) or heart formulas, an abbreviated form made by using the initials of words in the original formula, or the initial letter of several formulas (see Fig. 2). These have the advantage of being easier to memorize and quick to use.

These formulas seem to influence events through two pairs of forces: *repulsion*, warding off danger or, in its most complete form, providing invulnerability; and *attraction*, inducing love, sympathy, or good fortune; *constraint*, preventing an event or action; and *release*, removing constraints, such as undoing locks and chains, or ensuring a smooth delivery at birth. The four formulas which appear most often in *KCKP* are for these four actions respectively. The Great Prescription (มุกใหญ่ *muk yai*) formula provides protection or invulnerability. The Great Beguiler (มหาชะลวย *mahalaluai*) induces love and is used not only to charm women but to win sympathy from those in authority. The Subduer (สะกด *sakot*) is principally used to immobilize enemies during battle. The Great Loosener (มหาสะเดาะ *mahasado*) opens locks and chains, induces a smooth childbirth, and removes other blockages.<sup>15)</sup>

The second method uses substances that are found in nature and believed to be intrinsically powerful (ขลัง *khlang*) because of some unusual property that defies the laws of nature. A prominent example is mercury, a metal that acts like a liquid, which conveys protection by flowing to any part of the body threatened by penetration. Other examples are: cat's eye, a semi-precious stone which looks like an animal's organ; hard, stone-like cores found in plants or animal's eggs; and splinters of tusk that are lodged in trees or



Fig. 2 *Hua jai* Heart Formula

15) There are several compilations of formulas and yantra today, often extracted from the works of Thep Sarikabut. As they tend to be geared towards achieving success in business, they are rather different from the selection in *KCKP*, but still enshrine the principles of repulsion-attraction and constraint-release.

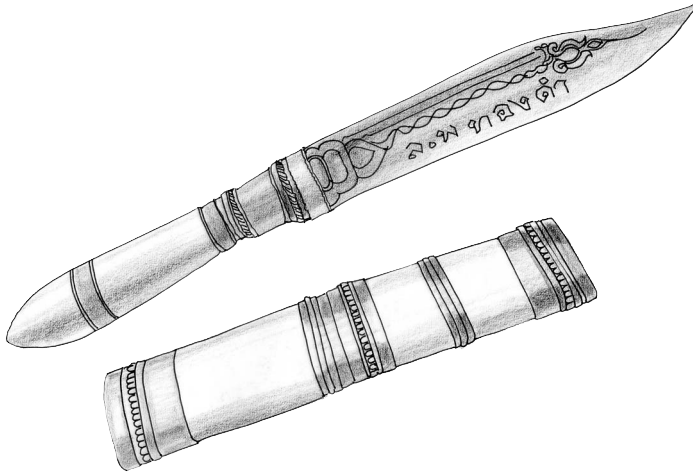


Fig. 3 Adept's Knife

ant-heaps by charging elephants in musth. Mostly these objects are carried to convey protection or invulnerability.

A variant of this method consists of precious or powerful objects inserted under the skin, and believed to be capable of moving to block the intrusion of a blade or bullet. The Chiang Mai military commander, Saentri Phetkla, makes extensive use of these devices:

He had a jet gem embedded in his head,  
golden needles in each shoulder, a large diamond in the middle of his forehead, a lump of fluid metal in his chest, and herbal amber and cat's eye in his back.

His whole body was a mass of lumps and bumps in ranks and rows. Since birth he had never been touched by a weapon, and did not carry even the scratch from a thorn. (p. 631)

The third method uses constructed devices. Simple forms mentioned in *KCKP* include water, betelnut, or powdered clay that have been sacralized by reciting formulas; spirit oil extracted from a corpse; beads made with sacralized powder and powerful herbs; and lip wax, especially a variant made from the face mask of a corpse. Among more complex forms, two prominent examples are an adept's knife and yantra. These devices serve as media for transferring the power of an adept to somebody else.

An adept's knife (มีดหมอ *mit mo*, see Fig. 3) has to be made by an adept using special materials and observing strict practices, and "activated" through a ritual, often convoking many different spirits and deities to endorse the knife's power. Other people can then use the knife and tap the adept's own powers which have been instilled in the article. These knives are kept at home to ward off danger; carried into battle where they convey

invulnerability; steeped in water to make medicine; and placed on the subject's head during ceremonies to overcome spirit possession. Among the four forces, the knife has the force of protection, but can also be used to defeat the protective forces of enemies. Khun Phaen uses an adept's knife to neutralize the spirits and other protective devices before invading Khun Chang's house. Skystorm (ฟ้าฟัน *fa fuen*), the sword that Khun Phaen has specially made, is a superlative version of an adept's knife. The manufacture begins with the collection of an array of metals with connotations of power and protection:

Metal from the peaks of a relic stupa, a palace, and a gateway. Metal fastening for the corpse of a woman who died while with child. Metal binding from a used coffin. Fixing for a gable board. Diamond bolt.

Bronze pike. Copper kris. Broken regal sword. Metal goad. Bolt from a gateway. Mushroom nail. Five-colored smart metal. Household metal. All genuine articles.

Fluid metal. Ore cast at the Phrasaeng mine. Iron ore and metal from Kamphaeng and Namphi. Gold. Bronze. Nak from Aceh. Genuine silver. Forest copper. (pp.317–318)

In some modern manuals for making an adept's knife, the recipe has been adapted from this passage in *KCKP*.

The constructed device that appears most often in *KCKP* is the yantra (ยันตร์ *yan*, เลขยันตร์ *lek yan*). These diagrams probably began in the Indic tradition of asceticism as visual aids for meditation. One of the simplest is a pair of interlocking triangles to aid concentration on duality (see Fig. 4). The device then spread widely, particularly within Buddhist traditions, but was adapted in very different ways in various regions. Tibetan *tanka* paintings are one such variant. Another are designs found on Japanese armor. The *mandala* used in architecture and statecraft is a specific form.

In the Southeast Asian tradition, these devices have been developed by the addition of several other visual elements. The geometrical shapes have acquired symbolic meaning; for example, a circle or oval signifies the Buddha. Pictures of powerful figures have been added, including Hindu deities, legendary figures such as Hanuman, imaginary creatures from the Himaphan Forest, and fierce animals such as lion, tiger, and snake. Written formulas are also included, usually in Pali language in Khom script,<sup>16)</sup> and often in abbreviated form. Sequences of numbers may be added, again in Khom script, with individual numbers signifying a deity or a formula, and longer sequences having supernatural significance (see Fig. 5). As McDaniel (2011, 103) notes, these various elements constitute “an algebraic system that seeks to manipulate a series of knowns in order to

16) Khom is a script adapted from Khmer and used in religious and historical texts. Several other scripts are also used in yantra, but Khom is the most common. The formulas may also be in Thai or other languages but Pali is more common.

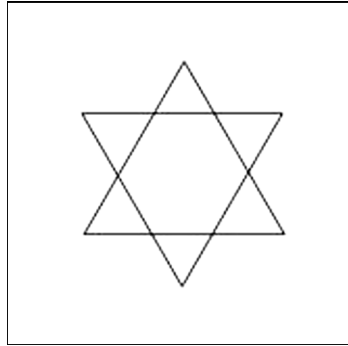


Fig. 4 Duality Graphic

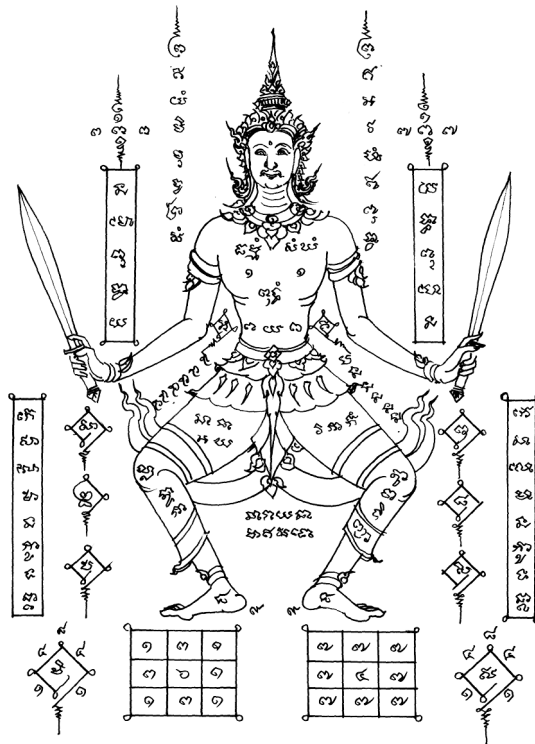


Fig. 5 Narai Transforming Yantra

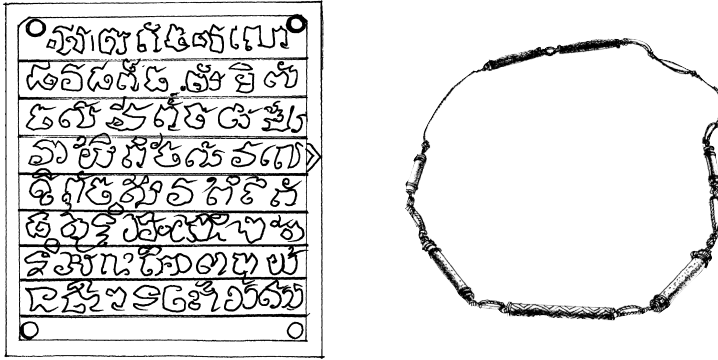


Fig. 6 Takrut, Unrolled and Rolled

control or uncover a wide array of unknowns.”

Yantra thus bring together devices from several traditions including ascetic mastery, the Hindu pantheon, Buddhist cosmology, spirit beliefs, and numerology. They must be made by an adept under very strict conditions, and activated by pronouncing formulas. Their primary function is to provide protection, but they can also attract, constrain, and release. They are a means of transferring the intrinsic power of the adept to another person, animal, or thing by using a wide array of media. They can be tattooed on the skin; drawn on wearable articles such as shirts, bandanas, or cloth fashioned into belts and rings; inscribed on metal and strung round the arm, neck or waist; or written with powder that is then daubed on the forehead or poured into the haft of a weapon (Bizot 1988; Yanchot 1995; Becchetti 1991; Bunce 2001; Thep Sarikabut n.d., esp. Vol. 1).

The single most common form of these yantra devices found in *KCKP* is the *takrut* (ตะกรุด), a sheet of thin, pliable metal such as tin or gold, which is inscribed with the yantra then rolled around a cord and tied around the neck, waist, or upper arm (see Fig. 6). Complex designs may extend across several sheets strung on a single cord.

## Roots

These methods have roots in several traditions, some of which originated in India but have been adapted and rearranged over many centuries in Southeast Asia.

The first of these roots goes back to the Vedas, the great texts of Hinduism. Besides three volumes of philosophical texts, there is a fourth volume with a long inventory of beliefs and practices about threats to man and how to resist them. This inventory includes ways to influence natural forces in the world, particularly to achieve protection against



threats from disease, natural disasters, and the perfidies of fellow man.<sup>17)</sup> The methods include natural substances with supernatural powers, formulas for recitation, and devices constructed by adepts—the same three methods found in *KCKP*. They also utilize the same two pairs of forces: repulsion and attraction, constraint and release. The title of the compilation as *Atharva Veda* survives in Thai as อถรรพณ์, *athan* (sometimes *athap*, *athanpawet*). In *KCKP*, *athan* means protection, particularly the convoking of supernatural forces to protect a city, palace, or other location. The term's modern usage has broadened to mean supernaturalism in general.<sup>18)</sup> The historical connection between the *Atharva Veda* and the Thai concept of *athan* is tantalizingly unknown.<sup>19)</sup>

The second of these roots, also from Indic tradition, is a belief that mastery over oneself conveys mastery over natural processes; through mental control and ascetic practices, a rishi or yogi attains supernatural abilities. In life stories of the Buddha, he was schooled in ascetic practice and acquired extraordinary powers such as flying through the air, multiplying his body, and recalling previous lives. Samuel (2008) argues that the Buddha adopted the ascetic practices of local shaman cults. Buddhist schools that are wary of such supernaturalism have argued that the Buddha forbade his followers to use such practices on grounds of danger, but after his death, some followers continued to use them and pass them on by teaching (Fic 2003, 42–44).

In India from the sixth to twelfth century, this idea of mastery through asceticism was combined with other folk practices and spirit beliefs to become the core of a distinct strand of Buddhism later dubbed as tantric or esoteric (Samuel 2008; Davidson 2002). According to one theory, this strand emerged in the context of an era of vicious warfare, and spread because the metaphor of individual power through mastery was appealing to warrior princes. Davidson (2002, 114) suggests that this appeal for warrior rulers was behind the spread of this strain of Buddhism to East and Southeast Asia, but his evidence is very scanty. The passage of the idea of mastery from Indic tradition to Southeast Asia is uncharted, and probably took multiple routes. The main point is that the concept of

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17) Two main recensions of the *Atharva Veda* have survived. This inventory forms the first of four parts in the Shaunakiya or northern recension. Dating is difficult and controversial but may be around the eleventh or twelfth century BC. Some scholars have speculated that this inventory is a record of local belief and practice in north India at the time the *Vedas* were composed. Others argue that the inventory may have earlier origins, perhaps in Central Asia (Witney 1905; Whitaker 2004; Michaels 2004).

18) The Royal Institute dictionary defines *athan* as follows: "Rites following *saiyasat* manuals to create auspiciousness and protect against danger, or to cause danger to others . . . recondite power believed to cause effects."

19) However the Royal Institute dictionary insists on a connection by starting the definition cited in the previous note with "Something passed down from the *Atharva Veda*."

mastery was present at the core of Buddhist teaching—in the life story of the Buddha—and was thus available for adoption and adaptation in different ways in various local Buddhist cultures (on which more below).

The third of these roots lies in the belief, found throughout Southeast Asia and indeed in much of the world, in the pervasive presence of spirits and deities that determine processes in the natural world. Khun Phaen has the skill to raise and direct spirits. He has a personal team of spirits and adds a particularly powerful one made from the fetus of an unborn child. These spirits provide him with personal protection, and also are able to attack and remove similar protection from opponents. In addition, Khun Phaen has the ability to summon up spirits in the surrounding area for special uses ranging from emergency transport to attacking his enemies. Finally he has the ability to convert grass into spirit warriors—considered one of the most difficult skills in the repertoire.<sup>20)</sup>

In the Siamese tradition, the methods of *athan*, the idea of mastery, and the belief in spirits have become closely intertwined. Mastery of oneself gives the adept the ability to control spirits and activate natural forces using *athan*'s repertoire of formulas, unusual substances, and other devices. In the manufacture of his sword, Khun Phaen draws on all three of these techniques. He first collects an array of unusual metal substances, then combines them to the accompaniment of many incantations, and finally convokes the spirits and deities to instill the weapon with exceptional power.

In modern Thai, this complex of practices to influence the hidden forces in nature is called *sai* or *saiyasat* (ไสยศาสตร์), derived possibly from Sanskrit *saya*, dark, or from a Khmer word meaning excellence or expertise. But in *KCKP*, this word appears only twice.<sup>21)</sup> Instead, *KCKP* uses two other vocabularies. The first is disarmingly simple. An adept is *khon di* (คนดี), a “good person,” and the practice as a whole is *thang nai* (ทางใน), the “inner ways,” a phrase which nicely captures the depth of the knowledge, its arcane origins, and its reliance on the innate talent of the practitioner. What is striking about this vocabulary, which appears in the older passages of the tale, is its use of simple, everyday words. This simplicity portrays the practice as familiar, normal, universal.<sup>22)</sup>

20) According to Thép Sarikabut (n.d., Vol. 2, 24–25), making dummy soldiers by enchanting grass is the most advanced department of lore and very difficult to master. He had never seen a successful example and reported that Phrakhrū Wimonkhunakon (Suk) of Wat Makhām Thao, Chainat, a most famous practitioner who had studied the art, managed to transform only the legs and feet.

21) Both in passages which were probably added in the nineteenth century.

22) Today in Thailand these practices are associated with the Khmer. In the nineteenth century they were associated with the “Lao” (McDaniel 2011, 34–43). These associations are absent in *KCKP*. It seems that Thai modernity requires that the origin of these practices be found outside Siam, but not too far away, in countries sharing the same cultural history but deemed less modern.

The second vocabulary uses words of Indic origin: มนต์, *mon* is the Thai rendering of mantra, meaning a Buddhist prayer or formula; คาถา, *khatha* is a verse in a Buddhist Pali text; อาคม, *akhom*, from Sanskrit *agama* meaning “that which has come down,” is used among other things for the inventory of prescriptions found in the *Atharva Veda* (Sharma 1979, xviii); เวท, *wet* derives from Veda, the Hindu scriptures. In *KCKP*, these individual words are used almost interchangeably for a specific exercise of skill, such as intoning a formula. They are also used in various conjoined forms (*wet mon*, *khatha akhom*, etc.) to refer to the practice of these skills in general. Alternatively, these skills are called วิชา, *wicha*, from Sanskrit meaning knowledge. This is the same word which, via Indo-European, gives us “witch” and the fashionable modern version, “wican.” This vocabulary suggests exceptional forms of knowledge authenticated by age, exotic origins, and textual recording—lore.

In Siam, this tradition of lore is closely integrated with the everyday practice of the Buddhist monkhood. Khun Phaen’s teachers are all abbots. Buddhist scriptures are taught alongside astrology and the formulas and mantras of lore with no sense of incompatibility.

In some Buddhist cultures, these practices have been isolated as a specific tradition. François Bizot has argued that this was the case in Cambodia where practices which he calls “tantric” became mainstream at the height of the Angkorian era, but subsequently continued as a distinct, heretical, and covert sect (Bizot 1976; 1981).<sup>23</sup> In Siam, however, practices of self-mastery seem always to have been part of the mainstream Buddhist tradition, particularly (but not exclusively) among the “forest” rather than “town-dwelling” lineages. Ascetics with miraculous powers have prominent roles in old legends and chronicles, and are integrated into the iconography of *wat* decoration. The introduction of a purer form of Buddhism from Sri Lanka in the fourteenth to sixteenth centuries failed to displace old practices. King Mongkut’s reforms in the mid nineteenth century and, more importantly, the bureaucratization of the *sangha* by his successor, have since shifted the balance, but far from completely. To this day, monks carry out *athan* rites for house building, and bless amulets which are the modern-day equivalent of yantra. “Forest” monks imitate the Buddha’s life, including extreme forms of asceticism, and are accredited with supernatural powers (Tambiah 1970, 49–51; 1984, 45, 315). Royalty, politicians, generals, and senior police officers endeavor to associate themselves with these figures in order to draw on their power.

23) McDaniel (2011, 106–108) counter-argues that terms such as “tantric” and “esoteric” are misleading in the Southeast Asian context, and that this “stratum” of Buddhism has always been part of the mainstream.

In *KCKP*, the practice of lore is almost entirely a male preserve. The skills are learnt so a male can fulfill his role as protector. All the adepts are male. All the teachers are male.<sup>24)</sup> Only men are present at ritual events such as making Khun Phaen's sword or convoking the spirits before a battle or other risky exploit. Women are not only excluded from the practice, but sometimes figure as a threat to the power of lore. Khun Phaen takes off all his protective devices before making love to Wanthong. When they steal into the Chiang Mai palace, Khun Phaen warns his son against fondling palace women as that might weaken the lore that has enabled them to put everyone to sleep and enter the palace unseen:

Seeing his son fondling, Khun Phaen clenched his fist and thumped his son's back. "This is royal property! Don't touch! If you get carried away, we'll fail.

We shouldn't do this, you see, we're phrai. These are ladies who are forbidden to others. What's more, to be expert in warfare, you shouldn't dally with women." (p. 662)

## From Yantra to Amulet

The amulet is the lineal descendant and modern equivalent of the yantra. Like yantra, amulets can be carried on the body; their principal benefit is protection;<sup>25)</sup> they incorporate exotic materials believed to have intrinsic power; they are crafted under strict conditions by a teacher, preferably from the ascetic tradition, known to have exceptional powers; they serve as a means of transferring the adept's powers to other people; they are largely a male preserve; and they are immensely popular.<sup>26)</sup>

The emergence of the amulet is a long story, only partially glimpsed.<sup>27)</sup> In *KCKP*, the amulet in its modern form does not figure at all among the vast range of protective devices mentioned. Indeed, images of the Buddha are not part of the lore in *KCKP*. In some yantra today, the Buddha is depicted symbolically by a circle or collection of circles. However, in the yantra named in *KCKP* and identifiable today, only one has such a symbol—the *chakra* or wheel yantra, which is inscribed on the stock of the Skystorm

24) There is one partial exception, and it is controversial. After Khun Phaen is put in jail, his mother takes over the education of her grandson, using Khun Phaen's library. Some critics see this as a blemish in the plotting of *KCKP*. Others point out that the grandmother, after being widowed, takes on some of the "male" attributes of a household head.

25) Amulets also have the benefit of attraction, winning love and favor.

26) On the modern process of creating amulets, see especially Tambiah (1984), Cook (2012), Swearer (2004), and Turton (1991). Stengs (1998) emphasizes the male bias but also notes the emergence of equivalent devices for female use.

27) This discussion draws heavily on Chalong Soontravanich (2005; 2013).

sword (see Fig. 7)—and only in a stylized form.<sup>28)</sup> In *KCKP*, the Buddhism of sermons, Jatakas, and scriptures on the one hand, and the lore for divining and manipulating the supernatural forces in the world on the other, are closely associated through the *wat*, yet still delicately separate.

The one device in *KCKP* that partially resembles a modern amulet is a *phakhawam* (พระกลว้า), a word collapsed from Phra Gavampati, an early disciple of the Buddha.<sup>29)</sup> A *phakhawam* is usually a small, almost spherical metallic image, showing the monk with hands over eyes, and sometimes extra pairs of arms for covering other orifices (see Fig. 8). In *KCKP*, these images are placed in the mouth to give power to speech, carried into battle for protection, and steeped in water used to induce invulnerability.

The form of the modern amulet seems to have developed from votive tablets, *phra phim*, small images of the Buddha made by pressing clay into a mold (Pattaratorn 1997). The earliest examples of these tablets may have been brought to Siam by itinerant monks from South Asia and have been found at many early archeological sites. Later, these images were often made in large quantities to be placed inside stupas or affixed in rows on the walls of *wat* buildings to enhance the religiosity of these sites. Such votive tablets, retrieved from a ruined *wat* or stupa, and known as “broken-wall Buddhas,” later became popular as protective devices. A few amulets today are believed to have originated in this way (Srisakra Vallibhotama 1994, 81–82, cited by Chalong 2013).

In the early to mid nineteenth century, some monks manufactured amulets with a

28) The Thepnimit mantra comes in several different designs, some with and some without Buddha symbols.

29) In the canonical literature and early commentaries from Sri Lanka, Gavampati is mentioned among the second group of disciples of the Buddha, associates of Yasa, but with no detail. Probably on account of his name meaning “Lord of Cattle,” other early texts gave him a background as an ox herder, and a quirky trait of chewing the cud. He also displayed supernatural ability to hold back a river that threatened to swamp the Buddha and a group of disciples. From around the fourteenth century onwards, texts appeared in Southeast Asia that celebrated 80 early disciples, including Gavampati, and gave several of them substantial biographies. He is described as so beautiful in appearance that he was often mistaken for the Buddha, and as a result used special powers to make himself ugly—hunched, potbellied, flat-faced. When he was approaching death, he set himself the task of converting Somphon (Sanskrit Sambala), a Brahman who stubbornly rejected Buddhism, by delivering a series of sermons on impermanence in which he stated that the human body was a “public place” because its nine orifices (two eyes, two ears, two nostrils, mouth, urethra, anus) served only to emit impure excretions, and to admit impurities from the outside. Somphon was converted instantly, and went on to achieve nirvana. Gavampati subsequently also achieved nirvana, underwent a magnificent funeral ceremony presided over by the Buddha himself, and became an *arahant*. Since the Sukhothai era, Gavampati has been depicted in statuary as a potbellied monk, often known as Sangkachai or Mahakaccayana. In lore, images of Gavampati are credited with strong powers to convey invulnerability. See Lagirarde (2000, 57–78; 2003); Strong (2005); Kanchanakphan and Nai Tamra na Mueang Tai ([1961] 2002, 682); Yanchot (1995, 31–39).

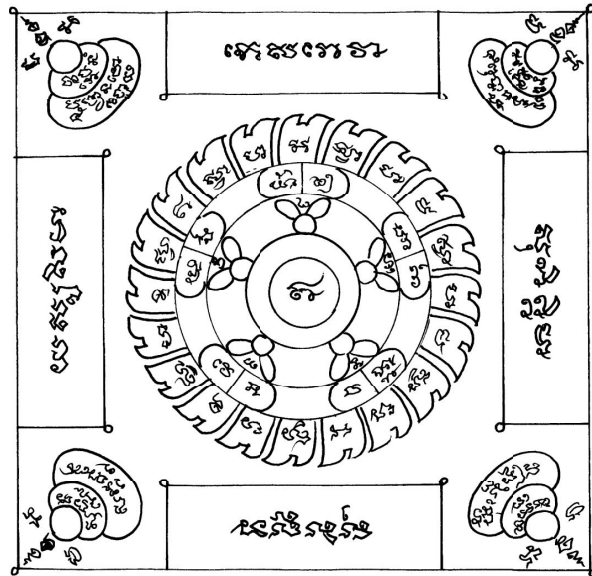


Fig. 7 Wheel Yantra



Fig. 8 Phakhawam

Buddha image. We cannot be sure the practice was not present earlier, but older amulets known today all seem to be of the “broken-wall” type (see above). The modern form of the amulet seems to combine the Buddha image of the votive tablet with the convenient portability of a *takrut*. This form was possibly inspired by the popularity in the mid-nineteenth century of small Buddha images with a hollow cavity containing a ball, which had been imported from China and dubbed *phra kring*, “bell Buddhas.” Today the most famous of the early amulet-makers is Somdet To (สมเด็จพระโต, also known as Phra Phutthachan), a monk who lived from around 1788 to 1872. According to one of the many versions of his life, he was a son of King Rama I, sired on a northern peasant girl. He was appointed abbot of Wat Rakhang in Bangkok, had a close relationship with King Rama IV, and became famous for his ascetic practice and supernatural powers (McDaniel, 2011, ch.1). He made several types of protective device, including yantra, but also Buddha amulets which are the most desired and most expensive in the market today.

Somdet To also wrote a manual on amulet making which shows the close similarity to the creation of yantra. In Somdet To’s description, the amulet is made from powerful materials (enchanted powder, precious metals, herbs used in lore) following strict rules, including the recitation of mantra, and finally is “activated” by ritual (*ibid.*, especially 189–219). Also like yantra, an amulet is effective only if made by a monk or adept famous for supernatural power (like Somdet To). In addition, most Buddha amulets have a small yantra inscribed on the reverse side.

Over the nineteenth century, some other famous monks produced amulets which are now highly valued, and the acquisition of these amulets became popular among the high elite. King Chulalongkorn sought them out during his upcountry tours. By the early twentieth century, amulets were being produced by monks famous for asceticism and supernatural power in many parts of the country, and the habit of acquisition spread more widely as mobility increased with the coming of roads and railways. Nobles and members of the emerging commoner middle class made pilgrimages to honor famous monks and brought back their amulets as mementos.

But only slowly did the amulet become the dominant protective device. Official patronage played a role. Since the Ayutthaya era, military leaders have distributed protective devices to their troops, mostly yantra in various forms. Troops sent to engage with the French in Cambodia in 1940 were given amulets but only senior officers and only an amulet with the image of a monk rather than the Buddha (Textor 1960, 526; Ruth 2011, 131–132). During the scares caused by bombing of Bangkok during World War II, the devices sought for protection were still mainly yantra and sacred water (Lawan Chotamara 1984, 228–229, cited by Chalong 2013). In the 1950s, Robert B. Textor drew up an inventory of supernatural devices found in a village outside Bangkok. He listed

118 objects as well as Buddha-image amulets. Simple amulets made from plaster were being manufactured by monks in the village, and Textor's informants estimated that 90 to 100 percent of households had one. But another 20 devices were owned by the same percentage (Textor 1960; 1973). Amulets were popular but not yet dominant. Writing in the 1960s and looking back to the recent past, W. A. R. Wood (1965, 88) placed the Buddha amulet as just one among many protective devices in everyday use:

There are dozens of different kinds—tattoo marks, written formulas, knotted strings, tiny images of the Buddha, precious stones, dried seeds, needles in the body, and others too numerous to mention.

Chalong Soontravanich traces the final rise to dominance of the modern amulet in two phases. The first took place in the era of lawlessness, banditry, and gangsterism after World War II. A small amulet market appeared in Bangkok. Experts authored two weighty biographies of Somdet To, compiled a compendium of known amulets, and identified a "League of Five" amulets of highest value. Businessmen sponsored the production of amulets by famous monks in batches of several thousand. Official patronage now focused on the amulet. The prime minister, Phibun Songkhram, distributed amulets to troops sent to Korea, and to constituents at the 1957 election (Textor 1960, 526). Soldiers who volunteered to fight in Vietnam in 1967 were given Buddha amulets by their commanding officers, by monks at the Temple of the Emerald Buddha, and by the prime minister (Ruth 2011, 45, 48, 67, 131–132). When Barend Terwiel surveyed supernatural practices in a Ratchaburi village in 1967, he found people wearing various protective devices including tattoos, yantra designs, sacred thread, and splinters of wood, but

Undoubtedly the most popular [protective] object which is worn on a cord or chain around a man's neck is the image of the Buddha. These images can be cast from metal, or carved out of piece of wood, ivory or resin, but the most common traditional ones are those manufactured from a mixture of many ingredients, pressed in a mould and baked. (Terwiel 1975, 62)

The second phase, according to Chalong, took place against the background of the war against communist insurgency in the 1970s and early 1980s, and the spread of mass media including newspapers, magazines, and television. By the 1980s, amulets had become prominent enough to warrant a major study by a leading international anthropologist (Tambiah 1984). In this era, businessmen and generals made merit by sponsoring the production and distribution of amulets to soldiers and villagers in the affected areas. Enterprising monks began manufacturing amulets on a large scale to raise funds for constructing *wat* buildings and schools. Among the most popular were amulets produced by Luang Phor Khoon, who was emerging as the most famous forest monk of the



era. The price of his amulets soared in 1993 when survivors of two disasters, a factory fire and a hotel collapse, publicly attributed their fortune to their Luang Phor Khoon amulets (Pattana 2012, ch.5; Jackson 1999). The popularity of amulets reached another stage in 2006–7 when a particular physical form, known as Jatukam-Ramathep, was no longer tied to a particular origin but effectively “franchised”<sup>30</sup> for production at many different places which competed by adding value in production materials and methods and by price-cutting, creating a brief marketing frenzy (Pattana 2012, ch.7; Reynolds 2011).

### Conclusion: Protection, Power, and the Buddha

In premodern Siam, seeking protection against danger was a key organizing principle of belief, ritual, education, and social structure. Protection was the main (though not sole) benefit of a vast range of devices and techniques culled from various traditions and described collectively as “knowledge.” The exchange of labor (or other services) for protection lay at the basis of the *sakdina* hierarchy and other forms of patronage. The ability to provide protection was partly a function of ascribed status, but also a skill gained through education and asceticism. The provision of protection was very much a male preserve.

The development of the lore of protection has a long but largely invisible history. There is some connection back to early Indic tradition, particularly that represented by the *Atharva Veda*, evident in the survival of the term *athan* as well as the similarity between the principles and devices found in that text and in Thai lore. The belief in supernatural power developed by ascetic practice, as well as belief in the role of spirits as the moving forces behind natural processes, are two other key elements of lore. What is striking is the way that these three elements are combined. An adept who practices self-mastery can convoke the spirits and activate the latent power of special substances. Yantra are the most prominent device in *KCKP* perhaps because of their ability to accommodate a range of techniques of power—the use of special substances in manufacture; the depiction of divine beings, powerful animals, magic numbers, and verbal formulas in the designs; the ascetic discipline required for manufacture; and the use of ritual for “activation.” Yantra are assemblies of power.

30) An earlier and more limited form of such “franchising” emerged around amulets named after Khun Phaen (although they depict a Buddha in the usual way, not Khun Phaen). The originals were first named after the Suphanburi *wat* where they were made but later enterprisingly renamed as “Khun Phaen amulets,” after which other production sites appropriated the same branding tactic. The Suphanburi National Museum has an extensive display.

Between the era of *KCKP* and the present, this wide range of devices has largely been replaced by one form, the Buddha amulet.<sup>31)</sup> In part this is because other forms have suffered a decline in popularity. A businessman can wear several amulets concealed under his shirt or in his pockets, but would probably feel ill-at-ease sporting a shirt dyed with yantra, a *phrajiat* bandanna round his neck, a *phirot* ring of plaited cotton on his finger, a *palat khik* wooden phallus dangling from his belt, a tattoo visible over his collar, a small buffalo charm or *phakhawam* carried in his mouth, and his lips smeared with beeswax.<sup>32)</sup>

The form of the modern amulet seems to have evolved as a marriage between the votive tablet and the *takrut*, a yantra strung on a cord. It grew in popularity very gradually over a century and a half. The amulet incorporates many elements of earlier devices, particularly the use of powder made from powerful substances, and the need to be made by a powerful adept and “activated” by ritual.

The rise of the amulet at a time when other devices were falling out of favor attests to the continuing importance of protection. But there is another important aspect of the story.

None of the protective devices found in *KCKP* feature an image of the Buddha. Excerpts from Buddhist texts were used in the composition of yantra and in the ritual of activation, and some disciples of the Buddha also feature in the imagery of yantra, but this explicitly Buddhist contribution is a rather small part of the lore in *KCKP*. Of course, “seeking the refuge of the Triple Gem” is a fundamental concept of the liturgy. The Buddha is invoked as a source of protection in early Buddhist texts, and has probably always been prominent in protective rituals of the court. But in the popular practice portrayed in *KCKP*, the Buddha as image or voice is noticeably absent. With the rise of the amulet, the Buddha has been transformed into the primary force of the protection once sought from many other sources in popular tradition. Production of amulets is now virtually monopolized by the *wat* and is a major part of the laity’s interaction with the *wat*. The process of producing amulets has been elaborated with the ritual paraphernalia of Buddhism—sacred threads, *sutta* chants, holy water—to a far greater extent than the production of protective devices described in *KCKP*. The chants which finally “activate”

31) Some modern amulets contain the same kind of unusual substances found in *KCKP*, such as mercury, cat’s eye, or splinters of ivory, rather than the Buddha. Some feature famous monks, Hindu gods, or royal figures. Yet the vast majority have an image of the Buddha.

32) These items have not disappeared, but their usage is now much more limited than the Buddha amulet. *Phrajiat* bandanas are often distributed to soldiers along with amulets, and are worn by boxers. *Palat khik* are often carried discreetly. A few adepts still use a wide range of the devices found in *KCKP*; see for example the famous policeman, Khun Phan, brilliantly analyzed by Craig Reynolds (2011).

a modern amulet invoke the power of the Buddha alone, whereas the parallel ceremonies in *KCKP* call on every possible variant of spirit and every known deity of the Indic tradition.

Some “reformists” decry amulets as antithetical to the Buddhist emphasis on the individual’s progress towards spiritual perfection “because protection and good fortune result from power developed through meditative and moral discipline” (Cook 2012, 37). But as Cook demonstrates, others argue that most people are only a small way along the path to perfection and can be helped in the short term by wearing devices which are instilled with the power of an adept further along the path. Besides, amulets and other protective devices are often believed to be only effective or more effective if the wearer observes good moral practice—an idea not found in *KCKP*. In this modern rationalization, the inner power of the seeker and the instilled power of the device are not contradictory but complementary, based on a single ideology of protection and power.

In short, compared to the era of *KCKP*, in ritual and ideology the Buddha now has a much larger role in the provision of protection, and the provision of protection has a much larger role in popular Buddhism.

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# Seeking Haven and Seeking Jobs: Migrant Workers' Networks in Two Thai Locales

Nobpaon Rabibhadana\* and Yoko Hayami\*\*

Thailand has seen a large increase in migrant workers from Myanmar since the 1990s. A constant flow of migrants arrive to seek refuge from dire circumstances in their homeland and/or to seek better work opportunities. They have adapted to changing state policy regarding their migrant status and work permits as well as to more immediate means of control. Previous works on this subject have tended either toward macro-level policy and economics, or more journalistic accounts of individual migrant experiences. Little attention has been paid to differences in the migrant processes and networks formed across the border and within the country.

In this paper two locales, one on the border (Mae Sot) and one in the interior (Samut Songkhram), are compared based on interviews conducted with migrant workers on their mode of arrival, living and working conditions, migrant status and control, and how they form networks and relations within and across the border. By comparing the two locales, rather than emphasize how the state and geopolitical space define mobility we argue that transnational migrant workers formulate and define their space through adaptive networks in articulation with geopolitical factors as well as local socioeconomic and historical-cultural dynamics. The dynamics among macro policies, micro-level agency of migrants, and meso-level networks define each locale.

**Keywords:** migrant worker, Thailand, Myanmar, family, state policy, social network, state formation

## I Introduction

There has been an increase in the number of migrants from Myanmar to Thailand since the late 1980s,<sup>1)</sup> spurred by Thailand's rapid economic growth. Interviews conducted in

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1) Many people have fled Myanmar due to violence in their homeland, and it is thus difficult to distinguish clearly between migrant workers and refugees (Faist 2000, 138). The total number of registered migrant workers from Cambodia, Laos, and Myanmar in Thailand in 2009 was 1.3 million, of whom 1.08 million were from Myanmar. The number of unregistered workers is estimated to far exceed this number.

the lowland Karen State, in the township of Pa-an, reveal that in the late 1980s the direction of migration among labor from Myanmar switched from westward toward Yangon to eastward over the mountains into Thailand (Hayami 2011). Each household had at least one member working in Thailand—in construction, fishery, agriculture, or manufacturing, or as domestic help. Migrant labor from Myanmar (as well as Cambodia and Laos) filled jobs that Thai workers considered “dirty, dangerous, and difficult.” The border zone may be regarded as an “economic dam,” where cheap labor keeps flowing in while their way into the interior is blocked. However, migrant workers also make their way into interior prefectures where working conditions as well as social and cultural contexts differ markedly from the border.

In this paper we study migrant laborers in two locales, one on the border (Mae Sot) and one in the interior (Samut Songkhram). By comparing the two locales, rather than unilaterally arguing on the manner in which state and geopolitical space define mobility, we suggest that transnational migrant workers formulate and define their space through adaptive networks in articulation with macro-level policies as well as local socioeconomic and historical-cultural dynamics.

Studies on migration have been carried out in the social sciences for over half a century, either in terms of rural to urban domestic migration, or the migration of Europeans and Asians to North America. The recent increase in migration to destinations formerly deemed “sending” countries has spurred renewed interest in the subject. Various approaches from multiple disciplines, beginning with the economic push and pull theories or dual labor market theory, world systems theory, and historical-structural analyses, have been employed to understand the phenomenon. It has become increasingly clear that a far more integrated perspective, which both incorporates the role of the state and pays attention to human agency, is necessary in order to view the migration systems and networks from a historical, political, and economic perspective, examining both ends of the flow and their linkages.

As a way of understanding migration, Caroline Brettell identified three levels of analysis (Brettell 2003, 2)—the macro, micro, and meso. The macro-level refers to the structural conditions that shape the migration flow and constitutes the political economy of the world market, interstate relationships of the countries involved, income differentials, the laws and practices of citizenship established by the state, larger ideological discourses, the demographic and ecological setting of population growth, availability of resources, and infrastructure. Transnational migration impacts the state policies of citizenship and sovereignty (Castles and Miller [1993] 2009), and states must regulate, control, and decide on how to deal with the influx and how to grant rights to immigrants. It is important to take note of changes in policies and regulations over time that control



the entry and exit of migrants, which are affected by Thailand's increasing demand for cheap labor.

In this regard, a key issue regarding borders and citizenship among migrant workers in Thailand is the registering of illegal migrants with work permits, a system that became institutionalized after 1992 (see next section) and which Pitch Pongsawat (2007) refers to as "border partial citizenship." The politico-economic order is constituted as an ongoing process between state exercise of power to control the border, exploitative capitalist development, and illegal immigrant workers' response to the situation, allowing the continued employment of migrant workers with low wages. This system contributes to the maintenance of an exploitative process. While registered worker status ostensibly grants "amnesty" to work in Thailand, workers are subject to search and street-level harassment by the police as well as exploitation by their employers, and their mobility is severely restricted.

In Pitch's view, if "border" implies the ability of the state to demarcate the boundary, then the Thai state policy to extend the conferral of "amnesty" to provinces away from the border as a flexible way of procuring cheap and exploitable labor could be seen as a way of forming borders beyond the physical border. As the number of provinces where such amnesty was extended increased, the border expanded (*ibid.*, 199). In this sense, the border extends into the lives of migrant workers in the interior parts of the country. Pitch's poignant critique of state policies evaluates the manner in which macro-level policies affect micro-level responses. Despite his assertion of the "non-physical border" existing in the interior provinces, Pitch discusses only Mae Sot and Mae Sai, two border towns, and does not delve into the system as it operates in spaces other than the immediate physical border. This paper, on the other hand, looks at the practices and processes of migration both on the border and in the interior, to consider in what sense the latter is, or is not, merely an extension of the physical border.

Micro-level analysis looks at the agency, desires, and expectations of individual migrants, and how larger forces shape their decisions and actions. In her work on Filipino migrant workers, Rhacel Salazar Parreñas (2001) points out that the transnational household must be seen as part of a larger extended family across borders. Transnational households are in many cases upheld by values of mutual help and support among extended family and depend on the resilience of such bonds. They also act as conduits of information and social networks and promote the continued flow of workers. This paper studies households as units of analysis, and reveals that these units are in fact part of a network that is dispersed across the border. Coping strategies are formulated within this network by utilizing opportunities in the different localities. Thus, micro-level analysis is inextricable from the meso-level.

According to Brettell, the set of social and symbolic ties and the resources inherent in these relations constitute the meso-level. While individual migrants seek to improve their lives and secure survival and autonomy, the decision to migrate is made in the context of a network of cultural and social ties. The meso-level is the relational dimension manifest in social networks, linking the areas of origin and destination (Massey *et al.* 1998). The networks provide the social capital and information that enable individual choices and agency within the constraints of macro structures, thus linking the three levels.

Social networks of migrants are contingent and emergent (Menjívar 2000, 36). Yet, migration studies have too often taken for granted “place” as given and static, from and to which people move. This reiterates the state’s perspective, where mobility is the anomaly and staying in one place is the norm. Toshio Iyotani suggests that the perspective might be reversed from understanding mobility between stable places, to understanding space from the point of view of mobility and migration (2007, 4). The focus of attention on network formation at the meso-level will allow us to look at space from a non-state perspective.

In his criticism of how social science theories have been dominated by state-centered frameworks, Willem van Schendel makes a similar point regarding border zones specifically, by focusing on the flow of people, goods, and information. In order to free ourselves of this state-dominated framework, he suggests that we look not only at state-defined maps, but at the cognitive maps of those involved in the borderlands in which “pre-border” and “post-border” maps are juxtaposed with the state-defined map (Van Schendel 2005). The pre-border map constitutes the network of relationships that preexisted and cuts across the state border, recognizing the social and cultural continuities inherent in it. These relationships, in the form of kinship and trade networks along with cultural and religious communities, not only persist despite state borders, but may provide security in the face of the division brought about by state-based maps. These pre-border relationships may enable adaptations to constraints brought by the state-defined borders by the creation of “post-border” maps. One attempt to look closely at these post-border maps is Lee Sang Kook’s study of migrant workers in Mae Sot (2007), which refers to the “border social system,” challenging prevailing notions of the sovereignty and social order of the state. Lee points out how informal institutions that are unique to the border constitute the political/economic space of the border.

The layered maps, from the perspective of the people who live on the border, allow us to look at the border not as a given static place, but as a space defined by an articulation between the state border, migrant processes, and networks and relations across borders, old and new. When viewed from this standpoint, the maps overlap. Rather than take for

granted state-defined maps and look merely at the flow between states, we will look at migrant spaces both on the border and in the interior from the point of view of the inhabitants of those spaces as well as those involved in the flow.

In Thailand, studies on migrant labor began with the recognition of the increase in their influx in the early 1990s. The studies can be categorized mainly into three types. The first are studies that look at the changing state policies on immigration and migrant labor in the long term (Kritaya *et al.* 1997; Phanthip 1997). Kritaya *et al.* pointed out at an early stage that Thai society did not prevent the assimilation of people from other countries; however, Thais accepted foreigners as one of their own only under certain conditions. Kritaya and Kulapa (2009) also studied the effects of the policy change in 2008 on the hiring process of workers from Cambodia, Myanmar, and Laos.

The second category constitutes studies that look at the conditions and realities of migrant workers. Some of these are statistical (Huguet and Sureeporn 2005; World Vision 2005), whereas others are more qualitative and descriptive of specific populations or issues, such as Chalernsak Ngaemngarm on the illegal Karen population in Mae Sot (1992), Sukhon Khaekprayuun on female workers in Samut Sakhon (2003), and Bussayarat Kaanjondit on unskilled migrant workers in Bangkok (2006). Nwet Kay Khine (2007) as well as Aree Jampaklay and Sirinan Kittisuksathit (2009) study remittance patterns, and Zaw Aung discusses Burmese labor rights protection and movements in Mae Sot (2010).

The third category are studies that analyze the factors that cause migration (Srinakhon 2000; Phassakorn 2004), mostly concentrating on the border situation at Mae Sot. Toshihiro Kudo focuses on Mae Sot, situated on the East-West Economic Corridor, and how industries have opted to stay on the Thai side of the border because of its infrastructure (availability of electricity, and roads that allow materials and products to be transported easily) and cheap labor (Kudo 2007).

In an integrated approach, Supang Chantavanich studies the impact of transnational migration on the border community in Mae Sot, examining the economic, social, cultural, political/legal, and health impacts of the increasing labor migration (Supang 2008). Dennis Arnold also examines the political economy of Mae Sot, with an eye on local and state-level authorities and agencies that operate to maintain the Special Border Economic Zone, the legitimizing of cheap labor and labor conditions, and how workers have coped in the face of this (Arnold and Hewison 2005; Arnold 2007).

The lens through which migrant workers in Thailand have been viewed thus far has been focused either on the border areas or on the perception that migrant workers are one marginalized category vis-à-vis state regulations. In social science discussions since the early years of the twenty-first century, there has been an emphasis on transnational

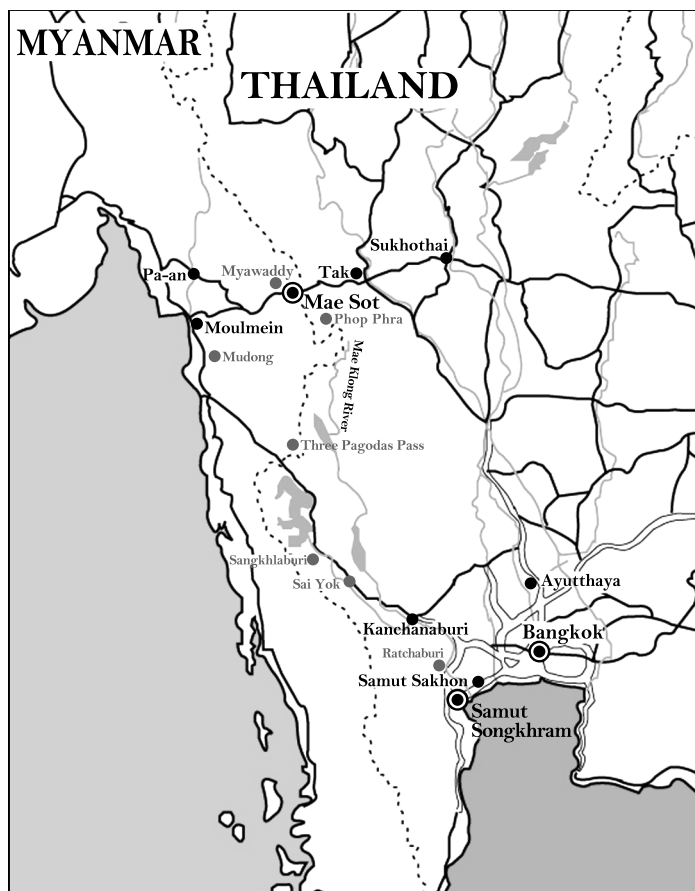


Fig. 1 Map of the Cross-border Region

space created by migrant networks (Faist 2000; Brettell 2003; Castles and Miller [1993] 2009). This has not been fully addressed in studies in Thailand, or in mainland Southeast Asia in general.<sup>2)</sup> In Southeast Asia, transnational networks are created literally across borders. The physical border itself is a political, sociocultural, and historical issue. This paper will reveal that the problems that migrant workers face, and the adaptations they experience, are not necessarily the same on the border as in the interior. It is the dynamics between migrant mobility patterns, their adaptive strategies, and the local historical development of sociocultural, economic, and political factors that shape multilayered space not only across the border but also within the same state-defined space.

2) A recent exception is the work of Maniemai Thongyou on Laotian migrant workers' cross-border networks in Thailand (2012).

This paper is based primarily on fieldwork conducted in two locations: Mae Sot and Phop Phra in Tak Province, and the provincial headquarters of Samut Songkhram (Fig. 1). A total of 18 interviews were conducted in Tak: four in rural villages on the road between Mae Sot and Phop Phra, and the rest in three different neighborhoods within the town of Mae Sot. In Samut Songkhram, 17 interviews were conducted in several neighborhoods, all in the central district of the provincial capital (Table 1).<sup>3)</sup>

After a brief overview of state regulations, especially those in Thailand, and an introduction to the two study locales—one on the border and the other in the interior—the main part of this paper will be based on interviews conducted in the two locales regarding the mode of arrival of migrants to Thailand, work conditions, migrant status, social networks and family formation, and cultural adaptation.

## II Background in Myanmar and Decision to Migrate to Thailand: Evolving Policies in Thailand

Laws governing the movement of people across borders were instituted in Thailand in 1950. Continuous changes and additions have been made since then with regard to laws and policies that control people's movements.<sup>4)</sup> The Immigration Act 1979, amended from 1950, is still primarily in effect (subsequent revisions pertained to details such as the immigration fee). The Alien Occupation Act, which aimed to control alien workers and reserve job opportunities for Thai citizens, was launched during the revolutionary council in 1972.<sup>5)</sup> In 1973, the law restricted aliens and foreign workers to 39 types of jobs. Up to 1978, the major concern in Thailand was national security and stability.

The Thai government took up a policy of "constructive engagement" with Myanmar that began during General Chatichai Choonhavan's administration (1988–91). Thai workers who were involved in the industrial and agricultural sectors began shifting to higher-paying work in the city, creating a demand for cheap labor. As the cost of labor increased during Thailand's boom decade (1986–96), particularly in 1991 and later when real wages

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3) Fieldwork was conducted during the following periods: December 2006; August–September 2008; February–March, August–September, and November 2009; and February–March and August–September 2010. The research was made possible by the G-COE Program of Kyoto University, In Search of Sustainable Humanosphere in Asia and Africa, Field Research Program for Graduate Students 2010, and the Scientific Research Fund (C) of MEXT (FY2009–11).

4) See Immigration Act 1950 (2493), 1979 (2522), and 1999 (2542).

5) The reason for this was the prevailing general sentiment that the large and increasing number of foreign workers diminished the size of the internal labor market, thus affecting the sustainability of the lifestyle of Thai people.

Table 1 Thirty-five interviewees from Mae Sot and Samut Songkhram

HH	Origin H	Origin W	Age H	Age W	1 <sup>st</sup> Arriv.	Where Couple Met	Permit	Wage H (Baht)	Wage W (Baht)	Work H	Work W	Remittance	Children's Birthplace	Children's Education	Working Children
M-1	Mon State	Mon State	53	D	1990	Myanmar	H, 1S, 2S	D40-60	none	agricultural	none	none	3 Myanmar, 3 Thailand (Hm)	2 LC, 1 PS	3 Thailand
M-2	Moulmein	Moulmein	D	53	1993	Myanmar	none	none	irregular	none	health worker and odd jobs	none	5 Myanmar, 2 Thailand (Hm)	2 LC	5 Thailand
M-3	—	Yangon	D	49	1999	Myanmar	none	none	irregular	none	daily wage work	none	3 Myanmar, 1 Thailand (Hm)	1 LC	3 Thailand
M-4	Moulmein	Moulmein	43	39	2003	Myanmar	H	D40-200	—	agricultural	piecework at home	none	4 Myanmar	2 LC	2 Thailand
M-5	Moulmein	Moulmein	35	left	1995	Myanmar	(until 2004)	D50-60	Canada	silk factory	—	none	1 Myanmar	1 Myanmar	
M-6	Yangon	Yangon	—	30	2000	Myanmar	HW (kept by boss)	D60	D65	textile factory	textile factory	irregular	1 Thailand (Hpt)	1 PS Thailand	
M-7	Mandalay	Mitkyina	—	24	1999	Mae Sot	H	M2,500	none	textile factory	child care leave	none	1 Thailand (Cin)	1 PS Thailand	
M-8	N.L.	Moulmein	42	39	1996	Myanmar	none	irregular	none	factory closed	factory closed	irregular	1 Thailand (Hpt)	1 LC	1 Thailand
M-9	Moulmein	Moulmein	51	37	1996	Myanmar	none	M1,000	D70	cattle raising	agricultural wage work	none	2 Myanmar	1 LC	
M-10	Pa-an	Pa-an	D	48	1999	Myanmar	none	none	—	none	agricultural	irregular	3 Myanmar, 1 Thailand (Hm)	2 LC	2 Thailand
M-11	—	Pa-an	D	42	1991	Myanmar	W	none	irregular	none	agricultural	1/year	2 Myanmar, 1 Thailand (Hm)	1 LC	2 Thailand
M-12	Mottama	Mottama	D	47	1999	Myanmar	none	none	D80-70	none	daily wage work	none	4 Myanmar	4 Myanmar	3 Myanmar
M-13	Hianghwe	N.L.	44	—	1987	Mae Sot	HW	M3,000	—	farm wage work	collecting and selling forest products	none	6 Thailand (Hm)	2 LC	4 Thailand
M-14	Pa-an	Pa-an	56	—	2001	Myanmar	none	D80-100	—	agricultural	—	none	6 Myanmar	2 LC	4 Thailand
M-15	Pa-an	Pa-an	65	56	1978	Myanmar	10yrs certificate	—	—	community leader	wage work on sugarcane fields	none	9 Myanmar, 1 Thailand (Hm)	no formal edu	10 Thailand
M-16	Pa-an	Pa-an	45	—	1987	Sukhothai	H W	M2,500	M2,500	factory	factory	—	2 Thailand (Hpt)	1 LC	1 Thailand
M-17	Pa-an	Moulmein	29	—	1999	Mae Sot	H	D100	D100	furniture factory	furniture factory (maternity leave)	irregular	1 Thailand (Cin), 1 Thailand (Hm)	2 PS Thailand	
M-18	Pa-an	Mon State	—	23	2000	Mae Sot	H	D75-80	D75-80	furniture factory	furniture factory	irregular	1 Thailand (Cin)	1 LC	
S-1	Mudong	—	33	—	1992	Samut S	H W	D170-200	D170-200	fish factory	fish factory	irregular	1 Thailand (Hpt)	1 PS Myanmar	
S-2	Moulmein	Moulmein	41	—	1991	Myanmar	H W	D150-180	D150-180	fish processing, fish market	fish processing, fish market	irregular	1 Thailand (Hm), 2 Thailand (Hpt)	1 Myanmar	2 Thailand
S-3	Yangon	Yangon	28	31	1999	Samut S	W	D150-180	D150-180	fish processing, fish market	fish processing, fish market	irregular	1 Thailand (Hpt)	1 PS Myanmar	
S-4	Tavoy	Tavoy	—	38	1992	Myanmar	—	—	—	squid processing	squid processing	2/year H, 1/year W	3 Thailand (Hpt)	2 Myanmar, 1 PS Th	1 Thailand
S-5	Moulmein	Moulmein	38	32	1994	Samut S	H W	M20,000	none	fishing and boat mechanic	maternity leave	irregular	1 Thailand (Hpt)	1 PS Thailand	
S-6	Irrawaddy Div.	Moulmein	35	31	1996	Samut S	H W	M20,000	none	fishing and boat mechanic	maternity leave	irregular	2 Thailand (Hpt)	1 Myanmar, 1 PS Thailand	

S-7	Pa-an	Pa-an	40	39	1962	Myanmar	H W	M4,000+	D150+	shell factory and dispatch	shell factory, cleaning oysters	irregular	1 Myanmar, 1 PS Thailand
S-8	Tachileik	Mudon	33	—	1992	Samut S	H	D170-200	D150+	shell factory manager	shelling oysters	irregular	2 Myanmar
S-9	Moulmein	Moulmein	28	23	2004	Samut S	H W	D150-180	D150-180	fish processing, fish market	fish processing, fish market	irregular	pregnant, Thailand (Hpt) none
S-10	Pa-an	Myawaddy	40	38	1990	Samut S	H W	D165 for	H&W	nam pla factory	nam pla factory	none	1 PS Thailand
S-11	Moulmein	Moulmein	39	39	1990	Samut S	H	M5,000+	D100-150	shell factory and dispatch	shell factory, shelling	irregular	1 Myanmar, 2 PS Thailand
S-12	Moulmein	Moulmein	55	53	1995	Myanmar	H W	M8,000+	M3,000+	fish packaging factory	accountant at fish packaging factory	none	5 Thailand
S-13	Moulmein	Moulmein	44	44	1990	Myanmar	H W, 1 3D	—	—	coconut factory, fish market	fish market	irregular	3 Myanmar, 1 Thailand (Hpt)
S-14	Mudong	Mudong	39	34	1998	Myanmar	H W	M5,000+	M5,000+	fish market	fish market	monthly	1 Myanmar, 1 Samut Songkhram
S-15	Moulmein	Moulmein	27	28	2000	Myanmar	W	—	—	fish market	fish market	4/year	none
S-16	Kawkaresik	Metama	35	29	1995	Samut S	HW	—	—	fish market	squid processing	irregular	1 Myanmar, 2 PS Thailand
S-17	Moulmein	Tavoy	26	25	2003	Samut S	—	D150+	none	fish market	maternity leave	4/year	1 PS Thailand
	M=Mae Sot S=Samut Songkhram					H=husband W=wife	S=son D=daughter	D=daily M=monthly					Hm=home Hpt=hospital Cln=clinic
													LC=learning center PS=preschool age PBS=public school

grew 8 percent a year, an increasing number of Myanmar workers migrated to Thailand to take up low-wage jobs. Jobs in fishery and seafood processing, plantations and agriculture, domestic work, and factories were often shunned by local Thais, and consequently the Thai economy became increasingly reliant on cheap migrant labor.

In 1992, Thailand took its first steps toward the adoption of an immigration policy for unskilled foreign workers by issuing short-term work permits in nine prefectures bordering Myanmar. Immigration law declared all migrant labor illegal, but workers were given permission to work by registering annually. Many anomalies cropped up as a consequence of this. First, in this system, workers were registered by a single employer and were not permitted to change employers unless they were re-registered by paying another full fee. Second, registration took place only twice a year, which rendered illegal those workers who entered the workforce in the interim period between the two registrations. Third, employers generally paid for the work permits of migrant laborers and deducted the amount from their wages in monthly installments. However, most small businesses and farms could not afford to pay the fees, and thus a large number of workers remained unregistered. Under such circumstances, both employee and employer were potentially vulnerable to harassment and extortion by the authorities. Fourth, those employers who did pay for the permits often held on to the original copy to maintain control of the workers for fear of losing them before the fee was repaid. This meant that workers were often unable to access health care and were subject to deportation because photocopies of documents were not recognized by the authorities. Fifth, not all incoming workers were aware of the registration procedure. Hence, migrant workers were faced with the constant threat of deportation with or without work permits, extortion by police and officials, heavy debts to the agents who negotiated their jobs leading to bonded labor, restriction of freedom of movement, and lack of health care. Their inability to speak Thai as well as their lack of information and awareness of labor and human rights added to their plight.

Subsequently, the laws aimed at controlling alien workers were revised with a gradual emphasis on human rights. This involved the opening up of previously restricted work areas, and the granting of employee rights and options to migrant workers.<sup>6)</sup> In 1996, the Thai government launched a regulation under the Ministry of Labor and Social Welfare that allowed foreign labor to enter the country legally, and to work under provincial restrictions and requirements. A significant number of migrant workers from Cambodia, Laos, and Myanmar were registered with the Department of Employment. They could now work in 39 (later 43) provinces in 7 (later 11) industries. This is what

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6) Nationality Act 1992 (2535) and 2008 (2551).



Pitch (2007) refers to as the extension of the border beyond the physical border. In 1998 the Labor Protection Law was enacted, and immigrant workers came under the control of labor welfare and the labor court so they could directly sue on issues related to labor protection.

In 2001 a new labor registration was instituted under Prime Minister Thaksin Shinawatra, when 560,000 laborers were registered in two months. Of this number, 40,000 were in Mae Sot. The annual cost of registration per worker was 4,500 baht, and it conferred on each worker the right to the 30 baht medical system. However, from the perspective of the workers, the economic and social costs of registration surpassed its merits.

In 2003, an MOU was signed to allow workers from Cambodia, Laos, and Myanmar to register in Thailand, yet it took a long time to negotiate the details between Myanmar and Thailand. The Myanmar government recognized the importance of foreign exchange remittances. It had implemented overseas employment since 1999, and official employment agencies had sprung up, sending workers to other countries in Southeast Asia as well as to the Middle East. The Myanmar government attempted to control remittance flows by sanctioning remittances through government banks and taking a 10 percent service fee on the transactions. Meanwhile, the black market for international transfers flourished. In 2005, Myanmar also strengthened its efforts to institutionalize migrant workers in other countries (Malaysia, Singapore, the Middle East, Korea, and Japan), and immigration offices were set up at three major points along the Thai-Myanmar border: Myawaddy (opposite Mae Sot), Tachileik (opposite Mae Sai), and Kaukthaung (opposite Ranong). In the same year, the Thai government executed a royal decree<sup>7)</sup> allowing illegal aliens to work without a restriction on their numbers.

In 2008, the Alien Occupation Act<sup>8)</sup> was revised to take into consideration and recognize that alien workers were an important factor in the economic progress of Thailand, explicitly stating that alien workers helped to drive the Thai economy. Moreover, the Thai and Myanmar governments agreed to carry out “nationality verification,” a process through which those with verified nationality could receive temporary passports.<sup>9)</sup>

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7) See more in the royal decree on the types of work to be prohibited for aliens in 1979 and in Government Gazette 2(4) (1993; 2005).

8) Migrant laborers also began to receive protection through the Thai government’s Protection and Control against Human Trafficking Act (2008) and Human Trafficking Suppression and Prevention Act 2551, which prohibited human trafficking of all kinds (Act of Protection and Control against Human Trafficking 2008 [2551]).

9) The same agreement had been made with Cambodia and Laos in 2006. The Myanmar agreement took much longer. The Myanmar regime instituted three border posts where the verification could be carried out, and the actual process began only in July 2009.

In 2009, Thailand reported that there were a total of 1.3 million registered workers from Myanmar, Cambodia, and Laos who resided illegally in the country and needed further verification of nationality to become legal migrants by February 2010. Migrant workers who failed to complete the registration process within the specified time period would be deported from the kingdom. However, one month before the deadline, only a small number of migrant workers had completed the identification process. Results from the verification of the nationality of workers from Myanmar as on 13 February 2010 showed a total of 26,902 migrants who went through the process at the three centers: 7,899 in Tachileik, 10,461 in Myawaddy, and 8,542 in Kaukthaung. There was an atmosphere of fear in the migrant community generated by a lack of information and an unclear understanding of the intent of the procedure, compounded by the workers' inability to pay the agents. Consequently, the ministry extended the time for nationality verification until the end of 2012.<sup>10)</sup>

### *Mae Sot*

The five districts along the border in Tak Province (Mae Sot, Phop Phra, Tha Song Yang, Mae Ramat, and Umphang) cover about 300 kilometers of border with forested hills and rivers. Historically, the area was a strategic point in the war and trade route from Mon country in Burma to Siam. Tak (Raheng) was the outpost of the Sukhothai principality. Prior to the imposition of the modern border, the area was a vibrant economic frontier since Britain started to explore the wealth of the region, especially the teak forests, as well as trade routes connecting its colonies to larger markets in China. When Thai King Rama III opened commercial dialogue with British Burma and conducted a survey of the area, the governor of Raheng pointed out 11 caravan routes cutting through the hills beside the Moei River and terminating at Moulmein. New forms of communication were implemented or proposed along this route, such as a postal service and a telegraph line.

Mae Sot was unclaimed prior to the demarcation of the border. Officers from Siam and Burma sometimes passed by to demand tribute from local Karen. This became the first area where the modern border agreement between British Burma and Siam was established in 1868. What had been forest settlements inhabited by Karen were promoted to a modern administrative town in 1898, bringing a gradual influx of the northern Thai population. Logging and border trade became key activities, and the market, which was frequented by Yunnanese Chinese Haw caravans, used British Indian currency. The city municipality of Mae Sot was founded in 1937. It is because of these historical and ethnic

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10) In January 2013, this was further extended to April 2013. In February 2013, there were 733,413 Myanmar migrants who had received the verification.

connections that to this day there are formal and informal networks of Karen, especially networks based on religious activities such as through the church or the Buddhist temple, and some based on political factions as well.

The town began to prosper in the 1970s, as it became the center of the black market border trade by the Karen National Union. Until the 1980s, the union controlled all routes and trade connecting Mae Sot to Yangon. On the Thai side, counterinsurgency brought about the development of infrastructure, and the road from Bangkok to Tak was completed in 1970. Whereas economic activities in Mae Sot had previously depended more on the Burmese town of Myawaddy, the political situation in Burma caused the center of urban development to shift to the Thai side.

In 1988, the movement for democracy in Burma sent students to the border. After Thai Prime Minister Chatichai's declaration of "constructive engagement" the same year, factories began to spring up in Mae Sot and an increasing number of Burmese workers migrated across to take up low-wage jobs. In 1993 three provinces, including Tak, were designated as special investment promotion zones. Factory construction along the border was encouraged, with tax and duty privileges offered.

After the 1995 fall of Manerplaw, the headquarters of the Karen National Union on the Myanmar side, the Thai government enhanced economic activities along the border. The Burmese regime controlled Myawaddy, under the influence of the Democratic Karen Buddhist Army, the Karen faction that was aligned with the regime.<sup>11)</sup> This was the turning point in Mae Sot's character and industrialization. In 1995, industrial investors arrived to employ the large pool of illegal migrant workers. The Thai-Myanmar Friendship Bridge was completed in 1997, and Burmese citizens gained the right to cross the bridge to Mae Sot without passports for a one-day stay.<sup>12)</sup> It was also in the late 1990s that former student activists from Myanmar began to get involved in migrant labor issues. A migrant workers' rights group called the Yaung Chi Oo Workers Association was formed in 1999.

In the 1990s Mae Sot was included in the Thailand Board of Investment's zone 3, which includes zones in the peripheries with tax privileges. It is also strategically located on the East-West Economic Corridor of the Greater Mekong Subregion scheme. The export quota system and joint venture investment instituted by the government, and the presence of cheap labor in Mae Sot, lured investors from Hong Kong and Taiwan via the Chinese business networks. In 2002 a cabinet resolution under the Thaksin administration declared Mae Sot a Special Border Economic Zone, encouraging investment, indus-

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11) Half of the 16 ferry piers at Myawaddy in 2003 came under the control of this faction.

12) Section 13 of Immigration Act 1979.

try, and trade and calling for an expansion of infrastructure, tax and custom privileges, and relaxing of labor restrictions. Together with the border trade and the influx of cheap labor, further investment was lured to the area. However, the resolution did not involve structural change. Then, in 2005, a bill was passed in which Mae Sot was designed to be a combination of industrial estates and governmental agencies, where the private sector was the investor while the government supported the fundamental infrastructure. In 2011 the Thai cabinet approved a budget for hiring a team of expert planners to design the zone, and a government subcommittee focusing on legal preparations finalized a draft royal decree to create a special entity to run the zone. The zone would cover three districts along the border: Mae Sot, the main area for border trade, investment, industry, and tourism; and Phop Phra and Mae Ramat, with their focus on agriculture and agro-industry.

On the outskirts of Phop Phra and Mae Ramat Districts are plantations for export crops. Employers are mostly local, and here the pattern of seasonal plantation discourages the labor registration process. In the border area on the route from Mae Sot to Phop Phra, several migrant communities have been established, the majority being agricultural workers. In larger communities there is a temple with resident monks from Myanmar, a small health center, a small cinema or a common area to watch TV, and a grocery store that keeps regular hours. In Mae Sot, there are also different ethnic groups of workers from Myanmar spread out in communities in different subdistricts. The residential arrangement varies from huts built on rented land to rented rooms.

### *Samut Songkhram*

Riverine cities such as Muang Mae Klong (Samut Songkhram) along the Chao Phraya have constituted important nodes since pre-Ayutthaya kingdoms. A large population, especially Mon, migrated to the area through the Three Pagodas Pass during the war between Ayutthaya and Burma, forming new communities along the river. In the lower Mae Klong, including Samut Songkhram, the communities experienced rapid growth from the reign of Rama I to Rama IV. Fruit orchards were planted, and the Mon population constructed temples as community centers. During the same time, the Chinese population started to converge around the Mae Klong River area. In Samut Songkhram canals were dug to create channels for improved movement of goods and trade, further drawing the Chinese population. In the late nineteenth century the Chinese population began to expand, leading to changes in the socioeconomic conditions of the lower Mae Klong and the development of the industrial and agricultural sectors in the area.

By far the largest population of Myanmar workers in Samut Songkhram is engaged in the fishing industry. In 1947 the Thai government stepped in to develop an operational

structure for the fishing industry, introducing several programs to develop the infrastructure so that the industry, which began as family businesses, became more commercialized after the end of World War II and expanded rapidly between 1960 and 1972. Large investments began to pour in. Bigger ships with larger cold storage facilities were employed, enabling travel over longer distances. The industry expanded, and export to neighboring countries soon began. Fish was sold in various forms, which helped the industry grow until 1973, when it began experiencing limitations through trade negotiations with other countries.

In addition to growing adversity from the foreign market, the industry was also facing a labor crunch and therefore needed to introduce workers from the northeast of Thailand. This population soon took control of the profession. In the 1990s, however, Thai laborers from this area began to disappear. There were too many risks to contend with, such as being taken prisoner while fishing in international waters, or storms. This led to the hiring of foreign workers. Initially the fishing business in Samut Songkhram relied on the fish market in the neighboring province (Mahachai, Samut Sakhon), but when this market became overcrowded Samut Songkhram opened its own fish market in 1989. As the market expanded in Samut Songkhram, so did the demand for labor.

In the capital city center of Samut Songkhram, there is a large community of migrant workers behind the fish market. Other communities are spread out in the city and beyond. The workers live mostly in rented row houses, some of which have a common room for recreational activities where workers from the neighborhood can converge. There are shops among the rented rooms that carry products brought from Myanmar. There is a temple called “Wat Mon” by Thais, as well as other Thai temples where workers from Myanmar, especially Mon—who are numerous in the region—attend activities such as religious ceremonies, funerals, or Thai language study.

In both Mae Sot and Samut Songkhram, there is a sense of community for migrant workers that extends beyond the kinship network. These communities are a source of support in times of emergency, and a locus for cultural activities where the workers share their customs. There are usually unofficial community leaders who are recognized by the authorities and are trusted by the residents to protect the communities. These leaders also help organize cultural and recreational activities, which sometimes involve trans-border cooperation. Occasionally workers seek help from nongovernmental organizations (NGOs) that pay regular visits to the community and provide various services, such as distributing medication and contraceptives, and disseminating information and knowledge about workers’ rights.

### III Arrival in Thailand

Among the migrant workers interviewed in Mae Sot/Phop Phra (Tak), all but one person had come either accompanied by or seeking the assistance of friends and relatives who were already in Thailand. They had either “crossed the river by ferry and walked through the forests” or “crossed the bridge,” some fleeing from dire circumstances. Those who had walked through the forests arrived in rural villages and started agricultural daily wage labor. Migrants started as illegal immigrants and lived with the insecurity of being arrested by the police and being deported. As such, they were prepared to take any job available.

Migrants interviewed in this area were from families of waged workers, petty traders, or peasant farmers. In two cases, the death of a husband had instigated the migration. In cases where a family moved, it was usually the husband or an older sibling who first entered and then later, once he had settled, called his wife or younger siblings to join him.<sup>13)</sup>

U (male, 43 years old) was the sixth of seven siblings, whose father died when he was three. Since his childhood he had peddled goods in Moulmein, as had his siblings. He married in Myanmar and had children. At 38, he decided to cross over to Thailand. He came by himself by boat and walked through the forest. Later his wife and children crossed over as well, and they met in the Forty-Second Kilometer Village. His friend lived there, and they decided to join him. However, after two months looking for work in vain, they decided to move to another village near Phop Phra. Now U works as an agricultural worker and lives with his wife and two children, as well as his younger brother and his child, who later followed him. (Case M-4)

E (female, 42), who is from Pa-an, first arrived in 1991. She entered by boat and walked through forests with friends, two men and three other women. In those days, border control was more lax than it is today. They lived in a village near Phop Phra and worked for daily wages in the fields. Her husband-to-be arrived later in Thailand. They had known each other in Myanmar and decided to marry in Thailand. They started a family and had three children in Thailand, but her husband died five years ago from a fever.<sup>14)</sup> (Case M-11)

By contrast, among the migrants in Samut Songkhram, at least 8 of the 17 interviewees explicitly mentioned that they had arrived with the help of an agent. In cases

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13) One of the interviewees mentioned the armed conflict in Myanmar as a reason for migration, and another mentioned that his house in Myanmar had been torn down. Many of the migrants came from areas affected by the armed conflict.

14) On the border, there were cases of divorcees as well as people who had lost a spouse. In 3 of the 18 cases, the husbands had died in Mae Sot from a high fever as they were unable to go to the hospital because they lacked permits. The bereft spouses did not return to Myanmar.

where the migrant moved directly from the border point to Samut Songkhram or to Bangkok, it was invariably through an agent. The agent's fee ranged from 2,500 baht for earlier arrivals to 5,000 baht 10 years ago; it has since soared to as high as 15,000 baht. In most cases, including those who used agents, the new arrivals had siblings or close relatives already working in the area. Some had initially worked in other areas closer to the border, such as Kanchanaburi or Rajburi, but eventually found their way to their current location where wages were higher and there were more job opportunities, seeking assistance from a sibling or close friend. In addition, in comparison with the migrants in Mae Sot, most migrants in Samut Songkhram appeared to come from a more secure background as land-owning farmers.

M (female, 39) and her husband, K (40), were from farming households in Pa-an and married before they crossed the border. Using an agent, who charged 2,500 baht per person, they arrived in Bangkok in 1992. M began work as a housemaid, and K worked in construction. They had to live separately. In those days phones were not easily available, and they saw each other on weekends. After two years in Bangkok, M became pregnant. Together, the couple returned to Pa-an, because they were afraid to go to a hospital in Thailand as they did not have any permits. Back in Myanmar, they farmed K's land. After two years they decided to relocate to Thailand again, leaving the child in M's mother's care. This time they entered Thailand through the Three Pagodas Pass to Kanchanaburi, and following the advice and introduction of friends, they arrived at Samut Songkhram. There they found work in marine processing factories. (Case S-7)

S (male, 39) and his wife, Y (34), are from Mudong, near Moulmein. They married in Myanmar and had one daughter there who was staying with Y's mother, studying in high school. S came first, in 1998, through an agent with 20 others via Sangkhlaburi. In those days there were not many agents, but entering Thailand was easier. After one year, he called Y to join him. Now it is far more difficult to enter, and agents' fees are expensive. (Case S-14)

There is thus a significant difference in the way that migrants arrive at these two locales. In Mae Sot, they arrive without the assistance of agents. Upon arrival, they have little choice but to seek employment in the border areas where they can get by using Burmese or Karen languages. In Samut Songkhram, migrants are ambitious enough to seek jobs with higher wages, and they have the means and financial resources to use agents. At the very start, therefore, a difference exists between those who have the means and channels to go to the interiors, such as Samut Songkhram, through an agent; and those who seek any improvement to their impoverished condition, arriving through their scant means at the border. In either case, however, they need to conceal themselves as illegal immigrants without work permits. Migrants walk through the forests at great risk with or without agents. Some catch malaria and die on the way, while others are caught and deported unless someone bails them out.

## IV Working Conditions and Migrant Status

Wages and working conditions vary greatly between regions and tend to be higher in the interior especially around Bangkok (Table 2). However, even though some border locations, such as Ranong, have a higher wage structure than Samut Songkhram, the latter offers workers the opportunity to hold two or more jobs simultaneously, such as marine processing or market aid in the morning and construction work during the day, so the actual wages can be correspondingly much higher (Table 3). In Mae Sot, as explained above, wages paid to migrant workers are kept far beneath the provincial wage level.

**Table 2** Minimum Daily Wages of Laborers in Thailand's Provinces (in baht)

Province	2011	2010	June 2008	2008	2007	2006	2005	2004	2003	2001 2002	1998	Oct. 1996	July 1995	Oct. 1994
Bangkok	215	206	203	194	191	184	175	170	169	165	162	157	145	135
Samut Sakhon	215	205	203	194	191	184	175	170	165	165	162	157	145	135
Ranong	185	173	169	163	160	155	147	143	143	143	140	137	126	118
Chiang Mai	180	171	168	159	159	155	149	145	143	143	140	137	126	118
Samut Songkhram	172	163	160	155	154	150	142	138	133	133	130	128	118	110
Chiang Rai	166	157	157	146	146	142	137	133	133	133	130	128	118	110
Tak	162	153	151	147	147	143	139	135	133	133	130	128	118	110

Source: Announcement from the wage committee regarding standard of wages Vols. 1–5, Announcement of the Ministry of Labor and Social Welfare Regarding Standard of Wages.

**Table 3** Comparison of Daily Work Schedule of Samut Songkhram Fish Market Worker and Mae Sot Farm Worker

Samut Songkhram Fish Market Worker	Mae Sot Farm Worker
2.30 a.m. Both husband and wife get up, cook breakfast, tidy the house.	5 a.m. Both husband and wife get up, cook breakfast, tidy the house.
3.10 a.m. Leave for work by motorbike; some couples work for different employers but at the same location.	5.20 a.m. Leave to work on the farm.
3.30 a.m. Start work at the fish market, lifting fish containers, sorting fish.	5.30 a.m. Start farm work, collect vegetables or tend the gardens.
4.30 a.m. Break	12 noon Lunch break
5 a.m. Resume work	1 p.m. Resume work
7 a.m. Finish work at the fish market.	3 p.m. Finish work, leave for home. If there is a lot of work, continue working.
8 a.m. Husband rides motorbike to do other work such as construction, while wife rides a bike to squid cleaning work or factory work.	After 3 p.m. Usually family time. Sometimes husband and wife might work another job or sell goods at the market.
12 noon Lunch break	
1 p.m. Resume work	
5 p.m. Wife goes home, or might stay at work longer if the work is not finished. Once home, the wife prepares a Burmese-style dinner for her husband.	
6 p.m. Dinner, TV, rest time	
7.30–8 p.m. Bedtime	



Among the 18 interviewees in Mae Sot/Phop Phra, 5 had jobs in factories and the others worked on farms or at irregular jobs. The wages started at 40 baht per day, an incredibly low figure.<sup>15)</sup> The number of workers with one-year work permits was less than half of the total number of interviewees, and even then, in many cases the permits were retained by their employers, adding to their sense of insecurity. This is corroborated by the Tak employment office figures showing that only 35 percent of migrant workers were registered (Fig. 2); in contrast, in Samut Songkhram 70 percent of migrant workers were registered. Interviewed workers in Mae Sot did not describe the relationship with their employers as one they could rely upon but said that, instead, they sought assistance mainly from NGOs operating in the area. As a rule, when they needed assistance they turned to the unofficial community leader, friends, acquaintances, or NGO staff who extended information on workers' rights and helped them claim these rights from their employers.

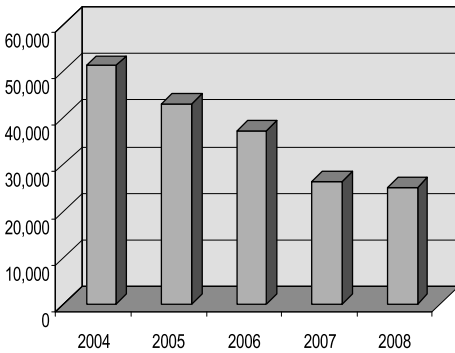
M (female, 24) met her husband in a carpet factory in Mae Sot. She no longer works, since her son is only one year and two months old. She delivered her son in Mae Tao Clinic.<sup>16)</sup> Her husband is now the sole earner in their family, earning between 2,000 and 2,500 baht per month. Paying the rent and feeding the three of them leaves barely any money for savings. In the past, she and her husband worked in a garment factory in Bangkok for a year. They were arrested by the police, detained for 48 days in Bangkok, and then sent to Tha Sib (a border checkpoint that serves as a detention center for deported workers). They were forced to spend several days at Tha Sib, until finally they found a friend to bail them out. Then they had to save money to repay the friend. The incident shook them up enough to prevent them from ever venturing into another province again. (Case M-7)

In 2000 J (female, 30) accompanied her husband to Mae Sot, where their son was born. She works in a textile factory for 65 baht per day, but her employer has not paid her wages for the past two months. Wage payment is always delayed, so the family cannot meet their basic living needs. J had a permit in the past, but since her current employer has taken it she cannot get it extended. Her husband is in exactly the same situation. He moved from the sewing section of the factory to the factory canteen, so that he could alternate with her in caring for the baby. He earns 60 baht a day. J works from 8 in the morning to 10 in the evening, with two one-hour rests during which she takes over the care of her baby from her husband. Her older sister works in a textile factory in Bangkok, where wages and working conditions are better, but now that J and her husband have the baby they are afraid to move to Bangkok for fear of being detained by the police and deported to Myanmar. (Case M-6)

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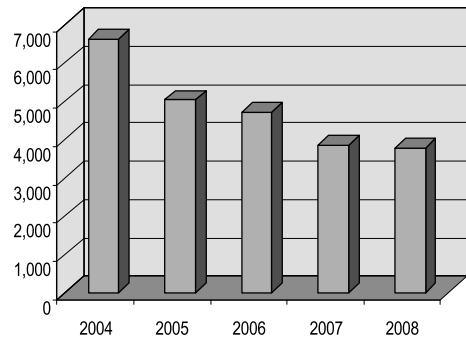
15) In the farming communities, the cost of accommodation was 100 baht per head for wood and bamboo huts that the workers built themselves. In town, it ranged from 200 baht for housing, plus 100 baht for gas, up to 500 baht. Accommodation was once free in these communities, but with the ever-increasing number of people the cost of living is rising.

16) A private clinic founded in 1989 by Dr. Cynthia Maung for migrants and refugees.



**Fig. 2a** Number of Registered Laborers in Five Border Districts (Mae Sot, Phop Phra, Mae Ramat, Tha Songyang, and Um Phang), Tak Province

Source: Office of Employment, Tak Province.



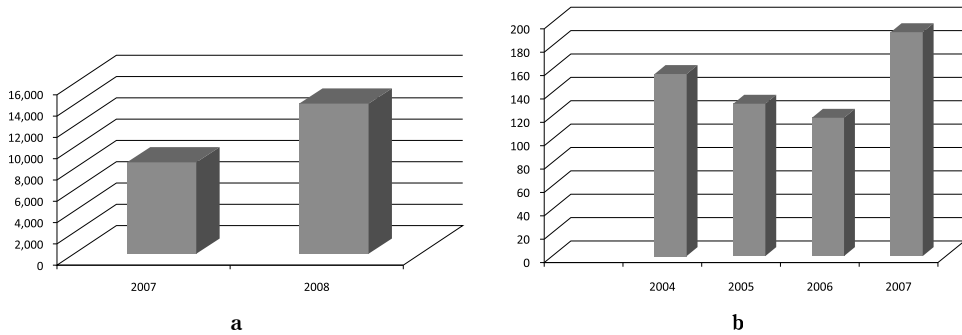
**Fig. 2b** Number of Registered Laborers in Samut Songkhram Province

Source: Office of Employment, Samut Songkhram Province.

Migrant workers continue to be vulnerable, for the police have free reign to arrest any worker on the street, lock them up, and wait for the employer to bail them out. As such, it is incumbent on employers to maintain a good relationship with the police. In the border region, complicit agreements between the authorities and businesses keep wages at a low level (Arnold 2007). There is a tacit understanding between the nexus of the chamber of commerce, the labor office, and factory employers—and stories abound of employers who delay or refuse wage payment or take possession of workers' permits. Under circumstances such as these, it is difficult for a worker to raise their voice against the establishment, as is obvious in the case of M below.

M (male, 35) and his wife came to Mae Sot in 1995. His wife applied for third-country relocation and moved on to Canada in 1999, leaving him alone. He worked in a textile factory from 8 in the morning to 10 in the evening with two one-hour rests, earning a daily wage of 50 to 60 baht. He had one-year work permits until 2004. After that he had problems with his employer, who would not give him a work permit. He could not seek any other work because his employer put his name on a blacklist of troublesome workers. Currently, he assists with work at the migrant workers' association. When he acquired his work permit several years ago, 400 baht was deducted from his salary to pay for it. Now, ironically, he loses 200 baht per month to the police. During work hours, he says, when there is an official inspection in the factory, those without work permits are instructed to hide in the forest; they are recalled when the inspection is over. Even so, life in Thailand, he stresses, is easier than in Myanmar. Now, without his permit, he also takes on various odd jobs outside the factory. (Case M-5)

Even under such harsh conditions, many workers interviewed professed that life in



**Fig. 3** Number of Foreign Laborers (Illegal Migrants Working without Permits) Arrested in Mae Sot District, Tak Province (a), and Muang District, Samut Songkhram Province (b)

Source: (a) Mae Sot District Council, Tak Province; (b) Muang District Council, Samut Songkhram Province.

Thailand was much better than in Myanmar. The reasons why they did not move on to areas such as Bangkok and farther south, where they knew that wages and conditions were much better, included the following: (1) some of them had no relatives or acquaintances and could not afford to hire agents; (2) they were afraid of being detained and sent back since they would have to bail themselves out, something many could not afford; and (3) their children could receive an education on the border (more on this below). With respect to the second reason, at least four of the interviewees in Mae Sot admitted that they had been detained and taken to Myawaddy and had to be bailed out (Fig. 3).

The prevalent practice among those interviewed in Mae Sot was that the husband would work with a permit, while the wife would stay at home with young school-age children without obtaining a work permit. This was different from the Samut Songkhram cases, where husband and wife worked together, both obtaining permits, and where in many cases young children were sent back to Myanmar for the grandparents to look after. The motivation to earn and save is evident in the case of migrants in Samut Songkhram, whereas in the border a majority of migrants lead a hand-to-mouth existence yet choose to stay because even under such harsh conditions, they believe that life is better there than in Myanmar.

While working conditions in Samut Songkhram are far from easy, wages are comparable with the local standard, and all of the interviewed workers had work permits that they extended every year (Fig. 2). They tended to remain loyal to their jobs, although most workers who were employed in the market did multiple jobs each day. Many couples did a double routine of working in the fish market early in the morning (starting around 3 a.m. and continuing to 7 a.m.) and then doing other jobs (Table 3). Men did construction work, while women took buckets of squid home to process (Table 4). Each

person earned around 170 baht per day, which added up to more than 300 baht for a couple. Room rent was between 1,200 and 1,800 baht per month.

J (male, 28) arrived in Samut Songkhram in 2004 and works in the fish market. Initially he earned the average newcomer wage of 80 baht per day, but now he brings home more than 100 baht. After working in the fish market in the morning, he sells fish or does other work the rest of the day. He is learning Thai through an extracurricular course provided at a Thai school. Both husband and wife hold work permits with the assistance of their respective employers in the market. In the beginning, when he did not have a permit, J was caught by the police on numerous occasions because the police recognized newcomers. Each time, he had to pay his way out with 500 or 600 baht. His younger brother was once deported, and it cost 12,000 baht to bail him out. J is now arranging to obtain a passport, which will allow him to stay in Thailand longer and to move freely. His current work permit restricts him to the prefecture he works in, and every visit to Myanmar involves payment for permission to travel, despite which he may find himself in danger of being caught on either leg of the journey. A passport will afford him the liberty to travel home as often as he wishes. His parents have never met his wife, with whom he met and married in Thailand. The couple's parents had a meeting in Myanmar, but he has not been able to return home so far. (Case S-9)

K (female, 32) met her husband (38) in Samut Songkhram. He has been in Thailand, working on fishing boats, for 10 years. He is the captain of a fishing boat, and he also works as its mechanic. K worked at peeling squid, but now that she has a three-year-old daughter her husband has asked her to stay home and look after the child. He returns home only once every three or four months, and rests for a week. He earns 20,000 baht per month. Both have work permits that they extend every year. Their monthly house rent is 1,400 baht plus gas (around 100 baht). Not only are they better off than most other migrant workers, but their family's relationship with K's husband's employer is exceptionally good. Her husband's employer drives K and her daughter to visit ports such as Prachuap or Chaam, where her husband's ship occasionally docks. Her husband could not speak Thai in the beginning, but he now speaks it fluently, which adds to the measure of his employer's trust. (Case S-5)

K's husband's case (S-5) is exceptional as he is the captain and mechanic of a fishing boat, which is considered skilled work. However, even in the case of unskilled workers, employer-employee relationships, as depicted by interviewees in Samut Songkhram, tend to be positive. Many interviewees refer to the assistance they receive from their employers in a variety of situations such as marriage, sending their children to school, recommending hospitals, helping pay hospital fees, and recommending medications. The employers also assist in extending their work permits and sometimes agree to pay the registration fees for them in advance. In some cases where workers get arrested by the police, their employers help in negotiating their release. NGO officers in Samut Songkhram disclosed that they advised migrants mainly on health and hygiene issues, rather than issues of workers' rights or quarrels with employers.

**Table 4** Business Owners Hiring Foreign Laborers from Laos, Myanmar, and Cambodia in Samut Songkhram and Tak in 2010

Type of Business (for Migrant Laborers)	Tak		Samut Songkhram	
	No. of Employers/ Businessmen	No. of Laborers	No. of Employers/ Businessmen	No. of Laborers
Fishing (working on fishing boats)	0	0	84	714
Fishing-associated jobs (working in fish markets, sorting fish, etc.)	5	11	229	3,858
Agriculture and livestock (working on farms and orchards)	669	2,146	35	421
Construction	386	1,297	34	722
Housemaids or janitors in factories (cleaning or looking after goods as specified by employers)	791	1,175	66	425
Agriculture-associated jobs (sorting fruits and vegetables, cutting, and processing)	220	245	59	722
Livestock-associated jobs (working in slaughterhouses)	11	116	1	22
Recycling (garbage collecting, sorting, and processing)	52	145	18	472
Metal distributors (manual laborers or cutters)	27	187	3	68
Food and beverage distributors (carrying crates, organizing food and beverage on shelves or as instructed by employer)	108	286	34	1,252
Production and distribution of construction materials (carriers, cutters, or production workers)	52	288	11	184
Production and distribution of clothing (sewing, folding, and arranging)	403	13,575	1	3
Production and distribution of plastic (carriers of plastic containers, cutters, and repair workers)	12	300	4	20
Production and distribution of electrical appliances	24	82	1	21
Unloading of cargo offshore, onshore, and in warehouses (carriers)	74	326	7	57
Wholesalers, retailers, and stalls (delivery, carrying, and arrangement of goods)	704	1,712	13	318
Garage, car wash	67	297	2	26
Gas station (refueling or as specified by employer)	21	69	8	63
Education centers, foundations, associations, and hospitals (caregivers)	27	92	2	9
Other services	59	122	10	214
Mineral and stone mining	3	12		
Agricultural production and sales	11	134		
Stonemason	17	63		
Papercrafts	6	20		
Total	3,749	22,700*	622	9,591**

Source: Office of Employment, Tak Province and Samut Songkhram Province.

Note: \* Numbers show laborers who have been granted permits or those who have been allowed to work. The Office of Employment at Tak estimates that the total number of workers both registered and unregistered amounts to 64,049, so that the above registered numbers amount to 35 percent.

\*\* Numbers show laborers who have been granted permits or those who have been allowed to work. In addition, according to the Office of Employment at Samut Songkhram, the number of registered and unregistered migrant workers is approximately 13,590, so the registered constitute approximately 70 percent of the total.

Cases of deportation are heard of frequently among newcomers without work permits in Samut Songkhram, who are vulnerable to arrest and deportation. However, Samut Songkhram workers are better able to pay the cost of the bailout. For newcomers the first year, more than any other time, is the most difficult. They have no work permits, lack information, and must adjust to the cost of living, since there are many wage deductions by the employer in cases where employees take loans to pay an agent. Once the workers find jobs, however, they begin to learn, from both Thai and Burmese acquaintances, the minutiae of Thai regulations and their rights in Thailand, such as workers' rights regarding wages and the changing policies regarding migrants.<sup>17)</sup>

As stated above, migrant workers can now apply for nationality verification toward obtaining temporary passports, which will grant them fully legal status. Workers in Samut Songkhram have started to apply for nationality verification and passports through this system. For workers, the most significant advantage of obtaining a passport is that it will allow them freedom of movement back and forth between Myanmar and Thailand, as well as within Thailand. Without a passport, the risk and expense for each trip is very high, forcing workers to limit visits home to once every few years at most. If they have to travel through another province in order to reach the border, the risk multiplies. Leaving the country is relatively easy, but reentering is very difficult. The border point is increasingly difficult to pass, requiring high sums to be paid to agents. Once workers prove their nationality and hold passports, they can travel freely. In addition, if workers have a passport and work permit, their family members or companions have the right to apply for a visiting visa.

In stark contrast, none of the workers interviewed on the border in Mae Sot/Phop Phra were undergoing the nationality verification process. Interviews in Mae Sot revealed that migrants were not well informed about it. Moreover, there was less need felt for it as those on the border did not need to travel through other provinces to reach their homes in Myanmar. According to information from the Employment Office in Samut Songkhram, as of August 2011 there were a total of 3,613 migrants (37 percent of all registered workers) whose nationality verification had already been processed. In Tak Province there were a total of 3,853 (16 percent of all registered workers: note that the rate of registered workers with permits was much lower in relation to the total number of workers), which reflects the general trend of drastically lower rates of registration.

It is apparent from the interviews that the difference in the condition of workers between the border areas and the inner regions is not only in wages but, more impor-

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17) See more in the announcement of the Ministry of Interior regarding special cases for allowing some aliens to enter and live in Thai territory: items 4 and 6, section 17, Immigration Act 1979.

tantly, in migrant status, stability and relationship with employers, access to information, and motivation in the work situation. Working conditions and relationships with employers thus differ markedly between the two locations. In Mae Sot, the structure of relationships among the authorities, businesses, and workers is exploitative. The benefits of registration are low in such a setting.

## V Social Networks and Family Matters

Choices regarding family formation, distribution, and mobility are affected by the conditions surrounding the workplace, as well as migrant status, and differ significantly between Mae Sot and the interior. Some of the migrants marry and start their families before migrating to Thailand, in which case the choice is whether and when to bring other family members. For those who marry in Thailand or migrate as couples, the choice is where to have children and where to bring them up. This affects their remittance patterns and their connection with their homeland.

### *Family Formation, Bringing up Children*

Migrant workers began to flood into Samut Songkhram in the 1990s, mostly new arrivals who were young couples or unmarried youth who married and started families after their arrival. Of the 17 couples interviewed, 10 had met and married in Samut Songkhram, while 7 had been married before.<sup>18)</sup> This being the scenario, most of the couples began to have children after arriving in Samut Songkhram. In Mae Sot, on the other hand, 13 interviewees already had a family before coming to Thailand.

When a migrant is pregnant, especially in the case of young first-time mothers, she might choose to return home to seek the guidance and help of her mother and relatives. However, such a decision is fraught with uncertainty and fear regarding communication with Thai police and officials on the return journey. Some migrants give birth in Thailand. In the case of migrants without work permits in Mae Sot and Phop Phra, women give birth either at home with the help of a midwife from their community, or at the NGO-founded migrants' clinic. In Samut Songkhram, where most women and men have work permits, the choice is always to give birth in the local public hospital, where a birth certificate can be obtained. This means that the child can later apply for Thai

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18) Even though they met and married in Thailand, notably, four are from the same general area (Moulmein, for example) and four others are from the eastern part of Myanmar (Karen State, Mon State, or Tannintayi).

citizenship.<sup>19)</sup>

In Mae Sot and Phop Phra, even in cases where the young mother returns home to Myanmar to give birth, in most cases she returns with her children rather than leave them in Myanmar with their grandparents. In the 18 interviews at Mae Sot and Phop Phra, there were only three cases where children were left in Myanmar for their education. Migrants at the border, who lead a hand-to-mouth existence, cannot afford to send regular remittances to their parents to look after their children.

In four districts adjacent to the border in Tak, there are about 11,000 Burmese children annually enrolled in the 134 schools under the Thai educational system (from kindergarten to 12<sup>th</sup> grade). However, education for children of migrant illegal workers is available on the border in the form of “learning centers” (LCs). These are private schools for migrant children outside the Thai educational system. They provide education for migrants’ children close to their own community (Premjai 2011). Classes are taught in Burmese, Karen, or other ethnic languages. There are also Thai teachers who help students learn the Thai language. In 1999, 60 LCs formed an organization called the Burmese Migrant Workers Education Committee. These schools differ in size and in the age of students, but they all have 80 to 150 students, from kindergarten to fifth grade. Since these are unofficial teaching centers, they operate like NGOs and are funded and supported by international organizations. Tuition is free, and technical work support is also provided. Children who go to LCs rarely have the opportunity to go on to higher education, since LCs function outside the formal curriculum. A small number of higher education institutions, usually funded by NGOs, offer further education; all of them are in Mae Sot, including in the refugee camps.

M (female, 48) came to Mae Sot in 1999 with her husband and children. A year ago her husband passed away with a fever. Her children go to an LC where teachers from Myanmar teach 50 migrant children. Her three older children were born in Myanmar before they moved to Mae Sot, and the youngest was born in Mae Sot. At the time of the youngest child’s delivery, M and her husband called a midwife to their home because they were afraid to go to the hospital. The eldest daughter (23) now works for a daily wage on a farm. Of the three sons, the eldest works in construction, has already married, and lives in Mae Sot. The two younger sons are still at school (LC), and M hopes that they will complete school even though they will not receive any diplomas. She sends remittances occasionally to her mother, who lives with her younger sister, her only sibling.

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19) With this certificate, the children of migrant workers born in Thailand can submit an application for citizenship when they are of legal age, even if the parents were not legally married. This does not mean the automatic conferral of citizenship, as that depends on the state’s deliberation of such factors as the parents’ personal history of cohabitation and past records. With a work permit a worker is able to apply for the 30 baht health card, so a mother with a work permit pays only 30 baht for delivery, while a baby’s health expense is around 900 baht.



The two older children contribute their wages to the household budget. M has no relatives in other provinces and has never thought of relocating. (Case M-10)

N (female, 39) had her first child after coming to Thailand. Her daughter has joined a school near the community. N says that she cannot afford to send her daughter to study in Myanmar. She can rarely send remittances to her mother back home as she has barely enough to make a living for herself. She visits home once a year with her daughter. She and her husband (42) have never been to another province; they confine themselves to their area and do not plan to look for work anywhere else because they have their daughter to look after. (Case M-8)

A marked contrast can be found in the manner in which migrants in Samut Songkhram educate their children. Most children are sent back to Myanmar, which is costly in terms of remittance. A few send them to the local Thai public school, seeking admission with the help of their employers.<sup>20)</sup> In 10 cases of those who gave birth to children in Samut Songkhram, the choice was to give birth in Thailand and then, when the child was around five years old, send the child back to Myanmar to study. In one case, the woman returned to Myanmar to have the baby, left the child in her mother's care, and returned to work in Thailand. In cases where the child remains in Myanmar, it is usually the grandparents who look after the child with the help of other relatives nearby. Remittances are sent for the child's school fees as well as living expenses. In one case, a child who had finished schooling in Myanmar joined her parents in Thailand. Her birth certificate from Thailand enabled her to obtain a Thai identification card.

T (male, 33) has two children (ages 9 and 5) who stay with his wife's mother in Mudon (Myanmar). They were both born in Samut Songkhram and have birth certificates. When the older child was six, their mother took both of them home. The older child goes to school, and the younger is preparing for admission into school. The couple prefer to have their children educated in Myanmar, because this allows them to concentrate on their work in Thailand without the attendant distractions of child rearing. They talk to their children on the phone once or twice a month. (Case S-8)

V (male, 41) and his wife, M, have three daughters, aged 17, 15, and 8. All three were born in Thailand. The oldest was born at home when they worked in Tsai Yok (on the border), and the

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20) In 2005 the Thai Ministry of Education laid out a regulation according to which migrant children had the right to receive an education regardless of their parents' legal status, and public schools would receive a budget from the government to accept such children. However, the actual management of the regulation has been left to local administrations, which has hindered its implementation. In Samut Songkhram, migrant children enrolled in public schools are a very small minority (123 in 2009). Learning centers are limited to those run by NGOs to prepare younger children to enter Thai schools. In neighboring Samut Sakhon Province, which also has a large number of migrant laborers, greater public school enrollment has been observed, due to support by NGOs; yet it has been reported that migrant parents of Mon derivation prefer to send their children to learning centers run by Mon NGOs (Notsu 2010).

other two were born in the hospital. M returned to Myanmar after the birth of her first baby, for in the absence of telephones in those days it was hard for her to get advice on child rearing from her mother in Myanmar. When the child was 14 months old, mother and child returned to Thailand. The two older daughters attended school in Tsai Yok, the older one up to third grade, after which she was sent back to Myanmar. She was five years old when she began school and remained there until she was eight. The youngest child is currently attending school in Moulmein. She was sent to Myanmar when she turned five, with M's sister who was visiting. V wanted to bring her back to Thailand, but M's sister insisted on the child staying with her in Moulmein. V says he will bring her to Thailand once she is a little older. The family has since moved to Samut Songkhram, and the two older daughters work processing squid. (Case S-2)

M (female, 39) and K (male, 40) had their first baby in Pa-an after a stint in Bangkok (Case S-7, see arrival section), and they stayed on in Myanmar for two years working in the fields. They then decided to relocate to Thailand, so they left the baby with M's mother and sister. They work in Samut Songkhram, and it was here that they had their second child. This time, since they had a work permit, they opted for delivery in Mae Klong Hospital. The child is now eight years old and goes to a local Thai public school. M wanted him to go to Myanmar to study, but the son did not want to go. K's employer assisted them in placing him in the local public school. The school fees are approximately 100 baht per month, and textbooks cost several hundred baht per term. The couple hope that he will finish high school. Their daughter is now in seventh grade in Myanmar. She has never been to Thailand, and she currently lives with her aunt (M's sister) and works in the fields. M and K send remittances regularly and call home every month. M hopes that their daughter will eventually join them and work in Thailand. M took her son to Myanmar for three months when he was nine months old, when her mother was seriously ill. The boy has not been to Myanmar since. (Case S-7)

Families make decisions as they gain knowledge and experience in ways of coping, and as their children grow up. Among the interviewees in Samut Songkhram, in only three cases had the children studied in a Thai public primary school. Gaining admission in Thai schools has thus far not been a common choice, for several reasons. First, it has not been easy for migrants to enter a Thai school. Strong support from an employer has made it possible for some. The documentation work has, however, become much easier, and more parents may make this choice in the future.<sup>21)</sup> Second, it is easier for parents to work from before dawn to late in the evening if they do not have young children living with them. Third, many parents confess that they prefer for their children to study in Burmese schools and receive an education in Myanmar. Once they finish school, in most cases children join their parents in Thailand.

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21) In Samut Songkhram municipality, there has been a small but definite increase in the number of non-Thai students from the year 2006 onward, most of who are children of Burmese migrant workers. The number of students increases each year. In four schools in the municipality, the number rose from 7 in 2006 to 66 in 2010.

*Remittances and Ties across the Border*

Due to the dire economic situation of most workers in Mae Sot and Phop Phra, sending remittances regularly to Myanmar is difficult or impossible. Of the 18 interviewees, 5 explicitly said that they had no money to send back (2 of them said they sent remittances until they had their own children). Only two replied that they sent remittances every year. In both cases, some of the children are grown and now working.

N (female, 39) came to Mae Sot in 1996 with her husband. They have a 10-year-old daughter who was born in Mae Sot and now goes to a nearby LC. Eight years ago, the textile factory in which K and her husband worked closed down. Since then, the husband has sought daily jobs. They have not considered moving elsewhere where the wages are better, because they want their daughter to receive an education in the current setting. K says that they do not have the money to send her to school in Myanmar. K sends remittances to her mother whenever she can, which is not often. She goes home to Myanmar once a year with her child. Crossing the bridge by car and traveling to Moulmein takes one day and costs 20,000 kyat. She has 10 older sisters and one older brother. One sister remains in Moulmein with her mother, working in the fields. Three are in Bangkok, and the rest are in Mae Sot. K lives with her husband and his mother, who helps to take care of the child. (Case M-8)

Remittances from Samut Songkhram are more regular and systematized, as workers in Samut Songkhram are financially better off. Samut Songkhram parents with children in Myanmar send remittances to cover the expenses of their upkeep. In 8 of the 17 families surveyed, the children stayed in Myanmar and remittances were sent mainly to cover their expenses. Remittances were sent for other purposes as well. In two cases, the couples were building their own house with their remittance. In four cases, the couples were young and without children, or they had children in Thailand but sent remittances to their parents.

N (female, 38) came to Thailand 20 years ago, and after a few years working elsewhere she came to Samut Songkhram, where she met her husband (40). They returned to Myanmar for their wedding. Their son attends a local Thai public school. When their parents are sick they go back to Myanmar, and when there are religious ceremonies and various other events they remit additional money besides their regular remittances twice a year. (Case S-10)

J (male, 28) and S (female, 23) are newly married. They both send remittances to their respective parents. They pay, on average, around 50 to 60 baht per 3,300 baht to remit money to Myanmar through an agent. (Case S-9)

S (male, 39) and his wife, Y (34), married in Myanmar and migrated to Thailand. Their daughter was born in Samut Songkhram and then sent back to Myanmar with Y's mother, to whom the couple sends 3,300 baht per month out of their total average monthly salary of 10,000 baht. They want their daughter to visit Thailand from time to time, but primarily to study until university level

in Myanmar. Their daughter is already in her second year of high school. S and Y came to Thailand initially by following the trail of S's older brother. The brother has now returned to Myanmar and has built a house with his savings. S, too, is hoping to save enough to build a house and purchase some fields, and to live with his family back in Myanmar. He intends to stay in Thailand until he has saved enough to secure his future. His house is already under construction, and Y's mother oversees it. (Case S-14)

The differences in remittance patterns between the border area and the interior are corroborated by Nwet Kay Khine, who compared the remittance practices and the support system between Bangkok fishery workers on the one hand and Mae Sot factory workers on the other (2007). Among Bangkok workers, the average wage was 191 to 195 baht per day, and they sent home monthly remittances ranging between 100,000 and 200,000 kyat. These were sent by way of what the author refers to as the "hundi" system. Remittances cover debts incurred back in Myanmar, or are sent to workers' families who are in many cases taking care of their children. The remittance system, which has been in operation since the late 1990s, works in such a way that workers choose the agents with the best rates, and the agents rent their mobile phones to the workers so that they can inform the recipients in Myanmar that the money has been remitted.<sup>22)</sup>

It is more difficult for factory or farm workers in Mae Sot and Phop Phra to send remittances regularly; and when they do, it is through less systematized channels, such as asking a village acquaintance to carry the money home, or waiting for a family member to come and collect it. When a co-villager is requested to carry money home, a fee of 200 kyat per 10,000 kyat is paid. Others claim that they carry some money home every few years. In some cases, those in Mae Sot are at the receiving end of remittances sent from Bangkok. In one case, a couple in Mae Sot/Phop Phra received monthly remittances of around 1,200 to 3,000 baht from their daughters in Bangkok. They themselves sent remittances home to Myanmar irregularly.

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22) There is a "primary collector," a small-scale trader who may have been a migrant him/herself. He makes money from the exchange rate and the phone call fees. He sends the money he collects to the bank account of a "secondary collector." The secondary collector is a businessman who has a passport and bank account in Thailand and who travels back and forth across the border often. The secondary collector contacts the distributing agent on the Myanmar side. The distributor receives the notice and contacts the recipient to come and collect the money at a certain time, and to let them know when to wait for a phone call since the recipients in Myanmar usually do not have their own phones. The cost of sending 100,000 kyat home is 50 to 70 baht (in 2009, 100,000 kyat was equivalent to 2,650–2,670 baht). The recipient pays 500 kyat as courier fee to receive 100,000 kyat (Nwet Kay Khine 2007).

*Networks of Family Relations Extending on Both Sides of the Border*

It has been demonstrated that from the outset, the choice between moving from their homeland in Myanmar to the Mae Sot/Phop Phra border region on the one hand, and moving directly to the interior on the other, involves a different set of preparations and mediations, and results in vastly disparate work conditions as well as choices for the family. The kind of adaptation required in each locale differs. However, the border can become a stepping stone in the march to the interior—if not taken by the original migrant, then by the next generation or other relatives.

Workers in Mae Sot/Phop Phra recognize that wages are higher in the interior. However, their physical mobility depends greatly on the condition of the family. Older parents may have children who work in the interior and may receive remittances, while they stay on the border, continuing daily wage labor, often without work permits. Their children become their new resource by moving to Bangkok. In two cases that we encountered, children sent remittances to parents on the border.

W (male, 44) got married in his early 20s when he returned from working in Lampang. He met his wife when he first came to Mae Sot. They have six children between the ages of 7 and 20; one died in childhood. All of his children were born in Thailand, delivered by a Karen midwife in their community. His son works in Mae Sot, and his daughters work in Bangkok as housemaids. They talk on the phone almost every day, and the daughters send remittances to their parents whenever possible. His two youngest children attend an LC. (Case M-13)

E (female, 42) came to the border area in 1991. She married in Thailand and has three children. Her husband passed away from a fever five years ago. The two older sons are working in Bangkok, receiving computer training as they work. She talks to them every Sunday on the phone. The youngest goes to an LC in Mae Sot. At the time of the birth of her first two sons, she returned to Pa-an in Myanmar so that her mother and siblings in Pa-an could help her cope with the birth and early childcare. One month after giving birth she returned to Thailand, leaving her older son in Pa-an until he came to Mae Sot at the age of eight. The second son studied up to second grade in Myanmar and then moved to a Thai temple for education. The youngest has never been to Myanmar and now studies in third grade at an LC. E also looks after her nephew (the son of her sister who works in Bangkok). E has seven siblings: three sisters are in Thailand, and the rest are in Pa-an tending to the fields. E sends annual remittances to her mother of around 50,000 to 60,000 kyat. She returns to visit her mother once every year or two, without passing the border checkpoint. (Case M-11)

We also encountered cases where migrants on the border looked after the children of siblings who worked farther in the interior, and who sent back remittances to the border for the upkeep of their children.

In Mae Sot, workers are not dependent on their parents or their family in Myanmar for raising their children, and they are not able to send remittances very often. Con-

versely, in Samut Songkhram, migrant workers draw upon the help of their relatives in Myanmar for support in bringing up their children. Remittances are sent regularly, and cultural and social ties are maintained. In a sense, for those in Samut Songkhram, ties with the homeland are based on mutual dependence of child care and remittance, whereas for migrants in Mae Sot they are based on sociocultural proximity and physical contiguity. In either case, networks of family relationships are formed on both sides of the border. For the former set of migrants, networks and ties of mutual dependence extend widely between various parts of Thailand and especially the homeland, and are actively maintained. For the latter on the border, mobile offspring or siblings may move to the interior and send remittances back to the border, while ties with the homeland tend to become secondary in spite of their physical proximity to it.

## VI Cultural Practices and Future Plans

Even as workers maintain ties with their homeland and seek refuge in a community in which they can continue cultural and religious practices in their own style, it is crucial for them to acquire the ability to communicate and adapt to Thai culture and society to a certain extent in order to be able to negotiate with employers, police, or administrators and to improve their own conditions overall. Linguistic ability is one clear measure of the readiness to adapt, but not to assimilate, to the Thai context.

In Samut Songkhram, the workers interviewed were making the effort to learn Thai. First-generation migrants who have been in the country for more than five years, both male and female, are able to speak Thai to some degree. Here, life would be difficult without adapting to the Thai context, because the migrants are enveloped in a Thai world. Within their community they maintain their customs and language, but they adapt to the Thai setting outside the community, where they refrain from chewing betel or wearing their Burmese sarongs. There is also a school for children to learn Thai that is run by NGOs, as well as one for adults at the education center where lessons are given twice a week for 400 baht a month.

Workers in Samut Songkhram are eager to improve their skills at work, as well as their linguistic skills and relationship with their employers, because it means gaining their trust and obtaining better wages and improved work conditions. Employers and employees enjoy the benefits of mutually stable relationships. Yet, despite these relationships and efforts to adapt, 6 of the 17 respondents in Samut Songkhram clearly said that they wanted to return to Myanmar once they had saved enough money. The rest were ambiguous in this regard, especially those few who had children studying in Thai schools.

L (male, 39) makes approximately 5,000 baht a month working at a seafood factory. He also helps with the accounts and in dispatching products. He finished high school in Myanmar and initially worked in Mae Sot selling textiles in the market. He paid an agent and relocated to Samut Songkhram. His wife works in the same factory shucking oysters at 8 baht per kilo. Their rent is paid by their employer. L speaks Thai fluently, and he can also read and write. When he first came to Thailand he could not speak the language, but when he was caught by the police and detained for a few months, he studied it. He now has a work permit. His wife still does not have a permit, which means that she cannot move around Thailand freely—but if she gets in trouble, his employer will help. L is currently in the process of obtaining nationality verification. With this under his belt, he can travel freely to and from Myanmar, and he can bring his daughters back for holidays in Thailand. His daughters are currently staying with his parents and attending school in Moulmein. (Case S-11)

P (male, 40) and his wife have many siblings living together in the same row house. Their son and their nieces and nephews already have either Thai identification cards or birth certificates. Five of P's siblings and three of his wife's siblings are in the same province. Everyone speaks Thai. His son, however, speaks Thai better than any other language. They had a local Thai helper look after him when he was young, and this person persuaded the parents to send him to a local Thai school. (Case S-10)

In Samut Songkhram, the outlook toward the future is split, and the decision seems to depend mostly on the choice of the children. In the case of S-10 above, for example, the family will stay on with the children's generation who are fully adapted to Thailand, whereas in other cases (such as S-14) remittances to Myanmar are made to ensure a better future back home, and the children are educated in Myanmar for their future in the homeland.

In Mae Sot, the number of Thai speakers among migrant workers is low, especially among women. In 12 of the 18 cases, the respondent said that she/he could not speak Thai. The need to speak the language and to better adapt to the social and cultural context of Thailand seems to be much weaker on the border, which is characterized by a multiethnic and multilingual population. Where the context itself is one of a multicultural frontier, it is easy to get by with Burmese or Karen anywhere in the town, and many of the workers live in communities of migrants.

Curiously, however, physical proximity to the homeland does not seem to be a measure of the strength of migrants' ties to it. It may seem rather contradictory that many of those on the border who are uninterested in learning Thai also state that they will never go back to their homeland again. Fifteen of the 18 respondents said that they would probably never go back to live in Myanmar. The nuance, in most cases, is less a matter of hope and choice than destiny—they have no place to go back to. One respondent explicitly declared that she would not go back to Myanmar because all of their children

had now come to Thailand, even though their status was illegal, and there were no close family members left in their home country. This may be due to the refuge situation as well as sociocultural constitution of the border region itself. It is indeed a frontier for those coming from Myanmar, many under dire circumstances. There is less a sense of crossing the border for better wages and a better future, and more a sense of coming to the frontier in a continuous sociocultural space, where life is far more tolerable than the social, economic, and political conditions at home.

## VII Conclusion

Migrant workers from Myanmar to Thailand come from varied socioeconomic and geographical backgrounds. The migration is instigated by hopes for refuge from the dire conditions of living in their home country, and/or by an aspiration for better earnings and a better life.<sup>23)</sup> Because of this, they endure the hardships of migrant status, even if it means taking up demanding jobs and not being selective about their working and living conditions. Migrants in most cases are supported by networks of family and kin in Thailand and across the border. One person's move brings opportunity for others who follow, expanding networks, decreasing risk, and providing support and opportunity. This fosters the development of a spatial network that expands both across the border and between different localities, constantly redefining their space. The two locations studied here differ markedly in working and living conditions, cultural adaptation, and modes of connecting with the homeland. The major points of comparison are indicated in Table 5 (see also Fig. 4).

The larger structure of exploitation by "border partial citizenship" and the overall condition of migrants being marginalized workers is the same in both locales, despite local differences in the structure of exploitation. This is the invisible border (Pitch 2007) that they must live with, whether close to or distant from the physical border. However, we have found that the actual implementation of state regulations and the experience and modes of adaptation by migrants differ markedly in the two locales. From the migrants' point of view, Thailand is not a uniform space. The ways in which migrants form networks and define their respective spaces differ, and across these varied spaces further networks are formed, thus constituting multilayered spaces.

In Mae Sot, on the border, migrant space is defined, on the one hand, by the nexus

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23) The fine line that separates the choice to live in or outside the refugee camps needs to be the topic of another investigation.



**Table 5** Comparison of the Two Locations

	Mae Sot, Phop Phra (Tak)	Samut Songkhram
1. Arrival in Thailand	<ul style="list-style-type: none"> <li>- Came either accompanied by or with the assistance of friends and relatives.</li> <li>- Minimum travel expense</li> <li>- Came from across the border.</li> <li>- Families of wage laborers, petty traders, or peasant farmers</li> </ul>	<ul style="list-style-type: none"> <li>- Arrived through an agent.</li> <li>- Paid agent fees.</li> <li>- Came from across the border or from within the country close to the border.</li> </ul>
2. Working conditions and migrant status	<ul style="list-style-type: none"> <li>- Wages lower than minimum set by provincial regulations</li> <li>- One-year work permit held by less than half of the interviewees; in some other cases, the permits were kept by their employers.</li> <li>- When in need of help, they go to the unofficial community leader, friends, acquaintances, or NGO staff.</li> <li>- Non-negotiable position vis-à-vis employers</li> </ul>	<ul style="list-style-type: none"> <li>- Wages level with minimum set by provincial regulations</li> <li>- Had work permits that they extended every year, and have started to apply for nationality verification.</li> <li>- Help is extended by either the employer or local NGOs.</li> <li>- Negotiable and sustained relationship with employers</li> </ul>
3. Social networks and family situation	<ul style="list-style-type: none"> <li>- Women give birth either at home with the help of a midwife, or at the NGO-founded migrants' clinic.</li> <li>- Children study at "learning centers."</li> <li>- Remittances to Myanmar are irregular.</li> <li>- Some receive remittances from children and siblings in other parts of Thailand.</li> </ul>	<ul style="list-style-type: none"> <li>- Give birth in the local public hospital.</li> <li>- Children are sent back to Myanmar to study.</li> <li>- Regular remittances to Myanmar</li> </ul>
4. Cultural practices and future plans	<ul style="list-style-type: none"> <li>- The rate of Thai speakers among migrant laborers is low. Low interest in learning Thai.</li> <li>- Local multicultural border community is easy to adapt to.</li> <li>- Lack of strong intention to return to Myanmar</li> </ul>	<ul style="list-style-type: none"> <li>- Able to speak Thai to some degree. Interested in learning Thai.</li> <li>- Must adapt to the Thai context.</li> <li>- Diversity of intentions: some intend to return after saving for future.</li> </ul>

between state and local agents/authorities as well as business owners/employers, which maintain the exploitative structure; and, on the other, by migrants who construct their space in response, based on pre-border as well as newly formed post-border networks and institutions such as the organization of learning centers, local migrant communities with their leaders, migrant workers' organizations (Zaw Aung 2010), and religious networks. Many migrants in Mae Sot migrated due to dire conditions on the other side, but make use of the cultural continuity across the physical border, expanding their frontiers by use of the "border social system" in that locale.

Migrants to interior provinces seek better-paying jobs and arrive with the costly help of agents. In Samut Songkhram, where migrants arrive with the expectation of wage labor opportunities, the border is physically distant and the sociocultural continuity is felt less. Migrants cross the border to reach the interior, where they must to some extent

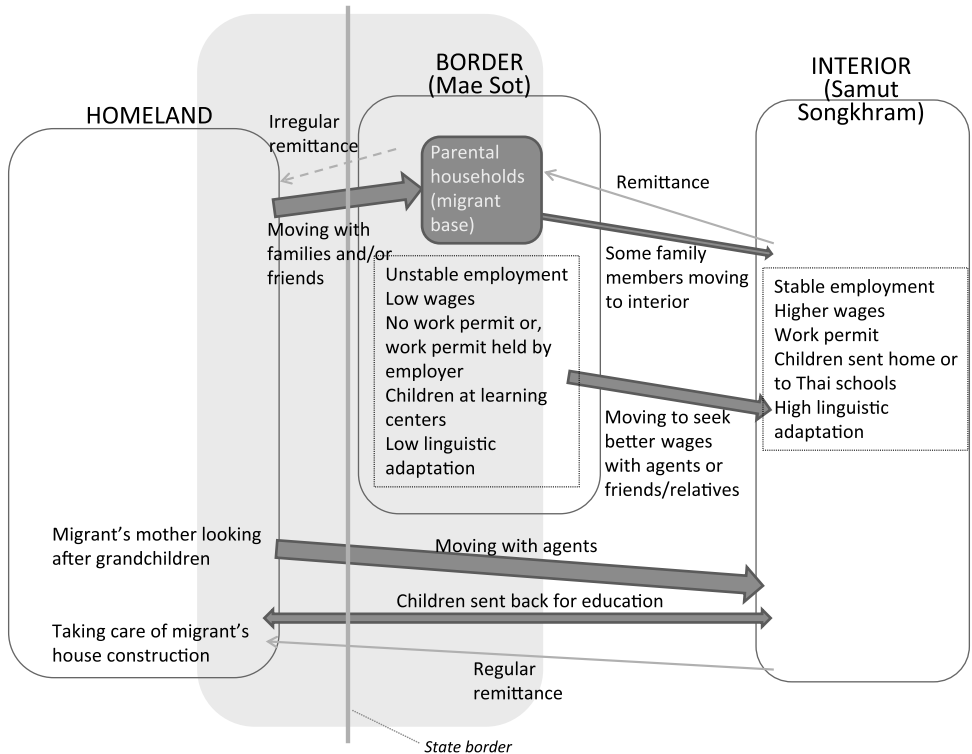


Fig. 4 Conceptualizing the Migrant Flow

adapt to the Thai context but can expect better rewards by doing so. They can gradually achieve a more comfortable space for themselves, while continuing their own cultural practices in the local community and devising ways to maintain ties with their homeland across the distant border.<sup>24)</sup>

We have found that the decision to migrate at the outset is spatially two-tiered: mobility to the border or to the interior. Furthermore, migrants in the first category or their family members may later seek jobs for better wages in the interior and thereby expand their networks. As a result, we find multilayered spaces that connect locales in Myanmar, the border, and the Thai interior (Fig. 4).

Of course, one must not easily label Mae Sot as a border community and Samut Songkhram as interior. Each location has its historical, cultural, economic, and industrial

24) While the newly instituted nationality verification process may enhance this tendency, the future for migrant labor from Myanmar is impossible to foresee. The regime has opened up to both, forces of democratization within the country as well as to foreign involvement, so that labor demand may rise within Myanmar itself.

constitution that articulates with the migrant processes to form its own distinctive space. The exploitative structure and the constant influx of migrants that mark Mae Sot as a border is not representative of, nor applicable to, other border locations, as Pitch demonstrates in his comparison between Mae Sot and Mae Sai (2007).

We have demonstrated how migrant networks extend within and across the border and how relationships in the networks vary, for example, in the nature of interdependence. This has led to clarifying the manner in which migrants create layers of space by weaving relationships across given political-economic and social contexts. By forming networks in and across these locales, migrant workers better adapt and make use of the migrant labor opportunities despite severe difficulties. Foregrounding the network has allowed us to highlight sociocultural relations in and across the border region as well as the different spaces found in locales within the same state territory, thereby de-privileging state-defined borders and spaces as the sole definitive factor.

This paper has employed the integrative approaches of the meso, micro and macro, ultimately focusing on the networks. This in itself is not new in migration studies (Faist 2000; Brettell 2003). Here, however, we reconsider this in the context of mainland Southeast Asia, where transnational migration takes place in contiguous spaces, crossing physical borders. This has allowed us to see that even space within a nationally defined border is not uniform in the perspective of migrants, who formulate multilayered networks and spaces, thereby forming their space at the border as well as within and across the border. Such an alternative space does not replace the state-defined space; however, it demonstrates that migrant spaces are formed and expanded in the process of their dealing with that monolithic state-defined space, which ultimately dynamically articulates with policies and regulations by the state and locale. By illuminating the spaces formed by networks of migrants from Myanmar to Thailand, this paper has demonstrated that the dynamics of meso-level networks cannot be separated from the functioning and institutionalization of the macro-level on the one hand, and the micro-level decisions by migrants on the other, and that the networks in effect articulate with the geopolitical and socioeconomic setting to form multiple spaces for migrants in and across specific locales.

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# Emergent Processes of Language Acquisition: Japanese Language Learning and the Consumption of Japanese Cultural Products in Thailand

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Motivation for learning a second language varies among individuals: some people enjoy the process of learning languages, while others learn a second language for practical reasons. Previous fieldwork research in Thailand has shown that many consumers of Japanese cultural products are also learners of the Japanese language. This suggests that Japanese cultural products motivate consumers to start studying Japanese and to continue learning it. In this study, two hypotheses will be posed in order to reveal the relationship between the consumption of Japanese cultural products and Japanese language learning: (1) exposure to Japanese cultural products induces Japanese language learning, and (2) Japanese language learning induces the consumption of other Japanese cultural products. Through questionnaire research conducted on university students in Thailand and through ethnographic data, this study attempts to examine the hypotheses and to demonstrate a continuous cycle model of Japanese language learning and the consumption of Japanese cultural products.

**Keywords:** Japanese, pop culture, cultural product, language acquisition, motivation, Thailand

## Introduction

During the last few decades, Japanese pop culture has become very popular throughout the world, especially in Asian countries. *Newsweek* on November 8, 1999 reported that many characters from anime (Japanese animation) such as Pikachu (Pokémon), Hello Kitty, and Doraemon were consumed by the new generation of middle-class Asian consumers, and that X-Japan, Puffy, and other Japanese music icons as well as TV stars had attracted the younger Asian generation, which yearned for more Japanese pop culture (Koh 1999).

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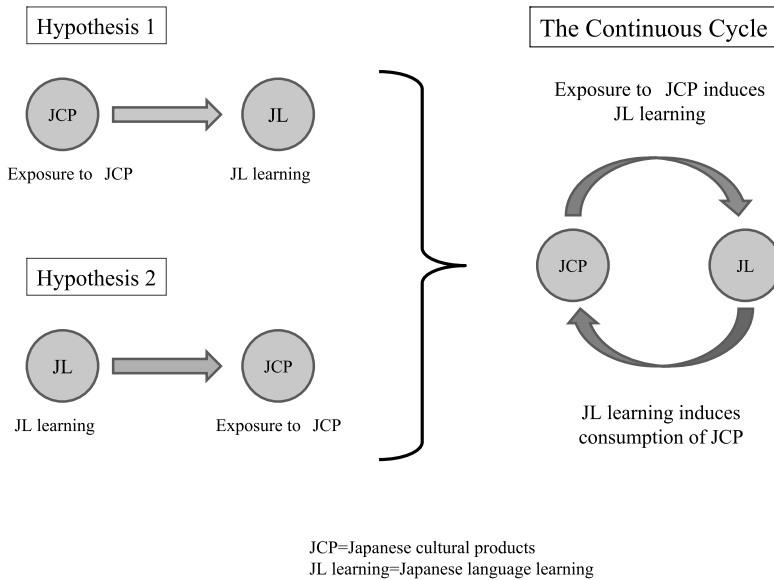
Although commodified culture, which generally comprises a high proportion of native speakers, tends to flow between countries of the same language culture, Japanese is spoken only in Japan—and its commodified culture is formed mostly from the Japanese language. In order to consume Japanese cultural products, however, knowledge of the Japanese language is not necessary, since most of the products are translated and/or localized for consumption in each country and region of the world. In Thailand, manga (Japanese comics) are translated into Thai, and anime (Japanese animation) is subtitled or dubbed in Thai by Thai voice actors. Some Japanese fashion magazines are published in Thai, and readers can obtain up-to-date information about Japanese clothes, fashion, cosmetics, and accessories in their first language. Most of these products are readily available in Bangkok and are also sold in stores across Thailand.

Although Japanese language ability is not absolutely necessary for the consumption or enjoyment of Japanese cultural products, it can be an advantage for consumers of them if they want to consume them enthusiastically and pleasurably. In a previous study, a questionnaire research on fans of the Japanese male idol group w-inds., which was conducted in Bangkok in 2007, revealed that 52.9 percent of respondents started studying the Japanese language after they became w-inds. fans (Toyoshima 2011, 122). Twenty-five percent of respondents had started learning Japanese before they became fans, and 18.3 percent said they wanted to learn Japanese, which means 97.1 percent of fans had experienced learning Japanese or were interested in doing so. They needed Japanese language ability to read the lyrics of the songs, to listen to the video interviews, to write fan letters, to read idol magazines, to read information on the Internet, and so on.

In another study conducted in Bangkok, in October 2008, a questionnaire research on cosplayers—fans of the *otaku* subcultures of manga, anime, or video games who create costumes and props related to their favorite characters and wear them to conventions and expositions—revealed that 42.3 percent of respondents had studied Japanese in the past and 23.1 percent were currently studying Japanese (*ibid.*, 180). Titles of several manga, anime, and video games are translated into Thai, but there are many more that have not been translated yet. If Thais want to consume such “untranslated” products, they need to study Japanese.

The two above-cited questionnaire research surveys on Thai youths reveal that the consumption of Japanese cultural products is closely related to Japanese language learning. Based on the research results as well as interviews I have conducted in Thailand over the past several years, I realize that there is a relationship between the consumption of Japanese cultural products and language learning; these surmises can be summarized in the hypotheses in the following paragraph.

First, exposure to Japanese cultural products induces Japanese language learning



**Fig. 1** The Hypotheses

(Hypothesis 1). When one starts liking a Japanese cultural product and wants to consume it more seriously or deeply, one may start wanting to learn Japanese. Second, Japanese language learning induces the consumption of other Japanese cultural products (Hypothesis 2). When one studies Japanese, one may be exposed to additional Japanese cultural products, especially through interaction with other Japanese learners who are consumers of those products, and one may develop an interest in other Japanese cultural products. Lastly, if the first and second hypotheses are proved to be true, they can be combined to theorize a continuous cycle of language learning and consumption of Japanese cultural products (Fig. 1).

This study seeks evidence to prove the two hypotheses, and it discusses the process of the continuous cycle as the driving force for the popularization of Japanese cultural products in Thailand. Through discussing and testing these hypotheses, I will try to answer two questions: Is the consumption of Japanese cultural products a motivation for starting to learn the Japanese language among Thais? And does Japanese language learning motivate language learners to consume more Japanese cultural products in Thailand?

## Research Method

The discussions in the following sections are supported by three kinds of sources: (1) concepts from previous studies (literature review), (2) an overview of Japanese language education in Thailand, and (3) questionnaire research results. In the following sections, concepts in culture and media studies (“geolinguistic region,” “cultural discount,” and “cultural odorlessness”) will be introduced, and then language acquisition will be presented. Following the literature review, there is a brief explanation of the Japanese language education system in Thailand. After that, I present the results of a questionnaire survey on university students majoring in Japanese in Thailand. Lastly, the discussion and conclusion are presented.

In this study, a questionnaire was administered to 78 Japanese major students in Chulalongkorn University (Table 1) between October and December 2008. The questionnaire forms were distributed in classrooms by a professor in the Japanese language department. Most of the respondents were in their third or fourth year of studies at the university, but there were a few first- and second-year students among the respondents. The questionnaire was qualitative in nature, as many of the questions were open-ended and the students could write freely in the space provided. In addition to the open-ended questions, the questionnaire included “Yes/No” questions and “fill-in number” questions that could be analyzed statistically. The reason I embedded the latter questions in the questionnaire was that such questions can provide basic descriptive data on the respondents—and because they are simple and easy for students to answer instinctively.

It is important to note that the questionnaire results in this research are mostly descriptive; and they are used to complement the qualitative analyses. What is important for this research is to show as many opinions and comments from the respondents as

**Table 1** Questionnaire Respondents’ Age and Sex

Age	Sex			Total
	Male	Female	No Answer	
17	0	0	1	1
19	0	25	1	26
20	3	14	2	19
21	0	6	0	6
22	4	3	0	7
23	0	1	0	1
Total	7	49	4	60

Source: Compiled from questionnaire results.

Note: Only 60 respondents divulged their age.

possible, thus demonstrating with empirical data the relationship between Japanese language learning and the consumption of Japanese cultural products.

## Concepts from Previous Studies

### *Language, Culture, and Cultural Products*

In discourses on audiovisual cultural products or “media products” such as films and television programs, some cultural and media scholars have used the term “geolinguistic region,” which means “all the countries throughout the world in which the same language is spoken.” According to these scholars, media products in a certain language can be marketed more easily in countries that belong to the same geolinguistic region (Sinclair 1996, 42). A good example is the English-speaking world: producers in the United States are able to spend expensive budgets on the production of media products, as they can expect greater returns on their products by taking advantage of the expansive English-speaking markets of the world. Richard Collins points to “the language advantage” that Anglophone producers have: English is not only the language with the largest population of native speakers, it is also the world’s most important second language (Collins 1990, 54–55).

In discussions on the international trade of television programs, the term “cultural discount” is used to express a reduction in appreciation of the value of a television program in the recipient country. When a foreign program is broadcast, the value of the program is diminished and fewer viewers will watch the program than a domestic program of the same type and quality (Hoskins and Mirus 1988, 500; Lee 2006). In the notion of cultural discount, the factor of how closely viewers can identify with the culture in the content of programs is very important. Although language can be translated or dubbed by local voice actors, the culture of the country of origin remains in the content. Colin Hoskins and Rolf Mirus point out that Japan has been successful in exporting VCRs to the American market, but it has not been successful in exporting television programs to the American market. They explain that “a VCR is culturally neutral, an American or German is indifferent to the country of origin of a VCR unit because this does not affect the way it works and the satisfaction he obtains from usage” (Hoskins and Mirus 1988, 503).

The notion of cultural discount is not in line with the worldwide success of anime and Japanese video games. Koichi Iwabuchi argues that the notion of cultural discount does not explain a consumer’s cultural preference and that the concept of “cultural neutrality” is misleading (Iwabuchi 2002, 27). Iwabuchi uses the term “cultural odor” to

mean the symbolic image of the country of origin of cultural products; and he finds the “cultural odorlessness” of Japanese video games and anime to be one of the reasons for their popularity throughout the world. The concept of cultural “odorlessness” thus denies “Japaneseness” as the reason why Japanese cultural products are so popular throughout the world.

When we apply these notions of media studies to Japanese cultural products that are not “culturally neutral” but are “culturally very Japanese,” it can be predicted that there is likely to be a depreciation in value of such cultural products in the Thai market.

### *Second Language Motivation*

Researchers in social psychology and education have been discussing the importance of motivation for second language acquisition for several decades (Gardner and Lambert 1972; Clément and Kruidenier 1983; Noels *et al.* 2000). One of the first—and important—theoretical discussions on the issue was by Richard Gardner and Wallace Lambert, who suggested that a student’s motivation to learn a second language was determined by the student’s attitude toward the linguistic-cultural group in particular, by the student’s attitude toward foreign people in general, and by the student’s orientation toward the learning task itself. They identified two classes of orientation. The first is *instrumental*, which refers to a desire to learn the second language to achieve some practical goal, such as job advancement or course credit. The second orientation is *integrative*—that is, the student wishes to acquire the second language in order to learn more about the other cultural community (Gardner and Lambert 1972, 3; Noels *et al.* 2000).

By applying the notions of instrumental and integrative orientation, Natnicha Vadhannapanich analyzed the motivations of 40 Japanese language learners in Thailand—language learners she had recruited through the Internet and who had been studying Japanese for more than five years (Natnicha 2010). She found that 36 of the 40 language learners had started to study Japanese in order to obtain information about Japanese pop culture (instrumentality) and that learning Japanese made the language learners foster and nurture a love for Japan (integrativeness) (*ibid.*). Although the notion of instrumental and integrative orientation in discourses of second language motivation seems useful in classifying each individual motivation, it seems oversimplistic to label a language learner with the dichotomic orientational types.

## **An Overview of Japanese Language Education in Thailand**

According to the *Survey Report on Japanese-Language Education Abroad 2006*, approxi-

**Table 2** Change in Number of Learners (2003–6)

Country (Region)	Primary and Secondary Education			Higher Education			Non-Formal Education		
	2006	2003	% Increase	2006	2003	% Increase	2006	2003	% Increase
1 Korea	769,034	780,573	▲1.5	58,727	83,514	▲29.7	83,196	30,044	176.9
2 China	76,020	79,661	▲4.6	407,603	205,481	98.4	200,743	102,782	95.3
3 Australia	352,629	369,157	▲4.5	9,395	8,269	13.6	4,141	4,528	▲8.5
4 Indonesia	244,304	61,723	295.8	17,777	13,881	28.1	10,638	9,617	10.6
5 Taiwan	58,198	36,597	59.0	118,541	75,242	57.5	14,628	16,802	▲12.9
6 USA	58,181	87,949	▲33.8	45,263	42,018	7.7	14,525	10,233	41.9
7 Thailand	31,679	17,516	80.9	21,634	22,273	▲2.9	17,770	15,095	17.7
8 Hong Kong	3,614	1,612	124.2	4,971	3,872	28.4	24,374	12,800	90.4
9 Vietnam	1,888	0		10,446	5,988	74.4	17,648	12,041	46.6
10 New Zealand	27,369	26,012	5.2	2,230	2,293	▲2.7	305	12	2441.7
11 Canada	11,043	9,471	16.6	8,508	7,092	20.0	4,283	3,894	10.0
12 Malaysia	8,984	5,562	61.5	7,804	6,472	20.6	6,132	5,372	14.1
13 Brazil	3,538	3,154	12.2	1,560	1,549	0.7	16,533	15,041	9.9
14 Philippines	2,251	1,621	38.9	9,398	6,179	52.1	6,550	3,459	89.4
15 France	3,940	3,710	6.2	8,451	7,580	11.5	3,143	3,155	▲0.4
16 UK	8,510	9,700	▲12.3	3,630	3,636	▲0.2	2,788	2,987	▲6.7
17 Mongolia	5,339	3,601	48.3	5,368	4,243	26.5	1,913	1,236	54.8
18 Singapore	1,755	1,660	5.7	5,708	5,478	4.2	4,613	4,862	▲5.1
19 Germany	1,986	2,008	▲1.1	5,797	6,783	▲14.5	4,162	3,864	7.7
20 India	1,001	446	124.4	1,444	653	121.1	8,566	4,347	97.1

Source: *Kaigai no Nihongo Kyoiku no Genjo 2006 Nen* (Survey report on Japanese-language education abroad 2006) (Japan Foundation 2008a).

Note: “% Increase” indicates the change in percentage calculated from the numbers of Japanese language learners in 2003 and 2006. ▲ indicates negative numbers.

mately 2.98 million students were studying Japanese in 133 countries outside Japan in 2006 (Japan Foundation 2008a). Thailand is one of the 133 countries that offer Japanese language education. As shown in Table 2, the number of Japanese language learners in Thailand is the seventh largest among the 133 countries. The Japan Foundation conducts a survey on Japanese language education abroad every three years. Table 2 is based on the results of its 2006 survey, which indicates that the number of Japanese learners in primary and secondary schools in Thailand increased by 80.9 percent in 2006 compared to 2003.

As shown in Table 3, Japanese language education is highly prevalent in Thailand in proportion to the size of the population; there is one Japanese language learner for every 903 people. This figure is ranked 16<sup>th</sup> in the Top 30 list, which means that Japanese language education is very popular in Thailand.

**Table 3** Ratio of Japanese Learners in Population

	Country (Region)	Population per Japanese Learner	Population (million)	Japanese Learners
1	Korea	52	47.8	910,957
2	Australia	55	20.2	366,165
3	<Taiwan>	119	22.8	191,367
4	New Zealand	134	4.0	29,904
5	<Guam>	179	0.2	1,120
6	<New Caledonia>	202	0.2	989
7	Mongolia	206	2.6	12,620
8	<Hong Kong>	209	6.9	32,959
9	Singapore	356	4.3	12,076
10	Tonga	380	0.1	263
11	Macau	401	0.5	1,246
12	Vanuatu	447	0.2	447
13	Marshall Islands	488	0.1	205
14	<Northern Mariana Islands>	495	0.1	202
15	Indonesia	817	222.8	272,719
16	Thailand	903	64.2	71,083
17	Malaysia	1,104	25.3	22,920
18	Brunei	1,146	0.4	349
19	Canada	1,355	32.3	23,834
20	China	1,923	1,315.8	684,366
21	Paraguay	1,931	6.2	3,211
22	Sri Lanka	2,267	20.7	9,133
23	Ireland	2,287	4.1	1,793
24	Finland	2,414	5.2	2,154
25	USA	2,528	298.2	117,969
26	Cambodia	2,596	14.1	5,431
27	Kiribati	2,632	0.1	38
28	Vietnam	2,808	84.2	29,982
29	Fiji	3,252	0.8	246
30	France	3,895	60.5	15,534

Source: *Kaigai no Nihongo Kyoiku no Genjo 2006 Nen* (Survey report on Japanese-language education abroad 2006) (Japan Foundation 2008a: 19).

### *Japanese Language Education in Secondary Schools in Thailand*

In 1980, Japanese was adopted as one of the foreign languages to be taught in secondary schools in Thailand (Matsui *et al.* 1999, 61). *The Basic Education Core Curriculum B.E. 2551 (A.D. 2008)* prescribes basic learning content for English, but “for other foreign languages, e.g., French, German, Chinese, Japanese, Arabic, Pali and languages of neighboring countries, it is left to the discretion of educational institutions to prepare courses and provide learning management as appropriate” (Thailand, Ministry of Education 2008). In reality, foreign languages other than English are taught in upper secondary schools in Thailand (Fig. 2): French, German, Spanish, Italian, Hindi, Pali, Japanese, Chinese,

Age	Grade	Level of Education	
3		Pre-Primary Education	
4			
5			
6	1	Primary Education	
7	2		
8	3		
9	4		
10	5		
11	6		
12	7	Secondary Education	Lower Secondary
13	8		
14	9		
15	10		Upper Secondary
16	11		
17	12		
18	13	Higher Education	Bachelor's Program
19	14		
20	15		
21	16		Graduate Level
22	17		
23	18		

**Fig. 2** School System in Thailand

Source: Compiled from the figure in *Education in Thailand 2004* (Thailand, Office of the Education Council, Ministry of Education 2004).

Korean, Vietnamese, Malay, and Arabic (Ebihara 2004).

In her report on the content of Japanese language education in upper secondary schools in Thailand, Fumiko Shiratori wrote that in 2001 there were about 2,400 public secondary schools in Thailand, of which about 120 taught Japanese. According to the report, although the guidelines for Japanese language instruction were issued by the Ministry of Education in Thailand, the content that was taught in schools was not standardized and each teacher could choose what to teach (Shiratori 2002).

When I visited the Ministry of Education in Thailand for an interview in 2007, Chantra Tantipong, who was an officer at the Bureau of Academic Affairs and Educational Standards, told me that the Japanese language curriculum for upper secondary schools was developed and maintained with the collaboration of the Japan Foundation (Personal communication, December 14, 2007). At the time of the interview, the *Basic Education Curriculum B.E. 2544 (A.D. 2001)* was in effect, but it also let each school decide what to teach and how to teach foreign languages besides English (Thailand, Ministry of Education 2001). The ministry, therefore, did not have any statistical data or information on



**Table 4** Number of Japanese Learners in ASEAN Countries (by Type of Education)

		Brunei	Cambodia	Indonesia	Laos	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam
Primary and secondary	No.	0	817	244,304	40	8,984	0	2,251	1,755	31,679	1,888
	%	0%	15%	90%	9%	39%	0%	12%	15%	45%	8%
Higher education	No.	99	759	17,777	47	7,804	1,382	9,398	5,708	21,634	10,446
	%	28%	14%	7%	11%	34%	20%	52%	47%	30%	42%
Non-academic education	No.	250	3,855	10,638	350	6,132	5,594	6,550	4,613	17,770	12,334
	%	72%	71%	4%	80%	27%	80%	36%	38%	25%	50%
Total number		349	5,431	272,719	437	22,920	6,976	18,199	12,076	71,083	24,668

Source: Calculated from the data in *Kaigai no Nihongo Kyoiku no Genjo 2006 Nen* (Survey report on Japanese-language education abroad 2006) (Japan Foundation 2008a).

Japanese language education in Thailand, and the Japan Foundation was the agency that developed the Japanese language education curriculum for secondary schools in Thailand.

The Japan Foundation in Bangkok is the center of Japanese education in Thailand. It organizes several programs that contribute to Japanese education, such as holding seminars and training courses for teachers, providing teaching materials, dispatching Japanese education experts to educational institutions, executing the Japanese-Language Proficiency Test (JLPT), and so on. In an interview, Kazutoshi Hirano, the head of the Japanese language department of the Japan Foundation in Bangkok, explained the purpose of the Japan Foundation in regards to Japanese language education (Personal communication, April 2, 2008). Hirano's detailed explanations on the projects clarified that the activities of the Japan Foundation greatly supported teachers and secondary schools. As Chantra Tantipong of the Ministry of Education suggested, Japanese language education in upper secondary schools in Thailand is supported by the activities and services of the Japan Foundation.

The number of learners by type of education in ASEAN countries is shown in Table 4. In Thailand, 45 percent of Japanese language learners are in primary and secondary school. For secondary students in Thailand, there may be another incentive to study Japanese. Since 1998, the Japanese language has been one of the subjects in the standardized university entrance examination system in Thailand. Upper secondary school students who want to enter non-science major programs (departments) at university are usually required to take four subject examinations: Thai, social studies, English, and an elective. In the entrance examination, there are six foreign languages: French, German, Pali, Arabic, Chinese, and Japanese. Many non-science major students take a foreign language examination as an elective; in the entrance examination of 2004, there were 2,558 students who chose Japanese as an elective (Ebihara 2005).

### *Japanese Language Education in Higher Education*

The curriculum for higher education is prepared by individual institutions. Teaching materials and methods are also developed by each individual university. Although the Ministry of Education (Thailand) requires that each university revise its curriculum every five years and that the new curriculum go through an authorization process that has to be approved by the ministry, the current curriculum is not evaluated systematically to reflect on the new curriculum (Ek-Ariyasiri 2008). Before the mandated curriculum revisions, therefore, some university professors try to evaluate their own curriculum by comparing it and the results of their JLPT with other universities.

As can be seen in Table 4, 30 percent of Japanese language learners in Thailand are in higher educational institutions. This number includes students who major in Japanese language, as well as students who take Japanese as an elective course. As university curricula vary, it is not easy to grasp the overall picture of Japanese language education in higher education in Thailand. When university professors evaluate their curriculum, they sometimes use the JLPT as an index to decide the level of instruction. In the next section, therefore, I will review the results of the JLPT from the past few decades to reveal the trend of Japanese language learning in Thailand.

### *The Japanese-Language Proficiency Test*

The Japanese-Language Proficiency Test (JLPT) has been offered by the Japan Foundation and Japan Educational Exchanges and Services since 1984 to evaluate Japanese language aptitude among non-native speakers. In the previous version of the test, which was administered until 2009, there were four levels (1 to 4); but a new test, which was introduced in 2010, offers five levels (N1 to N5, with level N3 having been added as a new level between levels 2 and 3 of the old test). In 2008, 449,810 examinees (total for all levels) sat the test in 144 cities, in 51 countries and regions. In Thailand there were four test sites: Bangkok, Chiang Mai, Songkla, and Khon Kaen; 15,846 examinees (total for all levels) sat the test (Japan Foundation 2009). The Japan Foundation publishes the number of applicants and examinees for each level by country every year, but the number of successful examinees from each country is not announced. For the purpose of this study, I use the total number of examinees of all levels in Thailand from the published data.

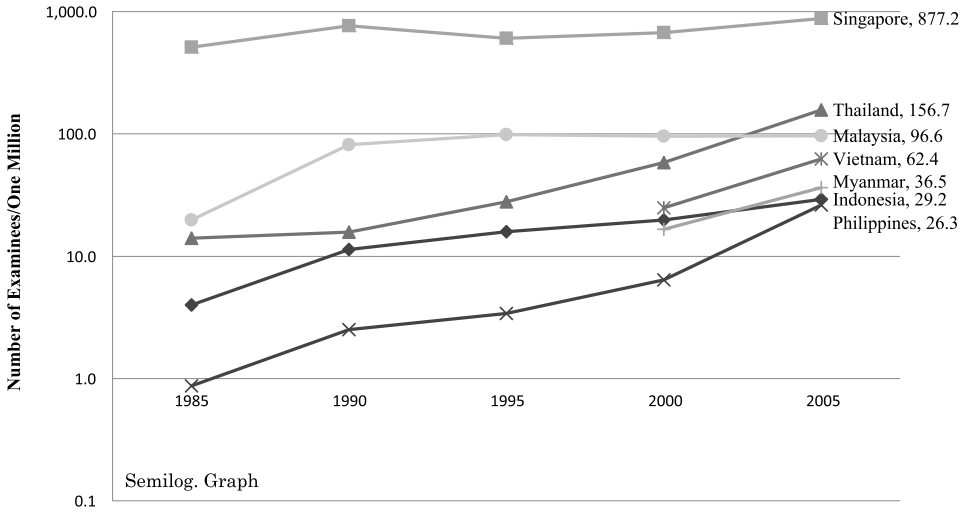
The number of JLPT examinees (and applications) in ASEAN countries from 1984 to 2008 is shown in Table 5. For the table, I calculated the rate of increase that compares the numbers with previous years in percentile. The cells in the table that indicate a rate of increase of more than 115 percent are shaded gray. Looking at the table, we can see that the rate of increase remains high (as shown by the shaded cells in the table) when

Table 5 Number of Japanese-Language Proficiency Test Examinees in ASEAN Countries

	Indonesia		Cambodia		Singapore		Thailand		Philippines		Brunei		Vietnam		Malaysia		Myanmar		Laos	
	Examinees	Rate of Increase	Examinees	Rate of Increase	Examinees	Rate of Increase	Examinees	Rate of Increase	Examinees	Rate of Increase	Examinees	Rate of Increase	Examinees	Rate of Increase	Examinees	Rate of Increase	Examinees	Rate of Increase	Examinees	Rate of Increase
1984	386				690		384		30						122					
1985	650	168%			1,386	201%	740	193%	48	160%					311	254.9%				
1986	873	134%			1,466	106%	743	100%	29	60%					675	217.0%				
1987	1,117	128%			1,635	112%	668	90%	96	331%					777	115.1%				
1988	1,402	126%			1,860	114%	691	103%	139	145%					981	126.3%				
1989	1,687	120%			2,429	131%	782	113%	116	83%					1,253	127.7%				
1990	2,015	119%			2,311	95%	895	114%	157	135%					1,479	118.0%				
1991	2,540	126%			2,711	117%	1,382	154%	150	96%					1,682	113.7%				
1992	2,552	100%			2,763	102%	1,390	101%	190	127%					1,718	102.1%				
1993	3,040	119%			2,749	99%	1,321	95%	306	161%					1,938	112.8%				
1994	3,094	102%			2,255	82%	1,441	109%	254	83%					1,874	96.7%				
1995	3,033	98%			2,112	94%	1,679	117%	238	94%					2,031	108.4%				
1996	2,973	98%			1,977	94%	1,578	94%	194	82%					1,939	95.5%				
1997	2,830	95%			2,007	102%	2,057	130%	227	117%			377		1,570	81.0%				
1998	3,251	115%			2,121	106%	2,464	120%	271	119%			424	112%	1,645	104.8%				
1999	3,733	115%			2,337	110%	3,075	125%	343	127%			518	122%	1,863	113.3%				
2000	4,068	109%			2,704	116%	3,641	118%	499	145%			1,958	378%	2,223	119.3%				
2001	5,019	123%			3,284	121%	4,403	121%	552	111%			2,056	105%	2,911	130.9%	1,013	130.7%		
2002	5,505	110%			3,768	115%	5,684	129%	734	133%			2,222	108%	2,941	101.0%	1,092	107.8%		
2003	5,855	106%			3,905	104%	7,273	128%	966	132%			2,721	122%	2,913	99.0%	1,798	164.7%		
2004	5,960	102%			3,518	90%	8,018	110%	1,149	119%			3,564	131%	2,798	96.1%	1,928	107.2%		
2005	6,411	108%			3,743	106%	10,333	129%	2,249	196%			5,248	147%	2,476	88.5%	1,764	91.5%		
2006	7,108	111%	629		3,712	99%	11,861	115%	2,550	113%			8,045	153%	2,835	114.5%	2,664	151.0%		
2007	7,688	108%	721	115%	4,166	112%	13,295	112%	2,711	106%			11,433	142%	3,106	109.6%	2,545	95.5%	139	
2008	8,397	109%	799	111%	4,994	120%	15,845	119%	2,723	100%	51		13,854	121%	3,697	119.0%	2,422	95.2%	121	87.1%

Source: Compiled from *Nihongo Noryoku Shiken Kekka no Gaiyo* (The Japanese-Language Proficiency Test summary of the results) (Japan Foundation 1985; 1986; 1987; 1988; 1989; 1990; 1991; 1992; 1993; 1994; 1995; 1996; 1997; 1998; 1999; 2000; 2001; 2002; 2003; 2004; 2005; 2006; 2007; 2008b; 2009).

Note: Shaded cells: Rate of increase  $\geq 115\%$



**Fig. 3** Number of JLPT Examinees/One Million Population (ASEAN Countries)

Note: Populations used in calculation were retrieved from *World Population Prospects: The 2008 Revision*, Vol. 2 (United Nations, DESA 2009).

the JLPT is first introduced in a country. In order to discern the trend in the popularity of Japanese language learning, I calculated the number of JLPT examinees per one million people in ASEAN countries (except Cambodia, Brunei, and Laos) and plotted this data on the semilog graph (Fig. 3) for every five years. If we look at the number of JLPT examinees adjusted by population in the ASEAN countries, Japanese language learning was most popular in Singapore—there were more than 877.2 Japanese language learners per one million people. Thailand was in second place, with 156.7 Japanese language learners per one million people in 2005.

As we see in Table 5, Thailand has kept the rate of increase at a “high” percentage since the mid-1990s, which suggests that Japanese language learning has been popular since then. Fig. 3 also suggests that the number of JLPT examinees increased in the 1990s in Thailand. In the 1990s, manga started to be published under the license of Japanese publishers; the import of Japanese TV programs and animation increased after the collapse of the bubble economy in Japan; and J-Rock and J-Pop became popular in Thailand as well as in other Asian countries. The increasing growth of Japanese language learning during the 1990s coincided with the influx of cultural products from Japan, which suggests that many Thai people were exposed to Japanese cultural products during the decade and many of them started learning Japanese. Furthermore, Fig. 3 indicates that the influence of the Japanese language in Thailand has become more marked after the year 2000.

### *Textbook for Secondary Schools: Akiko to Tomodachi*

In 2004, a new textbook for teaching Japanese in secondary schools was published by the Japan Foundation. The title of the textbook was *Akiko to Tomodachi*. The textbook was a collaborative effort by university professors, secondary school teachers, experts in Japanese language education, and the Japan Foundation (Bussaba 2004). As we have seen in this study, the number of Japanese learners in Thailand increased especially after the 1990s, and the demand for Japanese language teachers also became very high. In order to provide quality Japanese language textbooks for secondary schools, therefore, a special textbook writing project was started at the Japan Foundation in February 2000. Since the textbooks contain explanations and instructions in Thai, especially in the introductory volumes, Thai students and teachers can fully understand each step before they proceed to the next level (Bussaba *et al.* 2005).

## **Questionnaire Results**

In this section, I will briefly review the results of the questionnaire to demonstrate the relationship between Japanese language learning and Japanese cultural products. Let us start with Table 6, which shows the age respondents started to learn Japanese. As we can see, 15 years old is the mode; students who started to learn Japanese between the ages of 15 and 16 make up 68 percent of respondents. This suggests the students started learning Japanese when they were in upper secondary school. Most of the students started to learn Japanese before they entered university, and the average duration of Japanese language learning was 5.26 years (N=78) at the time the questionnaire survey was carried out.

### *Motivation to Start Learning Japanese*

The question I was most interested in asking students was, “What caused you to want to learn Japanese?” The question was intended to find out the students’ motivation to start learning the Japanese language. Some students wrote down multiple reasons that had caused them to start learning Japanese. As we can see in Table 7, there were 37 elements in their answers to the question, and I tried to group them into the following seven types: (1) “Japanese cultural products (JCP)” means that they started learning Japanese because they liked Japanese cultural products (mainly media products, such as manga, anime, games, movies, or music); (2) “Language (LNG)” means that they liked learning the language for itself; (3) “People (PPL)” means that they liked Japanese people or they wanted to learn the language in order to interact with Japanese people;

**Table 6** J-Language Study Starting-Age Distribution

Starting Age	Frequency	Percent	Cumulative Percent
7	1	1.3%	1.3%
9	1	1.3%	2.6%
11	3	3.8%	6.4%
13	1	1.3%	7.7%
14	13	16.7%	24.4%
15	30	38.5%	62.8%
16	23	29.5%	92.3%
17	5	6.4%	98.7%
19	1	1.3%	100.0%
Total	78	100.0%	

Source: Compiled from questionnaire results.

Note: N=78

(4) “Business (BSI)” means that they learned Japanese for the sake of a future career; (5) “Japanese food (JFD)” means that they started learning Japanese because they liked Japanese food; (6) “Travel experience to Japan (TRV)” means that their experiences traveling to Japan encouraged them to start learning Japanese or that they started learning the language because they wanted to visit Japan; (7) “Other (OTR)” is the category for everything else, which includes comments such as “I like Japanese culture” and “I was born in Japan.”

The survey results show that 68.1 percent of the comments indicate that the students started learning Japanese because they liked Japanese cultural products. From Doraemon to Utada Hikaru, I often heard the names of Japanese manga characters and idols when I asked the research informants and assistants what had motivated them to learn Japanese. I had already assumed that Japanese cultural products motivated Thai youths to start learning the Japanese language, and the questionnaire results supported this assumption.

#### *“Good Experience with Japanese Language”*

The purpose of the next question in the questionnaire was to ask about good experiences resulting from having acquired Japanese language ability: “Have you had any experiences that made you think Japanese language ability is an advantage or has benefits? If so, will you tell me about the incident(s)?” I wanted to know when and how the respondents thought the Japanese language would benefit their lives. I had already asked them about their motivations to start learning the language, and I wanted to know their opinions on learning Japanese. Therefore, I expected the replies to this question to be stories about incidents in which the respondents felt good about being able to speak Japanese. How-

**Table 7** Reasons for Learning Japanese

	Category	Responses		Category Total	Percent
		N	Percent		
1 I like manga	JCP	23	20.4%	77	68.1%
2 I like J-Pop music and idols	JCP	12	10.6%		
3 I like games	JCP	10	8.8%		
4 I like anime	JCP	7	6.2%		
5 I like Japanese TV drama	JCP	7	6.2%		
6 I like Johnny's idols	JCP	5	4.4%		
7 I like Doraemon	JCP	2	1.8%		
8 I like J-Rock music	JCP	2	1.8%		
9 I like w-inds.	JCP	2	1.8%		
10 I like Japanese novels	JCP	2	1.8%		
11 I like Pokémon	JCP	1	0.9%		
12 I like Utada Hikaru (J-Pop idol)	JCP	1	0.9%		
13 I like Crayon Shinchan (manga anime)	JCP	1	0.9%		
14 I like Japanese radio programs (music programs)	JCP	1	0.9%		
15 I like Japanese movies	JCP	1	0.9%		
16 The Japanese language is <i>kawaii</i> (cute, lovely)	LNG	7	6.2%	14	12.4%
17 A family member or a friend was studying Japanese	LNG	2	1.8%		
18 I wanted to learn a foreign language besides English	LNG	1	0.9%		
19 I like Kanji	LNG	1	0.9%		
20 I like the Japanese language	LNG	1	0.9%		
21 Learning Japanese seemed "cool"	LNG	1	0.9%		
22 I like Japanese letters ( <i>Kanji</i> , <i>Hiragana</i> , <i>Katakana</i> )	LNG	1	0.9%		
23 I have a friend or relative living in Japan	PPL	2	1.8%	5	4.4%
24 I had a Japanese friend and wanted to speak in Japanese	PPL	1	0.9%		
25 A friend asked me to study Japanese together	PPL	1	0.9%		
26 I had Japanese friends	PPL	1	0.9%	4	3.5%
27 I want to work at a Japanese company in the future	BSI	2	1.8%		
28 The Japanese language will be useful in international business	BSI	2	1.8%	2	1.8%
29 I like Japanese food	JFD	2	1.8%		
30 I went to study in Japan, and I liked the country	TRV	1	0.9%	2	1.8%
31 When I was small, I went to Japan	TRV	1	0.9%		
32 I like Japanese culture	OTR	3	2.7%	9	8.0%
33 I did not like math and science subjects when I was in high school	OTR	2	1.8%		
34 I wanted to speak Japanese because I look Japanese	OTR	1	0.9%		
35 I wanted to know the Japanese way of thinking	OTR	1	0.9%		
36 I like Japanese fashion	OTR	1	0.9%		
37 I was born in Japan	OTR	1	0.9%		
Total		113	100.0%	113	100.0%

Source: Compiled from questionnaire results.

Note: JCP=Japanese cultural products, LNG=Language, PPL=People, BSI=Business, JFD=Japanese food, TRV=Travel experience to Japan, OTR=Other

ever, as shown in Table 8, many respondents wrote down their thoughts and opinions that had motivated them to start studying the language rather than specific incidents in their lives. By grouping their answers, I found that 23.7 percent of the answers to the question fell into the category of “communication ability (COM),” which means that the ability to communicate in Japanese itself was a “good experience.” The fact that respondents could communicate with Japanese people in Japanese seems to have been an important experience for them.

Contrary to my expectation, 20.4 percent of answers fell into the category of “Japanese cultural product consumption (JCP),” such as “I can read Japanese in manga and games,” “I can understand the lyrics of J-Pop songs,” and so on. At first, I was a little surprised to see this type of response, because “being able to read Japanese” is too obvious a response. I had expected to be told stories about personal incidents that related to the individuals. I also thought that the respondents who wrote other answers might have felt confident enough to be able to read Japanese manga or text in games, since for 68.1 percent of them the consumption of Japanese cultural products was the motivation to start learning the language in the first place. Consequently, I assumed that the respondents who wrote answers in the JCP category could not think of any incident that would fulfill the requirement of the question.

Another category, which I did not expect to see but found interesting, was “desire to help Japanese people (HLP).” This category is closer to the previous category (COM) in terms of communication with Japanese people. However, the category HLP focuses on the altruistic attitude of respondents, while the category COM focuses on communication itself. When I read such answers as “I can help Japanese tourists and give them directions in Japanese” and “Japanese people are not good at English, so I can help them if I can speak in Japanese,” I remembered that Chulalongkorn University is located right next to Siam Square, which is the center of shopping and dining in Bangkok. Because there are many Japanese tourists visiting the area every day, I assumed that the students had helped Japanese tourists on the streets and that these encounters had become an important undertaking for them.

There were other kinds of answers as well, which fell into the categories of “travel to Japan (TRV),” “advantage for work (BSI),” and “language (LNG).” In summary, I realized that many of the answers reflected the students’ motivation to continue learning the Japanese language. The category JCP may have been the initial incentive to begin learning the language for the majority of students, but as they continued learning they accumulated new experiences related to the language and some of them discovered an additional motivation to learn Japanese.



**Table 8** Advantage of Being Able to Speak Japanese

	Category	Response		Category Total	Percent
		N	Percent		
1 I can understand the language when I see Japanese movies	JCP	7	7.5%	19	20.4%
2 I can read Japanese in manga and games	JCP	6	6.5%		
3 I can understand lyrics of J-Pop songs	JCP	3	3.2%		
4 I can read information about Japan on the Internet (Idol blogs, etc.)	JCP	1	1.1%		
5 I can read manga that have not been translated into Thai	JCP	1	1.1%		
6 I can understand radio programs (radio station in Bangkok)	JCP	1	1.1%		
7 I can talk with Japanese people	COM	16	17.2%	22	23.7%
8 I can speak with Japanese when I'm lost in Japan	COM	2	2.2%		
9 I could speak with the people when I visited Japan	COM	2	2.2%		
10 I can talk to Japanese people and become friends	COM	1	1.1%		
11 I could speak with the host family in Japan	COM	1	1.1%		
12 I can help Japanese tourists and give them directions in Japanese	HLP	11	11.8%	15	16.1%
13 Japanese people are not good at English, so I can help them if I can speak in Japanese	HLP	4	4.3%		
14 I went to Japan	TRV	10	10.8%	11	11.8%
15 I could go to study in Japan	TRV	1	1.1%		
16 I can get a part-time job that requires Japanese language ability	BSI	2	2.2%	4	4.3%
17 Japanese people have creativity, and I can learn it from them	BSI	1	1.1%		
18 Japanese language ability is an advantage in finding a part-time job	BSI	1	1.1%		
19 Japanese is <i>kawaii</i> (cute, lovely) to hear	LNG	1	1.1%	4	4.3%
20 I am happy when I hear Japanese	LNG	1	1.1%		
21 I can get information from Japanese sources	LNG	1	1.1%		
22 I can translate between English and Japanese	LNG	1	1.1%		
23 I can order easily at Japanese restaurants	OTR	1	1.1%	5	5.4%
24 I could get into university because my Japanese grade was good	OTR	1	1.1%		
25 I can read the signs in Japanese on the street	OTR	1	1.1%		
26 I can read instructions of Japanese products (imported directly from Japan)	OTR	1	1.1%		
27 I spoke in Japanese when I didn't want other people to understand	OTR	1	1.1%		
28 None		9	9.7%	13	14.0%
29 None in particular		3	3.2%		
30 No answer		1	1.1%		
Total		93	100.0%	93	100.0%

Source: Compiled from questionnaire results.

Note: JCP=Japanese cultural products, COM=Desire to communicate with Japanese, HLP=Desire to help Japanese, TRV=Visited Japan, BSI=Advantages for work, LNG=Language, OTR=Others

*“Learning Another Foreign Language?”*

In the next question, I asked whether the respondents were learning other foreign languages besides Japanese. The question inquired about the foreign language(s) that they were learning at the time of the questionnaire. So, if they were too busy learning Japanese, for instance, their answers might have been “none” or they might have left the space blank. In Table 9, the results show that English (44.7 percent) was the most popular foreign language. The second-most popular foreign language was Korean (14.9 percent), and the third was Chinese (13.8 percent). There were other foreign languages mentioned in the answers, but most of those languages had only a few learners. Also, a few students who liked to study foreign languages replied that they were studying more than two foreign languages besides Japanese—Arabic, Burmese, and so on.

To demonstrate the attitudes of respondents toward foreign language studies, I also asked about the students’ reasons for studying foreign languages. The results have been compiled in Table 10. The reasons listed in Table 10 are for all the languages listed in Table 9. As I reviewed the answers, I noticed that many students who were studying English wrote reasons such as “for future work,” “to communicate with foreigners,” “as basic education,” and “useful.” In Thailand, English language education starts from the first grade in primary school as “preparatory English” class, and it continues throughout students’ basic education (Thailand, Ministry of Education 2008). In higher education, required subjects vary according to institutional curricula, but many students realize the importance of English as a lingua franca and continue learning it.

**Table 9** Other Foreign Language

	Response	
	N	Percent
1 English	42	44.7%
2 Korean	14	14.9%
3 Chinese	13	13.8%
4 Spanish	2	2.1%
5 German	2	2.1%
6 Italian	2	2.1%
7 French	1	1.1%
8 Malay	1	1.1%
9 Portuguese	1	1.1%
10 Burmese	1	1.1%
11 Arabic	1	1.1%
None	12	12.8%
Not in particular	2	2.1%
	94	100.0%

Source: Compiled from questionnaire results.

**Table 10** Reasons for Studying a Foreign Language

	Responses	
	N	Percent
For (future) work	15	20.5%
Useful	10	13.7%
To communicate with foreigners	7	9.6%
As basic education	5	6.8%
I want to learn many foreign languages	4	5.5%
I like K-Pop music	4	5.5%
Required subject at school	3	4.1%
Ethnic background (Chinese Thai)	3	4.1%
To improve my language skills	3	4.1%
I just want to study	3	4.1%
It is necessary	3	4.1%
Just for fun	2	2.7%
Required to take another foreign language at school	2	2.7%
I like the culture of the country	1	1.4%
The grammar of Korean is close to Japanese	1	1.4%
I want to study more about Kanji	1	1.4%
My major in high school	1	1.4%
To work at international organizations in the future	1	1.4%
My major at university	1	1.4%
None in particular	1	1.4%
None	2	2.7%
	73	100.0%

Source: Compiled from questionnaire results.

The answer “I like K-Pop music” is obviously a reason to study Korean. As Korean idols have become popular in Thailand in recent years, the Korean language has been attracting people who like to consume Korean cultural products. On the other hand, respondents were learning Chinese “for future work,” because it was “useful,” and because they “want to learn many foreign languages,” all of which are reasons unrelated to Chinese cultural products.

#### *“Has Your Life Changed since You Started to Learn Japanese?”*

Table 11 contains a list of answers to the question “Has your life changed since you started to learn Japanese?” By asking this question, I aimed to find out whether the respondents’ lives had changed in terms of the consumption of Japanese cultural products and their relationships with Japan and Japanese people. The answers were grouped into seven categories: (1) relationships with Japanese people (JPN), (2) Japanese cultural products (JCP), (3) business-related changes (BSI), (4) knowledge about Japan (KNW), (5) language ability (LNG), (6) lifestyle change (LSC), and (7) travel experience to Japan (TRV).

**Table 11** Changes in Life after Japanese Language Study

		Responses		Category Total	Category Percent
		N	Percent		
1	I have made Japanese friends	JPN	24	22.0%	33 30.3%
2	I can talk with Japanese people in Japanese	JPN	4	3.7%	
3	I can communicate well with Japanese people	JPN	3	2.8%	
4	I can help Japanese people when they are lost in Bangkok	JPN	1	0.9%	
5	I have a Japanese boyfriend	JPN	1	0.9%	
6	I can understand the language when I see Japanese movies	JCP	11	10.1%	25 22.9%
7	I can understand the lyrics of J-Pop songs	JCP	5	4.6%	
8	I can read manga	JCP	4	3.7%	
9	I can play games	JCP	3	2.8%	
10	I got addicted to Japanese media	JCP	1	0.9%	
11	I often go to see Japanese movies	JCP	1	0.9%	
12	I can find a part-time job with a good salary	BSI	9	8.3%	11 10.1%
13	Now I want to get a job that uses Japanese language ability	BSI	1	0.9%	
14	I got a job as a tutor of the Japanese language	BSI	1	0.9%	
15	I could learn Japanese customs and culture	KNW	3	2.8%	5 4.6%
16	I can understand the Japanese way of thinking	KNW	1	0.9%	
17	I can get information about Japan	KNW	1	0.9%	
18	I can read Japanese	LNG	2	1.8%	5 4.6%
19	I can go to Japan by myself	LNG	1	0.9%	
20	I can read information on Japanese Web sites	LNG	1	0.9%	
21	When I went to Japan, I did not have much difficulty in living	LNG	1	0.9%	
22	I could enter university with Japanese language ability	LSC	2	1.8%	8 7.3%
23	I became fond of Japanese culture	LSC	2	1.8%	
24	I made Thai friends who are studying Japanese	LSC	1	0.9%	
25	I often go to Kinokuniya bookstore	LSC	1	0.9%	
26	I prefer to use Japanese products	LSC	1	0.9%	
27	I read more Japanese books than Thai books	LSC	1	0.9%	
28	I went to Japan	TRV	2	1.8%	4 3.7%
29	I went to study in Japan	TRV	2	1.8%	
30	None		12	11.0%	18 16.5%
31	None in particular		6	5.5%	
Total			109	100.0%	109 100.0%

Source: Compiled from questionnaire results.

Note: JPN=Relationships with Japanese people, JCP=Japanese cultural products, BSI=Work-related changes, KNW=Knowledge about Japan, LNG=Language ability, LSC=Lifestyle change, TRV=Travel experience to Japan

As we can see, 30.3 percent of answers were in the JPN category. The respondents thought their relationships with Japanese people had changed after they started learning Japanese. In fact, 24 respondents answered that they had made Japanese friends, and one student said she had got a Japanese boyfriend, which shows that Japanese people became closer and more accessible for them after they started learning the Japanese language.

Another popular answer was “I can understand the language when I see Japanese movies,” which belongs in the JCP category. As we have already seen, 68.1 percent of answers in Table 7 indicated that the respondents started learning Japanese because they liked consuming Japanese cultural products. However, before they started learning the language, they consumed Japanese cultural products in their native Thai language. For the students, therefore, being able to watch Japanese movies in Japanese is an achievement that they attained and should be regarded as an important change.

Answers in the BSI category, such as “I can find a part-time job with a good salary,” indicate the advantage of having Japanese language ability. The importance of Japanese language ability in searching for jobs is probably recognized by most of the respondents, since most graduates having a Japanese-language major will work in Japanese companies. According to surveys conducted at Thammasat University, among 500 graduates who obtained a degree with a Japanese-language major between 1986 and 2000, 81.6 percent secured jobs at Japanese companies; in 2007, 91.18 percent of graduates entered Japanese companies as translators, interpreters, secretaries, and so on (Somkiat 2008). Even before they graduate from university, Japanese-major students in Thailand know that Japanese language proficiency will be an advantage in obtaining a good job and receiving good remuneration.

The other answers in the categories “knowledge about Japan” and “language ability” are also important in terms of the consumption of Japanese cultural products. Through the process of reading information about Japan in Japanese and accumulating knowledge about Japan with their Japanese language ability, the students will form a better understanding about Japan and its people, which will develop new interests in other Japanese cultural products and various places in Japan.

### *Japanese Cultural Products and Japanese Language*

In the next question, I listed 10 Japanese cultural products—(1) manga, (2) anime, (3) Japanese TV dramas, (4) Japanese TV variety programs, (5) J-Pop music, (6) Japanese idols, (7) Japanese games, (8) cosplay, (9) Japanese food, and (10) Japanese fashion—and asked respondents whether they liked the products “before” or “after” they started learning the Japanese language. The respondents could mark “Never” if they had never tried the product and “Don’t like” if they didn’t like the product at all. The results are

compiled in Table 12.

“Before” was marked most often in regard to Japanese cultural products except “cosplay,” which only 12 percent of respondents stated that they liked before they started learning Japanese. Even if we include the people who marked “after,” only 29 percent of respondents liked cosplay, which means it was the least popular among the 10 Japanese cultural products. Unlike other cultural products, cosplay is a participatory culture: people have to participate in manga and anime conventions. As cosplay is not something that can be consumed at home, the results seem to show the real popularity of cosplay.

In regard to manga and anime, we can see that many of the respondents liked these products *before* they started learning Japanese. For manga, 82.1 percent answered they liked them before and only 6.4 percent answered they liked them after; for anime, 69.2 percent said “before” and only 9 percent said “after,” which means that 88.5 percent of respondents liked manga and 78.2 percent liked anime. Also, we have already seen that 92.3 percent of respondents started learning Japanese before they turned 17 years old (Table 6), and the results from Table 12 suggest that manga and anime were already

**Table 12** Consumption of JCP and Japanese Language Learning

JCP		Before	After	Never	Don't Like	Total
Manga	Number	64	5	4	5	78
	Percent	82.1%	6.4%	5.1%	6.4%	100.0%
Anime	Number	54	7	9	8	78
	Percent	69.2%	9.0%	11.5%	10.3%	100.0%
J-TV drama	Number	37	30	6	5	78
	Percent	47.4%	38.5%	7.7%	6.4%	100.0%
J-TV variety	Number	32	31	10	5	78
	Percent	41.0%	39.7%	12.8%	6.4%	100.0%
J-Pop music	Number	43	14	5	16	78
	Percent	55.1%	17.9%	6.4%	20.5%	100.0%
J-Idol	Number	31	10	15	22	78
	Percent	39.7%	12.8%	19.2%	28.2%	100.0%
J-Game	Number	49	7	10	12	78
	Percent	62.8%	9.0%	12.8%	15.4%	100.0%
Cosplay	Number	9	13	20	36	78
	Percent	12%	17%	26%	46%	100%
J-Food	Number	67	9	1	1	78
	Percent	85.9%	11.5%	1.3%	1.3%	100.0%
J-Fashion	Number	35	17	16	10	78
	Percent	44.9%	21.8%	20.5%	12.8%	100.0%

Source: Compiled from questionnaire results.

popular among the respondents while they were attending secondary school.

The questionnaire results for Japanese games appear to be similar to those for manga and anime, although games were not as popular as the other two products. A total of 62.8 percent of respondents replied that they liked games before they started learning Japanese and 9 percent started liking Japanese games after they began learning Japanese. A possible reason for Japanese games being less popular among secondary school students (compared to manga and anime) is the cost of game machines and software. While manga books are sold for about 40 baht on the streets, and Japanese anime can be watched on television for free, game machines such as the PlayStation 3 and Wii cost from several thousand baht to more than 10,000 baht (approximately US\$200–300). Furthermore, in order to play games, it is necessary to connect game machines to television sets, and there may be times when parents do not allow their children to play games at home. Moreover, the table shows that 15.4 percent of respondents answered that they “don’t like” games, which may simply mean that games are less popular among Thai youths.

In Table 12, it is also important to note that percentages of “after” as a response on the questionnaire for J-TV drama and J-TV variety programs were 38.5 percent and 39.7 percent respectively. The percentages demonstrate that many respondents started liking Japanese television programs after they started learning Japanese. As more than 40 percent of respondents liked Japanese TV dramas and variety programs before they started learning Japanese, Japanese TV programs could be enjoyed without any prior knowledge of the Japanese language. From these results, however, it seems that the respondents became more interested in Japan after they started learning Japanese, which made many of the respondents start watching Japanese television programs in order to see scenes of contemporary Japan and Japanese modern lifestyles in the dramas, and to find out the latest information about Japanese society and culture in variety programs.

There is a close relationship between the cultural products J-Pop music and J-Idols. The category of “J-Idols” includes J-Pop music idols as well as young actors and actresses. On the other hand, when we say “J-Pop music,” the category includes music artists who are not called “idols” (as well as young singers who are “J-Pop Idols”). When it comes to J-Pop music, 55.1 percent of respondents answered that they liked J-Pop before they started learning Japanese and 17.9 percent said they liked it after they started learning Japanese. As for J-Idols, 39.7 percent of respondents said they liked them before they started learning Japanese, and 12.8 percent said they liked them after they started learning the language. These results suggest that respondents (17.9 percent in the case of J-Pop music and 12.8 percent in the case of J-Idol) may have been exposed to cultural products after they started learning Japanese and may have been influenced to like these products by other Japanese learners.

Of the respondents, 85.9 percent appreciated Japanese food before they started learning Japanese and 11.5 percent liked it after Japanese language learning, which means that a total of 97.4 percent of respondents liked Japanese food. Just as in the case of manga, Japanese food has been accepted by the majority of Thai people, as evidenced by the large number of Japanese restaurants in Bangkok and the many supermarkets carrying Japanese food products that are served at Thai families' dinner tables. The results indicate that most secondary school students in Thailand liked Japanese food before they began learning Japanese.

Table 12 also reveals that Japanese fashion is less popular among secondary school students. Among the respondents, 44.9 percent answered that they liked Japanese fashion before they started learning Japanese, while 21.8 percent said they liked it after they started learning Japanese. The respondents who liked Japanese TV dramas, Japanese TV variety programs, J-Pop music, and J-Idols before they started learning Japanese might have been exposed to Japanese fashion before Japanese language learning. For the most part, Japanese fashion clothes may not be easy to obtain for secondary school students in Thailand, as they are sold only in certain boutiques and stores in the main cities and have limited availability in small towns and villages. The clothes are also more expensive in small towns and villages than local or casual clothes. Students of Chulalongkorn University, on the other hand, inevitably see Japanese fashion clothes every day because Siam Square, a shopping area located next to the university, is the center of J-Fashion in Bangkok.

#### *"Favorite Japanese Cultural Product after Starting Language Learning"*

As a supplement to the previous question, I asked the respondents whether there was any Japanese cultural product that they became very interested in after they began learning the Japanese language. The results are shown in Table 13. Some respondents wrote more than two answers to the question. The most frequent answer to this question was "music." When we think of Japanese cultural products with high percentages in the "After" column of Table 12, we might expect "TV dramas," "TV variety programs," "fashion," and "music" to be higher in Table 13. The results show that music is the highest in percentage; however, the other three cultural products also became favorites after the respondents started to learn Japanese.

#### *Japanese Cuisine/Food*

As we have already seen, Japanese cuisine was popular among respondents even before they started learning the Japanese language. In order to see how much they would ordinarily consume Japanese food in their everyday lives as university students, I asked the



**Table 13** More Interested after Japanese Language Study

	Responses	
	N	Percent
1 Music	18	16.8%
2 TV variety programs	15	14.0%
3 Anime	13	12.1%
4 TV dramas	7	6.5%
5 Manga	6	5.6%
6 Fashion	5	4.7%
7 Games	4	3.7%
8 Food	4	3.7%
9 Cosplay	3	2.8%
10 No difference (before or after)	3	2.8%
11 Idol	2	1.9%
12 Movies	2	1.9%
13 Everyday life of Japanese	1	0.9%
14 <i>Seiyu</i> (voice actors)	1	0.9%
15 Novels	1	0.9%
16 Nothing	12	11.2%
17 No answer	10	9.3%
	107	100.0%

Source: Compiled from questionnaire results.

question “How often do you eat Japanese dishes per month?” As shown in Fig. 4, the minimum was 0.5 times per month and the maximum was 20 times per month. The mode of the frequency distribution was 3 times per month, which was the response of 15 students; and the average frequency was 3.934 times per month, which means that respondents ate Japanese dishes approximately once a week.

## Discussion

### *Motivation for Japanese Language Learners*

In Table 7, we saw that 68.1 percent of the answers were in the JCP category, which proved that an interest in Japanese cultural products motivated many of the respondents to start learning Japanese. For instance, if a student started to learn Japanese in order to read a J-Pop idol’s blog on the Internet, the motivation may be classified as “instrumental,” as the language is a tool to obtain information available in Japanese. But closer observation may reveal that the student wanted to read the blog because he/she was interested in the J-Pop idol, and his/her interest in J-Pop music might be derived from an interest in Japan, the country. In such a case, the desire to read the blog has underly-

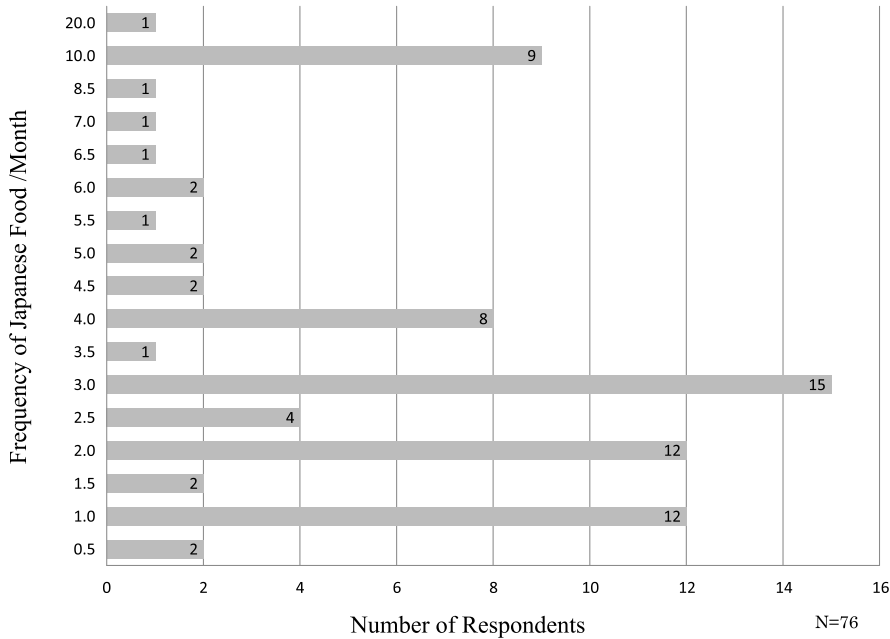


Fig. 4 How Often Do You Eat Japanese Dishes? /Month

ing reasons—the student’s interest in Japan and its culture—and may be classified as “integrative.”

Considering the interrelatedness of Japanese cultural products and other factors about Japan, the classification into instrumental and integrative orientations seems too vague to be used in the analyses of the motivation of respondents in this study. Richard Clément and Bastian Kruidenier also point out the ambiguities in definitions of these orientations, as well as the influence of the social milieu, which causes variances in classification among scholars (Clément and Kruidenier 1983, 274–276). In their study to assess the influence of ethnicity, milieu, and target language on the emergence of orientations to second language acquisition, they suggested that four orientations are common to all second language student groups: (1) travel, (2) friendship, (3) knowledge, and (4) the instrumental orientations (*ibid.*, 286).

In this research, many of the respondents started to learn Japanese because they were motivated to consume Japanese cultural products. As they continued learning the language, then, they seemed to gain more motivation for learning the language, which may be classified in any of the four orientations. But since each individual had multiple reasons for their motivation to learn Japanese, it is not possible to classify a student’s motivation in a single orientation. Consumers of Japanese cultural products are always

influenced by trends in Japanese pop culture, which may offer them a new motivation for learning Japanese. As theories of second language acquisition are focused mainly on classroom settings, they tend to overlook the complexities of the learners' social milieu.

Despite the ambiguity and difficulty in defining or classifying the various motivations of Japanese language learners, however, the discussions suggest that having a clear and strong motivation for learning a second language could well be an important factor in becoming a successful language learner. It is important to note that the respondents in this research were part of an elite in terms of Japanese language learning, since Chulalongkorn University is the highest-ranking university in Thailand and the Japanese language department admits only 35 students every year (Table 14). As we have seen in the study, many of the respondents started to learn Japanese because of their interest in Japanese cultural products and many of them became interested in further Japanese cultural products after they started to learn Japanese. This suggests that Japanese cultural products are not only a motivation to start learning Japanese but also a motivator to continue learning. Finding new Japanese cultural products of interest while they are learning Japanese, the students continuously have new sources of motivation to learn the language, which consequently leads them to be successful learners of the language. It is hoped that future research will attempt to prove such assumptions and assess the power of Japanese cultural products as a source of motivation in becoming a successful learner of the Japanese language.

#### *The Virtuous Cycle of Language Learning and the Consumption of Cultural Products*

At the beginning of this study, I posed two hypotheses in order to try to disclose the relationship between the consumption of Japanese cultural products and Japanese language learning: (1) exposure to Japanese cultural products induces Japanese language learning, and (2) Japanese language learning induces the consumption of other Japanese cultural products. The first hypothesis has been tested, as we have already discussed at several junctures in this study, and the results in Table 7 prove that 68.1 percent of respondents started learning the Japanese language because of Japanese cultural products.

Tables 12 and 13 suggest that Japanese language learning may result in the consumption of Japanese cultural products, implying that there is an explanation underlying the second hypothesis. We have seen that all the Japanese cultural products listed in Table 12 have some respondents who started liking them "after" commencing Japanese language learning. Among the Japanese cultural products, TV dramas and TV variety programs gained a particularly large number of new fans after the respondents started learning Japanese, while J-Pop, J-Idol, cosplay, J-Food, and J-Fashion attracted some new consumers from among the respondents. If we study Table 13 closely, we see that

Table 14 Number of Graduates, Chulalongkorn University, Faculty of Arts

B.E. (Thai Buddha Era)	C.E.	Thai	English	History	Geography	Librarian- ship	Philosophy	Art	Pali	Chinese	Japanese	French	German	Spanish	Italian
2517	1974	16	92	27	5	9	2	7	0	0	3	41	3	0	0
2518	1975	11	98	46	4	3	5	8	0	0	7	25	6	0	0
2519	1976	23	90	34	7	9	2	5	2	0	7	35	10	0	0
2520	1977	13	86	27	2	17	3	10	0	0	20	29	1	5	0
2521	1978	18	104	23	3	9	1	5	1	0	13	33	10	3	0
2522	1979	8	104	14	4	18	2	5	1	0	27	26	8	1	0
2523	1980	18	95	17	7	11	1	10	0	0	18	35	11	4	0
2524	1981	7	98	17	8	5	1	5	0	0	29	37	13	3	0
2525	1982	5	126	21	3	7	1	7	0	0	28	18	15	4	0
2526	1983	7	129	8	8	9	1	2	1	0	31	19	10	6	0
2527	1984	5	150	4	3	2	1	4	0	8	23	10	13	3	1
2528	1985	7	152	5	6	1	1	6	0	2	22	12	9	7	0
2529	1986	2	161	6	3	2	0	4	0	5	19	12	7	1	2
2530	1987	4	143	0	10	2	0	4	0	3	23	20	8	1	2
2531	1988	0	140	5	14	3	0	10	0	5	14	15	8	4	2
2532	1989	4	130	1	11	1	2	13	0	11	24	15	11	3	0
2533	1990	1	122	0	9	5	1	12	0	17	17	24	6	7	2
2534	1991	1	108	6	17	1	1	4	1	4	29	25	19	6	2
2535	1992	3	102	0	10	1	0	5	0	7	24	34	11	12	6
2536	1993	12	103	6	17	2	1	10	0	7	34	22	9	4	5
2537	1994	9	115	3	16	1	0	6	0	2	28	17	8	8	6
2538	1995	16	103	9	18	5	2	13	0	10	20	18	18	6	13
2539	1996	16	67	5	17	5	1	11	0	14	37	31	6	25	24
2540	1997	22	65	12	23	12	2	10	1	28	21	40	14	20	10
2541	1998	17	76	11	19	25	-	17	-	26	23	19	17	16	14
2542	1999	18	70	7	18	27	2	4	-	23	47	30	13	9	7
2543	2000	27	86	11	13	19	1	13	1	40	38	19	9	22	10
2544	2001	17	77	4	20	19	-	9	1	32	27	20	11	26	13
2545	2002	15	69	6	17	10	1	16	-	30	20	20	5	31	9
2546	2003	9	73	8	16	12	-	22	1	29	22	19	8	25	27
2547	2004	8	68	8	12	16	2	20	1	42	25	30	9	12	12
2548	2005	5	93	18	17	15	-	15	-	32	16	20	9	14	11
2549	2006	16	72	9	13	24	4	14	-	24	24	21	18	21	14
2550	2007	21	71	17	21	20	2	1	0	38	31	25	12	28	12
2551	2008	23	68	8	17	25	5	9	-	33	27	14	22	37	13

Source: Information provided by Chulalongkorn University, Office of Faculty of Arts, 2009.

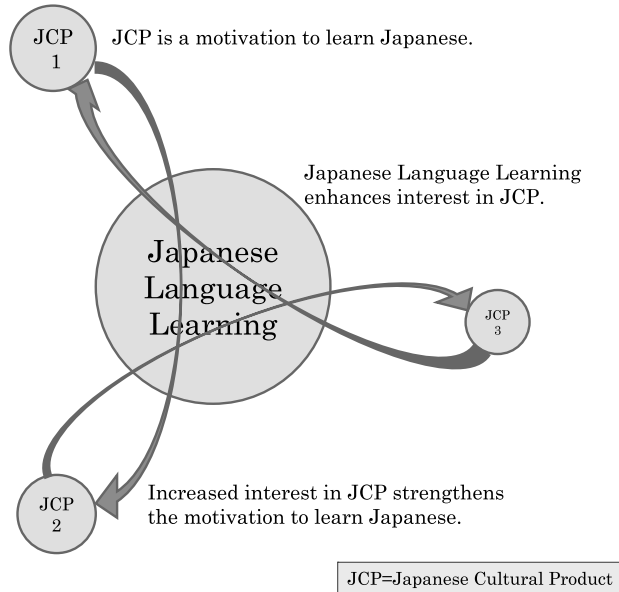
respondents tended to become more interested in music, TV variety programs, and anime after starting to learn Japanese. The results suggest that Japanese language learning reinforced the interest in Japanese cultural products that the respondents had before they started learning Japanese, and that increased their motivation to learn the language.

Today, young Thai people are raised in an environment in which they are exposed to an abundance of Japanese culture. Cultural carriers, such as sojourners from Japan and Japanophiles in Thailand, increase Japan's presence in Thailand and make Thai people more familiar with Japan. The cultural proximity, including the physical features and the imagery of Japan in the mass media, also makes Thai people think that Japan and Thailand have similarities in culture. Furthermore, the influx of Japanese culture through various channels such as media, products, or people reinforces a favorable attitude toward Japan. Encounters with, and the attraction of, Japanese cultural products in such an environment often motivate young Thais to start learning Japanese.

In Thailand, there are numerous opportunities for young people to start learning the Japanese language. The fact that Japanese is one of the subjects in university entrance examinations in Thailand offers secondary school students a good reason to start learning Japanese, and the Japanese language education system in Thailand provides a good environment for students to learn the language. Then, while they are learning Japanese, they are exposed to new Japanese cultural products through Japanese teachers, school friends, and Japanese friends they make. As they discover new Japanese cultural products that they like, they are motivated to continue learning the Japanese language, which furnishes them with even more opportunities to encounter additional Japanese cultural products.

The continuous cycle (of interests in learning the Japanese language and in consuming Japanese cultural products continuously enhancing each other) can be called the "virtuous cycle model" (Fig. 5). The cycle describes Thai youths' experiences in consuming Japanese cultural products and learning Japanese in the present day. For example, when a student becomes interested in manga (JCP 1), the interest will be a motivation to learn the Japanese language. After the student starts to learn Japanese, he or she may become interested in J-Pop (JCP 2), which may motivate the student to learn the language with even greater enthusiasm. Later, as the student's language ability improves, the student may in turn become interested in Japanese dramas and movies (JCP 3). The encounters with new Japanese cultural products become motivators for the student to continue learning the language, and they also enhance the student's interest in Japan and its culture.

It is important to note, however, that the sample in this research is a group of elite university students who are successful learners of Japanese. They may be leaders in the



**Fig. 5** The Virtuous Cycle Model (The Relationship between JCP and Japanese Language Learning)

consumption of Japanese cultural products in Thailand, as the university is located in the center of Bangkok, where Japanese cultural products and Japanese culture can be found more easily than in the provincial areas of the country. It is hoped, therefore, that the cultural consumption model for other consumers of Japanese cultural products—those who have different backgrounds in terms of location and socioeconomic status—will be constructed in future studies.

## Concluding Remarks

### *The Same Cultural Zone*

The notion of the “cultural discount” in media studies suggests that the value of Japanese cultural products could be diminished in Thailand, since Japan and Thailand are not in the same geolinguistic region. In this study, however, the values of Japanese cultural products do not seem to depreciate in Thailand; rather, they seem to be celebrated widely by Thai youths. Thus, the idea of “cultural discount” does not seem to work in the case of Japanese cultural products in Thailand, probably because there are no comparable quality cultural products among either domestic or other foreign products and also because of the cultural environment of the country.

Although Japan and Thailand are not in the same geolinguistic region, young people in Thailand are familiar with Japanese youth culture thanks to the abundant exposure to Japanese cultural products in everyday life. The proliferation of Japanese cultural products in Thailand during the last few decades has led Thai people to feel comfortable and familiar with Japan and Japanese culture. For instance, today most Thai people start reading manga and watching anime in early childhood, and therefore manga and anime may not be perceived as foreign. I asked one of my informants (a university student), “Do Thai children have opportunities to see and get to know Japanese culture through manga and anime?” I was referring to scenes in anime, for example, where people take off their shoes at the entrance of houses and tatami mats are laid out on the floor. She replied, “Yes, I think they do. But they may not be conscious that they are seeing Japanese culture” (Personal communication, March 10, 2010). This suggests that Thai youths are exposed to Japanese culture subconsciously and that they learn about Japanese culture without realizing it, which would indicate the impreciseness of the argument that major Japanese cultural products are characterized as “culturally odorless” (Iwabuchi 2002, 94). Thai youths consume Japanese cultural products not because those products are “culturally odorless,” but because the “Japanese odor” does not feel foreign to them.

In the discourse on the transnational consumption of television dramas, Ien Ang points to the important role of cultural proximity between two countries, rather than just arbitrary consumption by an audience (Ang 2003, 290). Ang points to the cultural proximity between Australia and the UK as a reason for the popularity of television dramas in both countries. In the global world, according to Ang, culture is not diffused homogeneously but unevenly—sometimes overlapping, creating certain regions of transnational cultural proximity and similarity (“transnational cultural zones”) (*ibid.*; 2004, 305). The example of Australia and the UK is similar to the notion of the geolinguistic region, as these countries are both English speaking. However, if we put more emphasis on the common values in the cultures of different countries, Japan and Thailand have common values in terms of pop culture, subculture, and youth culture, which consequently places them in the same cultural zone. Despite the difference in the languages spoken and the geographical distance between the two countries, the youth culture of Thailand seems to have adopted many elements of Japanese youth culture; this forms the foundation for the continuous cycle of consumption of Japanese cultural products in Thailand.

### *Emergent Processes of Language Acquisition*

Thought development is determined by language, i.e., by the linguistic tools of thought and by the sociocultural experience of the child. Essentially, the development of inner speech depends on

outside factors; the development of logic in the child, as Piaget's studies have shown, is a direct function of his socialized speech. The child's intellectual growth is contingent on his mastering the social means of thought, that is, language. (Vygotsky 1986, 94)

Lev Vygotsky's notion of first language acquisition and the development of logic in a child can be applied to the discussion of second language acquisition, revealing a new layer of understanding about the culture of the second language and the consumption of cultural products. In fact, if we replace "Thought development" with "Understanding of another culture" in Vygotsky's discussion, the above statement can point to the importance of language in understanding other cultures. Before a person starts to acquire a second language (as is the case with the first language), language acquisition and understanding of the other culture are entirely different processes. But after one begins learning a second language—at some point in the process of learning the language—language and thought start interacting. Through these interactions, then, language learning helps develop an understanding of the culture, and cultural understanding enhances learning of the second language.

In an illustration of the relationship between language learning and an understanding of culture, a female student majoring in economics at Thammasat University once told me that while she was studying at Kyoto University as part of an exchange program, she learned that Japanese people use different "name honorifics" depending on the speaker's relationship with other people. She also learned that these honorifics reflect the speaker's respect toward the person (Personal communication, July 14, 2011). For example, the honorific *sama* is usually used to express respect toward a person, and it suggests that the speaker does not have a close relationship with that person. On the other hand, the honorific *chan* is used to address someone the speaker considers to be very close, and it also often expresses fondness or a feeling of affection toward the person. When the Thai student learned that there were different kinds of name honorifics in Japanese, she realized that when selecting the appropriate name honorific to use in each particular situation, Japanese people take into account the interpersonal relationship with the person. Furthermore, once the Thai student started to understand how Japanese people maintain social distance and manage interpersonal relationships with others, she began to understand which name honorific was required in each particular situation.

To cite another example, a female student majoring in Japanese at Chulalongkorn University told me that she learned about the concept of *uchi* (meaning one's home or one's closest inner circle) and *soto* (meaning "others outside" or those who are outside *uchi*) in Japanese culture during the course of her language studies. She realized the importance of this concept when trying to understand the different forms in Japanese



speech, such as the humble form (*kenjogo*), the honorific form (*sonkeigo*), and the polite form (*teineigo*) (Personal communication, January 23, 2012). The spatial distinction between *uchi* and *soto* may not be unique to Japanese culture, but Robert Suple argues that the relationship between the distinction of *uchi/soto* and linguistic forms is found to exist in Japanese expressions (Suple 1994). It is important to note that beyond the various linguistic discussions, the Thai student was able to learn the linguistic forms through practicing speaking Japanese and that she came to understand that a comprehension of the distinction of *uchi/soto* plays an important role in improving Japanese proficiency. As we can see in these examples, one key to successful language learning appears to be the synergistic effect of the interaction between language learning and an understanding of culture.

A speech act may therefore be culturally defined as a complaint, a compliment, an apology, or a refusal, and competent native speakers will have little difficulty in identifying them as such. A given speech act or event is, as Hymes points out, conditioned by rules of conduct and interpretation, and the ability to use these rules appropriately is a critical part of the communicative competence of the native speaker. (Wolfson 1989, 7)

In her explanation of the *speech act* in sociolinguistics theory, Nessa Wolfson points out that cultural definitions of speech—which are conditioned by the rules of the society that the speaker belongs to—are necessary in order to interpret the meaning of speech. In other words, the interpretation of cultural definitions is *communicative competence* in the language. In concluding this study, I can confirm that the discussions throughout this research have convinced me that many young Thai people who participated in my research developed an interest in Japanese culture and cultural products as they started learning the Japanese language, and that this learning enhanced their consumption of Japanese culture and cultural products. In the consumption of Japanese cultural products in Thailand, therefore, Japanese language learning is the gateway to the virtuous cycle of Japanese cultural product consumption.

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# Agrometeorological Learning Increasing Farmers' Knowledge in Coping with Climate Change and Unusual Risks

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Enriching farmers' knowledge of the risks and consequences of climate change is the most promising strategy to better assist them. Nevertheless, we have to bear in mind that people filter and absorb scientific knowledge through pre-existing cultural models and aspirations for desired outcomes. The severe pest/disease outbreaks during the La-Niña periods of 2009 and 2010/2011, and the unpreparedness of farmers in many places in Java, was a timely opportunity for many parties to reflect seriously on the deficiencies in our approaches and facilitations.

Our inter-disciplinary collaboration proved successful in strengthening and enriching farmers' knowledge by bringing agrometeorological thinking and knowledge, based on scientific ideas, premises, and methods, to local people who had their own "ethnoscience." This benefits farmers over an extended period and until the public extension intermediaries have been sufficiently trained. Our suggestions are: assisting farmers to discover their own vulnerability issues through continuous dialogues and knowledge exchange in "Science/Climate Field Shops," and the measurement of rainfall and the observation of weather and climate implications for fields and crops in a standardized way as the basis of an improved Climate Field School. To that end the training of public extension intermediaries is necessary.

**Keywords:** agrometeorological learning, coping better with climate change, strengthening farmers' knowledge, Science/Climate Field Shops, inter-disciplinary approach, trans-disciplinary collaborative research

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## Generating a Rural Response to Climate Change: An Introduction

The very heavy rains and the flooded fields everywhere in the hamlets and villages of Gunungkidul, Yogyakarta, were the main topics of farmers' conversations. Finding water standing in their fields after heavy rains was common; that their fields were actually flooded was less so. Their main concerns were the young age of their crops, paddy, and maize, and the already retarded growth due to a long drought in the past three weeks. The farmers, whose fields were heavy black clay soil, feared possible damages to their crops. That turned out to be the case. The roots and stems of the 30–40-days-old maize decayed. Their leaves turned yellow, as did the paddy leaves. Other crops, such as chili, were also badly affected (Winarto and Stigter 2011). These surprising facts were examples of a real risk resulting from an increase of climate variability and climate-related extreme events as consequences of climate change (see OXFAM 2009). The question remains, therefore, how to help farmers respond better to these phenomena, which they are currently unable to cope with. Direct experience and empirical observations are the main means of learning in the local domain of knowledge. Without directly seeing, feeling, and experiencing the phenomena they encounter in daily life, they will not have any confidence or belief in their own or other people's interpretation and sayings (see Winarto 2004; 2010). Phenomena of climate change and variability cannot be observed directly by farmers themselves, and the impact on farmers' lives cannot easily be predicted or anticipated. On the other hand, farmers can rely on their memories and recent experience to develop their expectations of the future, and this shapes their knowledge of climate phenomena and their understanding of climate information (see Roncoli *et al.* 2003, 181). As also argued by Peterson and Broad (2009, 78):

Our mental models of the world's natural processes are shaped by experience, evolutionary processes, and our daily experiences. As events become spatially and temporarily distant—either forward or backward in time—our ability to tease out relative objectivity vanishes.

Enriching farmers' knowledge and understanding of the risks and consequences of climate change is the most promising strategy to better assist them. We agree with the International Research Institute for Climate and Society's decision to use a science-based approach to enhance society's capability to understand, anticipate, and cope with the impact of climate in order to improve human welfare and the environment (IRI 2011; see also Stigter and Winarto 2011a; 2011b; 2012). Nevertheless, we have to take into consideration that "people filter and absorb scientific knowledge in terms of pre-existing cultural models and aspirations for the desired future" (Roncoli *et al.* 2003, 181). As Crate and Nuttall (2009, 12) argue, "[c]limate change is ultimately about culture . . ." A delib-

erate approach to introduce scientific ideas within the existing cultural models and aspirations for the future is thus necessary. This is not an easy task, yet we must respond to the challenge.

Interestingly enough, during our time assisting the farmers in Wareng, Gunungkidul in 2008–9, we discovered that farmers had learned to cite the numerical amounts of rain that had fallen. “In fact . . . when the fields were flooded, on average the rainfall in the points of observation was more or less 120 mm,” said Sih. None of the amounts cited by the farmers were below 100 mm (Stigter and Winarto 2011b). How had the farmers learned to use figures? Citing rainfall in numerical form is not part of farmers’ culture; neither is relating the quantity and conditions of their crops. But they are good empirical learners, and measuring rainfall trapped in the rain gauges mounted in their fields and observing the fields’ conditions every day was what the farmers had been doing. This was the result of a joint production of knowledge based on the farmers’ own observations under the facilitation of a group of scholars: an agrometeorologist, a biological-environmentalist, and anthropologists (see Winarto 2010; Winarto *et al.* 2010a; 2010b; 2011d; Winarto and Stigter 2011). An enrichment of farmers’ schema of crop farming by incorporating the elements of meteorology through direct seeing, feeling, and experience—the farmers’ way of learning—was what we aimed to achieve, with the hope that they would be better equipped to assess their current strategies and be better prepared for similar conditions arising from climate change in the future (see Roncoli *et al.* 2003). That is the “farmer first paradigm” approach we propose: first listen to the farmers concerned, to better understand their vulnerabilities and needs the way they see them (Chambers *et al.* 1989; Scoones and Thompson 1994; 2009; Winarto 2010). We should then be able to generate support from them and for them in facing the consequences of increasing climate variability and climate change in their livelihoods (Stigter 2010a; Winarto and Stigter 2011).

We call this approach and arena in which farmers and scholars meet, discuss, observe, and evaluate farmers’ vulnerabilities “Science Field Shops” (SFS) (Winarto *et al.* 2010a; 2011d; Stigter and Winarto 2011a; Winarto and Stigter 2011). If particularly focused on the issue of climate, we may call it “Climate Field Shops” (Stigter and Winarto 2011b). The word “shop” is adopted as a metonymical word of going to a “place” to get something people need. In this case, the “shop” is an arena where farmers can relate stories of their vulnerabilities and obtain proposals for solutions and additional information they need to enrich their knowledge and understanding of weather and climate related to their planting strategies and other decisions. The information could come from various sources: scholars, fellow farmers and farmer facilitators, and extension intermediaries, who themselves make use of many varying sources. Historically “Law Shops”

were free for poor people. The Science Field Shops are free for farmers too.<sup>1)</sup>

Such “shops” on farmer vulnerabilities do not contain any formal learning in the fashion of the Climate Field Schools’ (State-CFSs) launched by the Indonesian government across Indonesia (Direktorat Perlindungan Tanaman Pangan 2007; 2010; Boer 2009; Prakarma 2009; BMKG 2011; Winarto and Stigter 2011). Its flexible format of discussing farmers’ problems and questions and generating joint solutions and answers, allows the SFSs to generate material for training extension intermediaries to establish “climate field services” with farmers at a later stage. We argue that these “climate field services” should not have pre-fixed curricula as do the State-CFSs, but that learning situations should be created together with the farmers, based on discussions of their vulnerabilities and other questions on difficulties experienced in the ongoing season (Stigter and Winarto 2011b).

This paper will discuss and examine the ongoing SFS we have been carrying out in collaboration with the farmers in the irrigated lowland rice fields in Indramayu from 2009–12, while also referring to our earlier experience in a hilly dry rainfed karst ecosystem in Wareng, Gunungkidul in 2008–9. We discovered the benefits of such collaboration in the midst of increasing risks and vulnerabilities faced by the farmers in recent years. There were severe outbreaks of pests and diseases in many places in Java as presented in the second and third parts of this paper. Brown plant hoppers (BPHs), viruses brought by this pest (grassy-stunt and ragged-stunt viruses), rats, and rice stem borers infested rice fields over the whole of Java concomitantly with the La-Niña period that started in the usually dry season of 2010 and lasted into 2011, originating from an interplay of complex factors (Stigter 2012a).

The final part of this paper examines the ways in which the inter-disciplinary approach in SFSs was developed, along with trans-disciplinary collaboration with the farmers in improving their agrometeorological learning. Stigter (2010b) and Winarto (2010; see also Stigter and Winarto 2011b) argue that applied scientists cannot carry out the collaboration with the farmers all by themselves, whereas social scientists, such as anthropologists, would not be able to assist farmers in the area beyond their expertise. The collaboration

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1) Science Field Shop (SFS) is only a stage (of say, two years) to begin a new extension approach where farmers, scientists, and extension intermediaries interact not only to enrich farmers’ knowledge and understanding, but particularly to discover their vulnerability issues as a basis for future climate field services directed to help farmers solve their problems. In the long term, it is expected that farmers can continue learning on their own and that better-trained extension intermediaries, assisted by farmer facilitators, will assume the responsibility of facilitating farmer communities, so as to spread and widen the learning by establishing climate field services with farmers in their fields. Gradually the scientists will withdraw from the local site and hand the learning to farmers, extension intermediaries, and other stakeholders.



between the two is highly needed. Making farmers themselves the main researchers and the scholars' counterpart is a must. This paper presents the story of such a collaboration.

## Climate Change and Variability: Risks and Opportunities

Increasing climate variability and continuing climate change do not solely mean greater risks for local people who have adapted to their habitat for generations; they also create opportunities. Risks and opportunities are two sides of the same coin in any (non-polluting) change in people's environment (see Hulme 2009; Crate and Nuttall 2009). How people perceive those risks and opportunities depends on their cultural frameworks. Roncoli *et al.* (2009, 88) detail the ways in which climate change is filtered through the prism of culture:

... how people perceive climate change through cultural lenses ("perception"); how people comprehend what they see based on mental models and social locations ("knowledge"); how they give value to what they know in terms of shared meanings ("valuation"); and how they respond, individually and collectively, on the basis of their meanings and values ("response").

Perception, knowledge, valuation, and response are interlinked to one another in people's minds, feelings, and to some extent, actions, either individually or collectively. In the face of unusual climate change and variability between 2009 and 2011—from La-Niña to El-Niño, and back to La-Niña again in a relatively short period of time—what role did these cultural elements play in farmers' minds, feelings, and actions?

Agricultural production in Indonesia is strongly influenced by the annual cycle of precipitation and its year-to-year variations caused by El Niño-Southern Oscillation (ENSO) dynamics. The combined forces of ENSO and global warming are likely to have dramatic and currently unforeseen effects on agriculture production and food security in Indonesia and other tropical countries (Falcon *et al.* 2011). The ENSO can actually swing beyond the "normal" state to a state opposite to that of El Niño, with amplified trade winds and a colder than normal eastern Pacific. This phenomenon is often referred to as La Niña. When a La Niña period occurs, many Asian regions inclined toward drought during an El Niño, such as Indonesia, are prone instead to more rain.

Both El Niño and La Niña vary in intensity from weak to strong. The interval at which El Niño returns is not exactly regular, but used to range from two to seven years; even this is no longer true. Sometimes an El Niño subsides into a "normal" pattern; other times it gives way to a La Niña. In many ways, the ENSO cold phase is simply the opposite of the warm phase. This often holds true also for the climate impacts of the two.

El Niño (warm phase) tends to bring drought to countries like Indonesia and Australia, at the west end of the Pacific, while La Niña (cold phase) tends to bring more rain than normal to these areas (Metcalf Institute 2000). However, the frequency of these phenomena has changed in recent times, as well as the pattern in which they occur. We are as yet unable to simulate these actual changes with the models that summarize our understanding that apparently is at this moment still very insufficient (ClimateWiki 2011).

These bizarre weather conditions from 2009–11, which were not in line with farmers' local cosmology (*pranata mangsa*) in crop farming, left them confused and unsure of the appropriate actions to take. Wet months in the first dry season of 2009, followed by a prolonged drought in the beginning of the rainy season in 2009/2010, and continuous heavy rains throughout the remainder of 2010 and 2011 up to the cessation of rains in 2011, were very strange sequences for the farmers. For those who had never received any training on climate change issues through CFSs, such strange weather was just referred to as due to "climate change" (*perubahan iklim*), according to what they heard from the media. Their expectations were based only on recent situations, and they acted on a day-by-day basis. As soon as the farmers realized that they were experiencing a prolonged drought, or, on the contrary, a prolonged wet period, they would either fear the risks to their crops or feel grateful for the new opportunities they would get. Yet, the latter could imply consequences beyond their knowledge and create risks more severe than previous ones. Risks and opportunities are intermingled and thus increase the complexity of dealing with the actually occurring phenomena.

Noteworthy too was how some Integrated Pest Management (IPM) knowledge that IPM Farmer Field Schools (FFSs) had passed on to groups of Indonesian farmers, particularly for BPH attacks, had to a large extent become lost over time. Stigter (2009) observed that the IPM/FFS approach first introduced in the Philippines and Indonesia was a success story because it enriched farmers' agroecosystem analyses, improved their self-confidence, solved community problems, and developed a different relationship with local government (see Winarto 2004; 2010; Winarto and Stigter 2011; Bartlett 2005). It was "an educational instrument with the specific purpose of tackling some of the shortcomings of agricultural modernization" (Van den Berg and Jiggins 2007). Nevertheless, with time, relatively few farmers in Java were still able to perform IPM. Due to the lack of institutionalization, most of the skills obtained in that training wore off, and panicked farmers returned to the prophylactic use of pesticides. This was instrumental in inducing a higher number of BPH populations after each spraying (e.g. Stigter 2012a).

On the contrary, farmers, such as some of the IPM FFS alumni, who still relied more on observations, using appropriate pesticides only if necessary (e.g. buprofezin to prevent the growth of BPH in the juvenile stage), applying bio-agents such as *Beauveria bassiana*,

reducing chemical fertilizers such as nitrogen or even using organic fertilizers, and selecting the more resistant varieties (including local varieties and farmers' own cultivars such as in Indramayu), were saved from severe harvest failures. Even though BPH populations were migrating to their fields, their plants were not infested too severely. Farmers who managed to fallow their fields for several months after the second harvesting, such as in West Java due to water gate closures, were also spared the continuous BPH infestations suffered in the regions where farmers kept planting paddy without any fallow period in between.

One thing that needs to be considered here is the farmers' ability to stick to their knowledge, confidence, and belief in the sustainable practices they had developed in the past. A number of IPM alumni in Indramayu, West Java, and newly trained IPM alumni in Lamongan, East Java, were not seduced by pesticides promotion by chemical companies. Protecting their fields' ecosystems to sustain good yields was their main aim, despite the increased promotional activities by chemical companies and the government subsidies in the regions with severe outbreaks of BPH. However, things are not so simple. There were also cases in which farmers who started out avoiding pesticides could not withstand the severe outbreaks of BPH, due to the very high population of the pest. This was compounded by the fact that persistent use of pesticides by farmers in neighboring fields caused increasingly bad conditions in their habitat (see NAW [anonymous] 2011; Samejo 2011). To be effective, controlling pests by IPM should be done by all farmers cultivating rice in a certain area, not only by individual farmers in his/her own field. But breaking farmers' habit of the prophylactic use of pesticides is not easy (see Winarto 2004; 2006), especially in the face of intensive promotion of pesticides by chemical companies, shop-owners, and even agricultural extension workers.

These phenomena of different practices and responses throughout Java to risks and opportunities resulting from the La-Niña condition are interesting to follow. Human conditions, the interaction between various actors/stakeholders, influence to a significant degree how risks unfold in people's lives. The cases of BPH outbreaks reveal that rice ecosystems were vulnerable at times when the variability of climate increased significantly and global warming-induced climate change was actually measured (Stigter and Winarto 2011b). Weather conditions were conducive to the outbreak of pests/diseases as concluded by the research team of the Australia-Indonesia Governance Research Partnership (AIGRP). The team argued that the changing climate altered the biology and economic vulnerability of rice production in Indonesia (*Kompas* 2009).

## Are Farmers Ready to Cope with Climate Change?

We agree with Roncoli (2006) that because there is a close link between climatic patterns and production outcomes, agriculture stands to benefit in particular from climate information, advisories, and services (see also Stigter 2012b). Climate advisories/services for farmers are indeed necessary. The AIGRP team reported from their 2009 survey of 600 farmers in the north coast of West and East Java that as many as 43 percent of farmers did not recognize the increase of temperature, and as many as 38 percent of them did not know of any changes in the rainy patterns (*Kompas* 2009). Interestingly, the farmers had participated in a Climate Field School (CFS) the season before, but it was only after our group visited the farmers and explained the phenomena to them and assisted them in taking daily measurements of the rainfall in their own fields did they understand the La-Niña condition they were experiencing and what this meant to their rainfall patterns (Stigter *et al.* 2009).

As revealed by the case of BPH outbreaks in 2010/2011, crop farming in Indonesia is complex due to the vulnerability of the ecosystem as a result of farmers' past practices within the highly intensive crop cultivation of the Green Revolution paradigm (see Fox 1991; 1993; Hardjono 1991; also see NAW [anonymous] 2011; Samejo 2011). Farmers were not only trapped into the use of "poisons" introduced as "medicines," but they were also becoming estranged from their new ecosystems. The major changes in their ecosystems and the consequences were not part of traditional local knowledge. They were baffled, for example, by the emergence of new pests and diseases in spite of their regular use of pesticides. "Why the more 'medicines' we use, the more 'illnesses' attack our paddy?" was the question raised by many farmers in West Java (see Winarto 2004). The National IPM Program introduced in the early 1990s had the aim of making farmers aware of the need to grow healthy crops in a more sustainable ecosystem. Yet, how much knowledge they absorbed and applied to their practices, and the extent to which the new paradigm was transmitted to other farmers and the community at large, remains questionable. Changes and their persistence are real (see Winarto *et al.* 2000; Winarto 2004; 2006). It is not easy to shift farmers' cultivation paradigm in a relatively short period of time without providing some sort of facilitation to the farmers in the post-"schooling" period. Unfortunately, extension workers were often absent from the fields for various reasons.

Farmers' learning is based on empirical observations and direct experiences. Assisting them to interpret what is happening in their fields by referring to their recent practices and outcomes, past learning, and their fellow farmers' strategies and crop performances, is a way to enrich their knowledge (see Winarto 2004).

Local traditional knowledge was developed in a context of regular climate variability and commonly occurring extreme events. However, there are three new tendencies in climate change for which local knowledge has not been empirically developed: (i) global warming, (ii) increasing climate variability, and (iii) more (and more severe) extreme events (Stigter and Winarto 2012). Some of the farmers with whom we work in Indonesia, mostly older ones, still believe it is possible to adapt their local cosmology (*pranata mangsa*) to new conditions. We feel it is better that they find out for themselves the new limits of these traditional approaches; however, we can help, for example, by using simple climate predictions available these days for comparisons. Traditional knowledge and indigenous technologies should always be taken seriously, and a participatory approach to test their limitations under today's changing conditions is best. Carrying out experiments together to compare traditional and modern scientific approaches is also a good way to break the ice with local farmers (*ibid.*).

Without any additional knowledge to explain phenomena beyond their empirical learning, it is not easy for farmers to grasp the potential and benefits from a new approach. This was the case with the recent BPH outbreaks. The pest's resistance, resurgence, and fecundity, caused by injudicious pesticides spraying and the killing of natural enemies, are not easily observable (see Bentley 1992). Therefore, without additional information, those phenomena would not become part of farmers' knowledge and understanding. This is also the case with climate change consequences beyond their direct experiences, although they have witnessed uncommon changes in their habitat affecting the growth of their crops.

To help farmers gain some understanding about climate change and its implications for their fields and crops, the Ministry of Agriculture collaborated with the agrometeorologists from Bogor Agricultural Institute to develop a pre-fixed curriculum for a "school," which they called Climate Field School, following the training method developed in IPM FFS (see Direktorat Perlindungan Tanaman Pangan 2007; 2010; Boer 2009; Prakarma 2009). But how efficacious was it?

The CFS was held only once throughout one planting season, with one session of training every 10 days (one decadal period). Unfortunately, due to the late disbursement of funds, the CFS in Wareng, Gunungkidul, was held in a dry season, where rains were rare, rather than in the rainy season. Farmers gained new ideas on climate and weather, rain formation, various types of cloud, categories of rainfall, ways of measuring rainfall and soil moisture, analyzing agroecosystems in relation to weather conditions, and practicing a preparedness strategy towards drought. They were also able to raise questions on the puzzling phenomena they experienced (see Direktorat Perlindungan Tanaman Pangan 2007; 2010; Winarto *et al.* 2008; Boer 2009; Anantasari *et al.* 2011). Unfortunately,

once the “school” ended and no further funds were available to pursue any follow-up program, the facilitators from plant protection and extension services did not continue their assistance. Farmers were left on their own, as was the case of the IPM FFS alumni. They did try to implement the drought preparedness strategy and gained better yields in the normal weather conditions of 2007/2008 (see Winarto *et al.* 2011d; Anantasari and Winarto 2011). However, they were not at all prepared for the extreme changes of climate in the following year and were caught unawares by the very sudden La-Niña period in the second quarter of 2010, continuing into 2011. Some farmers actually repeated the same strategy for drought, not for wet conditions (Stigter and Winarto 2011a). Without preparing for a drainage system, which was not part of farmers’ culture in a dry rainfed karst ecosystem, the abundance of water in the fields constrained the growth of crops (Winarto and Stigter 2011). Would a one-time training, as was this CFS, really help farmers, especially if they were no longer assisted in the field?

Only a few CFS alumni in Indramayu were motivated to continue applying some of the new skills they had picked up in “school,” such as measuring rainfall, observing soil moisture, and understanding the air temperature. With simple but delicate equipment provided by the Meteorology, Climatology, and Geophysics Office in Jakarta, an old farmer in a dry rainfed ecosystem in Indramayu was seemingly able to predict daily weather conditions by measuring air humidity (albeit erroneously) and temperature. He became in turn the source of such information for other farmers in his area. The CFS alumni in Gunungkidul, on the other hand, did not continue measuring daily rainfall since they had no rain gauges after the trainer took back the rain gauges used in “school.” Prakarma (2009) discovered from his survey in Indramayu that farmers did not make important changes to their strategies after their training. At the time we were in the field (2008–9 in Gunungkidul, 2009–11 in Indramayu, and 2010–11 in Banyumas-Purworejo, Klaten-Boyolali-Sukoharjo in Central Java), we discovered that farmers did not even receive simple climate predictions for the forthcoming months/seasons. “We have never received any information” was their reply when we asked groups of farmers in Banyumas, Purworejo, and Indramayu in early 2011 (also see *Kompas* 2009).

It is also interesting to note how information was transferred by the Badan Meteorologi Klimatologi dan Geofisika (BMKG) office to those responsible for telling the farmers. In one meeting in Indramayu concerning farmers’ observations of daily rainfall in October 2009, at the very beginning of the first rainy season, the leader of the farmers’ association (Indonesian Integrated Pest Management Farmers’ Alliance, Regency of Indramayu) brought a bundle of written material related to climate change and farmers’ cosmology, *pranata mangsa*, he was compiling from various sources. We saw one statement he received from the BMKG office as follows: “If the rains have not reached 15 mm

yet, do not start planting.” Yet the farmers in question had never learned how to measure rainfall. Unlike the CFS alumni in Wareng, Gunungkidul, who had measured rainfall daily in 2008/2009, the group of farmers in Indramayu had just begun their rainfall measurements in early October 2009. Actually, farmers do have their own taxonomy of rains in lexical form (see Winarto *et al.* 2010a; 2011d). However, without any knowledge of what kind of rain—in their taxonomy—corresponds to the rainfall in quantitative form, they would not be able to interpret the scientific measurement of rainfall as used by scientists and government agencies.

We argue, therefore, that simple weather forecasts and possibly also simple climate predictions for farmers, supported by continuous agrometeorological learning for a longer period of time, are indeed necessary as farmer advisories/services. A number of farmers in Indramayu, who measure rainfall in their own plots every day since October 2009 till the present, benefitted from following the patterns of rainfall and the related problems occurring in their fields. Yet, they argued that without any guidance and explanation from experts or well-trained extension intermediaries, they would not gain much. They would be able to better interpret the data were they in close contact with such people and with one another, sharing their burdens, receiving immediate useful explanations, and obtaining new knowledge. Farmers face problems and have queries that go beyond rainfall data, as seen in the case of BPH outbreaks experienced by farmers in many places in Java. Agrometeorological learning in which both farmers and experts share information, knowledge, and problems is indeed urgent. This must take place in the Science Field Shops discussed earlier in this paper, preceding new CFSs where well-trained extension intermediaries in turn train and facilitate farmers (Stigter and Winarto 2011a).

### **Endorsing Agrometeorological Learning among Farmers in Java**

What makes the Science Field Shop (SFS) or Climate Field Shop different from the Climate Field School (CFS)? Both tackle the improvement of farmers' knowledge of weather and climate, but the SFS covers an even wider range of subjects in local agricultural production, and very differently too. Concerning the training of extension officers, we advocate that scholars, officers, and farmers meet in SFSs to prepare for an open curriculum on farmers' vulnerabilities for future CFSs. These better-trained intermediaries will then be able to help farmers in the CFSs with problems of the current season or anticipated difficulties. In some earlier writings, Stigter and Winarto (2011b; see also Stigter 2010a; Winarto 2010; Winarto *et al.* 2010a; 2011d) argue that improving farmers' agrometeorological learning should not begin with a pre-fixed curriculum. Curricula for

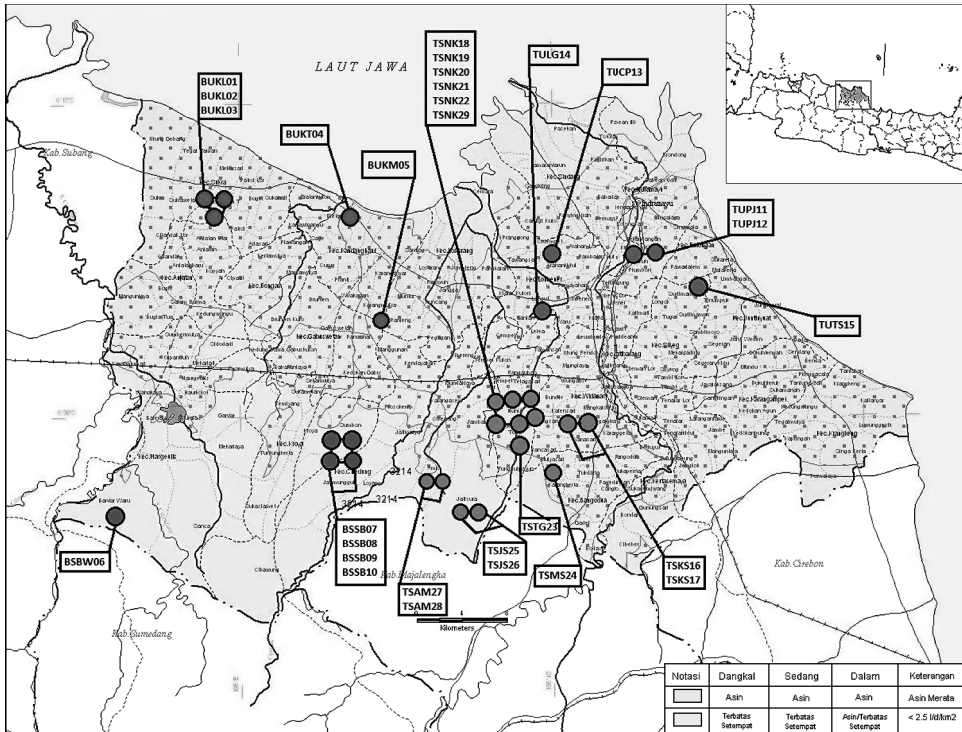
CFS trainers (the extension intermediaries) have been proposed (Stigter 2010a) and could be further developed using materials from the SFSs: joint meetings, discussions, knowledge exchanges, and farmers and scholars' evaluations of the former's vulnerabilities and needs. Whilst the CFS was implemented once in one period of planting, our collaboration with the farmers, including trial SFSs, has been going on for a much longer period, enduring several different monsoon seasons with varied weather conditions and the ensuing cropping problems.

In Wareng, Gunungkidul, collaborative work with the CFS alumni, who formed a group called Sedio Mulyo, began in November 2008, following joint visits at the end of 2007 and a preparatory stage in 2008. The 20 members of the group did daily rainfall measurements at 10 points-of-observation spread throughout their rice field areas. This lasted until the cessation of rains in June 2009, covering two planting seasons (see Winarto *et al.* 2010a; 2011d; 2011e). In Indramayu, West Java, an early joint meeting with some representatives of the Indonesian Integrated Pest Management Farmers' Alliance of Indramayu Regency was held in March 2009, followed by a preparatory stage before the rainfall measurements were embarked upon in October 2009. These were Climate Field Shops. Since formal collaboration with the leader of the group came to a halt, the collaboration was terminated after four months of work (Dwisatrio 2010; Winarto *et al.* 2011d). But the group was re-activated by a number of farmers in October 2010, when around 30 of them decided to continue measuring rainfall and observing their fields under a new association—the Indramayu Rainfall Observers Club (see Map 1). This has been in operation till the present (November 2012), spanning four planting seasons and two dry seasons in 2010–12. The farmers agreed to form an informal “club” free from any administrative or bureaucratic procedures.

On the basis of Stigter's experience in West and East Africa, in evaluating the use of farmer rain gauges to measure rainfall in farmers' fields (e.g. Diarra and Stigter 2008), a similar program was organized in Gunungkidul, Yogyakarta, and Indramayu, West Java. This stimulated farmers to measure rainfall in their own plots, following procedures and using equipment described in Stigter *et al.* (2009), and to observe the conditions of their fields and crops. Whereas farmers in Wareng, Gunungkidul, used the wedge-shaped USA rain gauges with an imprinted scale that we purchased to help them in 2008/2009, we urged the farmers in Indramayu to make their own cylindrical rain gauges in 2009 as described in Stigter *et al.* (*ibid.*) (see Photos 1 and 2 to compare the different rain gauges). Since then, farmers have produced cylindrical rain gauges on a commercial basis for their own use and for others who have an interest in measuring daily rainfall in their own plots.

Farmers were not only measuring rainfall and taking notes of the amounts in their





**Map 1** Location of 29 Points-of-Observation in Indramayu Regency

Source: Adapted from the map in *Indikasi dan Potensi Air Tanah dan Daerah Irigasi Kabupaten Indramayu, Propinsi Jawa Barat*, 2003.

books—a new task to master—they were also observing the conditions of their fields, the growth of their crops, and other essential information on soils, water, pests/diseases, and crop conditions. Recording the results of these complex observations in a simple written form was also not easy. Herein lies the job of the intermediaries: assisting farmers to do the measurements in a standardized way, helping them in developing and improving their notes, collecting the data and processing them for interpretation by the agrometeorologist, and returning the analytical results to the farmers to enrich their understanding and improve their operational knowledge.

Some anthropologists and a non-social scientist (an environmental biologist) were in Wareng, Gunungkidul, carrying out ethnographic fieldwork and following farmers' learning in the CFS and during the earlier collaboration (2006/2007). Some anthropologists also collaborated with farmer plant breeders in Indramayu in 2006–8. The scholars were thus acting as intermediaries and “cultural translators” between two domains of knowledge—the scientific and the local. Both parties, the farmers and the scholars, were



**Photo 1** USA Farmer Rain Gauge in Farmer's Field, Wareng, Gunungkidul  
Source: Photo by Winarto, 2009.



**Photo 2** A Farmer in Indramayu Measuring Rainfall Using a Cylindrical Farmer Rain Gauge  
Source: Photo by Dwisatrio, 2011.

engaged in a continuous dialogue and an inter-subjective relationship in a common aim to improve farmers' agrometeorological learning (Dwisatrio 2010; Winarto *et al.* 2010a; 2011d; Winarto and Stigter 2011). The job of a "cultural translator" is, of course, not a simple one. It is dynamic and requires reflection, and we encountered initial problems. The most challenging tasks were to get the farmers to internalize the habits of (i) going to their fields every day at an agreed time without interruption, (ii) observing their agricultural ecosystems for consequences of the climate, and (iii) recording their observations. As long as the farmers understood the reasons behind these standardized practices and experienced the benefits of carrying them out, the rest was not difficult. Protestations against the standardized ways of measuring rainfall and observing fields came mainly from the leader(s), and not the participants (see Winarto and Stigter 2011). As the "cultural translator" and facilitator in establishing this "game," we also took on the tasks of: (i) informing the agrometeorologist of any existing constraints and (ii) finding a solution together with both the agrometeorologists and the farmers.

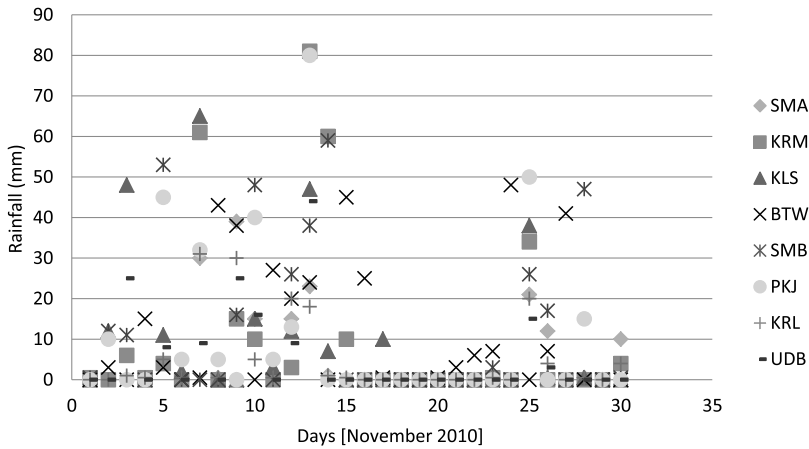
As such, the anthropologists were in the end not just carrying out ethnographic fieldwork; they also became the farmers' partners in developing the agrometeorological learning. Roncoli (2006, 82) has argued for a combination of ethnographic and participatory approaches:

... ethnographic and participatory approaches were highlighted as ways of facilitating better integration of farmers' concerns into the development of climate products, and a more realistic appraisal of farmers' ability to use those products to improve their livelihoods.

Farmers' own data were transformed into daily rainfall graphs that were expected to be useful not only for the farmers themselves, but also for other parties. See Fig. 1 for the joint production of knowledge in the form of daily rainfall graphs based on farmers' data (from eight points-of-observation in Indramayu) and processed by the scholars.

It is interesting to note that within only several months of daily observations, the Sedio Mulyo farmers in Wareng, Gunungkidul, were able to develop a new numerical rainfall taxonomy in combination with their existing qualitative one (see Winarto *et al.* 2010a; 2010b; 2011e). In Indramayu, the members of the club also agreed to develop a category of rainfall relating their own taxonomy to the quantity of rainfall, for a standardized category in documenting their measurements (see Table 1).

Measuring rainfall and making agroecosystem observations were only entry points for farmers' agrometeorological learning. Gradually, farmers were able to incorporate the quantitative elements of rainfall, as well as qualitative measurements of other meteorological elements (humidity, soil moisture, temperature, and wind) into their schema of crop farming (see examples of farmers' evaluation of rainfall's implication for the



**Fig. 1** Daily Rainfall Graph of November 2010 from Eight Points-of-Observation in Indramayu Regency, West Java  
Source: Farmers' data, 2010.

**Table 1** Indramayu Rainfall Observers Club Rainfall Taxonomy in Qualitative and Quantitative Form

No.	Rainfall Characteristics	Equivalent in Amounts
1	Drizzle	0.5–2 mm
2	Light rain	2–5 mm
3	Medium rain	5–10 mm
4	Big rain	10–20 mm
5	Heavy rain	Above 20 mm

Source: Universitas Indonesia field note, based on farmers' discussion and consensus, 2011.

Note: Consider noting rainfall duration to find out the impact of rain on plants or soil, e.g.: long, medium, short duration of rain.

growth of particular crops in Winarto *et al.* 2011d). This is an example of the advancement of farmers' existing knowledge of crop farming. By carrying out rainfall measurements themselves and noting the impact of different conditions of rain, they were able to assess their present strategies and to think of better measures for the future:

"If it rains like this in the dry season next year, I may think of not planting tobacco. Probably I will cultivate paddy instead of tobacco," said a farmer in Wareng after experiencing damages on his tobacco plants in the wet dry season of 2009.

That farmer had learned a lesson from having to cope with a La-Niña situation in the dry season. It would be very helpful if special weather forecasts and climate predictions for agriculture could be received by and discussed with farmers, as an agrometeorological

service, so that they could prepare themselves better (Murthy 2008; Stigter 2010a; 2010b; 2011). In the absence of such information, measuring rainfall themselves and discussing probable risks or opportunities with either their fellow farmers or with scholars may also be beneficial, as was the experience of farmers in Indramayu:

After experiencing a prolonged drought (El-Niño) with zero (0 mm) rainfall for almost the whole month of October 2009, which was unusual and a sign of a later start of the rainy seasons than was the case in the past, a group of farmers who joined the rainfall measurements had a discussion of what they were supposed to do to avoid such risks in the near future. From knowledge exchange in the evaluation meeting, the farmers reached a consensus on avoiding the making of wet-nursery beds for rice. Farmers who used to cultivate paddy in a dry rainfed ecosystem shared their experience of making dry-nursery beds (*ngipuk*) and a ground water reservoir/pond (*embung*). They also discussed the need to plant short maturing varieties rather than those with a longer maturing period. Soon after the meeting, a farmer implemented the making of a dry-nursery bed instead of the wet one for the first time in his life, and saved this way his seedlings in the midst of a drought period.

Seeing the need to assess the usefulness of distributing simple climate predictions among farmers, Stigter disseminated the three-months ensemble climate prediction from National Oceanic and Atmospheric Administration (NOAA) (e.g. NOAA 2010) that is updated every month as a simple message. We helped to disseminate the information in simple Bahasa Indonesia through short text messages via mobile phones or through e-mail, and farmers in turn shared the information with their fellows. A number of farmers in Indramayu who used to rely on rainfall for cultivating paddy in the dry season, decided to make the nursery bed in a piece of land in the middle of their fields before harvesting began (*nyulik*, stealing time to start the nursery before harvesting the entire field). They received word that rains could continue to fall throughout the early part of the dry season until June 2011 and decided to build the nursery earlier, so as to be able to harvest their paddy before the forecasted cessation of all rains in June. It worked as planned, and they were happy to gain good yields from the decisions they had taken based on this simple forecast. However, climate predictions can also go very wrong. Low prediction skills and sudden climate changes are the main causes (Stigter and Winarto 2011a). This is why we want to experiment with such simple climate predictions for some time. Even after we explained in our Climate Field Shops that predictions may be erroneous, farmers repeatedly indicated that they still wanted such information, even in such periods of low forecasting skills.

These are examples of creative and adaptive farmers who had learned from their recent experience of measuring rainfall, observing their fields, and receiving simple climate predictions. Preparedness to cope better with increased climate variability and

obvious climate change could be enhanced with proper and timely assistance in an appropriate form and language. Stigter and Winarto (2011b) also argue that in Science/Climate Field Shops, farmers and scholars should not only bring up rainfall measurement results and the related observations of crops and soil, but also discuss the background of climate change and its consequences, as well as address farmers' questions, problems, and vulnerabilities. Stigter and Winarto (*ibid.*) further argue that:

If necessary, the scholars follow up these problems at their institutes (universities, research institutes, weather and other environmental services) with supportive research and teaching to and with their ideas . . . . Ideally, scholars and students should jointly take up to provide an initial overview of answers to vulnerability issues/questions of farmers. Such initial answers should then be discussed with the farmers as to what the possibilities/choices/options are in solving their problems and how they see them from their realities. In that type of discussions should come up whether there is room for and what would be the sense of farmer research on such possibilities/choices/options. Through such research they may find their own solutions but a remaining dialogue with scholars is advisable because cause and effect relationships is what science has to offer to empirical answers sought or found by farmers. (e.g. Stigter 2010a)

This is the ideal collaboration between the two parties to gain mutual benefits from the knowledge exchange (see the Science Field Shops' diagram in Winarto *et al.* 2010a; 2011d; 2011e). Climate Field Shops are limited to weather and climate issues, compared to the wider approach of SFSs, and the Climate Field School comes at a later stage to follow up on seasonal farmer vulnerability issues with the help of well-trained extension intermediaries.

Box 1 is part of a dialogue in a SFS between the members of the Indramayu Rainfall Observers Club and the agrometeorologist on the subject of farmers' queries and problems. Only questions directly related to rainy seasons and actual rains are reproduced here.

Our collaboration and dialogues with the Indramayu Rainfall Observers Club over a long period of time, which also gave the farmers ample opportunities to organize themselves, proved beneficial in consolidating the club's organization and activities. The club grew as an independent body. The leaders did their best to gradually improve the management of their activities by strengthening the rules of standardized measurements and observations and the reporting of data, and through monthly evaluation meetings whereby problems faced by farmers in the fields were shared. It is fortunate that some members are IPM FFS alumni and farmer facilitators who had received special training in facilitating farmers (being farmer facilitator, *petani pemandu*). They also obtained knowledge of pests/diseases (particularly BPH and stem borer) life cycles, prey-predator relationships, sustainable control strategies, plant breeding, and organic farming. The monthly meeting

**Box 1** Indramayu Farmers' Questions on Rains and the Agrometeorologist's Answers in a SFS, in 2011

<b>Q:</b>	If we do not measure the rainfall, how could we know which rains are good for planting crops?
<b>A:</b>	Only qualitatively. In Wareng the farmers had their own terminology for rains and the consequences for the soil and plants. Measuring helps to do this more systematically on a daily and a cumulative basis also for comparisons between different parts of the same season and between the same parts of the season for different years. Once you have a 10-years average, you may call that "normal" and you can day by day take track of whether the cumulative rainfall is above or below that "normal."
<b>Q:</b>	Which rains could lead to drought and flood?
<b>A:</b>	Below "normal" rains will lead to drought if they continue. Again one must learn to keep track of such conditions quantitatively/numerically. Above "normal" rains can lead to floods. Again this must be "learned."
<b>Q:</b>	My areas belong to a dry-rain fed ecosystem, so to enable us to plant in the dry season, we have to catch up with the time. However, if we plant early, we will face the risks of pests/disease outbreaks. How to know in advance the weather condition prior to dry season planting? Are there any conditions of rain that could drive away or constrain the growth of pests/diseases?
<b>A:</b>	Basically not possible. Climate forecasting can say something on possibilities for above normal, normal, or below normal rainfall, prior to dry season planting, but these forecasts are general and not location-specific. Moreover, the forecast gives probabilities, and not what will actually happen. Yes, for each pest and disease, research can be carried out to indicate conditions conducive to their outbreak, but this has to be done at research institutes and preferably in farmers' fields. In India and China, some of that work has been successful, in Europe some work is done commercially on such issues. One has to choose the most serious diseases/pests for each crop first!
<b>Q:</b>	What responses would researchers carry out when the rain is very high so as cause flood while the drainage canals are not being managed well?
<b>A:</b>	Growing crops on ridges might help, or growing crops on raised beds. Some soils may drain better with another top layer or by making holes. Managing the drainage canals well is the best advice to begin with. Making facilities for drainage to non-agricultural land or, even better, into ponds, for later use, is very helpful.
<b>Q:</b>	How many years are needed to measure rainfall so that we can define the real problems of rainfall in relation to planting? Can we define the rains for the next three months? How could we do that?
<b>A:</b>	Measuring rainfall must become a habit, like eating, drinking, and sleeping. Only then you get to know the real problems, together with the Schooling approach, in a permanent learning process. Only specialized agencies can forecast with a certain probability rainfall chances some three months in advance. But farmers must be prepared for what actually happens by having the techniques mentioned ready, flexible/resilient co-ordination with neighbors in the Schools. Whether this will be sufficient, we have to find out. Perhaps we have to do different things, like growing more than one crop in the same field or having alternative crops on some fields in parts of the year. We have to change our approaches because the climate is changing, otherwise we will lose, but we may expect the government and its institutions/civil servants and NGOs to help.
<b>Q:</b>	Would the farmers be able to plant rice 40 years from now referring the changing climate like now? How would the changes in climate be in the future (40 years from now)?
<b>A:</b>	As to Indonesia, 40 years from now, the temperatures will be too high in certain parts of the year (particularly the minimum night temperatures) to grow rice with the same yields as possible today, even when we find heat-tolerant varieties. Other crops will have to be tried, soya is one of them, agroforestry systems will have to be developed that lower temperatures for certain crops that can grow with less solar radiation, and the trees will have to produce food as well. So food patterns will have to change, other (preferably higher-value) crops will have to be tried out, rice will have to be imported (and other food products exported). And the population increase will have to become a lot lower if we want people to live on these new food conditions.
<b>Q:</b>	If there are continuous rains for one week above 75 mm on black-clayish soil, would it disturb the growth of paddy? What would the effects be on the plants?
<b>A:</b>	You can't answer such questions because it depends on available drainage. Are we talking about rainfed rice or irrigated rice? And it also depends on the distribution of those 75 mm over that week. Continuous rain is indeed very different from heavy showers.
<b>Q:</b>	What are the effects of climate change on perennial crops like mango? Recently, mangoes have been flowering quite frequently. Is it caused by humidity, or are there some excesses of nutrients?
<b>A:</b>	Mangoes do need a long dry season, so when there was no dry season or a dry season that is not long enough, mangoes do suffer a lot. Wet, humid weather favors anthracnose and poor fruit setting. Mango trees require regular applications of nitrogen fertilizer to promote healthy growth flushes and flower production. Micronutrients, especially iron, are also often necessary. Organic fertilizers perform best, since the trees are subject to fertilizer burn. Young trees are particularly sensitive to over-fertilizing. Sandy soils require more fertilizer than loam or clay.

Source: Stigter and Universitas Indonesia research team field note, 2011 (see Stigter and Winarto 2011b).

**Box 2** Conclusion of 2010/2011 Rainy Season Planting Strategies

1. Rat population is high due to water abundance.
2. Average yields were 9.7 kw/100 *bata* [0.14 ha] or 7.1 tonne/ha.
3. Damage to the paddy is related to the rainfall condition at each stage of growth of the plants.
4. The average yield of 7.1 tonne/ha is good but it was still affected by damages, this season mainly by rats, and to a lesser degree by other pests and diseases.
5. The lowest yield was 6.0 kw/100 *bata* (4.4 tonne/ha) and the highest yield was 9.9 kw/100 *bata* (7.25 tonne/ha).
  - a) The lowest yield was from the south-east zone (Ciherang variety).
  - b) The highest yield was from the north-west zone (Borang variety, farmers' cultivar).
  - c) The other high yield was from Shogun and Mekongga varieties.
6. Factors affecting the growth of crops: weather, environment, nutrients.
7. Many pests/diseases, but the yields were rather high due to the use of organic fertilizers, plenty of organic matter in the soil, and the practice of water management (irrigation and drainage of the fields).
8. Water management helps.
9. Weeds are a competing factor for the growth of plants.

Source: Universitas Indonesia research team field note, 2011.

became a very fruitful and useful arena to share knowledge and ideas. Examples of these were discussions on BPH and the rice stem borer's life cycle, and judicious control strategies. Such discussions are good examples of how farmers themselves become more aware of their vulnerabilities, not only those caused by the increase in climate variability and change (and the ensuing risks and opportunities), but also vulnerabilities related to their own ill-judged strategies that induced or worsened outbreaks.

In each monthly evaluation meeting, the discussion focused on the most prominent problem(s) in the past weeks. In the last four meetings, the problems discussed were about the infestation of brown plant hopper, stem borer, and rats. It is interesting to observe that the sharing of information was based on both the "scientific" ideas of the pest's life cycle and the local knowledge of pest outbreaks, and how to develop preparedness strategies to avoid the outbreaks.

Another important product from our collaboration were the conclusions reached jointly by the farmers and the agrometeorologist on the 2010/2011 rainy season planting in relation to farmers' yields, weather conditions, and farmers' strategies (Box 2). This is an example of the very significant lessons obtained by the farmers from the agrometeorological learning processes of the whole 2010/2011 rainy season planting.



## Inter-disciplinary and Trans-disciplinary Approach: A Reflection<sup>2)</sup>

The increased vulnerability of ecosystems and people's livelihoods is due to the interplay of various factors: the increasing variability of climate, climate change, more (and more severe) extreme events, and human activities and responses (e.g. Stigter and Winarto 2012). This forces us to reflect seriously on what we have done so far. Have we been able to cater for people's urgent problems immediately, in an appropriate form to be implemented in their habitat? Have we been successful in improving their understanding of the complex situation they are now facing, in a way that enables them to develop their own creative adaptations and improves their social-cultural institutions?

The severe pest/disease outbreaks during the La-Niña periods of 2009 and 2010/2011, and the unpreparedness of farmers in many places in Java, were an opportune moment for many parties to do a thorough reflection on what has been missing in our approaches and facilitations. In this paper we share our experience of building up an inter-disciplinary approach among scientists from different disciplinary backgrounds, including anthropology, agrometeorology, and environmental biology. Each scientist would not be able to assist the farmers based on a mono-disciplinary approach. The agrometeorologist needs intermediaries to help the farmers to improve their agrometeorological learning and analysis for action in the field. The anthropologist cannot facilitate the farmer in his/her fieldwork beyond his/her expertise, and the same applies to other scholars in different disciplines. Our inter-disciplinary collaboration proved successful in bringing agrometeorological thinking and knowledge to local people who have their own ethnoscience, such that we strengthened and enriched this ethnoscience with scientific ideas, premises, and methods (see Ellen 2004).

Nevertheless, without building up a working relationship with local farmers over a longer period of time—if not permanently until extension intermediaries have been sufficiently trained to deal with ongoing increasing variabilities and changes of climate—the collaboration would not benefit the farmers. A trans-disciplinary approach is imperative. Without involving the farmers as active participants in carrying out their own agrometeorological observations and analyses with the scholars' help, guidance, and explanations, and in due course with assistance by extension intermediaries, it is doubtful whether their learning would improve day by day, season by season. Herein lies the great potential to develop farmers' creative climate adaptations and social-cultural insti-

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2) An inter-disciplinary approach involves research collaboration across disciplinary boundaries, for example, anthropologists working with agrometeorologists to assist farmers in their agrometeorological learning. A trans-disciplinary approach involves research collaboration with the "subjects," for example, with the local people, the farmers, beyond any scientific disciplinary boundaries.

tutions. In order to face the challenges and constraints of the future, scholars, farmers, and ultimately, extension intermediaries have to jointly overcome field conditions. The vulnerability issues in a particular ecosystem and farmers' unique social-cultural frameworks and aspirations are highly varied. Any collaboration in developing farmers' agrometeorological learning has to be adjusted to the existing field problems and social-cultural circumstances and cannot be uniformly applied across the board.

## Some Conclusions

From the above, it may be concluded that it is high time to abandon pre-established teaching and curricula for CFSs addressing farmers in diverse ecosystems. We suggest a reversal in the process of farmers' agrometeorological learning by beginning with farmers articulating their own needs, problems, and vulnerability issues through continuous dialogues and knowledge exchanges in Science/Climate Field Shops. Meanwhile, farmers should be assisted in measuring rainfall and observing the implications of weather and climate for their fields and crops in a more systematic and standardized way. Information and knowledge on basic issues of climate change should also be imparted during sessions at the "shops." On the basis of lessons gleaned from these "shops," an improved CFS could be developed to address particular immediate problems (drought, flood, pest/disease attacks, etc.) in the ongoing growing season. The training of new extension intermediaries and/or refreshing the training of present ones is necessary to that end.

It would not be possible, therefore, to organize such learning on a project basis for a short period only. We understand, however, that it would not be easy to shift the paradigm of assisting farmers without any strong ethics as an underlying foundation. The question is: have we already developed such ethics as proposed by Chambers *et al.* (1989) and Scoones and Thompson (1994; 2009) in their "Farmer First Paradigm?" Stigter (2010c) argues strongly for the need to further develop ethics, policies, and science, in this sequence, in response to climate change. Agrometeorological learning for vulnerable communities is only one dimension of applied science. "Pro-vulnerable" or "people-centered" on-farm climate adaptations in agricultural production have to underlie all policies to strengthen and enrich ethnoscience to better assist those in need of coping with climate change and the inherent unusual risks.

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# Talun-Huma, Swidden Agriculture, and Rural Economy in West Java, Indonesia

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*Talun-huma* is an intensified land use system for swidden agriculture in Indonesia. *Talun* is a productive fallow system that is meaningful from ecological, social, and economic perspectives. Although it is considered a typical practice in West Java, this study proves that the term *talun* was used in many places in Indonesia besides West Java during colonial times.

This study also shows that *talun-huma* and agroforestry practice in the surveyed village is closely linked to the socioeconomic structure of the rural society based on the data collected in 2000–1. *Huma* is more likely to be practiced by the lower strata owning little agricultural and forestry land. The economic development reflected in the growth of banana leaf production and income from the non-agricultural sector income has not excluded or diminished *talun-huma* and agroforestry practices. Sharecropping practices and agricultural labor relations among the villagers have established *huma* practice. The social forestry program implemented in this region also supports the continuity of *huma* practice. Increase in banana leaf production does not diminish the practice of *huma* and *talun* agroforestry, although banana leaf production tends to shorten the duration of the cycle. Moreover, the development of non-agricultural sectors and wet rice cultivation has had a positive impact on the existence of *huma* practices and the continuation of slash-and-burn practices.

*Talun-huma* and permanent forests with or without *talun* are good practices that keep the system sustainable from an economic and social point of view. Diversified farming, balanced rotation of land use, and diversity of plants, as well as the planting of leguminous land conservation trees such as *kaliandra* and *gamal*, play an important role in sustaining the system.

The introduction of banana leaf plants to the village in the 1990s has contributed significantly to the continuity of the system because the plants are a considerable source of income for villagers, both as farmers and as agricultural laborers. They can rely on the income from the hilly dry land. A problem that might, however, become serious in the near future is that banana leaf planting shortens the duration of the cycle and may render the land infertile.

**Keywords:** *talun-huma*, swidden agriculture, agroforestry, rural economy, Indonesia, West Java, sustainability, *talun*

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## Introduction

The importance of the *talun* system as an example of agroforestry was introduced to international academia by Otto Soemarwoto in the 1980s. He used the term *talun-kebun*, which he explained as a kind of shifting cultivation practiced in a man-made forest. It combined many species of perennials and annuals in multi-layered and single-layered arrangements, forming an often-dense canopy of vegetation that protects against soil erosion and leaching. Structurally, the *talun-kebun* is divided into two parts: the *talun*, or selected productive fallow “forest,” consisting of the overhead cover of essentially long-term perennials, and the *kebun*, comprising various areas of cleared ground within the *talun* planted with annual crops such as vegetables, fruits, and cereal crops, rather than dry rice, spices and so on, destined mainly for market sale. Upon harvest, the *kebun* is allowed to grow perennials and returned to the *talun* within five to eight years.

The *talun* is planted with a mixture of many species of trees but may be dominated by one species, typically bamboo, in which case it is named after this species, so *talun awi* is bamboo *talun*. The *talun* has four important functions: (i) subsistence production, (ii) commercial production, (iii) gene banking, and (iv) soil conservation and sustained productivity (Otto Soemarwoto *et al.* 1985, 49–50).

This *talun-kebun* is clearly different from conventional notions of swidden agriculture. For example, according to Sasaki, in the swidden agriculture of Southeast Asia, a plot is cultivated for less than three years, five at most, then left fallow. This agriculture can supply food for a population density of around 25–30 persons/km<sup>2</sup>. The duration of the period in which the land is left fallow is 8–15 years before people slash-and-burn the plot again (Sasaki 1970, 86–122).

Often, however, shifting cultivation practices tend to shorten the fallow period, resulting in a degraded system with time or as the population density increases. People are then likely to leave the degraded land. Alternatively, land rehabilitation takes place when farmers invest in improved land management and care for the environment—provided they have reasonably secure land or tree tenure and if it is profitable compared with other investment options. Alternative land use intensification pathways that do not first involve severe land degradation do exist in the form of complex agroforestries that have been developed by indigenous communities (Sanchez *et al.* 2005, 6–7). Some such cases have been studied, including cacao planting in swidden agriculture land (Duguma *et al.* 2001) and swidden fallow agroforestry among the Bora Indians of Amazon, which is adaptable to varying environmental and economic situations (Padoch and de Jong 1987), but such studies still remain small in number.

The *talun* system illustrates a case of alternative land use intensification for shifting

cultivation. Otto Soemarwoto distinguished between two types of *talun*—permanent *talun* and *talun-kebun*. In the permanent *talun*, trees are typically densely spaced and the canopies are closed. Hence, little light penetrates the canopies and only a few shade-tolerant species, such as the taro-like *Xanthosoma*, are planted. These crop species and weeds form the undergrowth of the *talun*. In other *talun*, the trees are sparsely planted so that more light can reach the floor. In such cases, many annuals are grown (e.g., corn, cassava, and sweet potato). Many weeds are also found in the *talun*. Such *talun* are usually called *kebun campuran*, which means “mixed garden,” denoting a mixture of annuals and perennials. In the permanent *talun*, the practice of slash-and-burn is discontinued.

In the *talun-kebun*, a clearing is deliberately made in the *talun* at the beginning of the rainy season, either by clear cutting (e.g., bamboo), or by selective cutting (e.g., *Jeungjing*, *Albizia chinensis*) and heavy pruning of the remaining perennial trees. The trunks and large branches are taken out of the clearing and sold as construction materials and fuelwood, and twigs and leaves are spread out to dry in the sun, then piled up and burned. The ash is collected and mixed with cattle dung brought in from the villages.

A mixture of annual crops is grown in the clearing, which is then called *kebun*, literally “garden.” The major crops grown are beans at Ciwidey and Soreang in Southwest Bandung, and tobacco and onion at Paseh in Southeast Bandung in West Java. The planting of the different crops is not done all at once but in succession. Harvesting is also carried out over an extended period. By the time the last crops are harvested, which occurs about 18 months after the clearing, the trees would have resprouted. People then clear another area and repeat the process. Consequently, the *kebun* moves around inside the *talun* with a cycle of about six to eight years. Essentially it is a form of shifting cultivation (Otto Soemarwoto and Idjah Soemarwoto 1984, 274–276).

We understand that the land of shifting cultivation, here called *kebun*, is mainly planted with annuals after slash-and-burn, and then planted with perennials after the harvest of annuals, at which stage it is sometimes called *kebun campuran*, after which it enters the stage of *talun*, a productive fallow stage. Another land use after slash-and-burn and subsequent planting of annuals and perennials is to discontinue the slash-and-burn process and use the land as a permanent *talun*, or *kebun campuran* with no more slash-and-burn.

*Talun* and *talun kebun* have been studied substantially, especially from the ecological perspective, and intensively in the case of bamboo *talun* in West Java. Species diversity has been a typical characteristic. Johan Iskandar *et al.*’s study showed that 112 species were planted by the local people at a village in Soreang sub-district in Bandung district (Johan Iskandar *et al.* 1981, quoted by Herri Y. Hadikusumah 2005, 269–283).

Herri Y. Hadikusumah (2005, 256–259) demonstrated the variety of plants in the layers that form the *talun*. Linda Christanty *et al.* (1996a) focused on biomass accumulation, and Linda Christanty *et al.* (1996b) and Mailly *et al.* (1996) discussed the biochemical role of the bamboo. Parikesit *et al.* (2004) discussed *kebon tatangkalan*, a form of permanent *talun*, as a habitat for various organisms living there, including birds and insects, and the decreasing area of such habitat because of growing demand for agricultural, industrial, and settlement lands.

The present study attempts to show a different *talun* system in detail—the *talun-huma*, which is associated with dry rice planting as annuals after slash-and-burn, rather than vegetables as the main planting, and mixed perennials rather than bamboo at the productive fallow stage. The study aims to enrich understanding of the *talun* agroforestry system as an alternative land use intensification. It will shed light on the economic contribution that is essential for the household economy and for the sustainability of the system from a quantitative perspective (such as amount of income), as well as qualitative viewpoint (such as stratification of rural society and the land tenure system). This study also intends to describe the directions taken by land use intensification, that is, with or without slash-and-burn, and with or without *talun*, and to analyze these directions. In this way, the impact of economic development on the *talun-huma* and agroforestry system will be studied from the perspectives of growth of the agricultural and the non-agricultural sectors. The *talun-huma* and agroforestry here means *talun-huma*, related practices with or without *talun* (*huma*), and permanent forest with or without *talun*. These descriptions and analyses will be based on data and information collected by fieldwork at a village in Cianjur district (*Kabupaten* Cianjur), West Java. This study also examines the validity of the concept of *talun* outside West Java as a preliminary study.

Section I discusses previous studies of the *talun* system and, using a variety of sources, areas in which the system prevails. We proceed to describe the location where field study was conducted in the second section and elaborate upon the *talun-huma* and agroforestry system in the third. The direction of land use intensification, as well as the roles of the *talun-huma* and agroforestry system, especially in terms of economic contributions, is examined in Section IV, and Section V concludes this study.

The field survey was conducted over 10 years between 1998 and 2007. In total, 60 households were surveyed, using household survey questionnaires. The data used in this paper is based mainly on the study in 2000 and 2001.<sup>1)</sup>

1) The study team consisted of staff from Bogor Agricultural University, Kyoto University, the University of Tokyo, and Gadjah Mada University. This paper has been presented at the 2<sup>nd</sup> Seminar on “Toward Harmonization between Development and Environmental Conservation in Biological Production” (JSPS-DGHE Core University Program in Applied Biosciences, the University of ↗

## I Talun and Agroforestry Systems in Indonesia

### I-1 Talun in Indonesia

According to Otto Soemarwoto (1983, 222), land use such as the home garden (*pekarangan*)—but with no houses on the land—is found in West Java and other areas with some variations. This land use is called *talun* in West Java. He also stated that the *talun-kebun* is typical of West Java, especially in the Priangan region (Otto Soemarwoto *et al.* 1985, 48). Such a view is shared by many researchers (Herri Y. Hadikusumah 2005, 269; Johan Iskandar 2009, 150), including Terra's study of 1953.

Terra mentioned the *talun* in the context of a mixed garden study, explaining the *kebun* besides the home garden (*pekarangan*):

The *kebun* is situated near or around the villages, sometimes at some distance. The *kebun* is sometimes planted with fruit trees, or coconut palms, sugar palms, banana, tea, coffee, or bamboo only. They are distinguished from plantings, mostly in clumps, of fruits trees etc. on former *ladang* (fields in use for shifting cultivation). Instead of *kebun* (Malay), in Java the term used is often *talun* (Sunda) and outside of Java *dusun* (Ambon, Ceram), *mamar* (Timor), *porlak* (Batak), *peureuh* (Achin), *krakal* (Purworedjo, Java). (Terra 1953, 163–164)

Data on customary law during the colonial time in Indonesia show, however, that the term *talun* was not limited to West Java. Research carried out on customary law in North Sumatra (*Adatrechtbundel* VI 1911, 124) indicate that *taloen* meant a cleared plot where people grew sugar palm for sapping, sirih, and other crops in the Gajo, Alas, and Batak areas. The land was wasteland, but trails left by labor for cultivation and the like show that people's rights had arisen. In Minahasa, *talun* means forest, and *mengatalun* means to become forest, or to revert to forest where people do not cultivate regularly (*Adatrechtbundel* IX 1914, 132). The Malay people living in Sumatra use the term *beloekear taloen* to signify young forestland where trails of former exploitation are still apparent, and *beloekear toea-taloen tabang* for old forests that used to be exploited and

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↘ Tokyo, February 2003), and at the International Workshop on “Sustainable Agricultural Development in Southeast Asia” (Research Center for Regional Resources and the Indonesian Institute of Science, Jakarta, September 14–15, 2003). The seminar and workshop issued proceedings as the 2<sup>nd</sup> Seminar on “Toward Harmonization between Development and Environmental Conservation in Biological Production” (JSPS-DGHE Core University Program in Applied Biosciences, the University of Tokyo, February 2003). The paper has also been presented at the Kyoto Sustainability Institute (KSI) International Workshop on “Swidden Agriculture in Southeast Asia, Sustainability and Contribution towards Agroforestry and Forestry,” held at the Center for Southeast Asian Studies, Kyoto University on March 15, 2010. The authors express sincere thanks to these projects and to the participants of the seminar and workshop who made comments on this paper. The authors are also grateful to the paper's referees who gave us valuable comments.

where trails of former exploitation are still more or less apparent (*Adatrechtbundel* X 1915, 221). In East Java, *talon*, *talun*, or *talunan* means abandoned garden, abandoned cultivated land, or unirrigated cultivated land in the mountainous area. These are planted with plants other than rice and are not located at the center of the village (*Adatrechtbundels* XIV 1917, 230). In West Java, *taloen* is newly cleaned *tegal* (cultivated dry field) (*Adatrechtbundel* VIII 1914, 198), while in Borneo, Tidoengsch, and Tinggaan, the term means forest or light forest (*Adatrechtbundels* XIII 1917, 55). In Central Java, cleared land where dry rice is planted because water cannot be brought in and which is abandoned after one or two plantings is called *taloen* or *pengalang-alangan*. *Pengalang-alangan* means land where *alang-alang* (*Imperata cylindrica*) is allowed to spread on purpose, with the weeds belonging to the exploiter, and *taloen* means land formerly planted with dry rice and now covered by *alang-alang* and other weeds. Anyone may remove the weeds and plant dry rice again (*Adatrechtbundels* XIV 1917, 40).<sup>2)</sup>

As we can see, the term *talun* is used in many areas in Indonesia such as West, Central and East Java, North Sumatra, Minahasa, Malay people's areas in Sumatra, and Borneo. In general, *talun* is non-irrigated land located in a hilly or mountainous area. It signifies forest that was once cultivated then abandoned. In many cases, it is thought of as fallowed area. In Central Java, the *taloen* belongs to the person who first cleared the land and who would cultivate the land again.

The term *talun* even became the name of villages, mountains, and sub-districts. A dictionary of geography published in 1869 mentioned the name of Taloen in six villages (*dorps*) in Central and East Java.<sup>3)</sup> Taloen was also the name of a mountain (*berg*) in the residency (*residentie*) Rembang, division (*afdeeling*) Toebean (Veth 1869, 862). A directory

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2) Dictionaries of local languages contain differing definitions of *talun*. In Sundanese during colonial times, *talun* meant newly developed dry land (*tegal*), and *doeloeh taloen* referred to new settlements consisting of farmland, houses, and gardens, arising from an extension of the village (Coolsma 1913, 611), while in present-day Sundanese spoken mainly in West Java, it refers to agricultural dry land with fruits trees that live for a long time (Lembaga Basa & Sastra Sunda 1975, 503). On the other hand, a Javanese dictionary written in colonial times defined *talun* as land already harvested and not made orderly yet (Jansz 1906, 1027). A Javanese dictionary written after Independence defined *talun* as land of shifting cultivation or dry rice land (Prawiroatmodjo 1957, 628). According to a colonial-era dictionary of Madurese, *talon* is a piece of land planted with something other than rice, a garden, hilly land, a fallowed garden, a fallowed agricultural field, not irrigated (Penninga and Hendriks 1936, 311). A dictionary of Sasak (the language in Lombok) mentioned *taloen* as cultivated land (Goris 1938, 296), while *taloen* appears in a dictionary of the Boesang language (spoken by a Dayak group in Borneo) as brushwood, or young forest that has undergone swidden agriculture (Barth 1910, 204).

3) These villages were located at *afdeeling* Toebean, Salatiga, and Pati, and also regency (*regentschap*) Temanggung, *residentie* Kediri, and *regentschap* Trenggalek. Besides these, the name of Taloenombo was found at *residentie* Banjoemas (Veth 1869, 862).

of local administrative bodies published in 1931 mentioned the name of Taloen in two sub-districts (*onderdistrict*) in Central and East Java, as well as 10 villages (*desa*) in Java island. Of these, five were found in East Java, two in Central Java, two in West Java, and one in the *gewest* (province) of Soerakarta (Schoel 1931, 373).<sup>4</sup> A dictionary of geography published in 1917 cited 10 locations named Taloen in Java island, and 1 location in Borneo as Taloenliaoe (Dumont 1917, 565–566).<sup>5</sup>

Thus we can say that the term *talun*, *taloen*, or *talon* has been used since at least colonial times in many parts of Indonesia with relation to forest, or forest once cultivated then fallowed or abandoned. The term *taloen* was also used as the name of villages, sub-districts, or mountains in many places in Java island, especially in Central and East Java, and partly in Borneo. Why is *talun* thought to be characteristic of West Java? One possible answer is that other areas now have different terms for a similar system of agro-forestry.

## I-2 Agroforestry in Indonesia

*Adatrechtbundels* show different words that mean forest similar to fallowed land. In the Batak area in North Sumatra, *rimba oma*, *rimba aroeng*, and *rimba hae* mean secondary forest that has been exploited then fallowed. *Rimba oma* is forest that has been fallowed for one–six years, and *rimba aroeng* for six–nine years. *Oma* is a kind of grass, *aroeng* or *tolong* is a kind of reed, and *hae* is grown trees (*Adatrechtbundels* XXVII 1928, 176–177).

Many recent ecological studies on agroforestry similar to *talun* have been conducted. The *dusun* system in Central Maluku has been discussed by Monk *et al.* (1997, 718–737) and by Kaya *et al.* (2002, 232–233). Sardjono introduced the *lembo* system in East Kalimantan (Sardjono 1988, quoted in Herri Y. Hadikusumah 2005, 262–268) while Johan Iskandar has studied the *kaliwo* or *kalego* system in West Sumba similar to *kebun cam-puran*, and the *kaleka* system in Bangka Belitung, which is multi-layered forest on a former slash-and-burn location. The planting of *lada/sahang* (*Piper nigrum*) and rubber

4) Five villages at East Java were located in *residentie* Toeban, Ponorogo, Nganjoe, Bodjonegoro, and Blitar; two villages in Central Java were located at *residentie* Rembang, and Pekalongan; two villages in West Java were located at Bandoeng and Soemedang; one village at *gewest* Soerakarta was located at *residentie* Klaten. Besides these, the name of Taloenamba was found at *residentie* Bandjarnegara, Taloenblandong at *residentie* Modjokoerto, Taloenkidoel at *residentie* Djombang, Taloenkoelon at *residentie* Toeloengoeng, Taloenombo at *residentie* Wonosobo, and Taloenredjo at *residentie* Lamongan (Schoel 1931, 373–374). This information does not exclude the possibility that there are places called *talun*, or something similar outside Java, because Schoel's dictionary only discussed names in Java island.

5) Taloenliaoe is in *afdeeling* Doesoelanden, *residentie* Zuid en Oost Afdeeling van Borneo; on the other hand Taloen is located in three locations in East Java, five locations in Central Java, and two locations in West Java.

(*Hevea brasiliensis*) is booming because of their good price in the markets. The *pelak* system in Kerinci, Jambi consists of the planting of annuals such as vegetables for two years after slash-and-burn, followed by the planting and harvest of dry rice. Perennials such as coffee are planted alongside the annuals, and after the harvesting of perennials, people will chose either to slash-and-burn and then to plant dry rice again, or to keep the perennials (Johan Iskandar 2009, 153–161). Rubber agroforestry called “jungle rubber” in South Sumatra was introduced by Gouyon *et al.* (1993).<sup>6)</sup> Damar forest produced after slash-and-burn is also man-made forest in Lampung, Sumatra (Torquebiau 1984).<sup>7)</sup>

We see that in Indonesia, besides the *talun*, there are many agroforestry systems that involve slash-and-burn, followed by fallowing and the planting of perennials during the fallow. Cyclical systems that slash, cut, and burn the old perennials are found; on the other hand, continual plantings of the perennials with no more slash-and-burning are more common, and sometimes good prices support the spreading of some kinds of perennial planting. These agroforestries always retain the characteristics of diversified farming with a multi-layered canopy as a man-made forest during the productive fallow, or continual planting of perennials with no more slash-and-burn.

However, the question why the term *talun*, *taloen*, or *talon*, once used in many places both in Java and the outer Java islands as the term for man-made forest, fell out of use in the area outside of West Java, remains unanswered. Possible answers might be: i) land use of *talun* decreased or even disappeared outside West Java because of population and production growth, or was transformed into other forms such as *kebun campuran*; ii) people forgot the meaning of the term and do not use it any more;<sup>8)</sup> iii) local variations in government policy such as the prohibition of slash-and-burn since the colonial time was what differentiated West Java from other areas; and iv) researchers have not found *talun* land use outside West Java. This paper does not address this question; nonetheless a detailed description and analysis of the sustainability of another form of *talun* is quite important for the investigation of these issues.

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- 6) Rubber planting by smallholders in Indonesia starts with slash-and-burn (Gede Wibawa *et al.* 2005, 223). After annuals are grown for two to three years, rubber trees are planted but other perennials are left to grow. This diversified farming of rubber creates man-made forest that supports high productivity for both rubber and the household economy. Rubber would be replanted after 20–40 years of production, sometimes with an interval of slash-and-burn (Gouyon *et al.* 1993). The replanting of rubber for rejuvenating old rubber is preferred by local people to a cyclical system that slashes, cuts, and burns the old jungle rubber (Gede Wibawa *et al.* 2005, 225–231).
  - 7) Rattan cultivation by smallholders in the man-made forest after slash-and-burn in Central Kalimantan (Godoy and Tan 1991) has boomed due to the good price for rattan.
  - 8) Almost all current dictionaries of Indonesian—Indonesian-Indonesian and Indonesian-other languages—do not mention *talun* as a term relating to forest, or to agroforestry or land use in hilly areas.

## II Kemang Village: A General Picture and Highland Farming

### II-1 Kemang Village: A General Picture and Agriculture

Kemang village, the research site, belongs to Bojongpicung sub-district of the district of Cianjur. It is located in the hilly and mountainous Priangan highlands, about 7 km from the center of the sub-district, with a mountainous pass between the village and the center.

The village is surrounded by mountains that constitute a natural barrier, as such migration into the village is low. The population density of 174 persons/km<sup>2</sup> in the village (including the land controlled by the National Forestry Corporation, Perum Perhutani) or 297 persons/km<sup>2</sup> (excluding the area controlled by the National Forestry Corporation) in 2001 is relatively small compared to the average population density of 1,009 persons/km<sup>2</sup> in West Java in 2000 (BPS 2001). The population in 2001 was 4,384, with a village area of 2,518.63 ha. Of this, forests controlled by the National Forestry Corporation cover 1,040.6 ha, comprising 135 ha of protected forest (*hutan lindung*)<sup>9)</sup> and 905 ha of production forest (*hutan produksi*).<sup>10)</sup> The land controlled by the National Forestry Corporation has been designated as forest area (*kawasan hutan*) by the central government. The farmland located outside the *kawasan hutan* is privately owned by the locals, with 878.6 ha of it used as *pasir*, dry land where upland farming and perennial tree planting are combined. Rice fields are found in the low area of the village and occupy a relatively small area, accounting for just 83 ha (Desa Kemang 2001). *Pasir* land is not counted as forest by the government; however, the landscape at the stage of *talun*, full of perennial trees, is quite similar to the forest.

In this *pasir* land, dry rice, annual crops such as vegetables and tubers, and perennial trees are planted as a form of shifting cultivation, and *talun* forms a multi-layered canopy of vegetation, particularly perennial trees, as the final stage of the land use cycle. These land use and cultivation methods are described in detail in the following section.

In the area controlled by the National Forestry Corporation, social forestry programs have been implemented since the 1990s, enabling the local people to take part in the maintenance and cultivation of the area. Under the program, they first carry out slash-and-burn, then cultivate the land with dry rice and annual crops. At the same time, they also plant trees designated by the company, usually teak (*Tectona grandis*), and maintain

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9) Protected forest is government-designated forest that is protected for water source conservation, prevention from floods and erosion, and maintenance of land fertility (Article 3, Act No. 5, 1966 concerning Basic Regulations on Forest).

10) Production forest is forest that is designated by the government for the needs of the people, and for the purpose of development, industry, and export (Article 3, Act No. 5, 1966 concerning Basic Regulations on Forest).



these alongside their own plantings of other perennial trees such as fruit trees like *nangka* (*Artocarpus integra*). All the harvests from the land are meant for the people, except that of the trees belonging to the company. In 1998, the National Forestry Corporation integrated the “Forest Village Society Program” (Program Masyarakat Desa Hutan, PMDH) and the “Social Forestry Program” (Perhutanan Sosial) into the “Integrated Forest Village Society Program” (Program Masyarakat Desa Hutan Terpadu, PMDHT). Kemang Village was chosen as a model village for PMDHT (Inoue *et al.* 2001, 73).

Because *talun* located on privately-owned *pasir* land is quite similar to forest in its landscape, we can find forestry both on the land controlled by the National Forestry Corporation and on the land owned by the people. However, according to the village head, the term *hutan* (forest) is only applied to the forest controlled by the National Forestry Corporation, so *hutan* is similar to *kawasan hutan*. Other forest on the land owned by the people is called *pasir*, or *talun*, and not *hutan*.

According to the villagers, the National Forestry Corporation boundary was established during the colonial era. National Forestry Corporation land was not open to ownership by individuals; but people privately owned *pasir* in non-National Forestry Corporation land. Much of National Forestry land was managed by the people as part of a social forestry program scheme. However, since leaf banana planting has prevailed, especially since around 2004, people have been planting these crops even though land is not allocated to them in the scheme of the social forestry program.

In any event, *pasir*, the privately-owned dry farmland planted with annual crops and perennial trees, the National Forestry Corporation’s land on the slopes of the mountains and hills, and the wet rice fields located in the lowland in the village are the major areas of cultivation for the people in the village surveyed. Many of the plants in the uplands and the National Forestry Corporation area are subsistence-oriented, but some plants are highly commercialized. The most important plant in the National Forestry Corporation’s area is teak; in the private upland areas, it is banana plants (*Musa* sp.), which have been increasingly popular since the second half of the 1990s, sugar palm (*Aren, Arenga pinnata*), chili plants (*Cabe, Capsicum annuum*), and dry rice (*Pare huma, Oryza sativa*). Recently the planting of *albizzia* has increased, especially since around 2006.

Among 60 respondent households, 44 households have their own rice field, whose average area is 0.14 ha. In addition, 46 households have dry land (*pasir*), measuring on average 0.91 ha. Many of the farmers who own dry land also have their own wet rice fields. Table 1 shows the number of households according to dry land and wet rice fields owned. Some households possess more than 3 ha of dry land; these households tend to also own wet rice fields. In contrast, 10 households own neither dry land nor wet rice fields.

**Table 1** Number of Households by Area of Dry Land (*Pasir*) and Wet Rice Fields Owned in 2000

		No. of Households by Area of Dry Land Owned						Total
		0 ha	<0.5 ha	<1.0 ha	<2.0 ha	<3.0 ha	≥3.0 ha	
No. of households by wet rice fields owned	0 ha	10 (1)	1 (2)	4 (3)	1 (0)	0 (1)	0 (0)	16 (7)
	<0.5 ha	4 (1)	10 (6)	10 (18)	10 (12)	4 (7)	1 (1)	39 (45)
	<1.0 ha	0 (0)	0 (0)	0 (2)	1 (1)	2 (3)	1 (1)	4 (7)
	≥1.0 ha	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (1)	1 (1)
Total		14 (2)	11 (8)	14 (23)	12 (13)	6 (11)	3 (3)	60 (60)

Source: Field survey conducted by authors.

Note: The number in parentheses represents the number of households by area of dry land farmed (including National Forestry Corporation land), and wet rice field farmed.

Of the households surveyed, 29 participated in the social forestry program, farming 0.25–1.25 ha of National Forestry Corporation land. The average area of the land farmed under the program was 0.43 ha. Households participating in the social forestry program are mainly those that own small areas of farmland or none at all. Of the 10 households without their own land, 9 joined the social forestry program. However, there are some households that own relatively large areas of dry land yet still join the social forestry program. The number of households in the parentheses in Table 1 is based on the area of farmed land both for wet rice fields and dry land, including social forestry program land. This table shows that only one household does not farm any land. Besides the social forestry program, there are arrangements of sharecropping, land lease, and mortgage contracts. So the farmed land average is somewhat larger than that of owned land, especially for dry land. Average dry land farmed, which includes social forestry program land, is 1.21 ha, and 0.20 ha for wet rice fields.

Apart from the cultivation of wet rice fields and dry land, there are non-agricultural activities including furniture manufacturing, rice milling, timber trading, grocery stores, and trading banana leaves. Also important is the supply of migrant workers, especially international migrants who work in Saudi Arabia.

The village consists of 22 hamlets forming 3 sub-villages (*dusun*)—*dusun* I, *dusun* II, and *dusun* III, which have 7, 5, and 10 hamlets respectively. The village lies at an altitude of 400–800 m above sea level, and the topography ranges from gently sloping to steep hilly terrain. Access to the nearest town is not easy. The road providing access to the town was built in the 1990s. Before that, people had to walk there.

## II-2 Talun-Huma in Kemang Village

The slopes of the mountains and hills are used for upland agriculture and forestry. The land use system is quite complicated, but there are typical cases of land use.

The following is the explanation of each stage of the *talun-huma*. The first stage, *rarahan*, takes nearly three months, from July to September. The work consists of *nyacar* (tree slashing), *ngahuru* (the first burning of slashed trees), *ngaduruk* (the second burning of remains from the first burning process), *ngadampas* (clearing land from the remains of burning), *ngababantal* (making terraces), and *nyara* (collecting the remains from the *ngadampas*). In July, farmers usually start *nyacar* by cutting trees, bamboo, shrubs, and other horticultural trees selectively. They cut the very young and old *aren* trees that have already been tapped for a long time, say 20 years, bamboo, *awi ageung* (*Gigantochloa verticillata*) and *awi tali* (*Gigantochloa apus*), leguminous trees such as *kaliandra* (*Calliandra calothyrsus*), shrubs such as *sadagori* (*Sida retusa*), and old banana plants (*Musa paradisiaca*). Then they leave the slash to dry. For 0.25 ha of dry land, the *nyacar* takes 4–5 days, and the drying usually takes about 15–20 days, sometimes even one month depending on sunlight, temperature, and the kind of slash.

The next activity is *ngahuru*, where farmers gather the small dried branches, leaves, and litter in piles and burn them. This activity is usually conducted in the period from the second week until the end of August. *Ngahuru* usually takes one–two days and burning continues until the piles become ash. Then occurs *ngaduruk*, whereby farmers pile up the remaining slash that had not burned well during *ngahuru* and reburn it until the piles are reduced to ash. *Ngaduruk* is usually conducted one or two days after *ngahuru* and can last anything between two days and two weeks, as farmers have to collect the remaining slash spread over the plots.

Next comes *ngababantal*—making *babantal* (terraces) in the sloping plot. Farmers lay trunks, large branches, and bamboo as *babantal* to prevent erosion. The distance between each *babantal* is usually 3 m. *Ngababantal* usually takes more time, about 12 days. Farmers feel this is the most difficult work in the *talun-huma* as it involves making terraces. This process is called *ngais pasir*, meaning to carry the *pasir* (dry farming land) as if it were a baby wrapped in the traditional women's sarong (*sinjang pangais*)—a phrase that expresses love and care for the *pasir*.

The next activity is called *ngadampas*, in which farmers clean the remaining vegetation from the plot by chopping the roots using a short machete (*parang*). After *ngadampas*, the work of *nyara* follows. This consists of collecting the remains from the *ngadampas* and the ash, and putting them into the *babantal*, which in turn become seedbeds. The *nyara* practice is closely related to boosting soil fertility. Most of the farmers in Kemang village do not use manure to fertilize the seedbeds as not many raise goats or sheep and the plots are located far from their yards at home.

Some trees remain in the field during the *rarahan* period, usually the wood trees, bamboo, fruit trees such as mango (*Manggah*, *Mangifera indica*), rambutan (*Nephelium*

*lappaceum*), *petai* (*Peuteuy*, *Parkia speciosa*), *jengkol* (*Pithecolobium lobatum*), jackfruit (*Artocarpus heterophyllus*), *aren*, and leguminous trees such as *kaliandra*, *gamal* (*Gliricidia sepium*), and *dadaꦩ negeri* (*Erythrina* sp.) These leguminous trees have the role of conserving the land by fixing nitrogen.

During the *rarahan* stage, the farmers start planting two kinds of young banana plants: *cau buah* (fruit bananas) and *cau manggala* or *cau daun* (leaf bananas), before the first rain when dibbling for *huma* paddy starts. As the day of the first rains approach, the seeds of horticulture commodities such as pumpkin (*Waru*, *Hibiscus similis*), cucumber (*Bonteng*, *Cucumis melo*), and watermelon (*Sumangka*, *Citrulus vulgaris*) are planted. Cucumbers and watermelon are usually planted close to the area where the slashes are burnt. Except for pumpkins, two or three seeds are put in each hole, dug close to the trunk of a tree or a *tuturus* (bamboo stick for beans or other climbing plants). Pumpkins are planted at the edge of the sloping part of the plot (*sisi gawir*). Maize (*Jagung*, *Zea mays*) and *huma* paddy are planted on the same day. *Huma* rice seeds are planted in the open area after dibbling using a simple traditional tool called *aseuk*, while *cabe rawit* (small chili, *Capsicum frutescens*) seeds are usually sowed in the area close to the *babantal*.

As the *huma* rice starts growing (usually in October), the period called *huma* starts. The name of this period/stage comes from *huma*, originally meaning dry rice growing. *Pare huma* is rice harvested from dry rice growing in Sundanese. This *huma* has become the name of a land use stage for the villagers, although, in addition to dry rice, many kinds of horticultural crops and woody plants are planted during the period. The term *rarahan* originated from the activities of slash-and-burn, but it has also come to signify a stage of land use. It can be seen that despite the varied origins of the names of the stages, people utilize these terms because of the interlinked connotations.

The *huma* stage lasts for six months. The duration of the *huma* and *rarahan* stages are quite uniform. Farmers developed the *huma* stage as a strategy to meet their consumption demand, especially for food crops in the form of cereals and vegetables. Annuals of horticultural crops, particularly vegetables such as long beans (*Kacang panjang*, *Vigna sinensis*), basil (*Selasi*, *Ocimum basilicum*), eggplants (*Terong*, *Solanum* sp.), big cucumbers locally called *herbis* or *ketimun suri*, chilies (*Capsicum* sp.), and maize are harvested during the *huma* stage before the *huma* paddy is harvested in February and March. At this stage, farmers usually start to plant young woody plants such as *jeungjing* or *albizzia* (*Albizia falcata*) and pepper (*Marica*, *Piper nigrum*), depending on the size of land. Fig. 1 shows the kinds of plants used for each stage of land use and the area planted for each plant per stage of land use (total surveyed upland used by the 60 surveyed households is 30.65 ha).

After the *huma* rice is harvested, the next stage is called *jami*, with a duration cycle

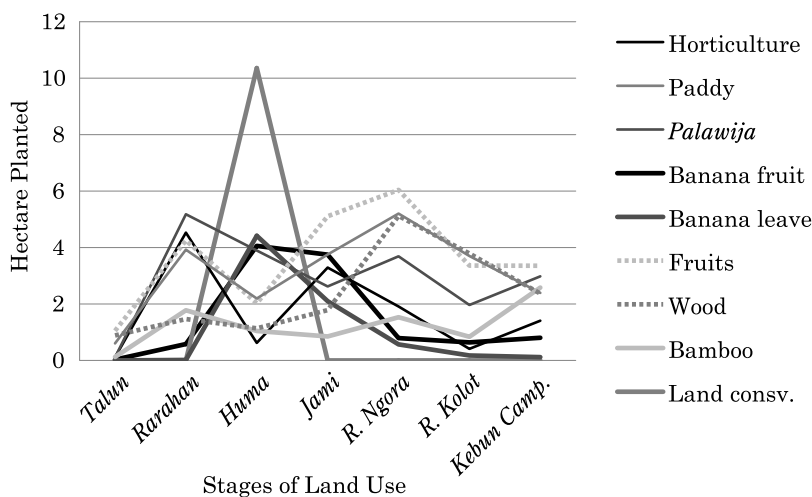


Fig. 1 Area Planted with Useful Plants by Stage of Upland Farming (2001)

Sources: Field survey conducted by authors.

Note: For our plot-based survey, respondents were asked the kinds of plants found at the plots, and the percentage of land occupied by each plant. With this information, we calculated the area planted with trees/plants. *Palawija* means secondary crops such as maize, soybean, or the like.

of about 1.5–2 years. At this stage, the horticultural crops are continuously harvested, especially duruka (*Terubuk*, *Saccharum edule*), the tubers such as cassava (*Sampeu*, *Manihot utilissima*) and sweet potatoes (*Huwi Boled*, *Ipomoea batatas*), and others such as ginger (*Jahe*, *Zingiber officinale*) and papaya (*Gedang*, *Carica papaya*). At the end of the first year, around March or April, the farmers start to harvest the fruit bananas as well as leaf bananas. In other words, the *huma* stage reflects the farmers' strategy for obtaining cereal crops and vegetable foods, while the *jami* stage reflects their strategy to satisfy vegetable and fruit consumption needs and the necessity to generate cash income, from banana fruit and leaf as well as from fruit trees, among which mangoes, *jengköl*, and *peuteuy* are noteworthy. At the *rarahan*, *huma*, and *jami* stages, the majors are annual plants, although many perennial trees are also to be found because at the *rarahan* stage, many tall trees are left untouched during slash-and-burning, and during the *huma* stage, people start to plant woody plants.

The next stage is *reuma ngora*, which lasts for one–three years. In this stage the land is usually dominated by young *albizzias* and other wood trees as well as leaf bananas and fruit trees. Annual crops are not common in this stage. The intensity of maintenance and cultivation work is lower compared with *jami*. Farmers continue to harvest the banana leaves and other fruits at this stage, and at the end of the period, the *albizzia* trees are harvested, except when farmers decide to continue to the next stage, *reuma kolot*.

Hence, this stage is used to meet the needs for *albizzia* woods, usually for repairing houses and as fuelwood, as well as for obtaining cash income. Fig. 1 shows the importance of woody trees during the *reuma ngora* and *reuma kolot* stages. Bamboos are also harvested, especially for repairing houses and making hedges for the paddy field, and so on.

The duration of the *reuma kolot* is usually three–seven years or more. The land is less cultivated than at the stage of *reuma ngora*. Wood trees are dominant in this stage. Some farmers cut *albizzia* to earn cash by selling it; others do not cut *albizzia* as they prefer to harvest teak or other wood trees. *Aren*, teakwood, mahogany (*Swietenia* sp.), bamboos, and other trees are also scattered throughout the plot. Seasonal fruits such as mango, *pisitan* (*Lansium domesticum*), *rambutan*, *jengkol*, and *peuteuy* are harvested every year. As a consequence of the growth of woody trees, the leaf bananas gradually become smaller. Farmers usually harvest *albizzia* trees at the end of this stage.

People sometimes prefer to use land as *kebun campuran* after it has been used as *jami*. With this type of land use, the multi-layer of perennial trees consists of woody trees such as *albizzia*, and bamboo. Fruits trees such as *rambutan*, *nangka*, pineapples (*Nanas*, *Ananas comosus*) are planted, and annual plants and root plants are mixed. *Aren* is an important tree in the research area; people tap the sap (*nira*) from the *aren* palm and produce palm sugar from the sap. This is a productive use of the land, and it lasts for quite a long time, sometimes 10 years or more. Banana plants are often planted for both their fruit and their leaves during this period.

*Talun* can be started after the *kebun campuran* period or after the *reuma kolot* period. It can be categorized into three types: i) fruit trees, *aren*, and other natural secondary vegetation, ii) fruit trees and other natural secondary vegetation, iii) *aren* and other natural secondary vegetation (Inoue *et al.* 2001, 72). *Kaliandra* is an integral tree in all three categories. People do not cultivate the land but make use of it to obtain products for both subsistence and commercial use. In any case, the intensity of usage is far lower than during the period of *kebun campuran* or *reuma kolot*.

The *talun-huma* described above is quite different from the *talun-kebun* that has been analyzed by many authors. Firstly, in the *talun-huma*, the planting of *huma* paddy is quite important, whereas in the *talun-kebun*, almost no planting of *huma* paddy is found. In many cases of *talun-kebun*, bamboo is very important for sustaining the system, whereas in the *talun-huma*, bamboo has a somewhat minor role. Mixtures of perennial trees are common. The diversity of the plants and the planting of leguminous trees such as *kaliandra* and *gamal* play an important role in sustaining the system.

Planting the *huma* paddy with dibbling and the existence of the following stages of *jami* and *reuma* are somewhat similar to the *perladangan* (shifting cultivation) system practices in the Baduy area, Banten, adjacent to West Java. There, the practice of slash-

and-burn followed by *huma* rice is quite similar to the practice found at our research site. *Kebun campuran* practice is also found at Baduy, but there is no *talun* forest. Usually the duration of *reuma* is four years, and in some cases, old secondary forest is found (Johan Iskandar 1992, 31–38, 74–111). However, there appears to be no particular term for this old secondary forest. In contrast, the *talun-huma* at our research site has a more developed system of *reuma ngora*, *reuma kolot*, and *talun* that usually takes more time during these stages.

With regard to social forestry programs, villagers report that people have been allowed to slash-and-burn since far before the introduction of the Forest Village Society Program (PMDH) at the National Forest Corporation land. The process of land use under the social forestry program is somewhat similar to the *talun-huma*, at least until the stage of *jami*, although people are required to plant teak from an early stage and maintain the land until the teak trees grow. Teak is sometimes substituted with mahogany and so on.<sup>11)</sup>

### II-3 Variation of Land Use Stage Cycles

The above-described sequential pattern of stages is a typical case. In reality, many variations of stage cycles are found because there are many options for the farmers.

One option is the *reuma ngora/reuma kolot* and *kebun campuran* alternative. *Talun* is a long period with low productivity, thus some people are not keen on using this cycle. *Huma* is an important period for producing dry rice; however, some people are not interested in using the land as *huma*, preferring to plant many banana plants or have more wet rice. Yet others prefer not to use the land as *reuma ngora/reuma kolot* or *kebun campuran*. They use the land as *talun* for a long time, with no intention to slash-and-burn. Some people repeat *huma* planting every three years without entering the stage of *reuma ngora*, a strategy especially common among people who have recently obtained their land, or who have just started the social forestry program.

Once farmers have decided on the *huma* stage, they should go through *rarahan*, and after the *huma*, plant secondary crops and perennials at the *jami* stage, especially during rainy season. So this sequence constitutes one set that cannot be split. *Reuma ngora* (“young” *reuma*) and *reuma kolot* (“old” *reuma*) form another set.

From these observations, and also from discussions concerning permanent forest

11) This approach to social forestry is very different from the social forestry program implemented by the National Forestry Company in Middle Java where the National Forestry Company has not allowed people to slash-and-burn in the social forest company land, according to Dr Pujo Sumedi, researcher at Gajah Mada University (interview conducted by the authors on August 17, 2011).

and cyclical use with slash-and-burn, we have determined five types of land use sequence.

The first is the rotating sequence from *rarahan/huma/jami* to the productive fallow of *reuma ngora/reuma kolot*, and finally to *talun*, or sometimes once to *kebun campuran*, and finally *talun*. In this pattern we find *huma* and *talun* in the sequence.

The second is the cyclical sequence from *rarahan/huma/jami* to productive fallow such as *reuma ngora/reuma kolot* or *kebun campuran*, but no *talun*.

The third is the cyclical sequence among *rarahan/huma/jami*, but without leading to productive fallow such as *reuma ngora/reuma kolot* or *kebun campuran*. This type of land use includes plots that were recently acquired/sharecropped/allocated under the social forestry program, and slashed-and-burned, but where it is not clear yet whether the plot will proceed to the stage of *reuma ngora*, or be slashed-and-burned again after a fallowing interval because the cultivators are not the owners of the plots and cannot/do not answer for the land use following the *jami* stage, especially in the case of sharecropping.

The fourth type is permanent forest with a *talun* stage. The fifth is permanent forest without *talun*, such as *reuma ngora/reuma kolot* and *kebun campuran*, or *kebun campuran*, or a particular forest such as *albizzia* forest. In these cases, *talun*, *reuma ngora/reuma kolot*, or *kebun campuran* are no longer productive fallow but permanent forest. These five types are shown at Table 2.

Of the 174 plots of dry land controlled by 60 households that were surveyed, the largest number of plots had adopted the second sequence—cyclical land use with productive fallow without *talun*. This was used in 87 cases, or 50 percent of all cases. The second largest number of plots used the cyclical sequence with *talun*: 38 cases, or 21.9 percent. The number of the plots including a *talun* stage is 48, or 27.6 percent of all plots.

**Table 2** Plots and Their Characteristics by Cyclical Sequence (2001)

	Number of Plots	Average Distance from House (km)	Average Area of the Plot (ha)	Average Duration of Cycle (years)	Average Duration since Acquisition (years)
1. Cyclical sequence with <i>talun</i> and <i>huma</i>	38 (21.9%)	2.2	0.49	11.8	21.9
2. Cyclical sequence with <i>huma</i> and productive fallow without <i>talun</i>	87 (50.0%)	3.5	0.49	5.3	13.8
3. Cyclical sequence with <i>huma</i> without productive fallow	32 (18.4%)	4.9	0.41	2.6	5.9
4. Permanent forest with <i>talun</i>	10 (5.7%)	1.7	0.42	—	15.3
5. Permanent forest without <i>talun</i>	7 (4.0%)	0.7	0.34	—	3.7

Source: Field survey conducted by authors.



In contrast, the number of plots including a *huma* stage is 157, or 90.2 percent of all plots. Those plots go through the process of slash-and-burn. Among the 157 plots that have a *huma* stage, 125 plots or 79.6 percent of the plots have productive fallowing such as *reuma ngora/reuma kolot*, *kebun campuran*, or *talun*. Plots of permanent forest occur in 17 cases, or 9.8 percent, and among them 10 plots, or 5.7 percent of all plots had permanent forest with *talun*. *Talun-huma* refers to the first category of the Table 2 in the narrow sense, on the other hand *talun-huma* and agroforestry can cover the whole practices discussed above.

### III *Talun-Huma* in the Rural Context of Social Economy

#### III-1 *Talun-Huma and Socioeconomic Factors*

The *talun-huma* in Kemang village displays a range of characteristics according to the cyclical sequence pattern. The characteristics are partly geographic, partly social, and partly economic as shown at Table 2.

The *huma* cultivated plots are located in remote areas. In contrast, the nearer the plot, the more *talun* is practiced. Concerning the average duration of the cycle, greater use of the *talun* system correlates to longer cycles.

Table 3 shows that the percentage of plots owned by the respondents was far higher in cyclical sequences with *talun* and *huma*, and permanent forest with *talun*. Among the 174 plots that were managed by 60 respondents households, 105 were owned by the household surveyed, and 42 were plots allocated to farmers under the social forestry scheme, 21 were sharecropped, 5 were lease-held, and 1 case was mortgaged by the

**Table 3** Plot Ownership Characteristics by Cyclical Sequence (2001)

	Percentage of Respondent's Ownership (%)	Average Price of Plot (Rp. 1,000 per ha)	Average Area of Rice Field Owned by House-hold (ha)	Average Area of Dry Land Owned by House-hold (ha)
1. Cyclical sequence with <i>talun</i> and <i>huma</i>	89.4	21,860	0.20	1.03
2. Cyclical sequence with <i>huma</i> and productive fallow without <i>talun</i>	58.6	11,950	0.17	1.06
3. Cyclical sequence with <i>huma</i> without productive fallow	9.2	15,140	0.12	0.74
4. Permanent forest with <i>talun</i>	100	22,900	0.33	2.42
5. Permanent forest without <i>talun</i>	85.7	27,280	0.15	0.74

Source: Field survey conducted by authors.

respondent households. Among 21 sharecropping practices, 12 were among family members,<sup>12)</sup> and 9 were among non-family members. So the smaller the percentage of the plots owned by the respondents, the smaller the percentage of households who use the stage of *talun* or other productive fallows, and the shorter the average duration of the sequence cycle. People who have joined the social forestry program or sharecropped the plot tend to practice more *huma* and activities relating to *huma* (*varahan*, *huma* and *jami*).

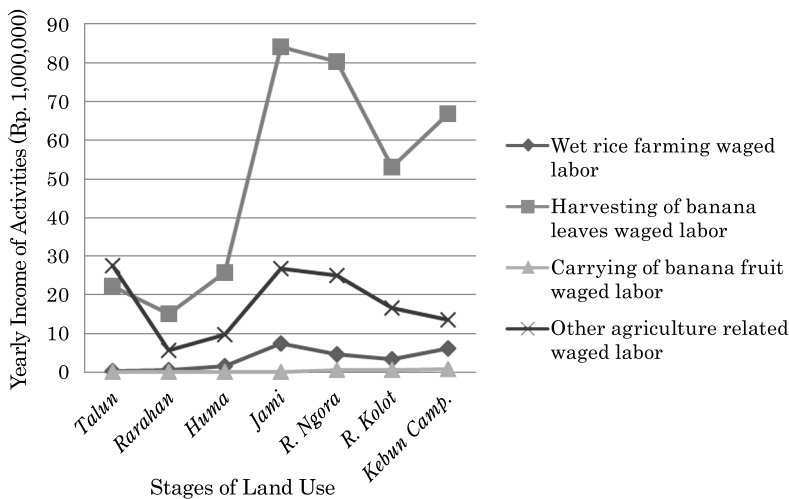
Concerning the average plot price per hectare, plots that have a *talun* stage fetch relatively higher prices; plots of permanent forest are also relatively highly valued. Households that own a larger area of *pasir* dry farmland with perennial trees planting and wet rice fields are prone to having the *talun* stage, but the less of these lands a household possesses, the less the amount of productive fallow in the sequence.

### III-2 Talun-Huma and Economic Activity

#### III-2-1 Agricultural Sector

Economic activities and employment opportunities in the agricultural sector are closely related to dry land farming. The dry land farming stages give rise to variation in these activities.

Fig. 2 shows the yearly income earned by agriculture-related waged laborers in



**Fig. 2** Agriculture-related Wage Labor by Upland Farming Stage (2001)

Source: Field survey conducted by authors.

12) Family members here mean parents and parents-in-law, and brothers or brothers-in-law of the respondents.

relation to upland farming stages. The amount of income is for whole households. At the time of the *jami* and *reuma ngora* stages, farm-waged laborers are in peak demand for both dry land farming and wet rice farming.

Income from various activities in the agricultural sector varies according to strata. Table 4 shows the yearly income composition of surveyed households according to strata. Income from wet rice farming, agricultural waged labor, palm sugar, and leaf banana production has a close relationship with the household strata. Upper strata households have a higher proportion of total household income generated by wet rice farming and leaf banana production. For lower strata households, agricultural waged labor, palm sugar production, and dry rice production generate a higher percentage of total household income.

There are agricultural waged labor and sharecropping relations between the owners of *pasir* dry farming/wet rice farming land and agricultural waged laborers/share croppers concerning palm sugar production, leaf bananas harvesting, and *huma* cultivation. Products of agricultural waged labor or sharecropping are divided between the landowner and agricultural laborers/sharecroppers. The portion of products/harvests differs according to the distance from the settlements: if the location is far, the portion for the laborers or sharecroppers is two-thirds; if the plot is not far, the portion is a half (*maro*) (Siti Sugiah Machfud Mugniesyah *et al.* 1999).

Tables 2 and 3 show that the *talun* system is practiced by the upper strata, whereas *huma* is in many cases practiced by sharecroppers, or people who have joined the social forestry program. This tendency can be partly discerned in Table 4. Dry land farming is quite important for the lower strata, strata C (79.0 percent of income derived) and D (29.2 percent of income from dry land farming, and 61.7 percent from agricultural labor), especially considering that the agricultural labor undertaken by stratum D respondents is closely related with the dry land farming of strata A and B households. Although dry rice production is not so important for the income of respondents as a whole (2 percent), it cannot be neglected for stratum D respondents, for whom dry rice contributes 11 percent to their income.

Dry land farming is important for the upper strata farmers too because they manage a wider area of dry land and derive substantial income from it (21.5 percent for stratum A, and 25.4 percent for stratum B). These incomes support the sustainability of the agroforestry system constituting of *talun-huma*, and permanent forest with or without *talun*. Palm sugar and leaf banana production contribute substantially to this income. Palm sugar production has a long history, whereas leaf banana production only started in the middle of the 1990s. The flexibility of the *talun-huma* and agroforestry in accommodating so many kinds of plants, and the fertile soil resulting from a multi-layered, often-dense canopy of vegetation that protects against soil erosion and leaching, has

**Table 4** Household Yearly Income by Economic Activity According to Strata (2001) (Units: Rp. 1,000)

	Wet Rice Farming	Dry Land Farming				Agricultural Waged Labor	Non- agricultural	Others	Average
		Total	Palm Sugar	Banana	Dry Rice				
A	1,757	4,378	879	2,756	51	23	13,772	482	20,412
N=13	8.6%	21.5%	4.3%	13.5%	0.3%	0.1%	67.5%	2.3%	100%
B	622	3,083	1,324	1,267	187	321	7,000	1,124	12,150
N=19	5.1%	25.4%	10.9%	10.4%	1.6%	2.6%	57.6%	9.3%	100%
C	117	3,618	1,685	1,070	276	172	574	98	4,579
N=18	2.5%	79.0%	36.8%	23.4%	6.0%	3.7%	12.5%	2.3%	100%
D	58	1,182	1,004	-328	451	2,500	311	0	4,051
N=10	1.4%	29.2%	24.8%	-8.1%	11.1%	61.7%	7.7%	0.0%	100%
Total	622	3,208	1,288	1,260	228	575	5,425	489	10,319
N=60	6.0%	31.1%	12.5%	12.2%	2.2%	5.6%	52.6%	4.7%	100%

Source: Field survey conducted by authors.

Note: Strata codes are based on scoring of socioeconomic factors of surveyed households. Agricultural land was classified according to the status of ownership: owned, mortgaged, shared, or leased. Farmhouses were classified into four groups according to type of roof, walls, and floors. Occupations were classified into four groups. According to these classifications, scores were given to each status, type, and group. Strata of households were decided according to the scores given to each household. For further explanation, refer to Siti Sugiah Machfud Mugniyah and Mizuno (2001).

enabled the planting of leaf bananas on a large scale, which is quite profitable for the respondents. It is questionable whether the widespread growth of leaf banana planting will support the *talun-huma* and agroforestry because of its profitability, or on the contrary, will hurt the system because of over-planting and declining fertility (Tsuji and Ageng forthcoming). Nevertheless, it is quite apparent that the *talun-huma* and agroforestry contributes significantly to the rural economy. Dry land cultivation, which contributes 31.1 percent of the surveyed household income, is only a part of *talun-huma* and agroforestry's economic contribution. Most of the agricultural waged labor, and the banana leaf trade that are essential parts of the *talun-huma* and agroforestry, also contribute to the rural economy.

### III-2-2 Talun-Huma and the Non-Agricultural Sector

The non-agricultural sector plays an important role in the economy. The total income amongst the surveyed households coming from the non-agricultural sector is 52.6 percent. Table 4 clearly shows that the higher the household strata, the larger the percentage of non-agricultural sector income relative to total household income.

Table 5 shows the composition of the yearly income derived from the non-agricultural sector by the surveyed households. Income derived from working in the civil service, *warung* (grocery) shop management, and machinery management such as chain saw rental, are clearly related to strata level, and the higher strata derive a greater percentage of income from these activities in total household income.

**Table 5** Composition of Household Non-agricultural Yearly Income (2001)  
(Units: Rp. 1,000)

	Non-agriculture				Remittance	Husbandry	Rentout of Land	Average
	Total	Machinery Manage- ment	Civil Servant	Warung Shop				
A N=13	13,772 67.5%	3,085 15.1%	5,086 24.9%	2,946 14.4%	323 1.6%	6 0%	152 0.7%	14,253 69.8%
B N=19	7,000 57.6%	1,470 12.1%	706 5.8%	2,021 16.6%	611 5.0%	27 0.2%	486 4.0%	8,124 66.8%
C N=18	574 12.5%	0 0%	0 0%	187 4.1%	54 1.1%	0 0%	43 1%	671 14.5%
D N=10	311 7.7%	0 0%	240 5.9%	0 0%	0 0%	-1 0%	0 0%	310 7.7%
Total N=60	5,425 52.6%	1,134 11.0%	1,366 13.2%	1,3 12.9%	279 2.7%	10 0.1%	200 1.9%	5,914 57.3%

Source: Field survey conducted by authors.

Note: Figures in percentage indicate the ratio to total income of individual classes shown in Table 4.

These non-agricultural sectors may contribute to sustaining the *talun-huma* and agroforestry because people derive substantial income from the non-agricultural sector, so they need not rely heavily on the dry land management sector, which results in longer terms of productive fallow. People may invest in the dry farming sector with the income derived from the non-agricultural sector. Alternatively, the non-agricultural sector may hurt the *talun-huma* and agroforestry because people do not need substantial income from the upland, and there may be too little labor to retain the cyclical sequence of land use, or maintain permanent forest in a productive way. This issue will be addressed in the following section.

#### IV Analysis of the Sustainability of the *Talun-Huma*

Many factors may have an influence on the sustainability of the *talun-huma* and agroforestry. From our description and analysis above, the distance of the plot from the house, duration of holding since acquisition, duration of the cycles, ownership status of the plot, area of household holding of dry land and wet rice field, and price of the plot are considered to be important for the sustainability of the *talun-huma* and agroforestry. It is debatable whether income from banana planting and non-agriculture will support or hurt the *talun-huma* and agroforestry. In order to determine whether these factors are positively related to the sustainability of the *talun-huma* and agroforestry, correlation between these factors and sustainability, and sequential cycles were examined and analyzed by some methodologies of multivariate statistics, using the area of total *pasir*/wet rice fields land owned by surveyed households, distance of the plots, income from banana production, income from non-agricultural sectors, income from wet rice farming, ownership status, and the number of household members<sup>13)</sup> in relation to the data of each plot as variants.

Whether the *talun* stage exists or not is qualitative data. This data can be analyzed with a probit model. We have assumed the following linear equation parameters:

$$DT = F1 (WUH, DIT, DMN, NFM, IWR, IBL, ING, OWN) (4-1)$$

In order to examine the influence of these factors on whether the *talun* stage exists or not, we have assumed the following linear equation parameters:

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13) The number of household members may relate to the necessity of income and availability of household labor. Price of the land per hectare was not considered because we were concerned that the price may be more influenced by the distance of the plots from the settlement.

**Table 6** Estimation of *Talun* Existence Measured by Upland Farming-related Variables

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.384	0.434	-0.884	0.377
Area of farming plots owned by household	0.000	0.001	0.186	0.852
Distance from house	-0.199***	0.0629	-3.167	0.002
Duration after acquisition	0.013	0.009	1.428	0.153
Number of family members	-0.111**	0.056	-1.982	0.048
Income from wet rice farming	4.02E-08	9.63E-08	0.418	0.676
Income from banana production	-7.45E-08	6.81E-08	-1.095	0.274
Income from non-agricultural sectors	-8.07E-10	1.15E-08	-0.070	0.944
Ownership	0.979***	0.331	2.952	0.003
McFadden R-squared	0.226			
Log likelihood	-78.789			
Chi-square	26.967***	(Degrees of freedom=3)		
Obs with Dep=0	124			
Obs with Dep=1	48			
Total obs	172			

Note: \*\*\*=1%, \*\*=5%, and \*=10%, significant level

DT: Dummy variable of existence of *talun* for each plot (1: *Talun* in, 0: *Talun* out)

WUH: Area of farming plots owned by one household, which includes the wet rice farming and dry land farming (in ha)

DIT: Distance from the farmhouse surveyed to the upland farm plot (in km)

DMN: Duration of land management after acquisition by respondent (in years)

NFM: Number of family members in the household surveyed

IWR: Income from wet rice cultivation by household surveyed during 2001 (in Rupiah)

IBL: Income from banana production by household surveyed during 2001 (in Rupiah)

ING: Income from non-agricultural sector activities by household surveyed during 2001 (in Rupiah)

OWN: Ownership of plots using dummy variables (1: owned by household member, 0: not owned by household member, such as sharecropped)

From this Table 6 we can estimate that the nearer to the house, the smaller the number of family members, and whether the land is owned, the greater the likelihood of *talun* being practiced. Income from non-agricultural sectors, banana production, and wet rice are not statistically proved to be related to the question of whether or not *talun* is practiced.

Now we examine the question of whether or not *huma* is practiced, or slash-and-

**Table 7** Estimation of *Huma* Existence Measured by Upland Farming Related Variables

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.678	0.670	-1.012	0.312
Area of farming plots owned by household	-0.006**	0.002	-2.511	0.012
Distance from house	0.766***	0.189	4.058	0.000
Duration after acquisition	0.068***	0.021	3.291	0.001
Number of family members	0.135	0.092	1.469	0.142
Income from wet rice farming	4.14E-07**	1.97E-07	2.101	0.036
Income from banana production	-3.12E-08	1.04E-07	-0.299	0.765
Income from non-agricultural sectors	3.82E-08**	1.78E-08	2.149	0.032
Ownership	-0.872*	0.479	-1.822	0.068
McFadden R-squared	0.406			
Log likelihood	-35.650			
Chi-square	41.670***	(Degrees of freedom=5)		
Obs with Dep=0	19			
Obs with Dep=1	155			
Total obs	174			

Note: \*\*\*=1%, \*\*=5%, and \*=10%, significant level

burn is practiced, using a probit model. We have assumed the following linear equation parameters:

$$DH = F2(WUH, DIT, DMN, NFM, IWR, IBL, ING, OWN) \quad (4-2)$$

DH: Dummy variable of existence of *huma* practice (1: *Huma* in, 0: *Huma* out)

The other variables are the same as with equation (4-1).

From Table 7, we can see that the further away the plot, and the longer the duration after the acquisition of the plot, the more *huma* or slash-and-burn are practiced. If the plot is not owned, and the smaller the area of farming plot owned by the respondents, the more *huma* is practiced. However, more income from wet rice farming and from the non-agricultural sectors does not result in a decrease in *huma* practice. In fact, according to this estimation, they somewhat support the practice of *huma*, with more practice of *huma* or slash-and-burn.

Finally we estimate the duration of the cycle to check the sustainability of *talun-huma* and agroforestry using ordinary least squares method. We have assumed the following linear equation parameters:

$$\text{Duration of Cycle} = F3(WUH, DIT, DMN, NFM, IWR, IBL, ING, OWN) \quad (4-3)$$

Duration of cycle: duration of a sequence of land use cycle for each plot (in months)

The other variables are the same as with equation (4-1).



**Table 8** Estimation of Duration of Cycle Measured by Upland Farming Related Variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.871***	2.017	2.910	0.004
Area of farming plots owned by household	0.010	0.006	1.537	0.127
Distance from house	-0.720***	0.256	-2.813	0.006
Duration after acquisition	0.135***	0.049	2.761	0.007
Number of family members	-0.034	0.261	-0.129	0.898
Income from wet rice farming	5.75E-07	4.91E-07	1.170	0.244
Income from banana production	-8.09E-07***	2.93E-07	-2.757	0.007
Income from non-agricultural sectors	-4.69E-08	5.71E-08	-0.820	0.414
Ownership	1.144	1.385	0.826	0.410
Adjusted R-squared	0.267			
F-statistic	6.825***			
Included observations	129			

Note: \*\*\*=1%, \*\*=5%, and \*=10%, significant level

Table 8 shows that the further away the plot, and the shorter the time since the acquisition, the shorter the duration of the cycle. We observe that with relation to banana planting; the larger the banana harvest, the shorter the duration of the cycle. We can infer somewhat that the larger the area of farming plots owned by the households, the longer the cycle, but this trend is not well supported statistically. For non-agricultural sector income, we cannot find a clear relation with the duration of the cycle.

From these three estimations, we can say that distance, and ownership have been statistically proven to be closely related with the practice of *talun* and *huma*. On the other hand, non-agriculture factors have not proved to be correlated with the existence of *talun* nor with the duration of sequence cycle. Moreover, the non-agricultural sector has proven to be positively correlated with the existence of *huma* practice. These data mean that further development of non-agricultural sectors would not damage the *talun-huma* and agroforestry, at least in the near future. Leaf banana planting is not related to the existence of *talun* and *huma*; however, it has been proven to be related to the duration of the cycle. The greater the leaf banana planting, the shorter the duration of the cycle, which may in turn lead to declining fertility of the dry land.

## V Conclusion

Land use intensification for swidden agriculture has taken place in Indonesia. The most vivid case study is the *talun-kebun* in West Java, especially in relation to *talun* bamboo. *Talun* is meaningful from ecological, social, and economic perspectives, and is thought

of as being a typical practice in West Java.

This study has shown that the term *talun* was used in many places such as North Sumatra, Minahasa, and Malay people's areas in Sumatra, Borneo, Central and East Java, besides West Java at least during colonial times. *Talun* even became the name of villages, sub-districts, and mountains in many places in Java island. Besides *talun*, there are many practices of land use intensification in relation to man-made forest modified from conventional slash-and-burn. These have been studied, especially from an ecological perspective.

This study has shown that *talun-huma* and agroforestry practice in the surveyed village contributed greatly to the economy of households surveyed, through dry land farming, palm sugar production, and agricultural waged labor using the data collected at the field in 2000–1. The trading of banana leaves also constitutes as a contribution of the *talun-huma* and agroforestry to rural economy. We have demonstrated that the *talun-huma* and agroforestry is closely linked to the socioeconomic structure of the rural society. *Huma* is more likely to be practiced by the lower strata who own little farming land. The economic development reflected in the growth of leaf banana production and non-agricultural sector income has not excluded or diminished *talun-huma* and agroforestry. Sharecropping practices and agricultural labor relations among the villagers established *huma* practice amongst higher strata villagers who invest more in leaf banana production. The social forestry program implemented in this region also supports the continuity of *huma* practice. Moreover, the development of non-agricultural sectors and wet rice cultivation has had a positive impact on the existence of *huma* practices and the continuation of slash-and-burn practices. The National Forestry Corporation has enabled people to slash-and-burn for a long time at least until 2001, and that within the social forestry program, meaning that the National Forestry Company to some extent adopted the *talun-huma* and agroforestry for the planting of teak or mahogany.

*Talun* is practiced on nearby plots with a longer duration from the time of acquisition by families with a small number of family members. The land is owned by the respondent household.

*Talun-huma* and permanent forest with or without *talun* are good practices that keep the system sustainable from an economic and social point of view. Diversified farming, balanced rotation of land use, and diversity of plants, as well as the planting of land conservation trees in the form of leguminous trees such as *kaliandra* and *gamal*, play an important role in sustaining the system.

Maintaining the *rarahan-huma-jami* practice, as well as the *reuma ngora* or *kebun campuran* practices, requires effort on the part of the people and a certain amount of labor. From this point of view, the introduction of leaf banana plants to the village in the

1990s has made an important contribution to the continuity of the system because the plants supply much income to villagers both as farmers and as agricultural laborers. They can then rely on the income from the hilly dry land. However, a problem that might prove to be serious in the near future is that leaf banana planting shortens the duration of the cycle and may render the land infertile.

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# *Imperata* Grassland Mapping in Northern Uplands of Lao PDR: Area, Distribution, Characteristics, and Implications for Slash-and-Burn Cultivation

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Slash-and-burn cultivation (SBC) is an important food and cash crop production system in mountainous regions of many countries in Southeast Asia. While links between unsustainable SBC and the formation of *Imperata* grassland (IGL) have been well documented, there has been limited research on the issues with the intention of providing appropriate information to communities in Laos aiming at better use of natural resources. This paper reveals the IGL area, distribution, and characteristics in the uplands of northern Laos, and discusses the importance of IGL for upland development based on the synthesis of remotely sensed Landsat-5 TM and GIS data. We have demonstrated the potential use of geoinformation technology as a set of informatics tools that can be applied in other area studies in Laos. Nineteen land uses/land covers of 196,317 hectares in Nambak District in northern Laos were mapped with an overall accuracy of 92.1% and a kappa statistic of 91.3%. IGL achieved >90% mapping accuracy. The current IGL was estimated at about 2.5% (4,878 hectares) of the district area and characterized as a “micro-grassland,” with most patch sizes being less than half a hectare. About 37% of the district area in the southeastern part was identified as the most *Imperata*-infested zone. The study suggests that improper SBC intensification into more permanent crop production systems is a major cause of *Imperata* infestation in the upland areas and that the spread of IGL can be a threat to the productivity and sustainability of traditional SBC systems and already intensified land use systems. In order to utilize land resources more effectively, government intervention is indispensable; and development efforts should initially focus on the most affected areas.

**Keywords:** *Imperata* grassland, slash-and-burn cultivation, land use intensification, remote sensing, supervised image classification, GIS

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## I Introduction

*Imperata cylindrica* is one of the most dominant, competitive, and difficult weeds to control in the humid and sub-humid tropics of Asia, West Africa, and Latin America. There may be as much as 35 million hectares of *Imperata* grassland (IGL) in Asia, about 24.7 million hectares of which is in Southeast Asia (Garrity *et al.* 1997). Common names for *Imperata* are *nya kha* (Laos and Thailand), *thetke* (Myanmar), *co tranh* (Vietnam), *alang alang* (Indonesia), *lalang* (Malaysia), *cogon* (Philippines), *illuk* (Sri Lanka), and speargrass.

Links between slash-and-burn cultivation (SBC), also called “shifting cultivation,” and the formation of IGLs were well understood in Indonesia in the 1930s (Van Noordwijk *et al.* 1997). IGLs have developed mostly on former forestlands after repeated logging and subsequent treatment by fire, e.g., in shifting cultivation (Eussen and Wirjhardja 1973; Seavoy 1975; Suryatna and McIntosh 1980).

Shifting cultivation is probably the oldest farming system, and its practice is remarkably similar throughout the humid tropics (Nye and Greenland 1960). Traditionally, farmers slashed and burned a hectare or so of primary or secondary forest, grew food crops in polyculture for one or more years, and abandoned the land to secondary forest regrowth for 20 to 40 years, then repeated the cycle (Sanchez *et al.* 2005). This traditional shifting cultivation—with short cropping periods and long secondary forest fallow periods—is now rare, practiced primarily by indigenous communities disconnected from the market economy. It is socially and environmentally sustainable (Thrupp *et al.* 1997), although at low levels of agricultural productivity and at human population densities of less than 30 people per square kilometer (Boserup 1965).

When population pressure exceeds a critical density—that varies with agro-ecological zones and inherent soil fertility—traditional shifting cultivation is replaced by a variety of other agricultural practices that still involve clearing by slash-and-burn methods. Pedro Sanchez *et al.* (2005) suggest that the loosely used terminology be specified as follows: “shifting cultivation” refers to the traditional long-fallow rotational system, while “slash-and-burn” refers to other farming systems characterized by slash-and-burn clearing, short-term fallows, or no fallows at all. Both systems include the shortened fallow-food crop systems and the establishment of tree-based systems such as complex agroforestry, simple agroforestry, or monoculture tree crop plantations. Many of these systems are still rotational to some degree, with occasional slash-and-burn clearing when the productivity of the system declines.

The vegetative fallow phase restores carbon and nutrient stocks in the biomass, improves soil physical properties, and suppresses weeds (Nye and Greenland 1960; Sanchez 1976; Andriesse and Schelhaas 1987; Roder *et al.* 1997; Watanabe *et al.* 2004).



With the reduction of fallow periods to less than 10 years, and more commonly less than 5 years, the fallow vegetation is incapable of restoring sufficient nutrients in the biomass and suppressing weeds by shading for the subsequent cropping phase. Unlike shifting cultivation, slash-and-burn systems have less vegetative cover and often have exposed, compacted soils that increase water runoff and soil erosion rates (Lal *et al.* 1986). This change in vegetation and soil structure caused by shortened fallows results in systems with declining productivity, depending more and more on less and less fallow biomass. The frequent use of fire is replacing native species with exotic, aggressive ones and favoring grasses over woody species, creating treeless landscapes that have minimal productive and ecological value (Styger *et al.* 2007). In some cases, the systems reach a point at which the trees are replaced by other, highly degraded systems such as IGLs in Southeast Asia and West Africa (Garrity 1997).

Ecologically, *Imperata* infestation is an interrupted developmental phase in the ecosystem development process. An interrupted ecosystem, or a blocked phase, inhibits the processes leading to the next developmental phase. The blocked phase can be based on the absence of viable stumps, depletion of seed banks, and reduced inflow of seed from the surrounding landscape and/or soil conditions that do not allow for rapid growth of tree seedlings to a stage where they can replace the grass (Murniati 2002). IGL has many disadvantages compared to the forest in terms of biodiversity, total biomass for the maintenance of soil fertility, and carbon capture, and as a producer of useful materials for human populations. Therefore, efforts toward more productive land uses will contribute to economic growth, environmental protection, and rural poverty alleviation.

In Lao PDR, IGL has been estimated at about 0.8–1 million hectares (Charoenwatana 1989; Garrity *et al.* 1997). This *Imperata* land covers about 3% to 4% of the country's territory, which is equivalent to the current cultivated land area of the country. Although there has been extensive research and development focused toward making better use of IGLs in the region, limited information is available in Laos. In fact, the IGLs exist—and are expected to increase—as a result of shortened fallow periods driven by increased population density and shifting cultivation stabilization policies in many upland areas. To rehabilitate land infested by *Imperata*, it is very important to first understand the latter's area, distribution, and characteristics. This study was undertaken (1) to map and estimate the area of IGL in Nambak District of Luang Prabang province in northern Laos, and (2) to describe the existing IGL in relation to its spatial distribution and relationships with other land uses, and its importance for upland development using Remote Sensing (RS) and Geographic Information System (GIS) technologies. The findings of the study will not only help improve the understanding of IGL dynamics in the study area, but also provide valuable information to policy makers and resource managers to design and

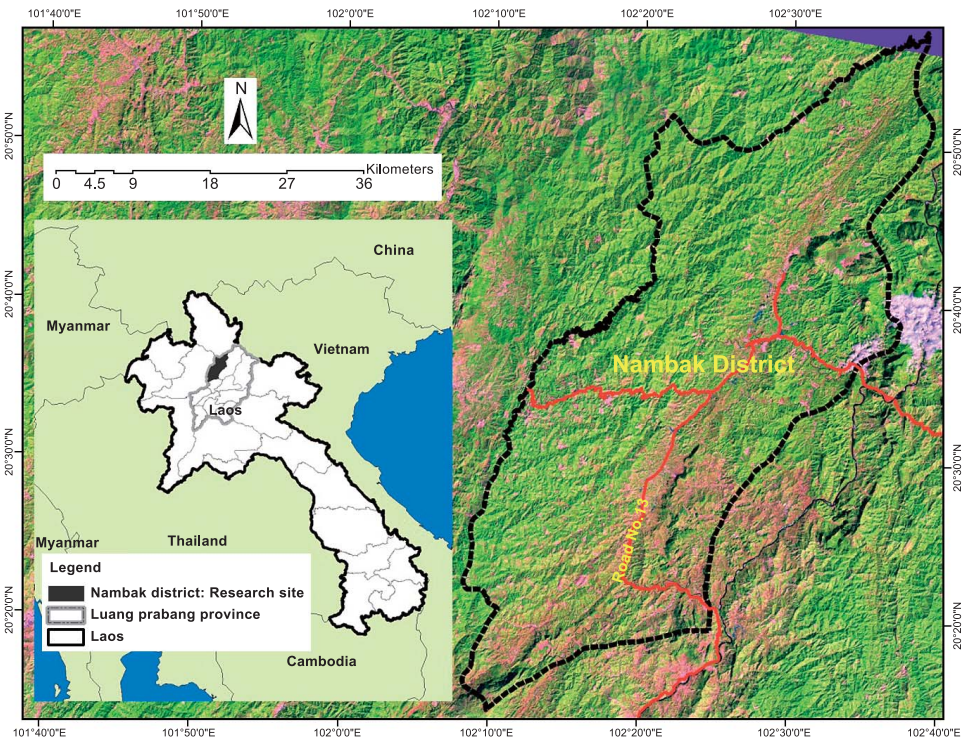
develop more integrated research and development aimed at better use of natural resources in the uplands of Laos.

## II Methods

### II-1 Study Area

The study area is situated in Nambak District, Luang Prabang province, in northern Laos (Fig. 1), about 120 km northwest of the provincial capital. Geographically, it is located between latitudes 20°58'N and 21°15'N and longitudes 102°09'E and 102°37'E. The district covers an area of about 200,000 hectares, with a total population of about 65,400 inhabitants in 83 villages.

Nambak District represents a typical mountainous district of northern Laos. The district has a tropical climate with mild winters during October–March. Average monthly temperatures range from 20°C to 31°C, and annual rainfall ranges from 1,700 mm to



**Fig. 1** Study Area: Nambak District of Luang Prabang Province, Northern Laos

1,900 mm. Flat alluvial land area with an altitude of less than 600 m accounts for less than a quarter, while low hills and mountains with an altitude of 600–1,000 m account for more than half of the territory. Areas with an elevation of more than 1,000 m form approximately one quarter of the district area (RDCC1 2002). SBC agriculture continues to be the main land use system by area, although the areas of upland rice have been reduced substantially in recent years (Personal communication with district officers). Local farmers are adapting themselves to cope with reduced fallow periods as a result of shifting cultivation stabilization policies promoted by the local authorities and increased population pressure.

## II-2 *Remotely Sensed Data*

Landsat-5 TM imagery was chosen for this study. The image covering Nambak District (Fig. 1) was acquired in February 2010. The scene center location (lat/long) is 20.626/102.381 degrees, path/row - 129/46, output bands - 7, and pixel spacing - 25×25 m. The Landsat data was supplied in geo-rectified form and projected to the UTM zone 48N with the coordinate system referenced on the WGS 84 datum.

February was expected to be the most suitable period of the year for *Imperata* land cover detection by the sensor, because wet season crops in the uplands were completely harvested and burning operations for the next cropping had not yet started, although slashing may have been almost finished in many areas.

## II-3 *Land Use/Land Cover Classes*

For this research, land cover/land use categories or classes were defined after consultation with local communities and observation in the fields during ground truth data collection. Differences in vegetation covers and land use practices were the main criteria used to distinguish between land use classes. A total of 19 land covers/land uses were identified for the study area (Appendix Table 1).

## II-4 *Ground Truth Data Collection*

The supervised image classification method requires ground truth data to help identify information classes (land use categories), which are then used by the software to determine the spectral classes that represent them. In the fields, the land use/land cover classes indicated in Appendix Table 1 were cautiously observed for their characteristics, such as species, age, density, and land use types. A total of 275 points of the existing land covers of about 0.5 hectares were collected using a Global Positioning System (GPS) during November–December 2010, about nine months after the Landsat-5 TM data was obtained.

### II-5 *Image Pre-processing*

ERDAS IMAGINE 8.4 software was used as a tool to correct degraded and/or distorted image data to create a more faithful representation of the original Landsat imagery. The single-band images of Landsat-5 TM were initially combined into a composite map and enhanced with false color of bands 5:4:3. The images were also enhanced using a haze-reduction function to remove the cloud cover. Finally, the image was subset for the study area and used for the image classification process described below.

### II-6 *Image Classification*

In this study, the supervised classification method, using the Maximum Likelihood Classifier (MLC), was used for image classification. The MLC is the most widely employed classification algorithm for digital image classification (Bolstad and Lillesand 1991; Forghani *et al.* 2007).

The ground truth data of 275 points of 19 land use types were imported onto the Landsat image for creating the training areas, from which numerical signatures for each of the defined land use/land cover classes were assigned using Signature Editor Tools in ERDAS IMAGINE 8.4 software. In addition, a high-resolution satellite image from Google Earth was used to help distinguish the features of different land uses with respect to their tones, shapes, sizes, patterns, textures, and associations. After closely relating the Landsat imagery with Google satellite images, in addition to the 19 land uses from the ground truth data 2 more land uses were identified: clouds and shadow areas. After the signatures for each land use were identified, image classification using MLC was performed. A total of 22 land use classes, including 1 class of unclassified area, were generated. Finally, the resulting classification data were assessed for their mapping accuracy.

### II-7 *Image Post-classification*

Following the mapping accuracy assessment, the classified image was generalized using the fuzzy convolution function with a  $5 \times 5$  moving window in order to eliminate unnecessary details and extract a single or a small group of misclassified cells for a more general spatial analysis. The generalized image of 22 land uses was then reclassified into a thematic map consisting of 11 land use classes (Appendix Table 2), which is actually a 2010 land use map of Nambak District (Fig. 2). This resulting thematic map was used for the spatial analysis discussed below.

### II-8 *Spatial Analysis*

In order to better understand the spatial distribution of IGLs and their relationship with

other land uses in the study area, a 10×10 km grid map in shapefile format was created using the Data Management Tool in ArcGIS 9.2. The generated grid map consists of 30 grids, with each grid cell representing 100 km<sup>2</sup>. The grid map was overlaid on the thematic map, from which land uses for each grid were extracted using the clipping function (Fig. 3); and then the areas and land use intensity were calculated. Based on this analysis, the *Imperata*-infested zones were classified into low, moderate, and high intensity. A purposive random sampling procedure was used to select the 15 odd-numbered grids for correlation analysis to statistically test the null hypothesis that there was no relationship between the IGL area and some of the main land uses. The sampling resulted in 15 odd-numbered grids: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, and 29 (Fig. 3).

### III Results and Discussion

#### III-1 *Land Use/Land Cover Mapping*

A total of 19 land use/land cover classes were identified for the study area during the field visits for ground truth data collection, and three land cover classes (cloud, shadow, and unclassified areas) were identified during the image classification process. Appendix Table 3 was used to determine the quality/accuracy of the classified data derived from the MLC algorithm on Landsat-5 TM dated February 2010. The columns represent reference data (i.e., ground truth) and suggest how many pixels are classified correctly by the proposed algorithm. The overall accuracy was estimated at 92.1%, which is well above the ≥85% regarded as acceptable in the literature. The kappa statistic was calculated to be 91.3%, which corresponds to strong agreement, based on ≥80%, 40–80%, and <40% for strong, moderate, and poor agreement respectively (Congalton and Green 1999).

IGL, which was the main objective of this study, was mapped with high accuracy: out of a total of 49 IGL pixels, 47 pixels (96%) were correctly classified into IGL and 2 pixels (4%) were misclassified as orchards and young rubber plantations. Rubber plantations achieved the lowest mapping accuracy: out of a total of 230 rubber plantation pixels, 177 pixels (77%) were classified correctly; and 1, 3, 17, 9, and 23 pixels were misclassified as teak plantations, IGL, orchards, mixed tree plantations, and young rubber plantations respectively (Appendix Table 3).

The classified land uses with lower mapping accuracy (<90%) were mixed deciduous forest, mixed tree plantations, young mixed deciduous forest, rubber plantations, and young rubber plantations. Misclassification of these existing land use classes was expected from the effects of mixed vegetation with unclear boundaries, topography, and

**Table 1** Mapping Results: 2010 Land Use/Land Cover of Nambak District

Land Use/Land Cover Class	Polygons	Area (ha)	Area (%)	Mean (ha)	Median (ha)	Range (ha)	CV <sup>a</sup> (%)
Unclassified areas	47	781	0.4	16.6	1.4	325	337
Rural urban	1,711	2,008	1.0	1.2	0.2	113	450
Upland crop	1,299	2,116	1.1	1.6	0.8	41	171
Shrub forest	3,808	3,108	1.6	0.8	0.3	55	245
Open water and wet lands	3,500	3,149	1.6	0.9	0.3	114	361
Paddy	3,108	3,240	1.7	1.0	0.4	67	251
Orchard	5,023	3,445	1.8	0.7	0.3	25	193
<i>Imperata</i> grassland	5,109	4,878	2.5	0.9	0.4	33	187
Bush forest	8,111	14,647	7.5	1.8	0.7	70	201
Tree plantation	10,737	43,148	22.0	4.0	0.4	6,670	2,030
Natural forest	4,116	115,798	59.0	28.3	0.5	97,360	5,367
Total	46,569	196,318	100.0	–	–	–	–

Note: <sup>a</sup> Coefficient of variation.

soil conditions of particular land uses. Increased reference data (ground truth) would help improve mapping accuracy.

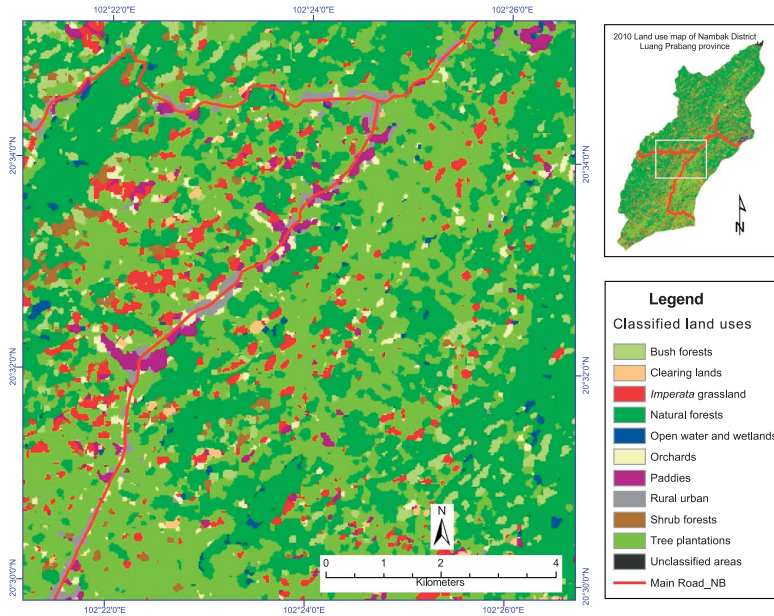
Nambak District has a relatively large area of forest reserves. Natural forest, which includes bamboo-dominated forest, mixed deciduous forest, and evergreen forest, is the most important land use, accounting for 59% (115,798 hectares) of the district area. Other forestlands, including orchards, bush and shrub forest, and tree plantations, account for 33% (64,348 hectares). Annual cropping area, including upland crops (clearing lands) and paddy, accounts for 2.8% (5,356 hectares). IGL occupies 2.5% (4,878 hectares). Urban land covers the smallest area: about 1% or 2,008 hectares (Table 1 and Fig. 2). The land uses were highly variable in patch sizes, with CVs ranging from 171% to 5,367% (Table 1 and Fig. 2). This situation is common in mountainous areas of northern Laos, due to the variability in topography and soils.

### III-2 *Imperata* Grasslands in Nambak District: Area, Distribution, and Characteristics

The current IGL in Nambak District can be characterized as a “micro-grassland,” with most patch sizes being less than half a hectare, distributed throughout the study area. Large fields of 30 hectares are not common. As evidenced during our field visits, the *Imperata* fields were seen within individual fields and/or across fields in tree plantations, orchards, fallow lands, and upland cropping fields. Due to small field size, the IGLs in the study area could be managed mainly by local farmers and communities. Based on infestation level, IGL in Nambak District was classified into three zones.

Zone I is located in the northeast and northwest of the district (Fig. 3), occupying an area of 52,318 hectares or 27% of the district area. In this zone, IGL accounts for 0.6%





**Fig. 2** Land Use Map of Nambak District in 2010, Luang Prabang Province

(308 hectares) of the total area of the zone or 6.3% of the total IGL area in the district. This zone has larger areas of natural and bush forests—73.1% and 11.7%, as compared to 65.3% and 6.9% in Zone II, 42.5% and 4.9% in Zone III, and 59% and 7.5% in the district (Table 2). There is less land use intensification, with 7.5%, 1.0%, 0.7%, and 0.4% of the total area being used for tree plantations, paddies, orchards, and upland crops respectively. Zone I was classified as the least *Imperata* infested zone or an area with a low level of land use intensification but rich in natural forest reserves (Table 3).

Zone II is located in the central lower north and the southwest and occupies an area of 71,774 hectares or about 37% of the district area. In this zone, IGL accounts for 1.9% (1,385 hectares) of the total area of the zone or 28.4% of the total IGL area in the district. This zone has larger areas of tree plantations, paddies, orchards, and upland crops—18.1%, 1.8%, 1.7%, and 1.1% respectively—as compared to Zone I. This part was classified as a moderate *Imperata* infested zone, with moderate intensive land use and moderate natural forest reserves.

Zone III is located in the southeast of the district, along National Road No. 13 from Luang Prabang to Oudomxai province, and occupies an area of 72,227 hectares or 37% of the district area. IGL in this zone takes up 4.4% (3,185 hectares) of the total area of the zone or 65.3% of the total IGL area in the district. This zone has the largest areas of

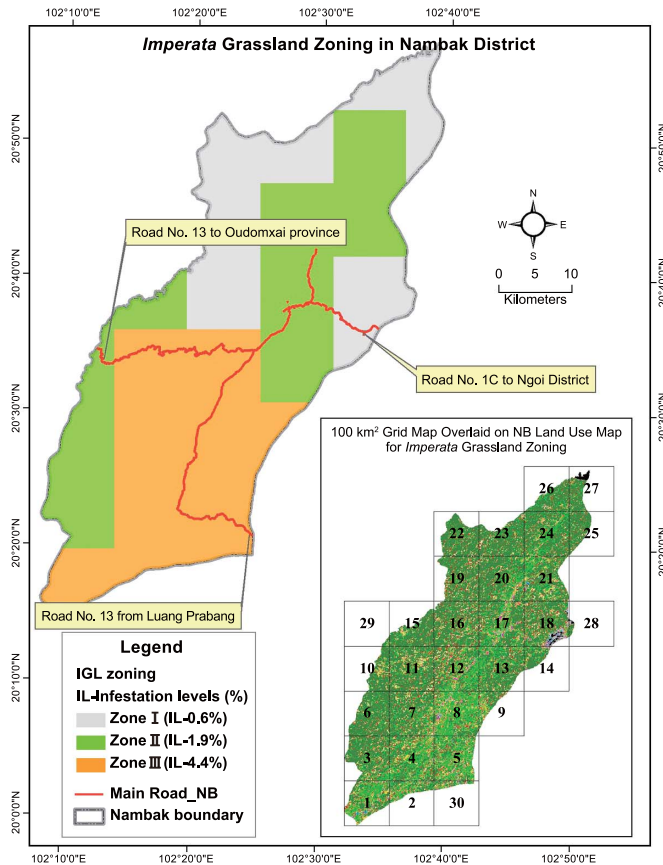


Fig. 3 *Imperata* Grassland Zoning Map of Nambak District

tree plantations, orchards, paddies, and upland crops—36.3%, 2.6%, 2.0%, and 1.6% respectively—as compared to Zone I and Zone II. This part was classified as the most *Imperata* infested area in Nambak District, with the highest land use intensification, largest areas of degraded forest, and less natural forest reserves.

### III-3 *Implications for Slash-and-Burn Cultivation*

Information about areas planted with crops under SBC was not available from local authorities, although the SBC method is widely practiced in the study area. While information on crop species and areas planted to each crop was available, it was unclear whether the crops were grown under the SBC system. As a result, it was difficult to estimate the crop areas specific to SBC based on the available crop data. Remote sensing was used as a means of quickly identifying and delineating various land use/land cover types, a task



**Table 2** *Imperata* Grassland Zoning<sup>a</sup>

Land Use <sup>b</sup>	Zone I			Zone II			Zone III			All zones		
	Area (ha)	Area <sup>c</sup> (%)	Area <sup>d</sup> (%)	Area (ha)	Area (%)	Area (%)	Area (ha)	Area (%)	Area (%)	Area (ha)	Area (%)	Area (%)
UCL	777	1.5	99.5	4	0.0	0.4	1	0.0	0.1	782	0.4	100
RUB	761	1.5	37.9	469	0.7	23.3	778	1.1	38.7	2,008	1.0	100
OWW	935	1.8	29.7	964	1.3	30.6	1,250	1.7	39.7	3,149	1.6	100
PAD	498	1.0	15.4	1,278	1.8	39.4	1,464	2.0	45.2	3,240	1.7	100
ORC	360	0.7	10.5	1,187	1.7	34.5	1,897	2.6	55.1	3,444	1.8	100
UCR	234	0.4	11.1	756	1.1	35.7	1,126	1.6	53.2	2,116	1.1	100
SHF	136	0.3	4.4	915	1.3	29.4	2,058	2.8	66.2	3,109	1.6	100
BUF	6,145	11.7	42.0	4,933	6.9	33.7	3,569	4.9	24.4	14,647	7.5	100
IGL	308	0.6	6.3	1,385	1.9	28.4	3,185	4.4	65.3	4,878	2.5	100
TRP	3,924	7.5	9.1	12,998	18.1	30.1	26,226	36.3	60.8	43,148	22.0	100
NAF	38,240	73.1	33.0	46,885	65.3	40.5	30,673	42.5	26.5	115,798	59.0	100
All land uses	52,318	100.0	26.6	71,774	100.0	36.6	72,227	100.0	36.8	196,319	100.0	100

Note: <sup>a</sup> The superscript “<sup>c</sup>” and “<sup>d</sup>” are also applied for Zones II, III, and all zones.

<sup>b</sup> UCL: Unclassified areas; RUB: Rural urban; OWW: Open water and wet lands; PAD: Paddies; ORC: Orchards; UCR: Upland crops; SHF: Shrub forest; BUF: Bush forest; IGL: *Imperata* grassland; TRP: Tree plantations; NAF: Natural forest.

<sup>c</sup> Percent of all land uses.

<sup>d</sup> Percent of all zones.

**Table 3** Descriptions of *Imperata* Infested Zones

Zone No.	Locations	Infestation Levels <sup>a</sup>	Descriptions
I	Northeast and northwest	Low	Areas with mainly natural and bush forests; less land use intensification.
II	Central lower north and southwest	Moderate	Areas with moderate natural and bush forests; moderate land use intensification.
III	Southeast	High	Areas with the most intensive land use; more shrub forests; less natural and bush forests.

Note: <sup>a</sup> Low, Moderate, and High indicates 0.6%, 1.9%, and 4.4% of the zone’s area covered by IGL, respectively.

that would be difficult and time consuming using traditional ground surveys. For this study, Landsat-5 TM of February 2010 was used. Ground truth data collection on land uses was conducted during November–December of the same year. Mapping results reveal that in 2010 about 2,116 hectares of forestlands were cleared (Fig. 2). Based on this data, the area of upland crop under the SBC type of land use was estimated (Table 1 and Appendix Table 2). The results show that the upland crop area was considerably less than the crop area under tree plantations, orchards, and paddies, indicating that shifting cultivation stabilization efforts on the part of local authorities were successful in reducing SBC in the study area.

**Table 4** Relationship between *Imperata* Grassland and Some Selected Land Uses ( $n=15$ )

Land Use <sup>a</sup>	Correlation Coefficients							
	PAD	ORC	UCR	SHF	BUF	IGL	TRP	NAF
PAD	–	0.91**	0.34	0.42	0.09	0.59*	0.73**	0.34
ORC	0.91**	–	0.38	0.63**	–0.13	0.72**	0.84**	0.17
UCR	0.34	0.38	–	0.58*	0.25	0.67**	0.25	0.61**
SHF	0.42	0.63**	0.58*	–	–0.16	0.90**	0.70**	0.17
BUF	0.09	–0.13	0.25	–0.16	–	0.02	–0.09	0.79**
IGL	0.59*	0.72**	0.67**	0.90**	0.02	–	0.83**	0.28
TRP	0.73**	0.84**	0.25	0.70**	–0.09	0.83**	–	0.05
NAF	0.34	0.17	0.61**	0.17	0.79**	0.28	0.05	–

Note: <sup>a</sup> PAD: Paddy; ORC: Orchard; UCR: Upland crop; SHF: Shrub forest; BUF: Bush forest; IGL: *Imperata* grassland; TRP: Tree plantation; NAF: Natural forest.

\* Significant at the 0.05 level.

\*\* Significant at the 0.01 level.

Correlation analysis reveals that changes in the upland crop area have no relationship with the area of tree plantations, orchards, or paddies but are strongly correlated with the area of IGL, natural forest, and shrub forest. The results also show that IGL is positively correlated with orchards, upland crops, shrub forest, and tree plantations and has some association with paddies (Table 4). This indicates that an increase in IGL areas is closely correlated with—or linked to—an increase in the areas of agricultural land use intensification. As a result, we suggest that improper SBC intensification into more permanent crop production systems is a major cause of *Imperata* infestation in the upland areas.

## IV Conclusion

Satellite image classification results show that 19 land uses/land covers of 196,319 hectares of Nambak District of Luang Prabang Province in northern Laos were mapped with an overall accuracy of 92.1% and a kappa statistic of 91.3%. *Imperata* grassland (IGL) achieved more than 90% mapping accuracy.

The current IGL was estimated at about 4,878 hectares or 2.5% of the Nambak District area and characterized as a “micro-grassland,” with most patch sizes being less than half a hectare, distributed within individual fields and/or across fields of all types of land uses throughout the district area.

Based on *Imperata* infestation level, the study area was classified into three zones. About 37% of the district area in the southeastern part was identified as the most *Imperata* infested zone, characterized as the area with the most intensive land use, larger areas of

degraded forests, and less natural forest reserves as compared to the other two zones in different parts of Nambak District. The study results suggest that improper SBC intensification into more permanent crop production systems is a major cause of *Imperata* infestation in the upland areas. While there has been a reduction in SBC area as a result of shifting cultivation stabilization policies, the spread of IGL can be a threat to the productivity and sustainability of traditional SBC systems and already intensified land use systems. In order to further utilize land resources more effectively to promote economic growth while maintaining the environment, government intervention is indispensable; development efforts should initially focus on the most affected areas. We have demonstrated the potential use of geoinformation technology (remote sensing and GIS) with ground truth data as the basis of area informatics data sets that can be applied in other area studies in Laos.

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**Appendix Table 1** Descriptions of the Main Land Uses/Land Covers in Nambak District, Luang Prabang Province, Northern Lao PDR

Land Use Classes	Label	Definitions
Evergreen forest Bamboo forest Mixed deciduous forest	EGF BAF MDF	Evergreen forest, bamboo dominant forest, and older mixed deciduous forest are classified as the natural forest. It is densely forested areas which can be both primary and secondary forests with a tree canopy cover (crown density) of more than 20% and tall trees (up to 25 m high). These types of forests are commonly designated for the conservation and protection areas.
Young mixed deciduous forest	YMF	Young mixed deciduous forest refers to young secondary forest with a crown density has been reduced below 20% for some reasons (i.e. logging or shifting cultivation). Dominant vegetations are mainly mixed vegetations of young bamboo and trees.
Shrub forest <i>Kiam</i> (tiger grass) and <i>Lao</i> forest	SHF KLF	Shrub forests are the natural forests with crown density of less than 20% because of logging, shifting cultivation or other heavy disturbance. Shrub forests are mainly dominated by herbaceous species such as <i>Chromolaena</i> dominant forest. Mixed <i>Kiam</i> and <i>Lao</i> dominant vegetations are reclassified as SHF.
Clearing lands	CLL	It refers to forest lands being cleared mainly for crop production.
<i>Imperata</i> grassland	IGL	Land area of at least 25 m × 25 m (625 m <sup>2</sup> ) dominated by <i>Imperata</i> grass of more than 80% are classified as <i>Imperata</i> grassland.
Orchards	ORC	Orchards are permanent types of cultivation. They are an agro-forestry system located mainly near paddy fields and villages. The main species paper mulberry, <i>Kiam</i> (tiger grass), <i>Kha</i> , banana etc.
Continuous cropping land	CCL	Lands being used for annual cropping mainly vegetable production.
Teak plantations	TEP	Forested areas covered by teak trees with a teak canopy cover of more than 20% and area of at least 0.5 ha. The teak plantations are normally older than one year.
Rubber plantations Young rubber plantation	RUP YRP	Forested areas covered by rubber trees with a rubber canopy cover of more than 20% and area of at least 0.5 ha. Young rubber plantations (>1–3 years old) are reclassified as RUP.
Mixed tree plantations	MTP	Forested areas covered by a mixture of timber and/or fruit trees (e.g. citrus) of more than one year old. It refers to lands with a tree canopy cover of more than 20% and area of at least 0.5 ha.
Paddies	PAD	Land areas being banded and used for crop cultivation, mainly rice, are classified as paddies. In dry season, PAD may be left uncultivated due to lack of water.
Irrigated paddies	IRP	PAD fields with water supplied by irrigation systems being cultivated for rice and/or other annual crops.
Rural urban	RUB	Rural urban includes all areas being used for permanent settlements such as villages, towns, industrial areas etc. It also includes roads and lands opened for development.
Ponds	PON	It is a small area of still water.
Open water and wet lands	OWW	It refers to water bodies which include streams, rivers, and water logging areas.

**Appendix Table 2** Descriptions of Land Use Reclassification

Classified Land Covers/Land Uses	Class Value	Reclass Value	Thematic Map
Unclassified areas	22	1	Unclassified areas
Clouds	1		
Rural urban	7	2	Rural urban
Ponds	18	3	Open water and wet lands
Open water and wet lands	19		
Paddies	2	4	Paddies
Irrigated paddies	21		
Orchards	10	5	Orchards
Continuous cropping lands	5		
Clearing lands	6	6	Upland crops
Shrub forest	4	7	Shrub forests
<i>Kiam</i> and <i>Lao</i> forest	12		
Young mixed deciduous forest	15	8	Bush forest
<i>Imperata</i> grassland	9	9	<i>Imperata</i> grassland
Teak plantation	3	10	Tree plantations
Mixed trees plantation	13		
Rubber plantation	16		
Young rubber plantation	17		
Mixed deciduous forest	8	11	Natural forests
Bamboo forest	11		
Evergreen forest	14		
Shadow <sup>a</sup>	20		

Note: <sup>a</sup> Shadow (including shade from cloud cover) was found mainly at high elevation areas with dense forest.

**Appendix Table 3** Error Matrix of Landsat-5 TM Image Classification of Nambak District Using MLC (Overall Accuracy=92.1%; Kappa Statistic=91.3%)

Classified Land Cover/ Land Uses <sup>a</sup>	CLD	PAD	TEP	SHF	CCL	CLL	RUB	MDF	IGL	ORC	BAF	KLF	MTP	EGF	YMF	RUP	YRP	PON	OWW	SHD	IRP	Row TT	User Acc.
1 CLD	366	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	366	100
2 PAD	0	202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	202	100
3 TEP	0	0	276	2	1	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	282	98
4 SHF	0	0	11	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71	85
5 CCL	0	0	1	0	58	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	95
6 CLL	0	0	0	0	0	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104	100
7 RUB	0	0	2	0	2	0	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	92
8 MDF	0	0	0	0	0	0	0	441	0	0	1	0	0	0	10	0	3	0	0	0	0	455	97
9 IGL	0	0	0	0	0	0	0	0	47	1	63	0	0	0	0	0	1	0	0	0	0	52	90
10 ORC	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	17	3	0	0	0	0	84	75
11 BAF	0	0	0	0	0	0	0	0	0	196	0	0	3	3	0	0	0	0	0	0	0	202	97
12 KLF	0	0	0	0	0	0	0	6	0	0	0	31	0	0	5	0	3	0	0	0	0	45	69
13 MTP	0	0	10	0	0	0	0	0	0	0	7	0	60	1	0	9	0	0	0	0	0	87	69
14 EGF	0	0	0	0	0	0	0	0	0	0	3	0	0	137	0	0	0	0	0	0	0	140	98
15 YMF	0	0	0	0	0	0	0	74	0	0	0	0	0	0	89	0	0	0	0	0	0	163	55
16 RUP	0	0	7	0	0	0	0	0	0	6	0	0	5	0	0	177	8	0	0	0	0	203	87
17 YRP	0	0	0	0	0	0	0	5	1	0	0	1	0	0	0	23	93	0	0	0	0	123	76
18 PON	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	10	22	55
19 OWW	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	3	0	41	93
20 SHD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	66	0	67	99
21 IRP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	436	436	100
Column TT	366	202	307	62	61	104	48	526	49	70	207	32	70	141	104	230	111	12	39	69	446	3256	
Prod. accuracy	100	100	90	97	95	100	96	84	96	90	95	97	86	97	86	77	84	100	97	96	98		

Note: <sup>a</sup> CLD: Clouds; PAD: Paddies; TEP: Teak plantations; SHF: Shrub forest; CCL: Continuous cropping land; CLL: Clearing lands; RUB: Rural urban; MDF: Mixed deciduous forest; IGL: *Imperata* grassland; ORC: Orchards; BAF: Bamboo forest; KLF: *Kiam* and *lao* forest; MTP: Mixed tree plantations; EGF: Evergreen forest; YMF: Young mixed deciduous forest; RUP: Rubber plantations; YRP: Young rubber plantations; PON: Ponds; OWW: Open water and wet lands; SHD: Shadow; IRP: Irrigated paddies.

## BOOK REVIEWS

CSEAS



### *The Birth of Vietnamese Political Journalism: Saigon 1916–1930*

PHILIPPE M. F. PEYCAM

New York: Columbia University Press, 2012, xiii + 306p.

The early 1920s in Saigon saw a florescence of newspaper publishing in the lively tradition of Parisian canards of the 1890s. French and Vietnamese language papers sprang up, took forthright positions, debated their peers eagerly, and tested the tolerance of colonial rulers. The French language press was largely free of censorship in Cochinchina, but circulation per day amounted to only several thousand copies total. Vietnamese papers were censored and sometimes shut down, yet daily circulation rose to 22,000 by 1924. This was a time when educated Vietnamese believed that it was feasible to secure more political space from the authorities by means of rational argument and mobilization of public opinion.

Philippe Peycam brings this story alive for today's readers, introducing us to a range of Vietnamese, French and métis actors, explaining press operations, and outlining the key issues of contention. A “newspaper village” (làng báo chí) emerged, composed of editors, donor/investors, writers, printers, vendors, and teenagers using the various offices as meeting place and library. A surprising number of French and Vietnamese participants belonged to the Masonic Order. I would have liked to know more about press finances, but recognize that sources are hard to find. A few wealthy landowners were willing to subsidize some papers until the government showed its displeasure at content. Editors pleaded with readers to pay their overdue subscriptions, while acknowledging that the post office sometimes chose to “lose” newspaper copies en route.

March–July 1926 saw a dramatic shift to the left in Saigon. The new socialist governor general, Alexandre Varenne, proved a distinct disappointment. The leader of the moderate Constitutionalist Party, Bùi Quang Chiêu, refused to call for the release from jail of Nguyễn An Ninh, the most charismatic writer and speaker of the time. Crowds cheered when Ninh's comrades insisted that the colonial regime be confronted fearlessly. Following the unprecedented national funeral for Phan Châu Trinh and resulting expulsion of students from school, membership in clandestine patriotic groups proliferated. While these momentous months have been canvassed by earlier scholars, Peycam is the first to examine vigorously the emergence of what he styles “opposition journalism.”



He also offers sensitive portraits of half-a-dozen key journalists beyond Ninh and Chiêu.

It's a pity that Peycam focuses solely on periodicals, when the 1920s also saw a parallel explosion of books and booklets, often published by the same groups. The monograph format gave authors more room to develop their arguments, even when only 16 or 32 pages in length. Peycam also says nothing about the way in which all these publications expanded the vocabulary and enriched the syntax of the Vietnamese language. However, I was delighted to see all the Vietnamese words in *The Birth of Vietnamese Political Journalism* carrying full diacritics.

Peycam posits the arrival of a new public sphere in 1920s Cochinchina, akin to what Jürgen Habermas famously depicted for eighteenth century Europe. Suddenly Vietnam possesses a "public political culture," and even "mass media politics" (p. 34). I question these characterizations on three fronts. First, the audience for Saigon newspapers remained small, even if one assumes that three or four persons perused each copy, and groups sometimes listened to articles being read aloud. Secondly, collaboration between Vietnamese and French or métis activist-journalists fell off during the late 1920s, partly due to Surete divide-and-rule tactics, partly the secrecy demanded by some organizations. Finally, Saigon's effervescent print media failed to trigger similar activity in Annam and Tonkin, at least in the short-term. Rather, scores of young men facing harsher colonial restrictions in Hanoi, Nam Định, and Huế headed south to exciting Saigon. Without comparable press developments in northern and central Vietnam, a national public sphere was impossible.

Newspapers in 1920s Saigon aimed to attract readers from the nascent Vietnamese bourgeoisie and the petit bourgeois stratum composed of clerks, interpreters, primary school teachers, technicians, managers, shopkeepers, and small traders. Peycam endows Saigon with a "powerful native bourgeoisie," composed of big landowners, office-holders, and entrepreneurs. Some of these men deftly combined all three callings, and added money-lending for good measure. Peycam describes well the press-related activities of a few members of this native bourgeoisie, yet fails to demonstrate that they were politically powerful. At best they tried to convince France to foster Vietnamese modernization. A cursory comparison of Bùi Quang Chiêu's Constitutionalist Party with the Congress Party of India would point up the extreme fragility of Vietnam's bourgeoisie. Rather, it was young members of the petit bourgeoisie (what Peycam calls the middle class) who provided most of the cultural, political, and military leaders of following decades.

From 1928–29, the colonial authorities tightened censorship in Saigon to such a degree that *journaux d'opinion* disappeared. Many participants went underground, found themselves in jail, or were forced to flee overseas. *Journaux d'information* persisted, however, and became more professional, with increased international news coverage, advertising, serialized fiction, and photographs. During the Popular Front period (1936–39) *journaux d'opinion* reemerged with a vengeance and Hanoi became as important a publishing venue as Saigon. Then the Surete descended once again.

Peycam seems uncertain as to whether Saigon's newspaper village in the 1920s represents a short, unique episode in Vietnam's long history, or the nascence of a modern public sphere throughout the country. At one point he says mournfully, "In the years that followed mass mobilization was to become more important than political agency grounded in autonomous critical judgment exercised by individuals reached in their private depths by the journalists' arguments" (p. 215). Later, however, he insists that the legacy of Saigon's newspaper village lives on.

I favor the second interpretation. After the late 1930s Popular Front resurgence and colonial crackdown, mentioned above, Vietnam enjoyed another flowering of the press between April 1945 and November 1946. Despite subsequent wartime tribulations, Saigon journalists continued to spar with returned colonial censors and police for another seven years. From 1955 to 1963, Ngô Đình Diệm ran a tight ship, but the Saigon press from 1964 to early 1975 was remarkably alive and sometimes confrontational. Since the late 1980s, Vietnamese journalists have been testing the envelope imposed by the Communist Party, with mixed results. In short, the twentieth century history of Vietnam possesses an intriguing newspaper thread that still weaves its way through events today.

But it is not necessary to accept this interpretation to be able to appreciate *The Birth of Vietnamese Political Journalism*. Philippe Peycam takes us back to a place and time different from our own, sets the scene skillfully, introduces us to key participants, and then pursues a variety of paths taken and not taken. He challenges reader complacency and questions established verities. One doesn't have to agree with the Habermas model to affirm that something exciting was happening in Saigon in the 1920s.

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### ***The Institutional Imperative: The Politics of Equitable Development in Southeast Asia***

ERIK MARTINEZ KUHONTA

Stanford: Stanford University Press, 2011, xxiii+342p.

*The Institutional Imperative* provides an argument for equitable development, that is, economic growth with income equality. The research is conducted through a comparative-historical approach with Thailand and Malaysia as the major case studies, and the Philippines and Vietnam supplementary instances. Kuhonta rules out alternative explanations that rest on structural factors like democracy, class, and ethnicity, and makes an institutionalist argument: "Institutionalized, pragmatic parties and cohesive, interventionist states create organizational power that is necessary to

drive through social reforms, provide the capacity and continuity that sustain and protect a reform agenda, and maintain the ideological moderation that is crucial for balancing pro-poor measures with growth and stability” (p. 4). Two cohesive, institutionalized parties, the United Malays National Organization (UMNO) and the Vietnamese Communist Party (VCP), have geared their countries toward relatively equitable development. Thailand and the Philippines yield mediocre results “largely because there have been no political parties with the requisite organizational capacity and ideology to advance social reforms” (p. 244).

The longitudinal comparison between Malaysia and Thailand from the colonial era to the 2000s makes the study rich in history and detail. However, the research design is slightly problematic. When it comes to in-depth policy analyses, Kuhonta chooses a policy set of land resettlement, education reforms, and health care for Malaysia (pp. 100–114); but he selects rural debt, dams, and health care for Thailand (pp. 174–188). Such a mismatch saps the strength of the causal links and the alleged “structured comparison” (p. 5).

Apart from research design, the book suffers from two analytical drawbacks and one misconception. Even though institutions and ideologies are considered to be the two determining factors in explaining developmental variation, the author does not take either of them seriously in analytical terms.

### **Institutions as Temporally Prior to Individuals**

To begin with, while arguing in favor of the institutional imperative, the author downplays the role of institutions in shaping the incentives and interactions of political actors. Although insisting that “[i]nstitutional variables therefore operate within a configurational and historical field and must always be kept in that context” (p. 46), the “close contextual analysis” runs aground at the empirical level. Thailand’s failure of party institutionalization is attributed to politicians’ misbehavior and incapacity: “Parties rose and fell in factions’ battle for spoils rather than because of any struggles over principle . . . . Personalism pervaded the party system, with virtually every party . . . driven by a leader’s charisma and political skills rather than by organizational and ideological imperatives . . . . Unlike in Malaysia, parties lacked continuity, institutional complexity, extensive memberships, and roots in society” (p. 167).

Missing are the different institutional arrangements that determine how the political games are played in both countries. At the meta-level, while electoral politics is the only game in town in Malaysia, it has never been so in Thailand. In post-independence Malaysia, the aristocrats have to ally with UMNO and maintain their interests through political party structures. In sharp contrast, Thai politics after the 1932 Revolution has been shaped by the ongoing struggle between the traditional elites and elected politicians. The former, whose power and prerogatives have not been eradicated by colonial power, has impeded party institutionalization through any possible means

e.g. coups d'état, gratuitous violence, judicial review, and ideological campaigning to delegitimize majority rule.

Consider the impact of such meta-games on constitutions, regarded as the supreme formal rules that form political behaviors. In the early 1970s, when UMNO deemed the then constitution to be hindering the effectiveness of political parties and government, the party “passed constitutional changes to tighten party discipline,” “solidified the party secretariat to improve organizational effectiveness,” and “sought to increase party vigor and dynamism by encouraging frequent meetings at all levels” (pp. 85–86). Thai political parties have not been granted such a privilege as constitutional design has been kept under the tight control of the traditional elites. The multi-member plurality electoral system, the appointed senates, and the party-switching law of MPs are among significant regulations deliberately designed to nurture fragmented parliamentary politics. The 2006 royalist coup that led to the enactment of the 2007 Constitution to restore such regulations should be clearly evident. After all, if institutions are seen—as most institutionalists believe—as temporally prior to individuals, it might be the case that political parties in Thailand are not institutionally weak, but rather *institutionalized to be weak*.

### **Ideology Matters More in Its Quality than in Its Moderation**

In the same way as with institutions, although Kuhonta realizes the importance of ideology, he values only its moderation, not its *quality*: “Along with their institutionalized structures, UMNO and the VCP also share another critical property: moderation” (p. 241).

Nonetheless, the moderation of any ideology is a moot point, for it depends as much upon the eye of the beholder as upon the contextual settings. More importantly, with different ideologies held by political actors (yet partly shaped by prevailing institutions), how UMNO responded to the May 1969 riots varies greatly from what the Thai elites did to political turmoil in the late 2000s. UNMO saw the pre-1969 system as “no longer viable” and could no longer “sweep things under the carpet.” As a consequence, it “decided that the state needed a more decisive and long-term policy agenda” (pp. 84–85). In stark contrast, the Thai elected politicians (the Abhisit and Yingluck governments) reacted to the political conflict by becoming more compromising and moving instead toward more “populist” policy packages, such as direct money transfer and infrastructural mega-projects. Above all else, both Thailand’s elected and unelected elites preferred to maintain the “sweep things under the carpet” manner in the face of political difficulties.

In addition to political turmoil, the two countries also took different routes in reaction to such troubles as the leftist movements and rural poverty. Not taking into account the difference in ideological quality and consequent political choices, the book does not analytically incorporate the role of ideology into its analysis.

### Colonial Legacies: Another Alternative Explanation?

While the book challenges democracy, class, and ethnicity, it is colonial legacies that should be treated as the most important alternative explanation. Kuhonta details how the British succeeded in eradicating the power of Malaysian traditional elites and in dividing the political and economic classes (Chapter 3). Such legacies have had profound implications for post-independence political-economic structures in Malaysia, not least the settlement of electoral politics as previously discussed. However, the author not only does not compare the differing impacts of colonialism on Malaysia and Thailand, he also misreads how colonialism shaped the Thai state apparatus (Chapter 5).

The book repeats a popular misconception about King Chulalongkorn's "cohesive state" by asserting that "[a] series of modernizing reforms led by King Chulalongkorn (Rama V, r. 1868–1910) gave the state a new lease on life. Centralized, rationalized, and cohesive, the Siamese state not only survived external and internal threats; more important, it had become a veritable bulwark of political power and legitimate authority during a period of intense crisis" (p. 125). Nonetheless, the author fails to explore the uneven configurations of the modern Thai bureaucracy.

Besides the "patrimonial features" indicated by the author (p. 129), the Thai bureaucracy had other underlying weaknesses right from the beginning, among which were the *bloated and overlapping* features designed by King Chulalongkorn. The Gordian knot for the King was not just how to escape being colonized but also how to undermine the power of, without overly alienating, the great nobles and provincial elites. Such conditions led to the creation of new organizational functions to superimpose, without abolishing, the existing provincial administration. Moreover, the administration before his reign was segmented across regions, not functionally differentiated. The King maintained some overlapping authority not only to avoid further conflict with the regional elites but also to ensure that a "check-and-balance" system would be in place to diminish the nobles' power to challenge the throne. The bloated structure caused a budget deficit and widespread official corruption whereas the overlapping structure encouraged unproductive competition and duplication among ministries.

Accordingly, it is misleading to assume that Thai twentieth-century political actors had been accommodated by the cohesive state apparatus. Puncturing this myth will help us assess the evolution and capability of the Thai bureaucracy in a more balanced manner. Yet this does not mean that the bloated and overlapping structures have persisted until now simply as a result of "path dependence." That question requires further research. It means that arguments that attribute today's inefficient state to the country's democratization process, politicians' behaviors, social norms, or the lack of threats, are at best half-truths.

### Politics of Equitable Development?

All in all, I think the book addresses the *politics of implementing social policies* rather than the politics of equitable development per se. This is because the author does not provide a solid link between his studied policies and equitable outcomes. Take education policies (pp. 106–109), for example. Even though education may lead to individual betterment, whether it generates national prosperity and reduces income disparity is highly controversial in the economics literature. If the key to Malaysia's equitable development, as the author states, is the support for its citizens to “exit the traditional agricultural sector and gain more productive employment in the modern economy” (p. 48), then policies toward the manufacturing sector are equally, if not more, important than education policies for that specific purpose.

Despite the above debatable flaws, the book makes a significant contribution to both the institutionalist and Southeast Asian bodies of literature. In regard to the former, *Institutional Imperative* looks at the role of political institutions in determining equitable development, a crucial topic neglected amid the rise of new institutionalism. More profound is its impact upon the latter body of work. The book's comparative approach presents an advance in regional knowledge accumulation—the call for which was sounded by Kuhonta's own co-edited volume, *Southeast Asia in Political Science: Theory, Region, and Qualitative Analysis* (2008)—and paves the way for a new era of Southeast Asian scholarship.

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### *Orientalists, Propagandists, and Ilustrados: Filipino Scholarship and the End of Spanish Colonialism*

MEGAN C. THOMAS

Minneapolis and London: University of Minnesota Press, 2012, 277p.

In *Orientalists, Propagandists, and Ilustrados: Filipino Scholarship and the End of Spanish Colonialism*, Megan C. Thomas illustrates the myriad political meanings and possibilities of modern scholarly knowledge. During the 1880s and early 1890s, a critical mass of linguistic, folklore, ethnological, and historical studies on the Spanish Philippines materialized. Researched and

written mostly by a small yet diverse group of young cosmopolitan scholars, who thought of the Philippines as their homeland, this corpus of work engaged with, and troubled the contours of different scholarly practices such as Orientalism, racial studies, and what would come to be known as anthropology. As Thomas points out, unlike other examples of Orientalist and anthropological studies, works on the Philippines appear exceptional because of the specific biographies of the authors. Contemporarily referred to as *ilustrados* and propagandists, these so-called “native” intellectuals utilized novel research methods and rearticulated official Spanish archives in order to not only revise histories of their homeland, but also to imagine new and alternative political futures.

These imagined political futures did not necessarily lead to the nation. As Thomas cogently argues, although these works laid the groundwork for what could potentially be the nation, these works remained ambivalent, divergent, and open in regards to the question of sovereignty in the Philippines. Indeed, despite being politically and ideologically diverse, these “native” authors tapped into a world that “recognized no political boundaries or authority, but only the authority of reason and evidence” (p. 4). Moreover, scholarly works, by virtue of appearing as politically neutral, could sneak past the watchful eyes of Spanish censors. Thomas, therefore, highlights the fascination held by Filipinos for the radically open world of modern knowledge and science in which the nation would be, as Vicente Rafael argues, but one of many effects of a type of modern “historical excess” (2005, xvi). Thomas nevertheless innovatively sheds new light on scholarly works and practices that have heretofore remained overlooked for its ambiguous political contents. Indeed, other than Resil Mojares’ comprehensive text, *Brains of the Nation* (2008), the scholarly works of *ilustrados* and propagandists have been largely relegated to footnotes in Philippine studies. Unlike Mojares, however, Thomas lingers longer on the unanticipated political possibilities and unforeseen consequences of “native” scholarly works.

The authors covered in *Orientalists, Propagandists, and Ilustrados* should be familiar to those acquainted with Philippine historiography. Names such as T. H. Pardo de Tavera, Isabelo de los Reyes y Florentino, Mariano Ponce, Pedro Serrano Laktaw, Pedro Paterno, and José Rizal have been praised, in various and uneven ways, as heroes within nationalist and anti-colonial narratives. As a result, up to contemporary times, their writings and biographies have been repeatedly referenced and put to use in Philippine education, popular culture, and politics. It is easy to see this contemporary resonance when considering that these “native” authors, on the whole collectively identified as modern, cosmopolitan, Christian, and indigenous to the Philippines. For certain, although Thomas consistently reminds the reader of the diverse and varied relation each author had with the Philippines, the awareness of their particular biographical differences from Spanish and European scholars would greatly color how “native” scholars approached both traditional and newer sciences and disciplines.

The notion of authority provides one of the richest topics in Thomas’s book. By gaining

authority over colonial knowledge, “native” scholars could not only trouble or challenge Spanish claims to knowledge, but also envision possible worlds in which “natives” held not only intellectual but also political authority. Chapter one brilliantly illustrates this argument by first situating the scholarship of *ilustrados* and propagandists within a global intellectual field of nineteenth century Orientalism, paying particular attention to the differences and similarities of works dedicated to British India. Orientalist studies of the Philippines diverged from British India in two critical ways. First, one of the most prevalent motifs in Orientalist studies of India was the narrative of civilizational decline or stagnation before British colonialism. Because there was no recognizable pre-colonial civilizational analogue, Orientalist studies of the Philippines stressed the decline of colonial civilization under the Spanish. Second, unlike in India, there was no tradition of Spanish Orientalist studies of the Philippines. This scholarly gap allowed for “native” intellectuals to assert that they were the true authorities of Philippine knowledge, thereby not only troubling Spanish claims to intellectual authority but Spanish authority in general.

A likewise fascinating theme involves the protean character of categories such as race, nation, and Filipino. Although Thomas remains vigilant in underscoring how these studies of social difference maintained political hierarchies and exclusions, she simultaneously reminds the reader that these categories were also based on the presumption of the commensurability of collective groups of people. For example, “native” studies of ethnology and folklore uncovered patterns of racial commonalities across the vast diversity of ethnolinguistic communities making up the Philippines. The scholarly grammar of race articulated the image of a cohered people in which each member could feel equal to other members. Thus, rather than being considered abhorrent or inimitable, individual “native” acts and lives would now belong to a larger history of a cohered, collective, and potentially eternal Filipino race.

In addition to uncovering patterns of broad commonalities, “native” scholarly works, at least in the eyes of many in the Philippine public, frighteningly diminished and occluded the presence and influence of the Spanish. Thomas, in the final two chapters sheds light on how “native” scholars, through the use of orthography and official colonial and missionary archives, created critical revisions of language and history. For instance in the fourth chapter, the seemingly innocuous replacement of the letter “k” for “c” in “native” Filipino languages championed by de los Reyes and Rizal, produced a flurry of anxiety in the Manila public sphere. In another instance, chapter five recounts how “native” scholars created revisionist historical narratives of the ethical decline of Spanish governance. Resonating with Orientalist tropes, “native” revisionists stressed that Spanish sovereignty could only continue “by the grace of the people” (p. 199). From examples such as these, Thomas makes the remarkable argument that orthographic reforms and revisionist history appeared threatening not only for obscuring Spanish influences but also because it imagined possibilities of a Philippine future without Spain.

Containing an introduction, conclusion, and five well-paced chapters, *Orientalists, Propagan-*



*dists*, and *Ilustrados* moves in a brisk and logical manner. Thomas refreshingly lets the primary documents speak for themselves, rather than forcing texts to fit awkwardly into broader theoretical frames. As a result, her line of reasoning is easy to follow and remains open to surprise, potentially resonating with diverse audiences. Although modest in claims, Thomas's book in actuality travels the same intellectual paths cleared by Benedict Anderson's *Imagined Communities* ([1983] 2006) and Partha Chatterjee's *The Nation and Its Fragments* (1993). Thomas's work should therefore be considered in conversation with recent groundbreaking scholarship that pushes studies of nationalism, postcolonialism, and "native" intellectual history into more nuanced regions such as Vicente Rafael's *Promise of the Foreign* (2005), Dipesh Chakrabarty's *Provincializing Europe* (2000), and Pheng Cheah's *Spectral Nationality* (2003). Moreover, with its deft illumination of the inherent ambivalence within discourses of race and civilization, Thomas's book should have great appeal to students of American and Spanish imperial and racial formation and American Ethnic Studies. With all this in mind, one hopes that Thomas, in future works, follows a line of inquiry provocatively suggested in her concluding chapter—namely, rather than thinking of Philippine scholarship as simply appropriating and remediating imperial discourses, what if it is placed instead within the histories of emerging European nationalisms of its time, particularly Germany? In what ways can this intellectual constellation reveal potential imagined Philippine futures that have heretofore remained obscured or yet to be realized?

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***From the Ground Up: Perspectives on Post-Tsunami and Post-Conflict Aceh***

PATRICK DALY, R. MICHAEL FEENER, and ANTHONY REID, eds.

Singapore: Institute of Southeast Asian Studies, 2012, xxxi+262p.

On the book cover, the words “Lebih baik disini kampung kita sendiri” are scrawled on a wall of a disaster-hit house in Aceh. “It is better to stay here in our village.” As its title suggests, *From the Ground Up* explores the country’s recovery from natural disaster and military conflict from the perspectives of various participants, including scholars, practitioners, and ordinary Acehnese. Across the chapters, there is a sensitivity to Acehnese views, interests, and agency. This is buttressed by the inclusion of several Acehnese authors and a sustained inquiry, based on extensive fieldwork or personal engagement, into a society’s recovery at the intersection of international, national, and local action.

The book begins with a geological study of the Sunda megathrust and considers the likely timing and site of the next great earthquake and/or tsunami to strike Sumatra. The bulk of the volume is divided into two sections. The first, by far the more substantial, examines the aftermath of the 2004 Indian Ocean earthquake and tsunami which devastated Aceh, among other places in Southeast and South Asia. It critically addresses issues like the role of NGOs in relief work, the autonomous ways in which survivors responded to loss and trauma, the experiences and rights of women, reconstruction finance, and the need to rebuild Aceh’s cultural heritage.

The second part surveys the resolution of Aceh’s separatist struggle. The landmark event here, as a counterpoint to the disaster, is the Helsinki Peace Accords brokered the following year between the Gerakan Aceh Merdeka movement and the Indonesian government which ended the long-running, low-intensity conflict. The tone in this section differs from the first with an emphasis on success and moving out of crisis. Although the authors generally acknowledge that more demanding challenges of truth and reconciliation and peace building lay beyond the end of the conflict, there is a lack of criticality present in the first section. The papers provide useful insights into the roles played by “external” parties in ending the conflict, such as the Indonesian leaders and the Aceh Monitoring Mission, but they sit rather awkwardly alongside the first group of papers.

I shall examine several chapters in greater detail. The contributions on international NGOs crucially reveal a disjuncture in relief and rehabilitation work between the international and local levels. John Telford, drawing upon the Tsunami Evaluation Coalition reports, points to the failure of large, powerful international NGOs to be respectful towards local perspectives and traditions. He shows how the post-disaster operation focused excessively on relief work to the detriment of tackling long-term problems such as disaster risk, poverty, and under-development. Ian Christoplos and Treena Wu reiterate this point in highlighting the need for international NGOs to devolve the task of LRRD (linking relief, rehabilitation, and development) to local communities. Both papers

underline the tension in post-disaster work between responding to the effects of a calamitous event and addressing long-term processes which have contributed to these effects. The work of various scholars (Blaikie *et al.* 1994; Pelling 2003; Nowak and Caulfield 2008) suggests that the two issues cannot be divorced: a disaster's impact falls hardest on those people who have been rendered particularly vulnerable by political, economic, demographic, and environmental developments. This point alludes to the book's failure to properly contextualize the history, politics and society of pre-tsunami Aceh.

The shortcomings of post-tsunami rebuilding are also evident in the chapter on cultural heritage. Patrick Daly and Yenny Rahmayati highlight the failure to take into account the "intangible" cultural aspects of reconstruction. The power of international NGOs and the emphasis on "expertise" have hindered Acehnese's efforts to rebuild their society. Imposed from above, the rehousing program has alienated women and created jealousy among villagers. The paper underscores a recurring theme in the book that any form of reconstruction must be meaningful to the survivors.

Saiful Mahdi's chapter on migration provides valuable insight into the socio-cultural resources of ordinary Acehnese and how they have been undermined by the "double disaster" of the tsunami and subsequent relief operation. Here again, the distinction between acute and chronic forms of disaster and deprivation blurs, as Saiful discusses how Acehnese have customarily moved between areas in search of livelihood opportunities, aided by social contacts based at the destination site. He notes that the rehousing program has created forced mobility and immobility by moving survivors to inferior barrack housing or splitting up members of communities, in effect weakening their social capital. Saiful's insights are a welcome addition to a growing body of literature on "cultures of disaster" and the coping mechanisms of communities that may differ from the rationalist, expertise-driven approaches of international humanitarian groups (Bankoff 2003; Aldrich 2011).

As a sum of two parts, the book does not adequately conceptualize the link between disaster response and conflict resolution. Whether the connection is more than temporal is worth exploring. The editors suggest (p. viii) that the scale of the tsunami contributed to the Helsinki agreement, and that humanitarian assistance needs to embrace the survivors of both the disaster and conflict. However, there is some evidence that the two issues are not necessarily aligned. Michael Morfit's chapter warns against exaggerating the "tsunami factor," as the Indonesian government's efforts at conflict resolution had begun before the disaster. There is also evidence (see the contribution by Rizal Sukma; Zeccola 2011) that by prioritizing disaster relief, humanitarian assistance has alienated Acehnese affected by the conflict.

The book raises important questions about recovery from disaster and conflict. There is increasing recognition of the failings of transnational or privately-organized reconstruction efforts (see also Gotham and Greenberg 2008, on 9/11 and Hurricane Katrina) and of the need to be atten-

tive to context. That the problems persist despite the experiences of recent disasters says something about the fraught network which connects international NGOs, states, and survivors. To restructure the network is beyond the means of the book, but *From the Ground Up* does suggest what scholars and practitioners may accomplish when they base the recovery program on the perspectives and resources of the survivors.

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## *From Modern Production to Imagined Primitive: The Social World of Coffee from Papua New Guinea*

PAIGE WEST

Durham and London: Duke University Press, 2012, xvii+316p., with illustrations, endnotes, and index.

If you're reading this with a cup of fair-trade, organically grown, single-origin coffee in your hand, feeling virtuous because your ethical purchasing power is helping to create a better world for disadvantaged coffee growers in the global South, consider this. Paige West argues that fair-

trade, organic, and single-origin certification schemes in Papua New Guinea “bring with them fully formed prescriptive regimes of governmentality which were developed elsewhere and based on a value system separate from those of most Melanesians.” Moreover, the images used by marketers to “add value to coffee from Papua New Guinea in the global marketplace” not only fail to “reflect the lived experiences of people in Papua New Guinea”; they also “replicate neoliberal logics in ways that are ultimately detrimental to the social worlds and lives of the people growing coffee” (p. 23).

*From Modern Production to Imagined Primitive* “examines the world of coffee from Papua New Guinea, including its political ecology, social history, and social meaning, in order to contribute to anthropological discussions about circulation and neoliberalization” (p. 2). Chapter 1, “The World of Coffee from Papua New Guinea,” introduces the ways in which coffee production connects Papua New Guineans with the rest of the world and discusses concepts of labor and value, anthropological analyses of commodities and their circulation, and neoliberalization as both a philosophical worldview and a set of policy-related discourses and practices. Chapter 2, “Neoliberal Coffee,” outlines the global political and economic changes responsible for the specialty coffee industry and the marketing, advertising and circulation networks that surround it. With a keen eye for the ridiculous, West introduces the truly awful “Mr. Nebraska” and his aggressively simplistic seminar on marketing coffee to different generations. She then presents the specialty coffee-roasting company Dean’s Beans, which considers itself “an emissary of peace and positive social change” to the downtrodden, exploited coffee growers of Papua New Guinea’s Highlands, all of whom supposedly don paint, tusks and feathers on a daily basis (pp. 39–41). Against this disturbing backdrop, West analyzes the deregulation of the global coffee industry, the rise of specialty coffees, and the ways in which voluntary regulatory systems and certification standards manipulate both producers and consumers. She shows that images and fantasies created and perpetuated by the coffee industry depict coffee growers in Papua New Guinea as isolated primitives who must be helped to progress along a linear scale from indigeneity to modernity, protected from the machinations of scheming “middlemen,” and prevented from jeopardizing “the ecological stability of their pristine forested lands” (p. 65). Real Papua New Guineans who do not fit these stereotypes “are considered not only less authentic but also less deserving of the rights to their traditional lands and livelihood strategies” (p. 59). The same images and fantasies conceal the social relations of coffee’s production while convincing consumers that they can enact their personal politics by paying higher prices for products with ethical labels. The images which market meaningfulness to consumers, West argues, replace history and society with fantasy and “set the stage for dispossession” (p. 66).

Chapters 3 through 7 examine the coffee industry in Papua New Guinea both historically and ethnographically. “Historic Coffee” summarizes the history of the coffee industry in the Highlands of Papua New Guinea and shows the historical development of the physical, social, and ideological

routes by which coffee travels today. "Village Coffee" describes the lives of Papua New Guinean coffee growers and the meaning of coffee within local concepts of place, space, and subjectivity, focusing on the Gimi-speaking inhabitants of Maimafu village in the Eastern Highlands Province. Moving outwards, "Relational Coffee" deals with the routes, machines, and people that connect Maimafu with the rest of the world, together with the social relations they entail. West is concerned to show that "the social and material labor of so-called middlemen," contrary to the negative claims of contemporary coffee marketing, is in fact "crucial for the movement of coffee" and central to the lives and selves of the individuals in question (p. 132). "National Coffee" describes the lives of people in the processing and exporting center of Goroka and the international port of Lae. Finally, "International Coffee" tracks Maimafu coffee beyond Papua New Guinea to the lives and understandings of coffee importers, coffee shop patrons, and college students in Germany, the UK, Australia, and the United States.

West balances vivid description with thoughtful analysis throughout, avoiding the temptation to oversimplify the complex and often contradictory ways in which coffee helps shape people's lives. She depicts multidimensional characters with ambiguous experiences: Seventh-Day Adventist mission pilots who fly rural coffee to the market despite the critical reactions of their home congregations, seeing their transport of a stimulant prohibited by their religion as a way of linking rural people to cash and development and subsidizing free flights to emergency medical care; Sara and Ellen from Maimafu, who are concerned by the effects of rising labor burdens on women's health and socially reproductive practices, but also value the time they spend harvesting coffee as a rare opportunity to socialize with relatives living at a distance; Brisbane-based coffee importer Trevor Bruce, who deploys primitive images to compete in the marketplace but is nevertheless uneasy about using coffee to "paint a picture of Papua New Guinea that is not true" (p. 211); and undergraduate students who contradict Mr. Nebraska's glowing depiction of politically active "millennials" by knowing "almost nothing about specialty coffee" or the adverse effects of neo-liberalization and caring less (pp. 38, 233).

I was disturbed by West's apparently unproblematic acceptance of the real existence of race. Her understanding of this concept, though not precisely defined, appears to float somewhere between national origin and descent: she explains that the world of Papua New Guinea coffee is "multicultural and multiracial in that its participants are from Papua New Guinea, Australia, the United Kingdom, India, the Philippines, South Korea, and the United States," but also refers to a factory owner in the Eastern Highlands Province, the son of an Irish Australian and a woman from Hagen, as being of "mixed race" (pp. 10, 166, 175). I do not doubt that ideas of racial identity combine with understandings of cultural difference and markers of social and economic privilege to shape "how power and privilege are understood and how people react to them" in Papua New Guinea and beyond (p. 177). However, West's implicit assumption that the world's inhabitants can be meaningfully classified according to genetically determined somatic characteristics has been

profoundly and repeatedly challenged by both historians and scientists. Importantly, concepts of biological inferiority and the racial hierarchies they produced are also closely implicated in the “troubling set of fantasy images of Papua New Guinea” that West rightly deplores (p.29). The book would have benefited from a clear explanation of the problematic nature of the concept of race and the complex and contradictory ways in which it has been and continues to be used.

This caveat aside, I found *From Modern Production to Imagined Primitive* both engaging and thought-provoking. It will interest students of Papua New Guinea’s history, economy and culture, scholars of development, globalization and commodification, and all those who, like myself, had hoped that the extra dollars they spent on certified coffee might somehow trickle down to help its less privileged producers. Idealists: you have been warned.

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### ***Southeast Asian Independent Cinema***

TILMAN BAUMGÄRTEL, ed.

Hong Kong: Hong Kong University Press, 2012, 304p.

The prolific production of independent films in one of the fastest growing economic regions of the world impels filmmakers, critics, and scholars to seriously study Southeast Asian (hereon referred as “SEA”) cinema as a distinct area of filmmaking within global cinema. *Southeast Asian Independent Cinema*, edited by the German scholar of Southeast Asian cinemas Tilman Baumgärtel, is a contribution to the growing discussion of SEA cinematic developments.

Essays that constitute the book’s first part identify the conceptual framework and themes in recent Southeast Asian indie films. John Lent’s definitions of “independence” in terms of governmental regulation, financing, and fresh styles and methods of filmmaking may serve as an index through which cinemas in the region are to be examined. The editor’s own essay extends Benedict Anderson’s “imagined communities” to film and television in the region but hesitates to argue that indie movies are not as popular as other media (such as television melodramas and mainstream films), thereby making contentious the idea that through independent cinema, the peoples of Southeast Asia imagine and construct their communal identities. If so, this is only at a very limited level. Indeed, there may be a “strategic essentialism” here in the sense that the national or cultural essences posited by non-Southeast Asians in the region’s indie productions are largely ignored by Southeast Asians themselves. What are the objectives of SEA filmmakers in portraying different realities—poverty, local traditions, etc.—in different lights, when these themes are largely not patronized by their fellow citizens presumably hooked on technologically superior Hollywood and

“escapist” local films?<sup>1)</sup> To these problems of relevance to a national audience, Baumgärtel offers the possibility of seeing such films in a “post-national” context. His application of anthropologist Arjun Appadurai’s dimensions of the global cultural economy raises important issues: the multi-national productions of SEA indie films, the immigrant nature of SEA indie filmmakers, international financing, government support, the utility of internet social networking programs, relations with local audience, ingenious distribution techniques, exposure to world/other cinemas that inspired SEA directors to make their own films, video piracy, and the socio-political subject matters in contemporary SEA indie cinema. In conceptualizing the region’s independent cinema, Baumgärtel pertinently points out the difference between the “imagined worlds” of SEA filmmakers and those of their fellow citizens and governments. It is this difference that plays out the multifarious contradictions that continually debate notions of independence in SEA cinema.

Alfia Bin Sa’at and Ben Slater analyze the fraught film histories and geographies of Singapore in light of its separation from Malaysia and its exceptional development in the last half century. Sa’at’s “Hinterland, Heartland, Home: Affective Topography in Singapore Films” explains the shared film histories of Malaysia and Singapore and looks at contemporary Singaporean films in light of the studio era (1950s and 1960s) the specific history of which the small country surrenders to Malaysia. The urban-rural dialectic in the “revival period” (1990s) of Singaporean cinema traces its origins to the post-war (note: Malaysian) studio era when the *kahwin lari* narrative (marriage of lovers from different class backgrounds) dominated. Films of the 1960s and 1990s have a striking similarity in that they create the hinterland or the rural area—now the “heartland” in highly urbanized Singapore—as “ideal and morally upright” while opposing this to the “developed but corrupting” topography of the city. Now, the *kampung* or village life is only inscribed in the autobiographical accounts of those who have lived in it, and hence, according to Sa’at, “the social trauma of hinterland-to-city dislocation becomes a kind of inherited post-memory” (p. 50). Slater offers several successful indie films made by Singapore’s most conscientious young directors as a counterpoint to the deracinating attitude of the island-city towards its past and some of its citizens. Natalie Böhler’s “Fiction Interrupted” talks about how independence from mainstream has allowed Thailand’s indie directors to experiment on filmic narrative forms of storytelling that develop from local sensibilities. Particularly, the aesthetics of cinematic discontinuity—exemplified “in editing as continuity errors, in the disruption of diegesis through metafictional elements, in the artificiality brought about by stylistic excess, as well as in the synchronization of image and sound” (p. 62)—in Mingmongkol Sonakul’s and Apitchatpong Weerasethakul’s works demonstrate a more creative performance and “truthful” representation of people’s realities. This is especially salient to a recent study (Lim 2011) arguing that the “fantastic” in Asian horror films provides a temporal critique

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1) Yet journalistic and literary productions of the bygone days had very limited audience, as well, perhaps fewer than what indie films of today, reach, considering the literacy rate then.



through a representation of “immiscible realities” (“otherworldly” creatures making themselves felt—inflicting horror—in “modern-day” life) that reveal the inability to co-opt or insert supernatural agents into the “homogeneous empty time” of the present.

The most thought-provoking pieces in the collection are those tackling the variegated character of Indonesia’s post-*reformasi* independent cinematic production. Here, the possibilities arising from the radical convergence of independence in the fields of politics (post-dictatorship) and culture (the presumed freedom of expression seized by independent filmmaking) are too important to ignore. The “reform” period following the resignation of President Soeharto after three decades of the “New Order” (comparable to the Philippines’ New Society under Ferdinand Marcos and Malaysia’s Mahathir period) paved the way for, and was itself a product of, the intense democratization struggles of the Indonesian people. Tito Imanda looks at some “entertaining” mainstream movies that, while not “teach[ing] the new Muslim middle class anything new about Islam . . . give the constituent of this market . . . a chance to confirm their beliefs, values, and morals in the public sphere” (p. 103), and compares them to independent films that specifically cater to a politically religious audience. David Hanan’s discussion of the observational documentary in Indonesia probes the possibilities of agency for the nation’s ethnic minority within a genre that documents and therefore “objectifies” them, but also offers them an opportunity for participation in democratic life, as subjects in and of history.

Intan Paramaditha shows how censorship has become central to the government’s regulation of the depictions of sexuality in films. By “exclud[ing] what the nation is not” (p. 71), Indonesian censors regulate bodies and sexualities and their attendant filmic representations. The paternal state is at pains to contain the “excess of *Reformasi*’s euphoric freedom” (p. 79) and legitimizes strict control through the treatment of the citizens as “infantile” (p. 86) and “easily-influenced youth” (p. 79), thereby clashing against the youth’s significant role in *reformasi*. Paramaditha’s dense essay is attentive to fresh problems arising from women directors’ aggressive filmmaking and raises questions on the kind of people represented in films, how they are represented, the filmmaker’s distance from the subjects they represent, and the politics of representing others.

This section could have benefited from brief historical discussions of the advent and progress of independent filmmaking and the socio-political developments in the region, as had been done in a related work on non-Western cinemas (Armes 1987). Indeed, the general attention that SEA has been enjoying for some time now owes a lot to its stronger economic presence, more so now that other regions are experiencing economic downturns. Is the relative economic independence that SEA nations enjoy now conditioning independent filmmaking and independent “ways of seeing”? How does SEA indie cinema express the fraught connections between filmic expression and the intense and complicated nature of wider socio-cultural transformations happening in the region today?

Part Two offers primary sources, presenting important documents on the aesthetics and

politics of several SEA independent filmmakers. The section contains different manifestoes by a group of 12 Indonesian filmmakers and one Filipino director, delving mainly into questions of styles of filmmaking, logistics, freedom of expression, and originality. Khairil Bahar and Tan Pin Pin share how they were able to make and show their very popular productions to their respective audiences. People in indie productions can relate to Bahar's "begging, borrowing, and stealing" (p. 129) to make *Ciplak*, a reflexive film on how a Malaysian imports pirated discs from his native country to support himself in London. It is commendable how Tan inverted the process of distribution by going to the audiences themselves to exhibit *Singapore Gaga*, a movie on Singapore's rapidly disappearing sonic-aural memory. Gathering his article in the *Philippine Daily Inquirer* and some indie directors' responses to it, the essay by the editor in this section imparts the vigorous debate on the merits of digital films for Philippine cinema. Previously seen as God's gift to filmmaking, the digital camera also poses serious limitations on image clarity, filmmaker's training, and the audience's taste and their own cinematic standards. To these challenges, Filipino indie directors fittingly raised the need for an adequate infrastructure and the unrelenting education of the directors themselves.

Interviews that comprise the anthology's third part present more spontaneous thoughts on filmmaking concepts and practices by SEA indie directors. Here, the reader learns about director Brillante Mendoza and screenwriter Bing Lao's deft "material aesthetics," which uses "found story," "found place," and "found noise" (p. 167) to make an inexpensive story. Nia Dianata heaves a sigh on how *reformasi* is "over-rated" (p. 205) because Indonesian cinema is still censored and the distribution process is monopolized. Eric Khoo's work of showing the disappearing aspects of Singapore society and the innovative molding of characters in light of the lack of professional actors is laudable. Filipino director Lav Diaz's take on digital as "liberation technology" (p. 177) may be an uncritical celebration of technological form which Malaysian director Amir Muhammad rightfully addresses by positing the "ontological relationship between the technology and the product" (p. 232) where the kind of stories and people using the camera are more important.

Thai director Pen-ek Ratanaruang agrees with Baumgärtel that his work is part of an evolving new cinema that is "not bound by national traditions anymore" but is "directed towards some transnational or cosmopolitan group of people that share certain traits, interests and attitudes" (p. 197). This echoes Weerasethakul's claim that he does "not represent any nation or any country" (p. 189). The auteurist turn this development implies has been aptly identified by Baumgärtel as relating to the "economic ascent" and "emergence of a new bourgeoisie" in Thailand (pp. 197–198). It is interesting to study whether and how indie cinema has become the entry point into the mainstream by many indie directors. Malaysian director Yasmin Ahmad's hatred of "arbitrary divisions of people" embodied in a filmmaking style focusing not on the nation but humanity, "character" and "daily interactions" (p. 249) is a broad, albeit abstract (because character is unmarked and undifferentiated), principle on filmmaking.

Perhaps Baumgärtel's most problematic limitation is that he still evaluates SEA cinema from the perspectives of a Western-dominated global filmmaking industry. The anthology begins with two Southeast Asians, the Thai Weerasethakul and the Filipino Mendoza, earning accolades at the Cannes Film Festival. It is as though SEA filmmakers remain in the dark until the light of Western recognition shines upon them. In his interview with Weerasethakul, Baumgärtel interprets the director's image diaries as works of a "totally globalized filmmaker" whereas Weerasethakul himself says that he makes those diaries "in order not to forget" his experiences (p. 188). What for one is a consumerist drive to collect images by a subject presumably transcending differences is for the other an active work of remembering, of inscribing the "local," the "native." Related to this is one critic's caution, in the project of finding new ways of seeing SEA cinema, against seeing the region's films as a "reaction" to, or "imitation" of, not only Hollywood but also "the film industries and cultures of Hong Kong, Japan and India" (McKay 2006).

While interviews with Ratanaruang and Ahmad may confirm this aspiration for globalism and transnationalism, it is necessary to analyze how SEA filmmakers struggle against the problems of limited budgets and technologies and the more-important challenge of addressing their compatriots in the process of reaching out to a "universal" audience. Baumgärtel himself touched upon this aspect in claiming that "access to digital video . . . made possible this democratic cinema revolution in a part of the world that is otherwise not known for its democratic disposition" (p. 2). What is interesting is how these filmmakers have surprisingly made and are continuing to make films *in spite of* the repressive politics of their governments and non-state groups hostile to their endeavor.<sup>2)</sup> In a sense, independent cinema is "critical cinema," and "capable of surprising viewers and catalyzing critique" (MacDonald 1998, 1).

An image on the cover of the collection may be taken as a reflexive vision of SEA independent cinema itself. A young man working in a decrepit second-run movie house that has become residence of a poor family and service venue for prostitution abandons the place in search of change, looking for a glimpse of freedom.<sup>3)</sup>

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- 2) During the Marcos era in the Philippines, the dictatorship granted institutional support to independent filmmakers to make Philippine cinema "a showcase of cultural democracy" (David 2008, 232), by this means deflecting people's anger over severe economic crisis and a repressive socio-political situation away from organized protest and toward escapist and, in some cases, even prurient pastime. The presumed opposition between mainstream and independent cinema doesn't hold, in this case.
  - 3) Then again, the actor who portrayed that role, Coco Martin, has effectively moved from indie cinema into the mainstream. He is now one of the top-billed actors in the Philippine film and television industry.

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### *The “Other” Karen in Myanmar: Ethnic Minorities and the Struggle without Arms*

ARDETH MAUNG THAWNGHMUNG

Lanham: Lexington Books, 2012, xxxii+197p.

For decades, the face of the Karen people to the outside world has been rebels fighting the Government of the Union of Myanmar. The year after independence following an Arakanese rebellion and an insurrection by the Communist Party in 1948, different elements of Karen-led army units broke away from the government and eventually coalesced with yet other armed groups under the leadership of the Karen National Defense Organization.

In a country run by a military government and all but closed to international researchers from 1962 until recently, the Karen rebellion was viewed by many as a valiant (although increasingly futile) stand for minority autonomy against oppression. The largely Protestant leadership of the rebellion evoked sympathy from outside the country especially in North America so much so that the Karens were sometimes mistakenly seen as predominantly Christian.

What most observers did not realize, however, was that Karens involved in the rebellion constituted only a small minority of the Karen population in the country and that by far most Karens were not Christian.

These misunderstandings are not surprising. There is a lack of access to the country's minority areas with travel restrictions impeding contacts even by the country's citizens so that nobody, local or expatriate can do field research. With the main avenue of understanding ethnic relations coming from refugees on the Thai border, who often are sympathetic to the Karen National Union (KNU), it is clear how misunderstandings about Karens developed and grew.

Now a big step has been taken towards filling this gap with Ardeth Maung Thawngmung's book, *The “Other” Karens*. Even before opening the book one gets positive feelings from favorable

comments on the back cover by Robert Taylor and Ashley South, two scholars who do not always agree on the area's ethnic peoples.

The author is eminently prepared to study this subject. She studied at some of the best institutions of secondary and higher learning in the country and also had access to indigenous Karen networks. She writes (p. xxi) that "As a Karen, I have had privileged access to the community and information that are not easily accessible to foreign researchers." Through family connections she got to know leading scholars such as U Tun Aung Chain, an ethnic Karen who understands perhaps better than anyone the position of Karens in the country. Besides serving on the Myanmar Historical Commission, Stanford (as he is often called) is scrupulously honest and impartial, something recognized by the KNU in consenting to his serving as translator for its ceasefire negotiations with the government. Fluent in Karen, Burmese, and English, the author also was able to visit refugee camps in Thailand as well as cities across the United States and elsewhere to meet Karens.

She also importantly had the determination and patience to see this study through. She comments that her research aroused suspicions among Karens about her motives as well as doubts among KNU supporters that she was not faithful to the cause of the rebellion. She writes (p. xxiv) that she could not "count the times I was tempted to abandon this project as a result of the emotional stress and moral dilemmas involved in pursuit of it."

Partly this is because the Karen population is diverse and politicized. It is also subject to so many variables that no precise definition is possible. Discussions over the issue have not settled what Karenness is since anthropologist Peter Hinton asked, "Do the Karen really exist" in 1983. The fact is, as Hinton wrote, that they (an indefinite term at best) have no common identity.

Even seemingly definitive factors, such as fluency in one of the Karen languages, cannot conclusively determine whether one is or should be considered Karen. There are now thousands of individuals claiming "Karenness" while not speaking a Karen tongue—a well educated Karen in Chiang Mai once told me, "The Karen of Prome are perfect Karens but they cannot speak one word of Karen." When asking a high-ranking Burman government official in Naypyitaw whether this could be true, he replied, "Of course . . . my wife [is such a person]."

There are millions who do identify themselves as Karen (or with such terms as *Pgakanyaw*, *Phlong*, *Kayin*, and *Kariang* that almost inevitably denote being some kind of Karen). Most are Buddhist with an admixture of Karen religious beliefs. About 90 percent live in Myanmar (and mostly refer to the country as that).

The actual number of the "other" is estimated in the book (p. 65) as not less than two million. Given the politics of the country as well as issues of definition, there can be no more accurate estimate. As for the KNU, the author's "generous" estimate of 10,000 members (p. 65) may actually be low if one considers the thousands of people in conflict zones who (often out of desperation) support the KNU. The author cites KNU authorities who mention the need for such help (p. 63), one of her sources even claiming that the Office of the United Nations High Commissioner for

Refugees (UNHCR) was committing “genocide” by relocating Karens to third countries by depleting its “mass base.” Reports of the Karen Human Rights Group and the Free Burma Rangers (as well as others) and publications, such as *Undaunted* (2010), by a Karen woman, Zoya Phan, detail the many contacts between the KNU and ordinary Karen in or near conflict zones, all of which makes it likely that a more generous estimate of the size of the KNU is appropriate. Still it constitutes a small minority.

The discussion of Karens is placed within a larger framework as seen from the subtitle: “Ethnic Minorities and the Struggle without Arms.” The introduction (p. xx) states that “This book examines the ‘other’ or ‘quiet’ minorities who are members of ethnic groups associated with well-known armed resistance organizations yet do not take up arms.” She adds (p. xxi) that her study “examines the circumstances that set them apart . . . the nature of the relationships between the quiet minorities and their rebel counterparts and assesses how these intra-ethnic differences and divisions affect the armed resistance movement . . . conflict resolution, and political reform.”

The author’s interest in this topic was influenced by her being an “other” Karen. Another factor important to her was that the quiet members of minorities with armed resistance groups have been understudied. Citing James Scott, she comments (p. 3) that remaining quiet is more common than taking up arms (as shown by the few members of the KNU). Chapter 1 discusses the political significance of other minorities. The author tells that she is contributing to bringing other minorities into the study of ethnic politics.

Chapter 2 builds on the author’s previous work, *The Karen Revolution*, in which she argued that recognizing that Karen peoples have voices beyond that of armed resistance and that recognizing this would contribute to harmonious communal relationships, peace, and stability. She discusses how disparate peoples developed a pan-Karen identity and the impacts this has had on Karen-Burman relationships.

In Chapter 3 the author reviews the “various elements of the constituency” that the KNU “claims to represent.” The chapter’s sections include government-controlled zones, rebel-controlled and contested zones, refugees, and Diaspora. In the section on government areas, the author focuses almost entirely on the Karen Baptist Convention which is an umbrella organization dominated by Sgaw Karens with 18 regional sections. The author tells (in parentheses p. 67) that she is focusing on Baptists rather than Anglicans, Catholics, or Buddhists.

While this focus is justifiable in a case study, in the grander work she has written, the author should have mentioned her target group earlier and openly. This is important because the KNU claims a large constituency. The November 1986 edition of the *Karen National Union (K.N.U.) Bulletin* (which called itself “a news organ of the Karen National Movement”), identified 12 groups: Sgaw, Pwo, Paku, Bwe, (and some related groups), Keko, Red Karen, Maw Nay Pwo, White Karen (in the “Sgaw family” but living apart), Black Karen, Striped Karen, and Pa-O, collectively covering

a large area of the Delta, Pegu Yoma, border areas, the Salween River watershed, and Kayah State. She could then have discussed how the KNU's political agenda disagreed with how most Red Karen and Pa-O envision themselves from where she could have explored KNU relationships with the different groups who do consider themselves Karen. This would have contributed to the larger arguments she is making.

Chapter 4 reviews the circumstances that led some Karen to join the KNU and others not to, even to the point of rejecting the KNU. Major factors included the place of residence, with Karen living in conflict zones as more prone to join the KNU than those living elsewhere. Competing identities was another factor with some Karen opting for being a Myanmar citizen, a Buddhist or joining some other group. Others lacked alternatives with either the KNU or the government forcibly conscripting them.

As a part of the author's aim to place the Karen into a comparative framework, Chapter 5 deals with "other ethno-nationalities in Myanmar/Burma." Following brief introductions to some armed ethnic movements, the author identifies three patterns of behavior, namely: 1) conducting activities that support the status quo (such as working for the government), 2) conducting activities undermining the status quo (such as joining ethnic-based parties), and 3) promoting ethnic identity and addressing humanitarian needs (such as through civil society groups or certain NGOs).

In the conclusion, the author compares the experience of "other" Karens with non-combatants elsewhere such as the Moros in the southern Philippines, the Palestinians, Kurds, and the Tamils in Sri Lanka. In identifying similar issues of competing loyalties as well as governmental divide-and-rule strategies, she clearly shows that the situation of minorities, such as the Karen is not unique, that non-participation is common and often constructive, and that there is room for productive comparisons.

As a pioneering effort, this work explores areas barely touched for decades in academic research. The author's linguistic skills, personal contacts, and intellectual ability (aided by a slowly changing political situation that tolerates some research) have significantly contributed to her work, especially to understanding Karens.

However, as with many pioneering efforts, there are shortcomings such as the inadequate discussion of the "KNU's constituents" and also a bibliography that curiously omits the several Burmese-language book on Karens including some sponsored by the government. Her discussion of Karen writing (p. 25) would also have profited from reading William Womack's dissertation (2005) on the development of Sgaw and Pwo written scripts which also would have enhanced her discussion of the totality of Karen peoples.

However, she surely has made significant overall advances in scholarship. This book examines the entire Karen population in English for the first time since Harry Marshall's ethnography of 1922. Ethnic relations in the country have been placed in a comparative framework that can serve as a basis for further work in the country as well as with groups elsewhere. Ardeth Maung

Thawngmung has, with her many gifts, the potential to produce more insightful studies in the future that will be warmly welcomed by all interested academics.

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## *Religion, Politics and Gender in Indonesia: Disputing the Muslim Body*

SONJA VAN WICHELEN

New York: Routledge, 2010, xxvi+154p.

Democratization and Islamization are the two most important developments that are shaping and influencing the socio-political landscape of Post-Suharto Indonesia. As the biggest Muslim majority country in the world, Indonesia is considered by many to have undergone a successful transition from authoritarian to democratic governance despite some limitations. A new democratic process has also witnessed the growth of Islam in Indonesia. It is generally understood that contemporary Indonesian Islam in the post-Suharto era has shown a decline in political Islam (as indicated by the weakening of Islamic political parties). However, to borrow a term, “social Islamization” is showing signs of progression (Ota *et al.* 2010, 5). This is clearly indicated by an increase in the publication of Islamic books, the popularity of veiling, a lively discussion of Muslim women’s rights, the emergence of a new generation of Islamic preachers, the growing attention accorded to the Islamic banking system, and the commodification of Islam.

This book was written in the context of the progressively changing democratization and Islamization, in which Islam has gradually moved to the center stage of Indonesian society and shaped its public sphere. Sonja van Wichelen notes how these two important developments, along with globalization (pp. xiii–xv), have enabled vibrant debates on social-cultural issues, Islam, gender, and politics to flourish and subsequently involve various actors with different ideologies. This book originated from a PhD thesis submitted to the Amsterdam School for Social Science Research (ASSR), the Netherlands, and builds on the author’s criticism of the current state of



scholarship on Islam and democracy, which she believes has mainly dealt with a debate on the compatibility of Islam with liberal democracy. Sonja tries to go beyond the classical debate. By using gender politics as a tool of analysis, she investigates how Muslims are *making* Islam compatible with democracy and negotiating their religiosity in the public sphere and within the nation-state (p. xiii). Although media analysis is the main research method used, she has also gathered data through fieldwork and interviews with more than 60 Muslims and women's organization activists collected over three periods (2003, 2004, 2005) adding up to a total of 12 months, mostly in Java (p. xxiii).

Media analysis is an important research method in this book. Sonja presents an empirical analysis of public debates on Islam and gender, focusing on four cases in post-Suharto Indonesia (all mass-mediated through print and electronic media). These were the female presidency, the manifestation of new veiling practices, the pro-polygamy campaign, and the contestation over public sexualities. Discourse analysis encompasses three analytical levels, namely, representation, discursive context, and social practices. These are used in this book to understand and analyze the four cases (p. xxiv). Throughout the six chapters, the book develops the argument that "public debates on Islam and gender in contemporary Indonesia only partially concern religion and more often refer to shifting moral conceptions of the masculine and feminine body in its intersections with new class dynamics, national identity and global consumerism" (p. xv).

While the book presents interesting facts on, and assessments of, the public debates on gender and Islam in contemporary Indonesia, it would have been better if the author had also addressed the following points. First, in delineating the context of the study in Chapter 1's democratization "Muslim Politics and Democratization," it would have been more useful if the author had clearly and thoroughly mentioned some fundamental socio-political features earlier on in the book. For example, the book did not adequately address the phenomenon of the growing practice of veiling among Muslim female high school and university student followers of the *Tarbiyah* (education) movement as an example of the explicit impact of *Tarbiyah* movement that emerged on university campuses since 1970s (p. 4). Here, in fact, this phenomenon is too interesting to be overlooked, as it provides an important clue to understand the changes in the relationships and identities of young middle class Muslim women vis-à-vis Islam and the nation-state in late New Order Indonesia. The growing adoption of veiling among Muslim female high school and university students mainly based in Java since 1980s serves as one of the important stages in the relationship between Javanese women and Islam as part of the identity formation of becoming Javanese Muslim women (Kurniawati 2012). The adoption of veiling does not simply indicate the elevation of individual's status, but also reflects a collective action to engage in the identity politics of Muslim women. This is in response to Suharto's strong grip on political Islam, and its strong control over Indonesian women, including Muslim women, through its dominant narrative of politically defeated women during the New Order (*ibid.*, 126–127). This point is crucial to understanding the pros and cons of

the growing adoption of the veil by high school and university students in 1980s. It fleshes out some of the detailed stories concerning Suharto's resistance and a shifting policy toward Muslim organizations and movements in 1991 (see Alwi and Fifrida 2002). Although veiling is one of the cases investigated in the book, the author makes only cursory references to and analysis of veiling practices in the 1980s, and skips the earlier periods to focus on cases after the 1990s (p. 45).

Second, while the author discusses the socio-political and historical context, Chapter 1 could have been rewritten more effectively to prevent confusion. For example, following the history of socio-political changes in Indonesia from the New Order to the post-Suharto period, the section "Exposure of liberal Islam" (p. 7) should have come after the section of "The Islamic turn" (p. 9). This is because historically, the emergence of liberal Islam is a new phenomenon in the 2000s; thus, it is not appropriate to be positioned so early after the section "Fluidity of Islamist movement" (p. 4). It would have been more effective if the order of the socio-political changes were revised in the following order: "Fluidity of Islamist movements," "Islamization and new publicness of Islam," and "The Islamic turn," followed by "Exposure of liberal Islam." This would not only help the general reader gain an understanding of the Indonesian socio-political changes in proper historical sequence, but also reduce the redundancy of repeated mentions of some points (such as the *Tarbiyah* movement and the *pembaruan* [renewal], etc).

Third, in explaining the features of the New Order gender ideology in the section on "Gendered interventions" (p. 15), the author cites Julia Suryakusuma's work in depicting the New Order gender ideology as State *Ibuisim* ("state motherism") (p. 16). However, it would be more meaningful if the author could provide a comprehensive explanation as early as possible in the book on how this ideology actually worked in practice, for example, for urban middle class women via *Dharma Wanita*, and for lower-class women via Family Welfare Programs (Pembinaan Kesejahteraan Keluarga, PKK) (see for instance Blackburn 1994; Robinson 2000). The author's explanatory note, I feel, comes a bit too late on page 39 under the section "Desexing Megawati" in Chapter 2 ("The Debate on Female Leadership").

Fourth, the discussion in Chapter 3 ("Formation of Public Piety") of the spread of the practice of veiling in Post-Suharto Indonesia, I was surprised by the author's statement on page 48 that "Traditionalist women wore the loose *kerudung*, which most often came in different colors. Modernist women, on the other hand, often rejected the head-covering, regarding it as a custom of traditionalist Islam" (p. 48). This is an unusual statement because it differs from the common understanding of the different practices of veiling between traditionalist Islam (*Nahdlatul Ulama*) and modernist Islam (*Muhammadiyah*). As far as I know, *Muhammadiyah* especially its women's wing ('Aisyiyah) is well known for its pioneering work to introduce veiling since 1920s as part of its effort to promote new a Islamic identity of *wanita sholehah* (pious women in Islam), though initially limited among Javanese Muslim women in Kauman Yogyakarta (see Lin 1952; Kurniawati 2007, 39–42). In contrast, women in *Nahdlatul Ulama* adopted the veil much later, albeit in a more

tolerant manner, since they believed that an “open *kudung*” was the rule, and they did not talk about the *jilbab* (a tighter *kudung*) prior to the 1980s (see Feillard 1999). Interestingly, we can see on page 67 that the author’s early statement contradicts with the author’s later assessment obtained from an interview with an informant from Nasyyatul ‘Aisyiyah (women youth wing of *Muhammadiyah*). To some extent, this narrative reflects an interesting notion, yet there is ambiguity in how the author understands the basic differences in veiling practice between *Muhammadiyah* and *Nahdlatul Ulama*.

Fifth, while there is a good analysis of public debates in the four cases on gender and Islam, I expected to read more in terms of interview results—with the more than 60 respondents mentioned earlier in this book (p. xxiii) to support the narrative developed from the discourse analysis. I found only a few of the author’s original interviews presented in this book. It would have been far better if the narrative developed through discourse analysis had been accompanied by firsthand interviews with the related figures. This would have been central in the case of Puspo Wardoyo and the polygamy campaign, AA Gym, Inul Daratista, etc. A clearer presentation that highlighted the voice and agency of respondents involved in the debates would have helped generate deeper insights into related public figures. This could have facilitated the analysis while reducing the likelihood of misinterpreting the phenomenon, given that some media present certain ideologies or narratives that steer public opinion in response to some sensitive cases, such as female leadership or polygamy.

Despite the above limitations, this book is quite successful in giving us snapshots of the current developments of gender, Islam, and politics and their relation to globalization and consumerism in post-Suharto Indonesia. This book provides an interesting discussion of the vibrant discourse in the four important cases, not only between secular and Islamist players but also among Muslims themselves. This in turn underscores the greater role of Islam and Muslims in shaping the public sphere and contributing to the making of the nation-state in post-Suharto Indonesia. This book is able to present interesting data on the making of modern Indonesian citizens. It does so by presenting new images of a rising Muslim middle class made up of modern Muslim women and men, while tracking the shifting notions of masculinity and femininity in the new images of manhood and womanhood developing in post-Suharto Indonesia. This book is recommended for students or those who are interested in Islam, politics, gender, and Southeast Asian studies, and provides a general preliminary understanding of the current developments of Islam, gender, politics, and democratization in post-Suharto Indonesia, the biggest Muslim-majority country in Southeast Asia and in the world.

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## *Mapping the Acehese Past*

R. MICHAEL FEENER, PATRICK DALY, and ANTHONY REID, eds.  
Leiden: KITLV Press, 2011, xvi+292p.

One of the underlying themes in this edited volume on Aceh is that “a fresh look at the . . . archives suggests that new histories can be created” (J. G. Taylor, p. 234), so each of the articles presents a new history, a new production of knowledge, a new way of representing and looking at Aceh using old archival, historical sources that have previously already been written about from other angles. These include ancient history archaeological findings and investigations of ceramics and Muslim tombstones; the Ottoman Empire's archives on the friendship and collaboration between Acehese sultans and the Ottoman Empire; close readings from a fresh perspective of traditional Malay-Acehnese hikayat and indigenous oral traditions on *prang sabil*; the art of royal letter writing by three Acehese sultans from different periods; a very brief look at Portuguese archives; the close reading and analyses of Dutch letters, VOC correspondence, notes, and gift exchanges with the Acehese sultans and the *orang kaya*, and KITLV photographs. This book highlights the cosmopolitanism and richness of Aceh's connections to the outside world and is, according to the editors, a book about Aceh as seen from the “outsider's perspectives.” But there is an inconsistency: if it

is a book by outsiders about outsider's perspectives on Aceh, then where does one place the two articles by the only two Acehnese in the book, Teuku Iskandar and Amirul Hadi? Are they Acehnese outsiders?

The most informative (with a fresh perspective), elegantly written, and profoundly critical papers in this book are those by Teuku Iskandar ("Aceh as a crucible of Muslim-Malay literature"), Ismail Hakki Goksoy ("Ottoman-Aceh relations as documented in Turkish sources"), Annabel Teh Gallop ("Gold, silver and lapis lazuli: Royal letters from Aceh in the seventeenth century"), Ismail Hakki Kadi, A. C. S. Peacock and Annabel Teh Gallop (on "Writing history: The Acehnese embassy to Istanbul, 1849–1852"), and Jean Gelman Taylor ("Aceh histories in the KITLV images archive"). Here is one example of something hilarious:

The grand vizier's minutes suggest the limitations of the Ottoman bureaucracy's intelligence about the political and administrative structure of Southeast Asia. He wrote that "the place called Java is a sort of province of the great island of Sumatra," implying that the Ottomans did really consider Java as a province of Sumatra, as the Acehnese mission claimed. (Kadi, Peacock and Gallop, p. 176)

Annabel Teh Gallop examines an example of how artistically sophisticated and intellectually subtle the Acehnese were in the art of rhetoric:

As with so many royal Malay epistles, this is a carefully crafted and extremely diplomatic letter, deploying both bombast and subtlety as judged appropriate to convey what is essentially a negative message. (Gallop, p. 116, describing the content of Sultan Iskandar Thani's [r. 1636–1641] letter to Frederik Hendrik, Prince of Orange [1584–1647])

Jean Taylor provides a fascinating unpacking of the problem of power and inequality in the field of history and historiography, in particular in the use of photographs as tools of history:

Consideration of what actually was photographed obliges us to recognize that photography is not an objective record of peoples, times and places. Photographs are subjected to manipulation through selection, like any other set of documents. They are staged records and products of fleeting relationships between the photographed and the photographer . . . Specialists in colonial photography draw attention to the social distance between the viewer and the viewed, and to the process of "othering." (J.G. Taylor, p. 201)

These articles are riveting and fascinating to read, and a treasure trove of new insights and new knowledge into old sources that have already been interpreted by dozens of other interpreters. I strongly recommend these articles and this book, especially to Acehnese readers. Granted it is so much easier to "handle" old texts and archival photographs from a great distance (both temporally and geographically), compared to doing ethnographic fieldwork and living with Acehnese in rural areas—and this is where one can see the editing hand of Anthony Reid, whose name is on

the cover as one of the editors, but who has no paper in the volume. This is the historian's selective *bias* of "how to map the Acehnese past" in a particular way. And one can see why there were protests outside the conference (from which the papers in this book were collected), because this mapping relies primarily on royal letters that survived, hikayat texts commissioned by sultans, foreign power-elites' correspondence with the Acehnese elite, and the material culture, gifts, photographs, tombstones of important people who "mattered" and were able to write themselves into history. What about the majority of Acehnese who were not in the "paper trail"? James Scott's argument in his book *The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia* (2009) that "the job of peasants . . . is to stay out of the archives" would be very instructive here in unpacking the inequalities in the production of knowledge about Aceh, and why Acehnese public intellectuals (who have minimal access to archives, surviving texts kept outside of Aceh, but rely mostly on oral traditions and local knowledges) continue to feel "inferior" when confronted by their foreign counterparts who focus on print literature, no matter how empathetic and well-meaning.

I must admit that I was initially reluctant to say anything enthusiastic about the book, since the conference from which it was produced (the first International Conference on Aceh and Indian Ocean Studies, ICAIOS) in Banda Aceh, funded by the Badan Rehabilitasi dan Rekonstruksi (BRR) and organized in conjunction with the Asia Research Institute (ARI) was rather controversial, with Acehnese civil society groups and students protesting in front of the hotel where the conference was held back in February 24–27, 2007. I was one of the invited speakers to this first International Conference on Aceh and Indian Ocean Studies (ICAIOS) and remember being instructed that we must stay in the hotel and be careful about going outside as there were Acehnese protesters outside who were not thrilled about the "types" of scholars and scholarship being presented in this conference. It is revealing that there is an absence of discussion of the contentious socio-political-economic-ecological context of present inequalities of knowledge production in Aceh in this neatly sanitized book.

Writing history, as some of the papers in this volume have argued eloquently (especially those by Teuku Iskandar, Annabel Teh Gallop, Ismail Hakki Kadi, A.C.S. Peacock, and Jean Gelman Taylor), is never an objective, neutral exercise: it is a process of selectively choosing which photographs, symbols, words, rhetoric, manipulated maps to use to represent one's self, or an entire nation. It is the same with the selection of articles for this mapping Acehnese history book, which is telling in terms of its emphases and absences. So while I found this book highly informative and fun to read, enlightening on so many aspects of Aceh's past which I haven't come across (especially the use of sources from the Ottoman archives), my hope is that it will be translated into Acehnese and Bahasa Indonesia to bridge the gap with wider Acehnese and Indonesian audiences who may just easily dismiss it as yet another history book by foreigners who know little about Acehnese' current conditions of continuing to feel "inferior" and "fossilized" (the words of a prominent Acehnese

public intellectual in BRR and IAIN) in what they see are ongoing processes of domination.

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### ***The University Socialist Club and the Contest for Malaya: Tangled Strands of Modernity***

KAH SENG LOH, EDGAR LIAO, CHENG TJU LIM, and GUO-QUAN SENG

Amsterdam: Amsterdam University Press, 2012, 347p., with bibliography and index.

This book examines the history of the University Socialist Club (USC) at the University of Malaya (later renamed as University of Singapore) from 1953 to 1971 within the broad context of British decolonization, the global Cold War, and the making of the modern nation-states of Singapore and Malaya(sia). It is a timely product because the only substantive works on this important subject are a 1973 unpublished BA graduating thesis (Koh 1973) and the recent firsthand accounts in *The Fajar Generation* as edited by three former USC members (Poh *et al.* 2010). Moreover, it arrives at an opportune moment when the authoritarian politics of Singapore appear to be changing, with “untold stories” and “alternative narratives” being offered through a multitude of platforms to challenge the dominant state narrative of the Singapore Story as framed primarily by the elder statesman Lee Kuan Yew.

It is to the credit of the Institute of Southeast Asian Studies (ISEAS, Singapore) to have provided the four young scholars with initial financial support and moral impetus to explore new ground in Singapore history (p. 12). It would have been even better if ISEAS had seen the project to its fruition and publication through its own internal publishing unit. Similarly, the authors have registered their share of difficulty in getting access to local primary source materials, especially government records, and their fresh archival findings were mostly excavated from foreign archives instead of the National Archives of Singapore (pp. 38–39). How they overcame these obstacles is testimony to the tenacity and skill of the history writing of the authors as they have indeed succeeded in putting together a volume rich in details and analysis.

The main body of discussion begins with the reluctant British approval for forming a political club within the nascent university as well as the *Fajar* arrests and sedition trial which elevated the

USC to its iconic political status. This is followed by several chapters delineating its activities to mobilize students across campuses in Singapore as well as those in Malaya and even among the international student fraternity. It was a mixed record of collaboration and contestation due to personality issues and ideological differences. The discussion also touches on the important divide as well as connectivity between the English-educated and Chinese-educated student activists. An introspective critique is then developed on how the intelligence and security agencies (especially the Special Branch which later morphed into the Internal Security Department), under the trope of international Cold War and local fear of communism and communalism, had constructed a problematic information order which became a primary tool for the emasculation of left wing politics. The next segment deals with the USC's involvement in the battle to merge and form Malaysia, the various security crackdowns, and the fight for university autonomy. The last substantive chapter on "Entwined Memories and Myths" brings the story to the present day by surfacing the claims and counter-memories of various actors on both sides of the political fence in their old age.

While the book serves up a useful chronological narrative (as fortified by an appendix on "Timeline of Events"), there is a laudable conscious effort throughout to transcend the details and to sieve out analytically a set of main trends and themes. Inserted in between the factual accounts are numerous passages of deep reflection and, in addition, even critique of sources (e.g. pp. 38–39, 154–158, 203, 234). However, the most important analytical device deployed is to package the complex developments under the sub-title "tangled strands of modernity." The struggle for a theoretical flavor through the theme of modernity is explicated in the introductory and concluding chapters and in fleeting references to Partha Chatterjee (pp. 25–27) and James Scott (p. 27). The connection between modernity and the forging of nation-state by the USC and its rivals comes across repeatedly and is clear enough. However, the usage and discussion of the term "multiple modernities" does not appear to be on the right track as it tends to slide towards being an equivalence of "multiple identities" instead of pointing out subtle non-Western features of Asia-situated modernity (pp. 28–30). Similarly, the reference to James Scott's "high-modernist ideology" as espoused in *Seeing Like a State* does not seem appropriate as his term actually goes beyond simple modernism and incorporates a misplaced grand utopian vision which would inadvertently bring about death and disruption to millions (such as the Great Leap Forward in China [see Scott 1998]). It is also a missed opportunity that the parallel concepts of "post-modernism" and "post-colonialism" have not been adequately handled. This would have facilitated a critique of the preponderant nation-state framework and of whether Singapore, with its attainment of independence and governance under the People's Action Party, has remained entrapped by the deep structure of colonial mentality and thus cannot be truly claimed to have ever transited into a "post-colonial" society.

On the balance, the book should prove to be a compelling read in terms of its rich factual details, fluent prose, thrusting analysis, as well as theoretical framing. It is a handsome contribu-



tion to extant scholarship on the history of the island city-state and places the English-educated student activism back into the limelight as the increasingly Anglicized society currently gropes towards a new style of politics.

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