Appendix F. Wet-Rice Cultivation in Palokhi

Planting of Dry-bed Nurseries (Tho Ta Ka)

The first task in the actual cultivation of wet-rice in Palokhi is the planting of rice seed in nurseries. This is done in dry-bed nurseries and it is a practice which is by no means unusual in Northern Thailand as it is also done by some Northern Thai (Davis [1984:151]), Lua’ and Karen (Kunstadter [1978:93]; see also Moerman [1968:53] and Iwata and Matsuoka [1967:310]). The planting of rice seed in this manner is called by the Palokhi Karen, tho ta ka, a combination of the Karen for swidden planting, tho hy’, and the Northern Thai term for rice nursery, taa kaa. The Palokhi term is apt indeed, for the technique of planting wet-rice seed is similar to that of planting rice in swiddens. The nursery is a small plot of land close to the wet-rice field which is cleared of vegetation and burnt, after which the seed is planted by dibbling. The work is done by individual households, often with a husband and wife working together. Unlike swiddening, however, there are no rituals associated with the planting of wet-rice seed in dry-bed nurseries.

Building Dams (Ma Faaj)

The next stage in the wet-rice season is the building of dams, called ma faaj which is again a compound term of Karen and Northern Thai (faaj, “dam” or “weir”). Before the dams are erected in the Huai Thung Choa, irrigation canals have to be checked and cleared of leaves and sediment, their walls rebuilt if they have been eroded, and their entrances to wet-rice terraces cleared if they are blocked, and so on. The dams are erected every year because they are not permanent structures. They consist of logs, branches and pieces of wood which are thrust into the stream bed, or placed firmly among rocks, at appropriate places and built up in this fashion in order to raise the level of the stream until it reaches the level of the land where the irrigation canals begin. In some cases, trees may be felled across the stream so that they act as a kind of retaining wall against which branches and pieces of wood are placed in order to erect the dam.

There are five dams across the Huai Thung Choa serving the total of twelve plots of wet-rice terraces. Each dam is shared by a number of households (ranging from two to four per dam) and the work of making the dams is also shared by these households. The ritual that is performed at the dam after its construction is usually led by the oldest cultivator, that is, the household that first made use of a dam. The ritual is not necessarily held immediately after the dam has been built however; it is usually held after the rice seedlings have been transferred from their nurseries into the terraces, in the middle of the wet season. The ritual
is conducted as much to propitiate the spirit of the stream as to ensure the successful growth of the wet-rice crop.

Once the dams are built, the water is allowed to flow into the wet-rice terraces via irrigation canals which are cut along contour lines leading to the fields that are fed by the stream. The irrigation canals enter the fields at their upper-most terraces and, from here, the water is directed to lower terraces by means of sluices which are embedded in the dikes or bunds which separate the terrace plots in the field. The sluices are made from a short section of bamboo which is open at one end and closed at the other by the node in the bamboo but which has a small opening cut just before and above the node. The sluices are set in the bunds in such a way that the open ends lie in the higher terrace, while the other end leads out to the lower terrace with the opening facing upwards. The sluices thus act as valves which impede the water flowing through them so that the seedlings, when they are planted, around the sluices are not damaged or uprooted by the gush of water entering the lower terraces.

The inundation of terraces at this stage of the season is essential before work can commence in them. The reason for this is that in the dry season the earth in the terraces has dried up and become hard and compact. It is also held together by the roots of the stubble from the previous harvest which are left in the fields although buffaloes are let in to graze when the fields lie fallow. The condition of the earth in terraces before and at the onset of the rainy season thus makes ploughing an impossible task, hence the necessity to inundate the terraces first in order to make the earth soft enough to plough (see also Kunstadter [1978:93]) or to hoe.

**Hoeing (Pla’ Chi’) and Ploughing (Tha Chi’, Thaaj Chi’)**

When the wet-rice fields have been soaked and softened, the task of ploughing begins. In some cases, where the terraces are too small for buffaloes to move in, hoeing is done to break up the earth instead of ploughing. It is interesting to note that while the hoeing of wet-rice fields is described by a full Karen term in palokhi, ploughing is not, containing as it does the Northern Thai term for “plough”, thaaj. This is because the Karen have their own word for “hoe” and “wet-rice field” (see also Jones [1961: 157]), but not for plough. The ploughshares, which the Palokhi Karen use, are all purchased from Northern Thai shops, but the frames are made in Palokhi. A further interesting feature about the influence of Northern Thai on ploughing in Palokhi is the use of Northern Thai commands in driving buffaloes, khwaa (“right”) and tauj (“turn around”). Although some buffaloes in Palokhi actually belong to Northern Thai and therefore “they understand only Northern Thai”, nonetheless, the Palokhi Karen will often use these commands when they handle their own buffaloes.
Ploughing is hard work indeed, but it can only be done by two men at a time — one to lead the buffalo, and another to work the plough. All wet-rice cultivating households have buffaloes but almost all of them make mutual arrangements of one sort or another in ploughing. The most common of these are work exchange arrangements between households which have only one adult male capable of undertaking the hard work of ploughing which women cannot, and which old men are unable to because of their infirmity. Those households which have more working age males are, of course, able to carry out the ploughing of their fields entirely with their own internal supplies of labour. It is also worth noting that in Palokhi, the buffaloes which do not belong to the villagers have been left with them by Northern Thai, or Karen, on agistment. This is a great advantage to the households which rear them because they may use the animals without charge, and at the same time acquire buffaloes eventually according to the terms of agistment agreements which usually specify equal shares in the calves bred by the buffaloes on agistment (see Appendix G).

The process of ploughing itself has the effect of breaking up the earth and mixing the stubble and buffalo dung left by grazing buffaloes into the soil. It thus assists, though only partially, in recycling nutrients back into the soil. This process would be more efficient if the stubble were burnt prior to flooding and ploughing (Hanks [1972:37]) but, in Palokhi, this is hardly ever done and, when it is, only parts of fields are treated in this way.

**Harrowing (Phoe Chi’, Phya Chi’)**

Ploughing is only the first step in preparing the wet-rice terraces for the planting of seedlings. It is followed by harrowing which further breaks up the earth — which has been turned into lumps of mud by ploughing — into smaller pieces or lumps. As with ploughing, the term for this process is derived from the Northern Thai term for the implement that is used in it — phya, “harrow” or “rake”. The harrows are made in Palokhi and are modelled on those of the Northern Thai just as the ploughs are. Similar to ploughing, the task of harrowing requires two men and a buffalo, and the work arrangements are the same as well. The work is no less strenuous than ploughing because the harrows have to be kept steady and manipulated through the resistant lumps of mud, and thrown at regular intervals to shed the mud that accumulates before and in-between the tines of the harrow.

Where the terraces are too small for harrowing to be done with buffaloes, further hoeing may be necessary to continue the process of breaking up the soil and mud. This, however, is usually done as part of the initial hoeing of these micro-terraces.
Smoothening (Kwa ‘bleta, Toe’ Chi’, Toek Naa)

The process of harrowing, if it is thoroughly done, and the on-going inundation of the wet-rice fields turns the mud in terraces into a thick consistency, but the surface of which is usually uneven because the mud accumulates at various places during harrowing. It is necessary to smoothen the surface, that is, to distribute the mud evenly in each plot, because the mud eventually settles down to form the bed into which the rice seedlings are planted and take root. If the surface were left uneven, an uneven bed would result beneath the water level in terraces making the thorough planting of seedlings impossible. Smoothening is done with a plank that is harnessed to the buffalo which is made to drag the plank, or board, around the terrace thus distributing the mud around the terrace. The process is simply called by a karen term, kwab’leta, which means “to sweep smooth”, or by the Northern Thai term toek naa (“to smoothen the wet-rice field”), or again a combination of karen and Northern Thai as in toe’ chi’. This is also a task that requires the efforts of two men, but it is not unusual for one man to do it because the board does not require much handling as ploughs and harrows do.

Once smoothening is completed, the wet-rice fields are not worked for some time to allow the mud to settle at the bottom of the terraces. This generally coincides with the initial growth period of the rice shoots in nurseries.

Planting (Su By)

By late June or early July, the seedlings in the dry-bed nurseries are ready for transplanting into the wet-rice terraces. The seedlings, which the Palokhi Karen call by their own term, by pho (“little rice [plant]”) or ta ka, the same Northern Thai term for nursery, have to be removed first from the nurseries and this is usually done by households on an individual basis in preparation for transplanting when other households come to assist in the task on a co-operative labour exchange basis. Removing the seedlings is called thae’ ta ka, “clearing the ta ka”, and it entails careful uprooting of the seedlings from the nursery bed so as not to damage the roots. The seedlings are tied in bundles with bamboo withes, each about the size of a handful, and the bundles are then stacked by the field hut ready for the work team to plant which is usually done on the following day. The planting of seedlings is called su by, an entirely Karen term. The organisation of labour for planting the seedlings is similar to that in the planting of swiddens, that is, all households contribute their labour, which is then reciprocated when it is their turn to transplant their seedlings. As with swiddening, planting in wet-rice fields is extremely labour intensive for the same reasons, namely, the necessity to get as much done over a large area in a short period of time, hence the large work teams. After the first day of planting, the work teams move on to other fields, until all the fields have been planted. It is not uncommon, of course, for households to find that not all of their terraces
have been planted on the first day, and so smaller teams are formed to carry out the work of planting that remains.

The task of planting itself requires first the trimming of the seedlings to about 30 to 35 cm in length. The reason for this practice is that with the reduced height of the seedlings, they are less likely to topple over while they are still taking root in the terrace beds. The seedlings are trimmed in bundles with a bush knife and they are cast into the terraces where they float around. The work teams enter the terraces and pick them up and plant them directly using their fingers to protect the roots as they are inserted into the terrace beds. The seedlings are planted about 20 cm apart in an irregular fashion unlike some Northern Thai cultivators who attempt to plant seedlings in straight rows.

The planting of wet-rice is, in so far as its ritual aspects are concerned, modelled on what takes place in swiddens but only to a limited extent. There is, for instance, a small crop of “Old Mother Rice” that is planted which is the focus of planting rites. It is significant that the “Old Mother Rice” in Palokhi fields are protected, at the time of planting, by “hawks’ eyes” (taa liaw, a Northern Thai term) which is a typically Northern Thai agricultural practice (see Davis [1984:160, 292]). The “planting of the ritual basket of the yam” which characterises swidden planting is not, significantly, carried out in wet-rice fields. The prayers that are said when wet-rice is planted, however, are the same as those said in swidden planting and are addressed to the “Lord of the Water, Lord of the Land”. The work teams on the first day of planting are also offered food at mid-day, as in swidden planting.

After the swiddens have been planted, the wet-rice fields are fenced to keep out cattle and buffaloes. This work is done solely on a household basis.

**Weeding (Pla’ Kha Na)**

During the growing season of wet-rice, that is, roughly from July through September, the only agricultural task that needs to be performed in wet-rice terraces is weeding. Although the Palokhi Karen have their own term for “weed”, as we have seen, the weeds that grow on the bunds and dikes of wet-rice terraces are referred to by their Northern Thai name, khaa naa. The process of weeding is called “hoeing weeds” (pla’ kha na) and it describes how the weeds are removed. As in swiddening, this is done sporadically because it conflicts with tasks that need to be performed in swiddens, namely, weeding and the collection of cultigens. During this time, the stocks of rice in Palokhi begin to run out, if they have not been exhausted already, and the Karen therefore have to seek employment in Northern Thai villages so that they can buy rice with the wages that they earn. It is also a period when tea buyers and miang merchants come around Ban Mae Lao to buy tea leaves, and the Palokhi Karen also take this
opportunity to earn money by picking tea in their own tea gardens, or those of the Northern Thai, in order to obtain money as well.

The weeding season in the wet-rice cycle is also the time when a rite to protect the rice in the wet-rice fields has to be performed. This practice is clearly derived from the cycle of agricultural rites associated with swidden cultivation. The name of this rite, in wet-rice fields, is called *bghau chi’* after the *bghau hy’* ritual in swiddens which I discuss in Chapter VI.

**Harvesting (Ku’ Lau By)**

By late September and early October, the rice in Palokhi terraces are about ready for harvesting. Before it can be harvested, however, the terraces must be drained of water and this is done by breaching the dams in the Huai Thung Choa. At this time of the year, the wet season is also approaching its close, and within a week to a fortnight of breaching the dams, the wet-rice terraces are completely dry. The harvesting of wet-rice is similar to that of swidden rice and, as I have already described the three phases involved (that is, reaping, threshing and the transport and storing of the harvest) in Appendix D, I shall not therefore deal with this aspect of the wet-rice cycle in Palokhi.

However, it may be noted that this particular stage in the wet-rice cycle is not surrounded by the rituals associated with its corresponding stage in the swidden cycle unless the cultivation of wet-rice is the sole form of agriculture undertaken by a household. That is to say, where households cultivate both swiddens and wet-rice fields, the rituals in swiddens are deemed to suffice for wet-rice fields as well. Quite apart from the calendrical system, this is a clear indication of the ideological weight attached to swiddening in Palokhi despite the very important part played by wet-rice agriculture in the subsistence economy of the Palokhi Karen.