

## Chena Cultivation

When did the cultivation of crops begin in Sri Lanka and of what did cultivation first consist? There are signs in excavations in the cave of Dorawaka-kanda near Kegalle of the use of pottery and perhaps the cultivation of cereals as early as 6300 BCE.<sup>i</sup> But how were the cereals cultivated?

### What chena cultivation is

Slash and burn or swidden cultivation is the likely precursor to all cultivation. In Sri Lanka, the technique is known as *chena* cultivation. The technique is a simple two stage process. First an area of forest/jungle is, yes, slashed and then burned to clear it of existing vegetation. Seed is then thrown onto this nutrient rich soil and the resulting crop minimally tended – watering, weeding. The number of seasons of crops that can be raised depends on the quality of the initial soil but eventually soil quality is depleted and weeds and other invasive species compete with crops under cultivation. At this stage, the cultivator abandons the plot and moves to another area of forest and slashes and burns that. The former plot is left fallow to allow it to naturally regenerate or may in addition support some fruits, nuts, fibers, and medicinal plants. When the plot has recovered productivity it may then be used slashed and burned and used again.

Chena cultivation has good sustainability where there is a low density of population relative to the availability of cultivatable land, a situation that held true in Sri Lanka for many thousands of years at it did elsewhere in South and South East Asia.

Spittle describes a chena being prepared in the 1930's in Sri Lanka: For ten days they worked hard...felling the trees of the virginal jungle. Towards the end of June they fired the clearing and watched the great blaze hiss and crackle in the blinding sun. Early in September the real work of the chena began: the building of the bark and wattle shacks, the stockading around with charred logs, the clearing up of the land leaving only the skeletons of vast trees that had withstood the ravages of the fire, scattered like ghosts to renew their life with the coming rains. They had now only to sow their crops of manioc, kurrakan, maize, green gram, beans, chilies, and melons – and wait and dream of what the year would bring'.<sup>ii</sup>

### What was/is produced on chena lands

The beginning of rice cultivation in Sri Lanka is likely to have been under chena cultivation. The Mahvamsa makes mention of the yakka queen Kuvaṇṇā offering rice to Vijaya and his men at a time well pre-dating the establishment of the great irrigation projects of the Sinhala kings. During the period of the great kingdoms of the Dry Zone, in addition to rice, cotton (*kapu*), sugarcane (*uk*) and sesame (*tala*) were grown on chena land, accompanied by the development of three cottage industries of weaving, making jaggery, and extracting edible oil. Finger millet (*Echinochloa polystachya*) or *kurrakan* was a main cereal substitute for rice, and other cereals were also grown – *undu* (*Phaseolus mungo*), *ma* (*Vigna cylindrica*), *mun* (*Phaseolus aureus*), *meneri* (*Paspalum scrobiculatum*) *aba* (*Brassica juncea*), *dura* (*Cuminum cyminum*) and *tana* (*Setaria italica*). Vegetables were also grown including *vambatu* (brinjal/eggplant *Solanum melongena*), *vattaka* (squash *Cucurbita mixima*), *alu puhul* (wax gourd *Benincasa hispida*), and other *Solanum* species.<sup>iii</sup>

Parker describes his Village Veddahs (Wanniya-laeto who did not live in the forests and caves but in small groups of huts) having chena plots on which they grew 'red chillies, gourds and 'Indian Corn and a small Pulse called Mun (*Phaseolus mungo*)', which he says were also grown by Sinhalese chena cultivators.<sup>iv</sup>

Spittel's description above shows that what is grown has changed little over time, suggesting that chena as a method of cultivation is only suitable for a limited range of crops. Spittel's chena cultivators, both Sinhala and Wanniya-laeto, supplemented their chena produced diet with gathering practices as well. De Silva says that 'Uniquely in Sri Lanka, says de Silva, 'chena cultivation...was practiced by a peasantry who were also engaged, simultaneously or otherwise, in settled forms of cultivation.'<sup>v</sup>

### **Land rights in pre-modern Sri Lanka**

The description of chena as a practice begs the question of who owned the land which was so cavalierly slashed and burned to produce the chena plots. The answer is not straightforward. While the concept of ownership in modern Sri Lanka reflects Roman-Dutch law, warns Siriweera, 'Indiscriminate application of such modern legal concepts in relation to ancient conditions is extremely hazardous in historical analysis and interpretation'.<sup>vi</sup> The question is complicated because the records of land transactions, often inscriptions in rock, are equivocal, at times suggesting family ownership of land to the extent that they were able to sell it or grant it to others and at other times that a king was in effect lord of his lands and individuals and families held rights over land at his behest and often only for the duration of the individual's holding office in service of the king. Siriweera concludes that any discussion about land rights in ancient Sri Lanka 'should seek to avoid the term 'ownership' as much as possible.'

What is clear, however, is that kings had claims over most of the land in their kingdom, usually claiming some part of the grain produced, for services rendered in maintaining order and chena cultivators were no exception. More than this, the king had rights to unoccupied waste land, including jungle, abandoned land and land to which there were no claimants, and could grant these to individuals or institutions (usually monasteries), and at times for establishing whole villages. Under this right, Siriweera suggests, the 'king or his officials must also have given permission for certain forests to be used for chena cultivation and for the setting up of new paddy fields by individuals'. 'Most probably', he writes, 'in practice, such appropriation was tacitly allowed or even encouraged because the king's revenue, which was primarily derived from the grain tax, was thereby increased'. I take it that what Siriweera means here is that no king was going to punish someone who one day upped and moved off their current chena to another part of a forest and proceeded to slash and burn it as long as they continued to hand over part of the grain produce to the king.

Siriweera doesn't discuss it, but it would appear that this right to a part of the produce of a citizen's labour extended to the result of hunting and gathering too. Or at least it did where honey was concerned as Knox recounts of the Wanniya-laeto honey gathering.<sup>vii</sup>

### **Chena cultivation under British rule**

This haziness over ownership of land changed markedly under British rule with significant impact on chena cultivation. All chena land and all forests in the maritime provinces became Crown land.<sup>viii</sup> The British 'viewed slash and burn cultivations as a primitive, economically wasteful, destructive (of valuable timber resources) and demoralizing form of agriculture which produced the seemingly less nutritious dry grains rather than paddy', as had the Dutch East India company (VOC) before it, but

their moves against it were more decisive. They introduced a permit system for chena farming in the maritime provinces and Kandy which became increasingly stringent resulting in few permits being granted in the 1870s. Wet zone chenas were increasingly turned into paddy fields to feed a growing population and for export, and also being given over to coffee and rubber. Chena cultivation continued to be an important food source, however, in the dry zone, where dependence on this had always been greater, a situation that continued until the extension of irrigation into the dry zone.<sup>ix</sup> It is dry zone chena farming that Spittel writes of in the 1930s.

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<sup>i</sup> Deraniyagala 1998

<sup>ii</sup> Spittel 1950

<sup>iii</sup> Siriweera 2000

<sup>iv</sup> Parker 1984 (1909)

<sup>v</sup> De Silva 2005

<sup>vi</sup> Siriweera 2000

<sup>vii</sup> Knox 1911 (1681)

<sup>viii</sup> De Silva 2005

<sup>ix</sup> De Silva 2005