
N. Hildyard

TRADITIONAL AGRICULTURE IN SRI LANKA

Edward Goldsmith interviews Mudiyanse Tenakoon

Traditional agriculture in the Third World is frequently dismissed as primitive and unproductive. In fact, it offers the best hope for the future.

Tenakoon is a prophet, a prophet of traditional rural life in Sri Lanka. He is also a farmer and lives in a small village in the northern part of the island. In recent years he has become quite well known among those people who recognise the destructiveness and counter-productiveness of the modern system of intensive agriculture which the international institutions—FAO and the World Bank in particular—are imposing on Sri Lanka.

I was taken to see him by two people who fall into this category, both extremely interesting and knowledgeable men; Upalli Senanayake, a member of one of the most influential families of the land (his uncle was Dudley Senanayake the first prime minister); and Gunasekara, a civil servant who devotes his spare time to studying traditional life in Sri Lanka. I have reconstructed our conversations from my notes.

Goldsmith: *What is the size of the average farm in this area?*

Tenakoon: The average family has less than two acres of land. The richest farmers have no more than five acres. I personally have an acre of paddy plus a garden.

Goldsmith: *Are you self — sufficient?*

Tenakoon: I am afraid not. In my father's day we were very much more so. Today I must buy kerosene for our lamps as well as salt and also clothes.

Goldsmith: *Did you never produce these things yourself?*

Tenakoon: My grandmother used to make her own clothes and those of her family too. We grew cotton in the Chena—the wooded area behind the village used for slash and burn cultivation. We still do. Moreover, in the past there was no need for kerosene as we produced our own Mee oil, extracted from the nuts of the Mee tree (Kaly).

Goldsmith: *Did you use Mee oil for cooking as well?*

Tenakoon: Yes and also for medicinal purposes. We also used coconut oil.

Goldsmith: *Did you have traditional bartering arrangements with local artisans as they do in India?*

Tenakoon: Yes, ten years ago there was both a potter and a blacksmith in the village. We provided them with food in exchange for pots and tools; now we must buy these things from a store in the town. But we don't get the clay pots any more and they were very useful.

Goldsmith: *What use did you put them to in particular?*

Tenakoon: Among other things they were used for storing water. We used to fill them with the chaff from the paddy, burn it, leave the cinders there for a few hours, and then wash them out and fill the pot with water. This kept the water cool.

Goldsmith: *That is remarkable; was this sort of knowledge handed down to you from father to son?*

Tenakoon: Of course. Every farmer is a researcher and a teacher otherwise he could not be a farmer.

Goldsmith: *How many varieties of rice did you use to grow here?*

Senanayake: At one time 280 varieties were cultivated in Sri Lanka. Only 15-20 are left. As a result of government policies the others have become extinct.*

Tenakoon: I can remember 123 varieties of red rice; now only three or four remain.

Goldsmith: *In what way did these varieties differ from each other?*

---

*According to C. Drieberg, (superintendent of school gardens quoted in C. Wright, Glimpses of Ceylon) 1974 three to four hundred varieties of rice were once cultivated.

Tenakoon: First of all, we needed different varieties for the two growing seasons—the Maha season associated with the North-East monsoon and the Yala season associated with the South-West monsoon.

During the Maha season we planted what we call the "four month" varieties. As their name indicates, they take four months to grow. During the Yala season we planted "three month" varieties. Among the Maha varieties, I can remember Murungakayam, which was brown and white, Wella illangaliya, Hondarawala, Gangala and Beruwee. Among the "three month" varieties I can remember, Heenati, Dahanala, Kokkali, Kanni Murunga, Pachha perumal, Kuru wee and Suvandel. We also grew Mawee, a "six to eight" month variety.

Goldsmith: *What was this for?*

Tenakoon: It was for the priests. Buddhist priests don't eat after noon so they need very nutritious food to sustain them until the next morning. Mawee is very nutritious; it has a high protein content and that is why we grew it.

Goldsmith: *How about the other varieties?*

Tenakoon: We grew Heenati for lactating mothers as it makes them produce more milk and also better milk with a high fat and sugar content. We tried to grow it during both seasons. Kanni murunga we grew for the men going out to work in the paddy fields. It gave them energy as it contained a lot of carbohydrates. It was also used for making milk rice for traditional ceremonies. Suvandel, we grew because of its extraordinary fragrance.

Some of these varieties were specially used when there was a lot of water in the paddy fields; others when there was little water. The former we refer to as 'Goodel' (or 'Goda'), the latter as 'Madawee' (or 'Alwee'). Some varieties were grown when the fields were particularly muddy; some were more suitable to grow on high ground where there was less mud. Some of the varieties required very rich soil; others would do well in the poorest of soils. Some were more resistant than others to the paddy bug and we planted them, rather than other more desirable varieties, when traditional means of controlling the bugs failed.

Goldsmith: *What were the traditional methods of controlling the paddy bug and other pests?*

Tenakoon: Pests were very much less of a problem than they are today. For one thing, the traditional varieties of paddy had long stems so they blew in the wind which made it very difficult for the insects to land on them. The Hybrid varieties of today are short-stemmed and much more rigid—which makes it much easier for bugs in general. Also the traditional, as opposed to the new, varieties of rice had big droopy leaves which shaded the soil underneath and prevented weeds from growing through. The paddy particularly needs protection from insects during one short critical period in its growth, about two weeks. During this period, the whole family would be on the alert and ready to step in and deal with any emergency; this was essential for protecting our crops. One thing that we always did during this critical period was to pour cactus milk (daluk) into the inlet to the paddy field. This was very effective in keeping away certain insects.

"Peasants are too wise to believe Western scientists who try to sell them 'miracle' strains of rice".

If the paddy plants turned yellow, we would bury bamboo leaves in the inlets until the grain began to form, at this stage the grain would be fairly liquid. To protect it from insects we would obtain the discarded robes of the Buddhist priests, and make wicks out of them by soaking them in coconut il. They would then be lit and placed in different parts of the paddy fields; because of the bright yellow vegetable dye that the robes contain—they burn with a bright light and at the same time emit a very strong smell which repels any insect pests. Another device that we used was to crush up leaves of a certain creeper that grows here into a juice which we then poured in the water at the inlet to the paddy field. The juice would float and settle around the plants. It had the effect of killing the godewella worms that eat the paddy during the two critical weeks.

We also used to put dried Makra leaves and stack them in the four corners of the field. We would plant the branches of the Kadura tree at the four corners of the field; they were used as supports for coconut lamps which would attract the bugs away from the paddy field. We would be very careful to plant the seeds at the most auspicious time from the astrological point of view. I am sure that this also helped to reduce pest infestations.

Another thing we did was to collect sand from the river beds and sprinkle it over the paddy fields and irrigation channels; this I am sure was also effective. We would also make long ropes which we impregnated with a very sticky substance derived from the Jak fruit; the children would drag the ropes across the fields and the bugs in the paddy would get stuck to them. Alternatively, we would tie a lot of rags on to a long bit of string and impregnate the rags with a resin called 'dummala'. Once more these would be dragged through the paddy fields. The children would also sweep the paddy field with a special tool (the pinovia) removing any bugs that might be on the surface of the water.

Senanayake: All this gives an idea of the cooperation required from all the members of the family for this highly sophisticated type of agriculture to be possible. Once the family unit breaks down under the impact of development, there is no way in which it can be practised—one can only then resort to the highly destructive modern agriculture practised in the West.

Tenakoon: That is right.

Goldsmith: *Do you use biological controls as we refer to them in the West?*

Tenakoon: Yes, indeed. One of the most effective ways of controlling the paddy bug was to crush coconut refuse and spread it in each corner of the paddy field. This would attract a grey brown bird called the Demalichch or seven sisters. This bird would come to feed on the crushed coconut and at the same time would eat any paddy bugs that happened to be around. It would also eat the Godewella worms that feed on the paddy plant especially during the two week period.

Goldsmith: *Were there any traditional rituals for controlling pests?*

Tenakoon: There was a ritual that involved boiling milk and allowing it to overflow. It was called 'kiri-uturunewa' which literally means "the milk flows over the pot". It was considered very effective against the brown hopper—an important pest of the paddy plant. Another ritual consisted of planting a specially decorated stick in the middle of the paddy field which was considered very effective in repelling insect pests.

Goldsmith: *How about rodents? Were they a problem in the old days?*

Tenakoon: To control rats we would bury four pieces of root taken from the eastern side of the mee tree and burn them in the four corners of the paddy field. The rats as a result rarely entered the field.

Goldsmith: *How about birds?*

Tenakoon: These were very much under control for we would grow rice specially for them in small sections at the end of each paddy field which were called 'kurulu paluwa'.

Goldsmith: *But how did the birds know that this rice was theirs rather than the rice grown in the rest of the paddy fields?*

Tenakoon: We have been doing this for thousands of years. The birds have had ample time to learn which was their paddy and which was ours; they rarely trespassed on to our part of the paddy fields unless of course they were invited to do so to eat the paddy bug of the godewella worm—and besides, if they did so, they would be chased away by the children.

Senanayake: There is no magical way of controlling pests. Our peasants are too wise to believe western scientists who try to sell them 'miracle' strains of rice and 'miracle' chemicals that are supposed to eliminate all pests. The pests of the paddy will be around long after western scientists have gone, long after industrial society has collapsed. The truth is that we must learn to live with them and reduce their depradations by a vast variety of different ways—each one of which by itself may make but a small contribution. This is only possible of course when the knowledge required for doing so is handed down from father to son which it cannot be when children are sent to urban schools and imbued with all your western scientific superstitions. It is also only possible when there is the full cooperation from all the members of a family—cooperation which can never be achieved when employees have to be paid for every hour of work they do.

"We grew special plots of rice for the birds . . That way they left our paddy alone."

Goldsmith: *How did you assure the fertility of the paddy fields?*

Tenakoon: Again we used a lot of different methods. One was to plant the Mee tree in the paddy fields. The Mee is a leguminous tree, which means that the bacteria on its roots fixes nitrogen, and we used to grow about eight of them to the acre. Its leaves also contain a lot of nitrogen, as must the litter that accumulates under it. Also, and this you will find particularly interesting, the fruit of the Mee tree is much appreciated by fruit bats which used to congregate on the trees in vast numbers when the fruits were ripe; the bats' droppings (which are particularly rich in nitrogen) were thus an important source of fertilizer. We also obtained nitrogen by sowing the paddy before the first rains (Akwassa). As you know, these rains contain a lot of nitrogen.

We would also encourage the growth of many leguminous weeds on the paddy fields between harvests in particular those we refer to as Thora, Andana, Hiriya, Nidikumba and Pila. They would grow wild on the 'pillewas'—the small areas of wilderness that lie above and on either side of the paddy field. We did not cultivate these areas because it was from there that the seeds of the leguminous weeds were derived. It was also there that the buffalos used for ploughing the paddy fields would rest, and the dung that they produced would be washed off by the rains into the paddy fields beneath. This too added to their fertility. It was also behind the bushes that grew on the 'pillewas' that we would defecate and urinate. This provided yet another contribution to the fertility of the soil. Today, of course, with modern development the 'pillewas' have been ploughed up so as to increase the area under paddy—the result is bound to be a reduction in soil fertility.

Also, as I have already mentioned, traditional varieties of paddy had long stems so there is very much more straw to return to the fields than there is today with the short-stem varieties.

Equally important, behind each village there used to be considerable expanses of jungle. It is from there that was derived the water that flowed into the 'tanks'* and which was used for flooding the fields. It was not only water that the jungle provided but also jungle soil that was highly fertile and that flowed into our fields whenever they were flooded.

It was by using all these methods that we retained the fertility of our

*The term tank derives from the Portuguese Tanque and is used in Sri Lanka to refer to artificial ponds and reservoirs which play a critical role in their traditional agriculture.

N. Hildyard

Erosion is severe due to deforestation.

Paradise Destroyed?

No two men could hold more different visions of the future than Mudiyanse Tenakoon and Sri Lanka's President Jayawardene. And nothing could illustrate the differences better than their respective attitudes to building. Thus, Tenakoon refuses to live in a modern house because concrete blocks, unlike wattle and daub, do not benefit the soil when they collapse. Jayawardene, on the other hand has commissioned a new capital city to be built on a site named (entirely by coincidence, of course) Jayawardenepur. Clearly the President believes the city—not the traditional village house—should be the symbol of the new Sri Lanka.

Behind Jayawardene's 'vision' lies the conviction that development will only come to Sri Lanka through an export-led economy where market forces can operate unfettered by financial and bureaucratic controls. The backbone of his policy is formed by two major projects: the setting up of a Free Trade Zone (FTZ) at Katunayake, just outside Colombo: and the Mahaweli Development Programme, a massive irrigation and hydro-electric scheme covering almost 40 per cent of the island and involving four major dams. Both projects are already financial, social and ecological disasters.

Jayawardene's 'back to capitalism' philosophy is founded on an interpretation of Adam Smith that even the most fervent monetarists might find embarassing. Defending his FTZ policy, for instance, he told the Sri Lankan Parliament: "I want to say quite frankly that the (FTZ zone) will be like the 'Robber Baron' areas set up in America, Japan and Britain before the industrial revolution. Let them fight each other, compete with each other, destory each other and let the fittest survive—all for the benefit of Sri Lanka."

But Sri Lanka has not benefited. In the main, those who have taken advantage of the Government's unprecedented tax incentives to set up shop in the FTZ are clothing manufacturer. The net result is that Sri Lanka's own textile industry—and in particular the village based handloom societies—have been all but eliminated.

As for those who work in the FTZ, their lives can hardly be said to have been improved by the scheme. Recruited on a 'hire and fire' basis, they have no job security, are paid pitifully low wages, and are virtually forbidden to strike. Moreover they are subject to the most demeaning working conditions: at one factory, there were just four lavatories for a workforce of 700 people—and it was forbidden to use the lavatory except in a half hour lunch-break.

But it is Sri Lanka's 'win or lose' commitment to the Mahaweli Development Programme that has come in for the most criticism—with even the World Bank labelling the project 'overambitious' and 'a high-risk strategy'. At the root of the problem, says the Bank, lies Jayawardene's 1977 decision to abandon the previous government's step by step approach to the

land. They must have worked—or we would no longer be cultivating this land.

Goldsmith: *Have you tried to use artificial fertilizer?*

Tenakoon: Yes, I have to because for the last few years I have been growing the hybrid rice that requires fertilizer.

Goldsmith: *What effect does it have on the rice?*

Tenakoon: It weakens the paddy-plants and the insects build up so we must use more and more pesticides.

Goldsmith: *In general did you produce more paddy than you do today?*

Tenakoon: I have one acre of paddy. In a very good year it produces one hundred bushels—which is a lot. My family needs seventy-five bushels a year so in a good year I have a surplus. The trouble is one needs a bigger and bigger surplus to live on because we are becoming ever less self—sufficient. Perhaps my father produced less paddy than I did but he needed less. Also he could be sure of producing enough for his needs each year because he planted so many varieties; some always grew well whatever the problems we encountered in a particular year. Each one of these varieties was less vulnerable to severe conditions than is the hybrid variety we use today. This simply dies when there is a drought and we are getting worse droughts every year, as everybody knows, because they have cut down the jungle. Another problem is that the hybrid paddy does not keep. If you try to store it it gets mouldy in a couple of months.

Goldsmith: *How long did the traditional varieties keep?*

Tenakoon: For at least three years.

Gunasekara: I remember my father cursing my mother for cooking new rice in the home when there was still three year old rice in the storage house. I think that the method of storage was also important. The rice was stored in large earthenware pots which were put on a stand so that the rats couldn't get into them. The earthenware is porous so that the rice remained aerated and cool. Also, the pot was lined with layers of lime leaves and also *kara* leaves which would serve to repel possible insect pests.

Goldsmith: *I am sure the reason why modern hybrids do not store well is that their water content is much higher. If you use artificial fertilizer, the weight of your produce increases but this is largely due to its water content. If you dry the produce you find that the weight is very much the same as it was without the use of fertilizer. In Europe, two studies have shown that storage problems in the third world are largely due to this increased water content. One of these studies was done at Sussex University by the Institute of Development, the other by UNEP.*

Tenakoon: In any case the hybrid wheat has no taste, the flour we make from it tastes like wheat flour.

scheme, which would have seen the project completed in thirty years. Instead, Jayawardene's United National Party decided to 'take time by the forelock' and opted for an 'accelerated' programme, aiming for completion within six years. That decision, says the World Bank, was 'bound to place an enormous strain on physical and financial resources'—so much so that the scheme now poses a threat 'to macroeconomic stability'. Indeed, the Sri Lankan Government is even now seeking some 280 million dollars (US) to bridge the massive shortfall in foreign finance for the project.

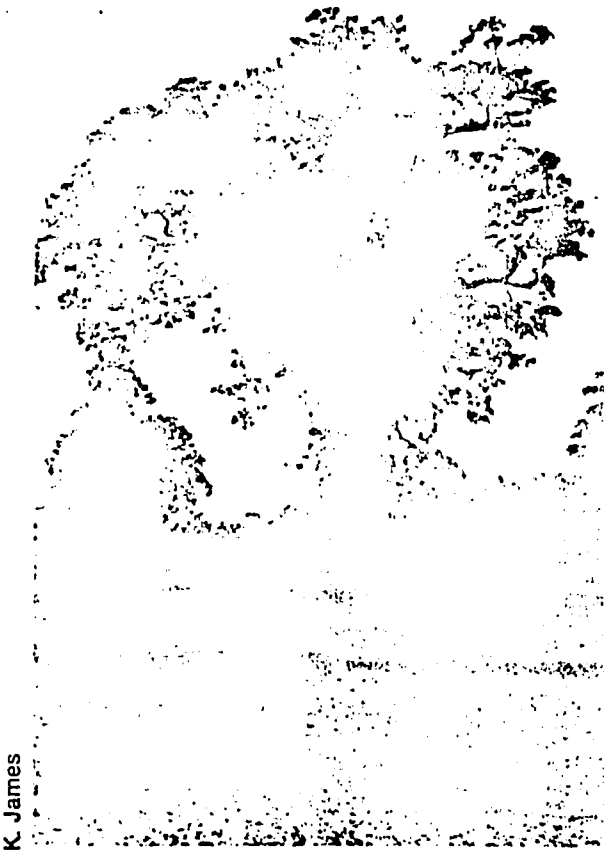
Finances apart, there is also increasing concern over the social and ecological effects of the programme. Some 650,000 acres of forest are being cleared to make way for the project—this in an island whose forest cover, according to a recent Dutch study, has shrunk from 44 per cent in 1965 to a mere 5 per cent today. Such deforestation is likely to reduce greatly the flow of the Mahaweli River during the dry season and, thus, lead to salinisation of downstream areas due to the encroachment of seawater. During the monsoons, however, flash floods are likely to be the order of the day—bringing with them severe erosion and the almost inevitable silting-up of the dam reservoirs.

Ironically, deforestation is already causing climatic changes which could undermine the whole purpose of the programme. Rain which used to fall between Sri Lanka's two monsoons no longer does so: "Since the monsoonal pattern in the country has been very erratic over the years, the whole basis of the project to be able first to receive the necessary water and secondly to receive it in time for the two cultivation seasons, is brought sharply into question," says Paulene Doige of *Consulting Engineer*.

Thousands of people are to be resettled but much of the land designated for resettlement is of poor quality, often covered with tough illuk grass (all that survives after the forests have been felled) and increasingly the victim of salinisation. Malnutrition in the Mahaweli area is now significantly higher than the national average (19.6 per cent as opposed to 6.6 per cent) and there are growing signs of social tension. Last year, a drought in H area—one of the first irrigation schemes—brought widespread hunger and angry speculation that the programme is designed less to benefit the rural poor than to provide electricity for the naval port at Trincomalee. Indeed, it has been pointed out that those who are reaping the most obvious rewards from the project are the foreign contractors who are building the dams—an estimated 70 per cent of Sweden's aid, for example, will return to Sweden via the Swedish construction company building the Kotmale dam. In addition, one thousand jobs have been created by the project in Sweden and over 200 Swedes are employed working on the dam.

Clearly it is time for Sri Lankans to abandon Jayawardenepur and return to the values of the traditional village house.

Nicholas Hildyard



K. James

Mee Tree: a symbol of tradition.

For all those reasons and many others I am giving up hybrid rice and intend to cultivate the old varieties again, the trouble is finding the seed but I am getting all the local farmers together so that we can help each other return to the traditional agricultural system.

There is another advantage of the old system; it is that we used to produce all sorts of foods that we cannot produce any more.

Goldsmith: *Which ones?*

Tenakoon: To begin with we used to go into the jungle to get many foods such as the Baulu, Weera, Jak fruit, Himbutu, Wood Apple, Wild Pear and Avocado. Now the jungle has been cut down, we no longer have access to these foods. We must try to recreate the jungle.

We also used to obtain a vast variety of fish from the streams, the tanks and the paddy fields when they were flooded. Some of these fish such as the Lula, Kawaiya, the Hadaya and Ara could live in dried up ponds. In this area at least, they have nearly all disappeared, some of them eaten by the Tillapia that have been brought here from Africa and foisted upon us by the government. The Government insists that Tillapia only eats vegetable matter but this is not true. Others especially those that live in the paddy fields have been poisoned by pesticides. Since there are no longer any fish the larvae of the mosquitoes that transmit malaria can now survive the dry period. As a result malaria has become a lot more serious problem than it was.

The Lula that used to thrive in the tanks was also of great value to us because it favoured the formation of blood. That is why we always fed it to pregnant mothers. There were other fish that we obtained from the tank, the Lorale, the Petiya, the Hirikanaya, the Walaya, the Anda and the Ankutta. The Korale in particular was a very sweet fish. Now we only have the Tillapia; it is not bad but it does not replace all the traditional species, all of which had special uses. Also the Tillapia does not go into the paddy fields, it stays in the tanks. The change has unquestionably impoverished our diet and also our lives.

Goldsmith: *What other food did you obtain?*

Tenakoon: We derived a lot of vegetable food from the tanks, for instance Olu rice—the seeds of the Olu plant, a sort of lotus. We also ate the green stems of the Olu. In addition, we grew lotus yams in the tanks and we also made flour from the Kaketi roots that we obtained from the tanks. Nor must we forget the gardens or the 'gevate' that we cultivated there. We grew pawpaw, mangoes, bananas, coconut, jak fruit, pepper vines and some vegetables such as bean grams and bean sprouts. These we still cultivate up to a point but they are not what they used to be.

Nor must we forget the Chena or slash and burn cultivation as it is referred to in the West. It was carried out in the hills behind the village which were not suitable for paddy cultivation. After we had cultivated them for a few years we would abandon them and only return 10-14 years later, by which time the jungle had regrown. Each family would cultivate about half to

one acre which was not private property—cultivation there was in common with other villagers. The main crops we would grow there were millet, Kuruken and other dry grains. In recent years population growth reduced the cycle to 4-5 years which did not fully allow the jungle to recover. In any case today Chena cultivation is discouraged by the government and much of the land once used for this purpose has gone into permanent cultivation for which it is not suited.

Goldsmith: *It seems that practically all the traditional foodstuffs also had medicinal uses, did you have any effective traditional cures for malaria?*

Tenakoon: A very effective one. We use Banja or Ganja—marijuana as it is usually known. This was one of our most important medicines; it used to be called "the leaf that can win the entire world" so great were its medicinal uses. We used to reduce it to powder and boil it like tea and add juggery (sugar from the Kittul palm) to it. It was not only effective against malaria but also against worms. We often took it with other foods for it reduced the time it took for them to be absorbed by the blood. Honey has the same effect.

Gunasekara: Robert Knox the Englishman who was shipwrecked in Sri Lanka in the 16th century and spent seventeen years here as a prisoner of the king referred to Banja as the cure for malaria in his *Account of Ceylon*. The plant was called "the ruler of the three worlds".

Goldsmith: *Do you still use Banja for medicinal purposes?*

Tenakoon: No, today it is banned by the government.

Goldsmith: *It is said that you can increase yields by transplanting the paddy plants when they have just sprouted, have you tried to do this?*

Tenakoon: The government tries to force us to. They learnt this technique from the Japanese. In many areas of Japan where they grow paddy there is an annual frost which often lasts as long as three weeks. The plants get damaged if left in the paddy fields. They get round this by broadcasting the seed inside greenhouses where they are protected from the frost. They are then transplanted into the paddy fields. But here we find that the plant after being transplanted is sick, it takes as much as two weeks for it to recover. The only way to get round this is to use artificial fertilizers to give them a fillip and pesticides to protect them in their weakened state against pests. Also the transplantation takes up a lot of time and this interferes with other activities such as Chena cultivation and tank fishing. The government is also very keen that we should have three harvests instead of two which they claim is possible with modern agricultural methods but this takes up a lot of time and interferes with most of other activities—including our social life—besides which it will provide a permanent niche for the brown hopper.

Goldsmith: *Have you tried to use a tractor?*

Tenakoon: I haven't but many farmers have done so. It is not as good as the buffalo. A pair of buffalos weigh about 2,000 pounds. Their feet are just the right shape for pressing down the soil in the paddy field, which as a result forms a gley or crust which holds the water in. They also stir up the soil above the gley and loosen it.

The buffalo also produces about 1,500 pounds of dung every year and a vast amount of urine both of which contribute very significantly to the fertility of the soil. The tractor on the other hand is much too heavy for the paddy field. Wherever it passes it breaks through the gley and water penetrates into the sub-soil. So if one uses a tractor one requires very much more water and this especially today is unlikely to be available. Also it stirs up the soil. The light organic matter comes to the surface and is lost to the flood water. So its use leads to reduced fertility. Needless to say of course the tractor neither defecates nor urinates, hence makes no contribution to soil fertility. Nor does it produce milk and hence ghee (clarified butter) nor curd, both of which play a very important part in our diet. Nor, for that matter, does it reproduce itself, when it dies one simply has to buy another tractor.

Of course it saves labour and that is what we are always told, but my profession is agriculture which means that I must be in the fields, that is my life. I don't want to sleep all day nor to spend my time gossiping with my neighbours. In any case what is the point of saving labour in a country which has such high unemployment. In the old days, labour saving devices made still less sense, the family and the community were intact and there were always enough people for the ploughing, the sowing, the harvest and the maintenance of the tanks.

Senanayake: If they had not cooperated in this way the tanks would never have been maintained. The civilisations of Anuradapura and Pollonaruwa would never have existed. We would never have been able to sustain a population which was possibly as much as fifteen million people, equal to the present population.

Goldsmith: *Isn't the government trying to restore the old irrigation system?*

Senanayake: They have restored a number of tanks with World Bank aid but only the big tanks and that is not enough. The big tanks are only of use if the small village tanks are also in use and these have largely silted up. It is the job of the Department of Irrigation to maintain them but they cannot be maintained by a bureaucracy. Once the social structure of the village has collapsed they must inevitably silt up and remain that way. In fact if we wish to restore our traditional agriculture we must first restore the social life and the culture that gave rise to it and without which it cannot be conducted.

Tenakoon: I fully agree. It is not the tanks that must be restored but the whole system of tank cultivation—and this cannot be done by bureaucrats. We used to have five different types of tanks. First of all there was the forest tank which was dug in the

jungle above the village; it was not for irrigation but to provide drinking water for the wild animals that live in the jungle. They knew it was for them, they had thousands of years to learn this, so they do not come to the village in search of water and interfere with our agricultural activities.

The second sort of tank was the mountain tank. There were no canals running from it, its purpose was to provide water for Chena cultivation.

The third sort of tank was the erosion control tank known as the 'Pota Wetiye'. We used to have several of those and the silt would accumulate in them before it could build up in the storage tank. They were so designed as to be easily desilted.

The fourth was the storage tank. There were usually two of them. They were known as the twin-tanks. They were used in turn. One was in use while the other was being maintained. These were connected to a large number of village tanks which they fed and which fed them too with their overflow.

Senanayake: These tanks played an essential part in the traditional rural life. One could not imagine a village in the dry zone without a tank any more than one could imagine it without a temple or rice paddy. In fact the three basic constituents of the village were the temple (*dagoba*), the rice paddy (*cumbura*) and the tank (*wewa*). Of course there were other important constituents as Tenakoon has told you. The jungle above, the garden and the scrub where the Chena cultivation took place.

Tenakoon: Absolutely.

Goldsmith: *What did the old traditional village look like?*

Tenakoon: The houses were built very close together. In this way they occupied the minimum amount of precious land. This arrangement favoured the essential cooperation among the villagers. For instance, one woman could look after the children of a number of neighbours at the same time which is important when the maximum number of people are required in the fields to harvest the crops or maintain the tanks.

Goldsmith: *How was the maintenance of the tanks organised?*

Tenakoon: It was part of the Rajakari service that was owed to the king. Everybody had to provide this service forty days of it a year. It was not for the purpose of serving his personal whims or caprices. It was work that had to be done in the interests of the whole community.

Gunesekara: Indeed one of our Kings tried to get the people to desilt the artificial lake in front of his palace in Kandy as part of their Rajakari work, they refused to do so saying that this was not community work. It was his personal responsibility and he had to arrange for it separately.

Senanayake: Of course the British misunderstood the whole principle of Rajakari, they thought it was abusive, a relic of Kandy's feudal past and they abolished it. This was

one of the most destructive things the British ever did. It destroyed the very principle of cooperation in this country. Fortunately it did not destroy it completely, it lingered on in a somewhat rudimentary form. The villagers still worked fourteen days each year for the common good, a practice that was finally stopped in 1970 by the Irrigation Department. Bureaucrats will not tolerate any co-operative work by villagers. It reduces the demand for its services. If the Rajakari system were still functioning there would be no need for the bureaucrats of the irrigation department. Of course, now that it is their responsibility to maintain the tanks they do nothing about it.

Tenakoon: "What was everybody's business had become nobody's business."*

Goldsmith: *I take it from all you have told me that you reject outright the whole package of western technological agriculture?*

Tenakoon: I do.

Goldsmith: *You would prefer to be a traditional farmer of the old school?*

Tenakoon: I would, but everything is done to make this as difficult as possible. In the eyes of officialdom I am a pauper because I am a "subsistence agriculturalist". I am uneducated because I have not been subjected to western education. All my knowledge, in particular the traditions and culture of my people counts for nought. I am even considered unemployed because I am not part of the formal economy. I make little contribution to the workings of the market. I have even been told that I am a beggar.

Senanayake: All this will change soon, you will be the model and our youth will flock here to learn our traditions from you. This must be so because current trends cannot be sustained. The problem has got out of hand. The jungle has been everywhere cut down to make way for plantations. As a result there has been vastly increased erosion and the tanks have silted up at an unprecedented rate. There is no longer anybody to maintain the anti-erosion tanks, the twin tanks or the village tanks. In some villages the tanks are completely silted up. Elsewhere they are half silted up. In the meantime everybody is moving to the towns and the cities. Colombo now has vast slums which did not exist a decade ago. If current trends continue Colombo will soon look like Calcutta. People are becoming to depend more and more on the formal economy for their food and its price is going up by leaps and bounds. The government is not interested in feeding the people, if it were it would not use half our land in the wet zone to produce cash crops for export. Nor would it be building the vast complex of dams that make up the Mahaweli scheme. It would restore instead the agricultural system of the past. This of course it cannot do without abandoning its present priorities—development in particular. The attempt to transform this country into a tropical version of a western industrial nation is suicidal—it can only lead to ever greater malnutrition and indeed famine. And all this in Sri Lanka which should be, as it has been in the past, a "land of milk and honey".

*A comment made by a British official at a Select Committee set up by the British Parliament in 1849 to consider these matters.