

*Land Use Problem in the Gal-Oya Valley (left bank) Peasant Colony**

THE Gal-oya (left bank) colony, the foremost of the peasant colonies in the Dry Zone of Ceylon covers an area of 24,884 acres under cultivation with a total colonist population of 4,897 in 1963. The allottees have been settled in 40 village units, each comprising approximately 150 families. Each allottee has received approximately three acres of lowland and two acres of highland. Paddy is the dominant crop cultivated on the irrigated lowland during both the *Maha* and *Yala* seasons. The River Valleys Development Board had encouraged the allottees to take up to the cultivation of subsidiary crops, especially tobacco on the lowland during *Yala*, with a view to conserve irrigation water, but this has not been a success. The crops cultivated on the unirrigable highland fall into four main groups: (a) tree crops (b) rainfed paddy (c) dry grains and (d) vegetables.

This paper is an attempt to analyse the problems of land use in the Gal-Oya colony. It emerged from field investigations in three representative villages of this colony carried out in 1966. It is believed that a study of this nature would be useful in two ways: (1) highlighting the problems of the peasant allottees in Gal-Oya, would lead to effective steps being taken to their speedy solution and (2) lessons learnt in Gal-Oya could be utilised in planning other major settlement schemes, as the Uda Walawe Development Project currently being undertaken by the Government.

The three villages selected for this study, numbers one, seven and nine represent respectively the three principal categories of allottees settled in this colony: (1) Compensation, *purana* (old) villagers displaced from the area submerged by the Senanayake Samudra; (2) Local, landless Tamil and Muslim villagers and those with little land in the densely populated East coast strip of the Batticaloa district and (3) Immigrant, the colonists proper, consisting of people from the land-hungry villagers of the Wet Zone. The principal method of investigation followed in this study was

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questioning the allottees. 130 allottees comprising, 48 allottees from village one representing the compensation category, 41 allottees from village seven representing the local category and 41 allottees from village nine representing the immigrant category, selected on the basis of a random sample, were questioned.

The problems are discussed below.

All lowland allotments in the colony were not cultivated regularly during *Maha* and *Yala*. During the agricultural year 1965-66, while 109 allottees out of the 130 allottees interviewed, cultivated their lowlands during the *Maha*, 84 allottees cultivated during the *Yala* season. The reasons for non-cultivation by some allottees during *Maha* were: (1) unirrigability of their fields due to defective field channels or due to situation of the fields above the level of the channels (2) ill-health and (3) financial difficulties. In addition to the above mentioned factors which operated in all the three villages, it was found that in village seven, the Tamil allottees were tapping water irregularly, very much more than their share, with the result that there was not enough water lower down in the channels to feed the fields of the Muslim allottees, who being a minority in this village were helpless. Further, stray cattle from the neighbouring Tamil villages of Anamala and Navithinveli also destroyed the crops cultivated by the Muslims. These factors forced many Muslims to lease out their lands to the *podiyars*, the rich middle class land-owners, and work as agricultural labourers. A larger number of allotments remained uncultivated during *Yala*, since in addition to the operation of the same factors as in *Maha*, there was a general shortage of water in the colony as a whole and this was particularly felt in villages further away from the source of supply: the Senanayake Samudra. Thus in village seven, the furthest situated from the Samudra, only nine allottees out of the 41 allottees interviewed cultivated the 1966 *Yala* crop.

The cultivation of tobacco as a rotational crop on the low-land allotments during *Yala* was practised only in village nine, even here only 22 allottees out of the 48 allottees interviewed cultivated this crop in 1966, on extents of land varying from a quarter to half an acre. The reasons for non-cultivation of tobacco during this season by the greater majority of the allottees interviewed were (1) unfavourable sandy, saline or ill drained soils (2) lack of sufficient knowledge with regard to the cultivation practices pertaining to this crop and (3) the absence of a proper organisation to

market the produce. The cultivation of tobacco during *Yala* would not only conserve irrigation water, but it would bring in much greater income to the allottees than from the cultivation of paddy.

Tree crops cultivated on the high-land allotments of the three villages were in varying stages of successful growth. Coconuts were doing well in all three villages. Most allotments in village one had between eight to 20 trees per allotment while several allotments in villages nine and seven had over 20 trees. One allotment in village nine contained 150 trees and another in village seven, 100 trees. Many trees were in bearing. The successful growth of coconuts in these areas could be explained with reference to the high underground water-table here, due to situation in proximity to tanks, major irrigation channels, and the lagoon. Citrus cultivation was of significance in village one. The number of orange plants per allotment, in the case of the colonists, interviewed, varied between ten and thirty, while there were two allotments with nearly 100 plants in each. Lime was relatively less important than orange. Citrus cultivation was much less important in the two other villages: seven and nine. Its greater importance in village one could be attributed to the fact that the allottees here had practised citrus cultivation in their villages of origin in the tank-bed area. The cultivation of *Murunga* was practised only in village seven, where it was cultivated in nearly 14 allotments. Even in this village, *Murunga* cultivation was of not much importance, since nine out of the 14 allotments contained only a single tree in each allotment. *Murunga*, though suited to the Dry Zone because of its drought-resistant character, was not widely grown because of poor crop prices due to inadequate facilities, available for ready marketing. Paddy cultivation based on the North-east monsoon rains was practised in all three villages. The extents cultivated varied from quarter to one acre. It was most important in village seven, where several allottees cultivated paddy on the entire extent of the highland. The cultivation of dry grains was of any significance only in village one, where many allottees cultivated a *Yala* crop of maize on about three quarter acre plots. This could be attributed to the fact that these allottees were mainly *chena* cultivators in their home villages. The other allottees had no tradition of cultivating dry grains. Cultivation of vegetables was of some significance in villages one and nine, where many allottees cultivated plots varying in size from small extents to about quarter to half an acre during *Maha*. The limited cultivation of dry grains was due to unsuitable sandy soils of the highland allotments, surfeit of water during *Maha*, consequent on the North-east monsoon rains, which are invariably

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augmented by depressions, shortages of family labour and a special factor operative in village one, the problem of eradicating the weed, *illuk*, which is a menace to the allottees in their highlands. Most of the vegetable growers in these two villages were cultivating chillie and a few, onions. Vegetable cultivation was hardly of any significance in village seven, where only a few allottees were cultivating a little manioc and long beans. The insignificance of vegetable cultivation here may be attributed to two factors: (a) the Tamils and Muslims of the Batticaloa district had hardly any background and experience in the cultivation of subsidiary crops in their villages of origin and (b) the relative importance of growing paddy on the highland.

On the whole, highland allotments were more systematically developed in village nine than in either of the other two villages. They were least developed in village seven. While infertile sandy and gravelly soils and the lack of water during *Yala*, were problems facing development of agriculture in the highlands in general, *illuk* problem was particular to village one and salinity consequent on proximity to the lagoon to village seven. Everywhere lack of labour was a problem in view of the limited availability of family labour. The allottees considered it uneconomic to hire labour for highland cultivation. It was found more remunerative to work in the Hingurana sugar plantation at a daily wage of Rs. 3.50, during off seasons of paddy cultivation rather than devote their time to the development of the highland allotments. The better development of highlands in village nine could be explained with reference to the better agricultural traditions of these allottees in their villages of origin in the Kandy district.

The allottees' animals consisted of buffaloes and neat cattle. Several problems confronted the allottees in rearing animals. The chief of these was the lack of sufficient pasture within the colony. Animals were usually maintained in the highland allotments, in near by forests or in other uncultivated stretches in and around the villages. Forest areas are fast being cleared up for expansion of colonisation or are being occupied by squatters. Friction among allottees was quite frequent due to cattle trespass on one others' allotments and the resulting damage to highland and lowland crops. This resulted from the animals wandering astray due to frequent thefts of ropes and chains used to tie them and the absence of perimeter fences around most allotments. During the dry season it was a problem to find sufficient feed to the animals within the colony as all vegetation got trampled up. Feed has got to be brought from neighbouring *purana* villages

several miles away. Cattle diseases as mastitis and foot and mouth disease were prevalent and tended to destroy the animals and the allottees complained that the veterinary services available were inadequate. These problems act against any significant development of animal husbandry in the colony. Added to these, it was found that the demand for animals to plough and thresh was dwindling due to the increasing supply of tractors and the speed with which work could be done with their use.

Improved methods of paddy cultivation were practised by these allottees only to a limited extent. Improved varieties of seed paddy propagated by the Department of Agriculture were used. During Yala 1966, the most popular varieties of seed paddy used were H4 and H5. However the allottees were not obtaining fresh stocks of seed once every three years to maintain the purity of seed as recommended by the Department of Agriculture. Instead they used paddy from each year's harvest as seed or obtained a stock from a fellow farmer. The Government distributes seed paddy to the allottees through the net-work of Co-operative Societies at subsidised prices. However stocks of seed paddy were not available at the Co-operative societies at times when the allottees needed them. A case in point was the Wavinna Co-operative Society in village one which was not functioning at the time of this investigation. Seed paddy had been distributed by this Co-operative Society for the last time in 1963. The allottees said that even if seed paddy was available at the Co-operatives, the purity of the seed would have been questionable and it would not have been possible to obtain the seed at the required time. Some allottees were ignorant of the benefits that could be derived by changing seed paddy as advised by the Department, while many said they do not have the necessary funds to buy seed paddy from outside at unsubsidised prices.

Transplanting was practised to any significant extent only in village nine, where 23 allottees practised this method on extents varying from half to two acres during *Maha* 1965-66, while 11 allottees transplanted similar extents during *Yala*, 1966. In village one only three allottees transplanted on about half acre extents during *Maha* and there was no transplanting during *Yala*. In village seven this practice was hardly of any significance. The factors which restricted the practice of this method were: (1) shortages of family labour, the average size of the family work force being three. In village seven this problem was further accentuated by the fact that Tamil and Muslim women folk did not participate in transplanting; (2) the expen-

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diture of hiring labour from outside, the cost of hiring a female labourer is rupees three per day and in addition free food had to be supplied. Ten labourers are needed to transplant one acre in a day. (3) sandy soils, which lack the property of water retention; (4) shortages of water especially during *Yala* and (5) the undulating nature of the land in some allotments, which encourage an outflow of water, transplanting had to be carried out in standing water. The allottees who did not transplant broadcasted their fields. Some allottees were of the opinion that transplanting results in a better growth of the paddy plant, hence there is a greater chance of attack by pests and disease, especially the stem-borer. This could result in a greater expenditure on pesticides.

Practically all the allottees interviewed in village nine weeded their fields using both weedicides and manual labour during *Maha* and *Yala* 1965-66. Shortages of family labour hindered more intensive manual weeding. The extent to which weeding was practised was less in village seven, where 26 allottees out of the 41 interviewed, weeded their fields with weedicides during *Maha* and seven allottees weeded the *Yala* crop. Hand weeding was of very little significance in this village. Weeding was least practised in village one where only seven allottees used weedicides during the two seasons. The allottees' reasons for the limited practice of weeding in villages seven and one were: (a) the absence of facilities in Co-operative societies to obtain weedicides and the lack of funds to buy these from outside sources at unsubsidised and higher prices; (b) shortages of sprayers and (c) shortages of family labour, the daily wage rate for weeding could be as much as rupees five per day and free food. Some allottees had found that certain types of weed, *berala* and *katugedera*, could not be eradicated by any means known to them.

The majority of the allottees in villages nine and seven used artificial fertiliser during the two seasons in the agricultural year 1965-66. The number of allottees that used fertiliser in village nine was greater than the number in village seven. The use of fertiliser was hardly of any significance in village one, where only two allottees manured their fields. Some allottees in village nine could not use fertiliser due to inability to avail themselves of the credit facilities for the purchase of fertiliser from co-operatives, consequent on unsettled debts. In the case of the other two villages, the problem was that the co-operatives had no fertiliser for sale. Fertiliser was available in the open market, but at a much higher price than the Government subsidised, price and the allottees could not afford to

buy it. Some allottees in village one considered that the sandy soil in their allotments did not absorb fertiliser and when applied it was blown away by the wind.

The limited practice of the improved methods of paddy cultivation by the allottees resulted in poor to medium yields from the lowland allotments. 92 allottees secured yields between six and 30 bushels per acre for *Maha* 1965-66 and 33 allottees obtained yields between six and 25 bushels per acre for *Yala* 1966. The allottees attributed these yields to the infertile sandy and gravelly nature of the soils and the problem of insufficient water supply due to inadequate control exercised by the cultivation committees regarding the distribution of water. Paddy yields were highest in village nine and lowest in village one while those of village seven were intermediate. The relatively higher yields secured by the allottees of village nine reflect the greater extents of land transplanted and weeded here. These allottees also used greater quantities of fertiliser than the allottees of villages, seven and one.

Statistics of the income of the allottees from the sale of paddy reveal that nearly 70 percent of the allottees interviewed received gross incomes not exceeding Rs. 750/- during *Maha* 1965-66 and nearly 90 percent of the allottees received similar incomes during *Yala* 1966. These incomes reflect the state of the paddy yields referred to earlier. It was found that about 75 percent of the paddy crop was sold during each season. The allottees other sources of income were: (a) sale of tobacco and highland produce, (b) hiring draught animals (c) hiring labour and (d) trading. Of these, only one source, hiring labour, brought any significant income to a sufficiently large number of allottees. 39 allottees out of the 130 allottees interviewed, derived incomes varying from Rs. 30 to Rs. 800 per annum by hiring labour either to *podiyars* for work in their paddy fields or in the Government sugar plantation at Higurana.

The principal conclusion that emerged from this study is the low level of income derived from agriculture. This has forced many allottees to supplement their meagre incomes by hiring their labour.

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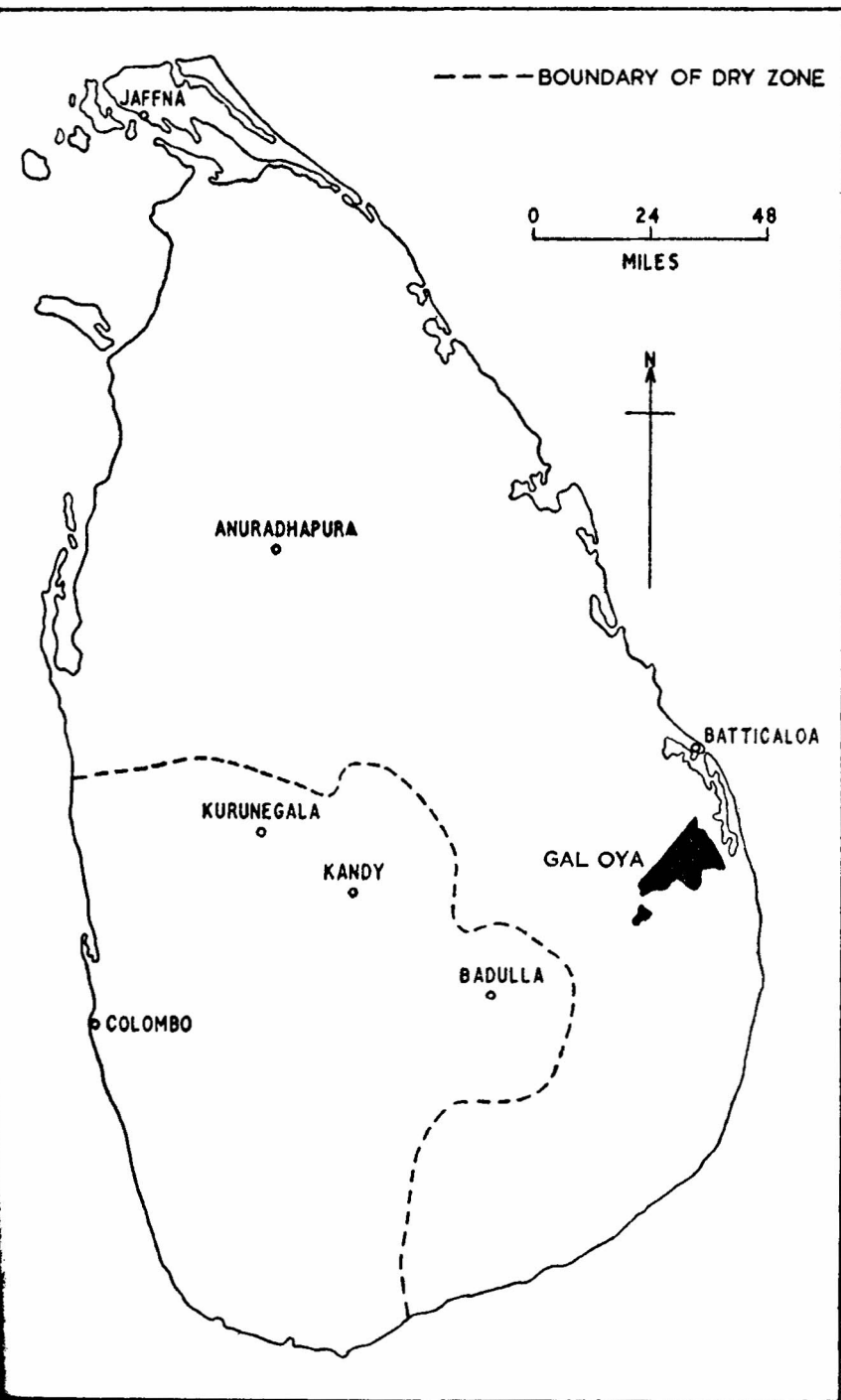


Figure 1' Location of Gal Oya (left bank) Colony

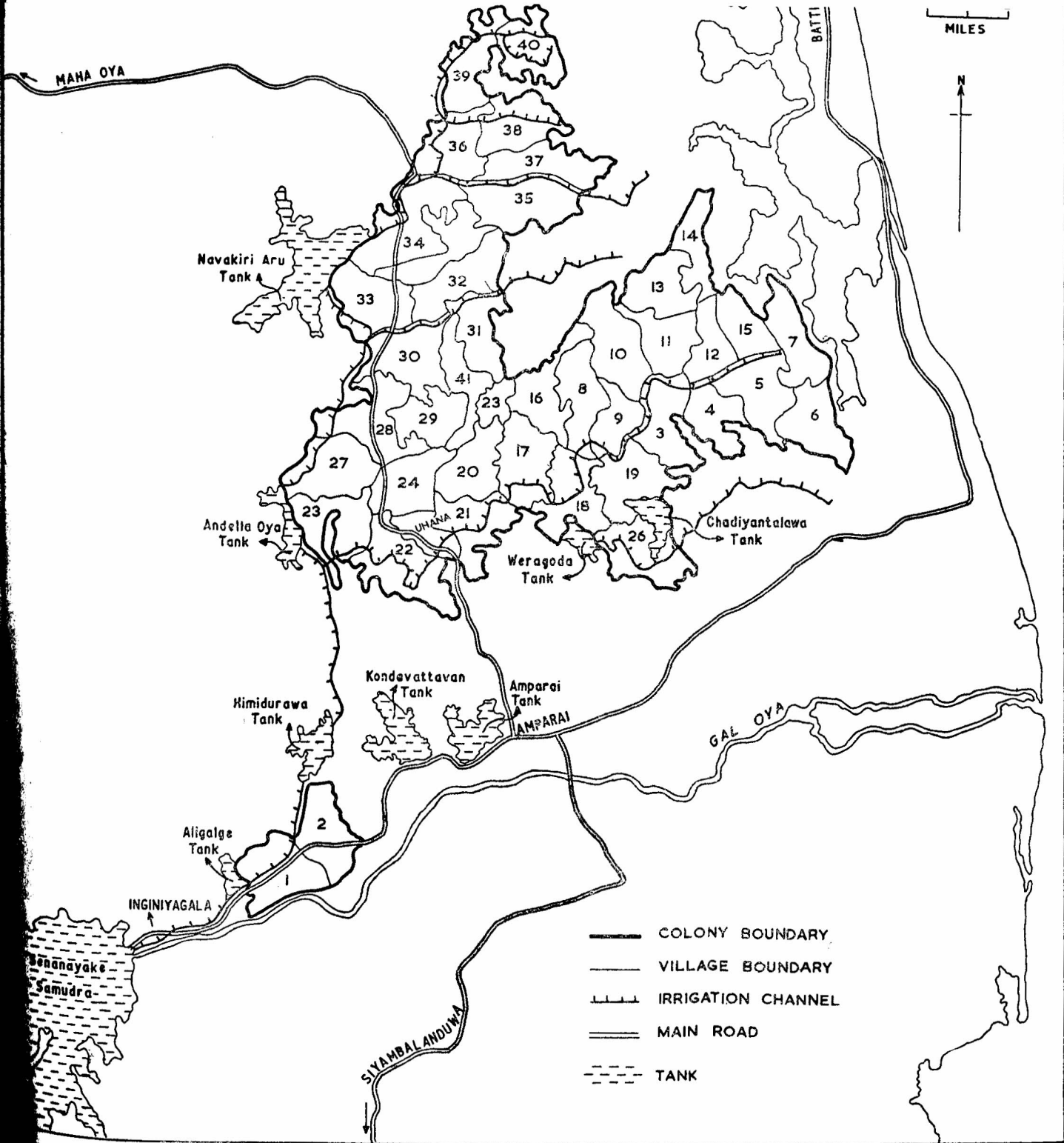


Figure 2 Layout of Gal Oya (left bank) Colony