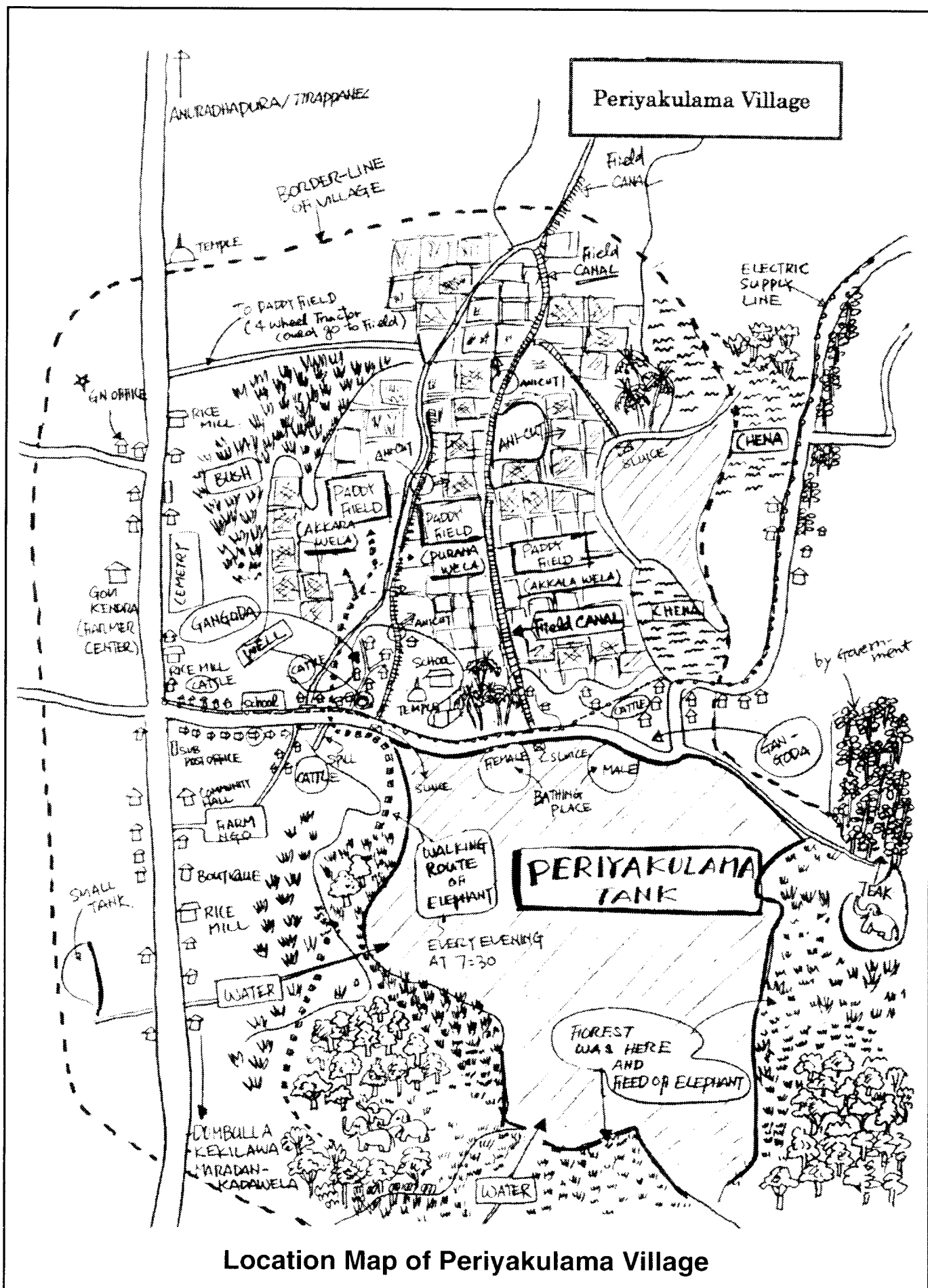
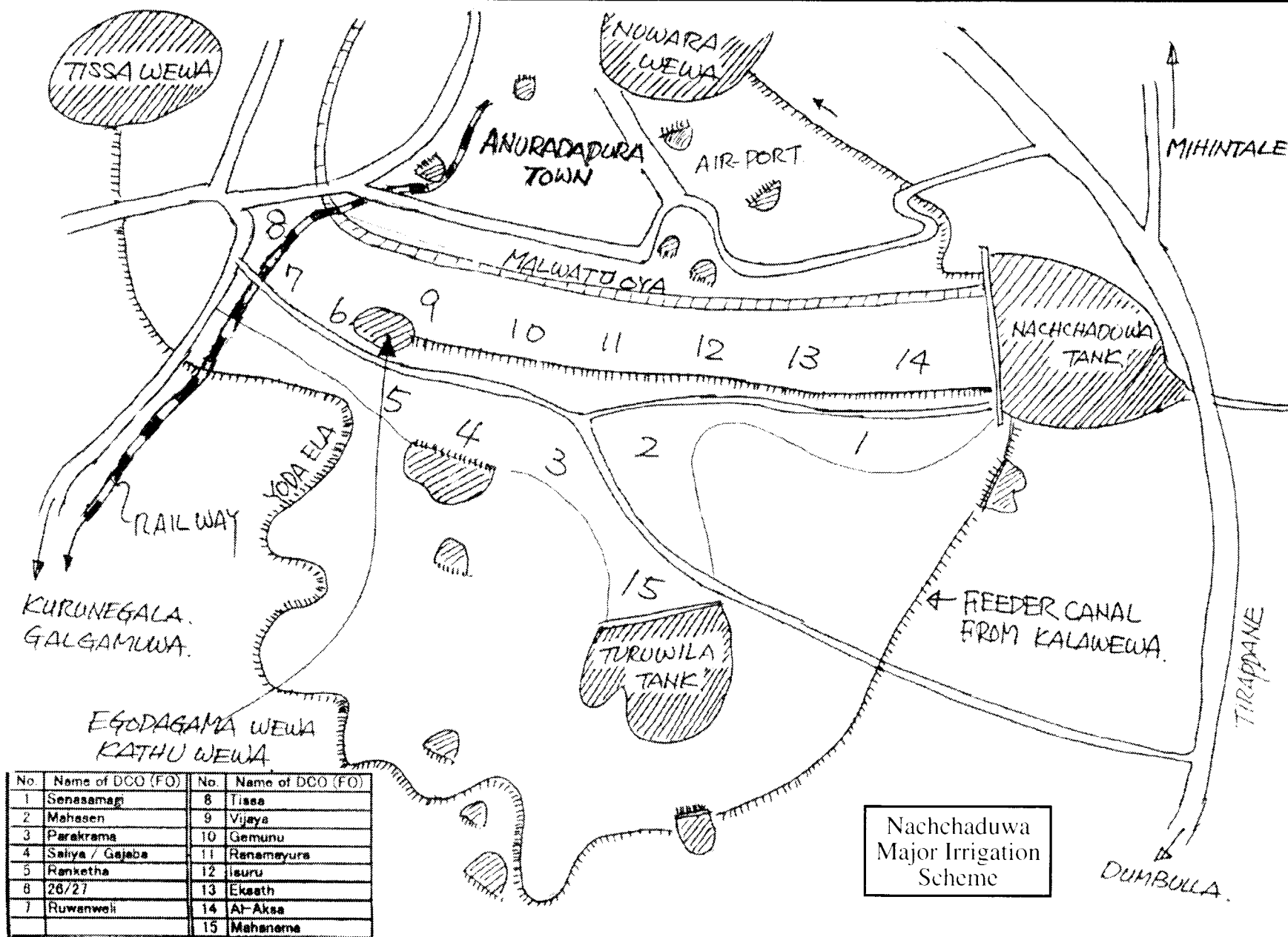


APPENDIX - V

Rapid Rural Appraisal (RRA)





Location Map of Nachchaduwa Major Irrigation Scheme

APPENDIX - V RAPID RURAL APPRAISAL (RRA)

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APPENDIX - V RAPID RURAL APPRAISAL (RRA)

Chapter 1 INTRODUCTION

1.1 Background

Participatory programs have been used in many ways to develop rural hydrological societies in the dry zone of Sri Lanka. In considering the use of farmer participation programs as a tool in development planning, it is important to understand the development stages of each rural society and be aware of the inherent capabilities, ideas and visions and potential for future development of the rural folk. How to implement and adopt a sustainable and community centered development program has been given much weight in the preparation of this master plan. Consequently, as an initial step an inventory survey, a questionnaire survey and RRAs (Rapid Rural Appraisals) were implemented simultaneously. The inventory and questionnaire surveys will gather quantitative data on the rural resource base and farm household conditions, while the RRAs will help to collect information and understand, qualitatively, the rural landscape. Furthermore, an attempt is made to recognize the potential of the farmers to undertake the sustainable operation and maintenance of irrigation facilities.

Rural society in the dry zone of Sri Lanka has a long history, and each village also their own history, with their own set of traditions and customs. Thus creating a social environment built on a deeply rooted historical foundation. It is sometimes difficult for outsiders to understand the intrinsic thoughts and ideas of the farmers. In addition, the present Agrarian Services Act and other related ordinances also embody some of the cultivators' traditional customs and thinking. No sustainable program for the development of farmer society could therefore be prepared, without any attempt being made to learn from the rural people and understand their own perception of society.

1.2 Objectives

Objectives of the RRA are:

- Understand the relationship between the community and irrigation water management practices of farmers in small, medium and major irrigation systems;
- Realizing the present development status and the potential of farmers Organisations and the farmer community.
- Understanding the tradition, custom and common issues in the community
- Ascertain the legal arrangements and the institutional supporting system with farmers' situation.

Although there is many kind of RRA tools to survey. This time, semi-structured interview survey was mainly implemented for three groups (FO leaders, young generations and CBO leaders/general community) in each of the 100 villages, in consideration of the information that rural community abound in particularities and regional characteristics. We must pay attention especially to avoid creating polarity between the villagers in order to proceed a project or take any action in the community. In addition, when the Participatory Development Project is intended to be implemented, supporting side (mostly government officials in the field) and beneficiaries side (villagers, farmers) in the project should be made fruitful relations with each other.

So, attention was paid to qualitative aspects of the community changes and requirements by the semi-structured interview. In addition to this semi-structured interview survey, more detailed RRA survey was implemented to selecting 3 villages – Aathikulama, Periyakulama and Nachchaduwa schemes where seemed regionally characteristic and high potentials as model. In this connection, surveys proceeded with basic attitude to learn from Sri Lanka to consider the participatory development project, to clear the structure of the community, and observe relation between the assistance side and beneficiaries.

Accordingly, the focus is to get a clear appreciation of farmers' society and the key issues involved in the minor, medium and major irrigation schemes and also to better understand and analyze the data collected through the inventory and questionnaire surveys by conducting the RRAs.

1.3 Methodology

- a) Site visits and Discussion
- b) Study of legal matters concerning to farmers, irrigation water management and its historical background
- c) Secondary data review
- d) Semi-structured interviews and individual interview
- e) Discussions with focus groups and key informants
- f) Community interview and workshop

Note: A workshop was conducted only in Aathikulama.

1.4 Basic Information of Study Area

1.4.1 North Central Province (NCP)

NCP consists of the Anuradhapura and Polonnaluwa Districts. The landscape is flat to gently undulating. The annual rainfall in the Study area ranges from 1,150

mm to 1,800 mm, with highest rainfall received in December. A pronounced dry season, characterized by desiccating winds, blowing from the southwest, is experienced between May and September, during which period cropping is possible only with irrigation water. The mean monthly temperature ranges from 25°C to 29°C.

The natural vegetation in the province consists of four major types.

- Dry mixed evergreen forest
- Reverie forest
- Lowland savanna
- Wet grasslands

The dry mixed evergreen forest is a secondary forest that has also been the traditional site for '*chena*' cultivation (shifting cultivation). Reverie forests grow on the banks of the Mahaweli river system, The reverine forest has many ecological benefits, it serves as a wildlife habitat, nutrient trap, windbreak and riverbank stabilizer.

Fish (fauna) is found in the rivers, irrigation tanks and the '*villu*' (grasslands in backwater swamps of major rivers). The '*villus*' is highly productive fishing grounds, and an excellent spawning and nursery habitat for many species during the rainy season.

(1) Anuradhapura District

The village tank in the Dry Zone irrigation network is part of the sustainable agricultural systems. Most of these tanks are also parts of numerous cascade systems that are characteristic of the old irrigation infrastructure. There are over 2,500 village tanks in the Anuradhapura District. Most of the tanks are silted to varying degrees. Below the tank bund is a piece of waterlogged land called the "*Kattakaduwa*" which supported the typical wetland vegetation through which water flowed before being used for irrigation. The ecological purpose of this marshy area is to absorb salts that might otherwise cause salinity in the paddy fields.

1.4.2 North Western Province (NWP)

NWP consists of two districts, Kurunegala and Puttalam, which together cover an area of 7882.2 sq.km., which is 12% of the land surface of the island. The population is 2.2 million, with an annual growth rate of about 2%. The province has 43 administrative divisions (Divisional Secretary's Divisions) and about 5501 villages with about 459,746 families. About 78% of these units are located in rural

areas. The study area covers 16 DS divisions in the northern part of the Kurunegala District and one DS Division in the Puttalam District. The entire study area lies in the Dry and Intermediate Zones. In the case of “the Dry Zone” Kurunegala, it shows the same natural characteristics as in the Anuradhapura District.

Chapter 2 BASIC DATA OF VILLAGES

| Name of Village | Aathikulama | Periyakulama | Nachchaduwa |
|--------------------------------------|---------------------------------------|---------------------|--|
| Province | North Western | North Central | North Central |
| District | Kurunegala | Anuradhapura | Anuradhapura |
| DS Division | Galgamuwa | Tirappane | NEP Tirappane |
| ASC Division | Mahananneriya | Tirappane | Tirappane Srawasthipura |
| GN Division | Ihala-Palkadawa | Wanamaluyana | 16 divisions |
| No. of Tanks | 02 | 03 | 01 |
| Size of Scheme | Minor | Medium | Major |
| Government Agency to the Tank/Scheme | Dept. of Agrarian Services | Dept. of Irrigation | Dept. of Irrigation IMD |
| Type of Village | Traditional Village | Traditional Village | Settlement |
| No. of Households | 75 | 152 | 3,750 |
| No. of Farm Household | 75 | 147 | |
| Population | 425 | 631 | 23,750 |
| Female | 175 | 333 | 12,163 |
| Male | 250 | 301 | 11,687 |
| Family Size | 5.7 | 4.2 | 6.3 |
| Ethnicity | Sinhala | Sinhala | Sinhala 83% Muslim 15% Tamil 2% |
| Religion | Buddhist and Christian (4families) | Buddhist | Buddhist 78% Muslim 15% Christian 5% Hindu 2% |
| Total Land Area | 250 ha | | 2,706 ha. |
| Paddy Land | 50 ha | 280 ha | 2,383 ha. |
| High Land | 180 ha | | 323 ha. |
| Climate Zone | Dry | Dry | Dry |

Chapter 3 AATHIKULAMA VILLAGE

3.1 Present Condition

3.1.1 Location

Aathikulama is a village in the Kurunegala District and is located close to the northern border of the Kurunegala District. It takes about 2 hours by car (70km) to reach the village from the District capital of Kurunegala. The nearest town is Galgamuwa, which is about 4km from the village, while Anuradhapura town is 40 km away. Aathikulama is in the Ihala Palkandawa GN division, and consists of 3 villages - Aathikulama, Ihala Palkandawa and Alapathawa. Ihala Palkandawa village was set up in 1957 to receive farmer settlers and today it consists of 85 households. Alapathawa, as a village, also has a history of 40 years, beginning with a few persons settling in the jungle. Today it has 7 households.

3.1.2 Vegetation and Topography

The land surface is gently undulating, and cascade of tanks and waterways have been formed by the collection of rainwater. The village is located near the 2nd tank, from the top of the cascade. (See Figure on next page) The village is located at a higher point compared to the

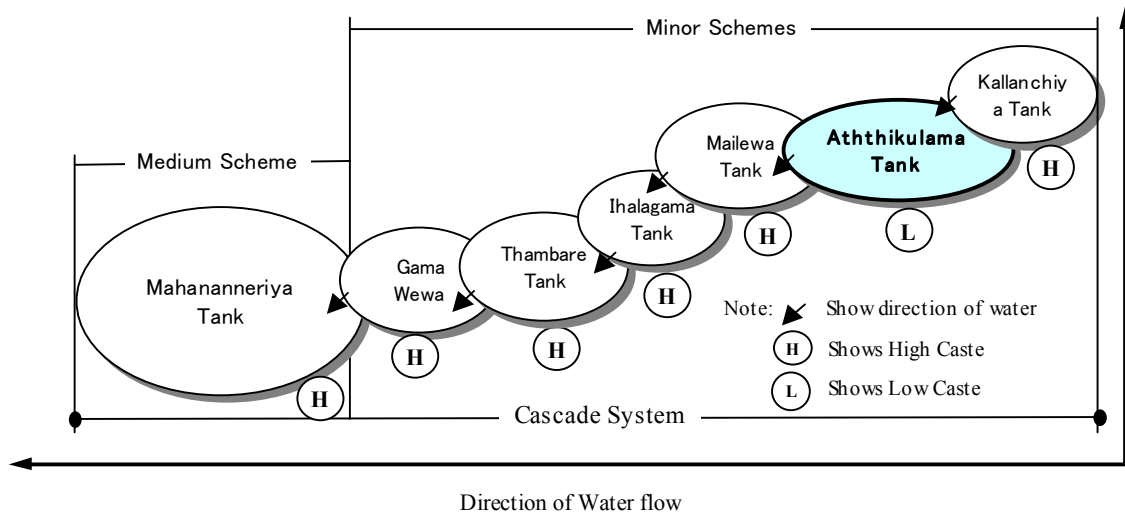


other villages in the cascade area. A few perennial crops such as coconuts and jack

Area of *Chena* cultivation practiced 5 years ago.
Bush behind the man are *Andara* and *Katupila*.

could be seen. In the forested area, between the tank and the rocky mountain, no useful timber trees could be found. In this forest area '*chena*' cultivation is being practiced. During the past five years this area has been converted into a scrub jungle, with thorny plants, such as, '*Andara*' and '*Katupila*' growing in abundance. '*Katupila*' is used as a prop in the cultivation of '*Bulath*' (Beetel leaves) and could be sold to Beetel leaf cultivators in Kurunegala, but the farmers themselves, does not use it. (The price of a '*Katupila*' stick is Rs.3/bundle)

Location of the Aththikulama Tank in the Mahananneriya Cascade



3.1.3 Climate

The climate of Sri Lanka is “tropical monsoonal ” with a marked seasonal rhythm of rainfall. The monsoonal conditions refer to two seasonal wind regimes separated by two periods of light and variable winds. The two monsoon periods and the two inter-monsoon periods control the rainfall rhythm. Thus the climate is determine mainly by seasonal pressure and wind systems, rainfall and temperature.

The typical annual rainfall pattern of Dry Zone in the province is shown below.

- Inter-monsoon Oct. – Dec. 500mm
- Northeast Monsoon Jan. – Mar. 130mm
- Inter-monsoon Apr. – May 280mm
- Southwest Monsoon Jun. – Sep. 140mm

3.1.4 Demographic Characteristics

The total population in the Kurunegala district, in 1994, was 676,208 persons, and the population density was 101 persons per square kilometer. The population density in the Galgamuwa DS division (73/sq.km.) is still low compared to the Kurunegala district density. Total number of households in the village is 75 and the population is 425 (Female 175, Male 250). The entire population in the village is Sinhala and are Buddhist, by religion.

All households are engaged in agriculture but some members of these households are employed outside the village. There are only about 5 persons over 65 years of age, which shows that the general life expectancy in the village is slightly lower than the national average.

3.1.5 Communications and Transportation

General communication systems, such as, telephones and the post office facilities are available in the Galgamuwa town. There are three private communication Centers that are equipped with domestic / overseas telephone call systems, fax and photocopying services. There is also a public post office available. The mail is delivered to each house every day by the post office.

Many bus services are available from early morning to around 8 o'clock in the evening on the Galgamuwa – Puttalam Road, a distance of 1.5km from the village. In addition, train services also available in Galgamuwa on the main line connecting Colombo to Jafna and Trincomalee.

(1) Role of the Village Boutique

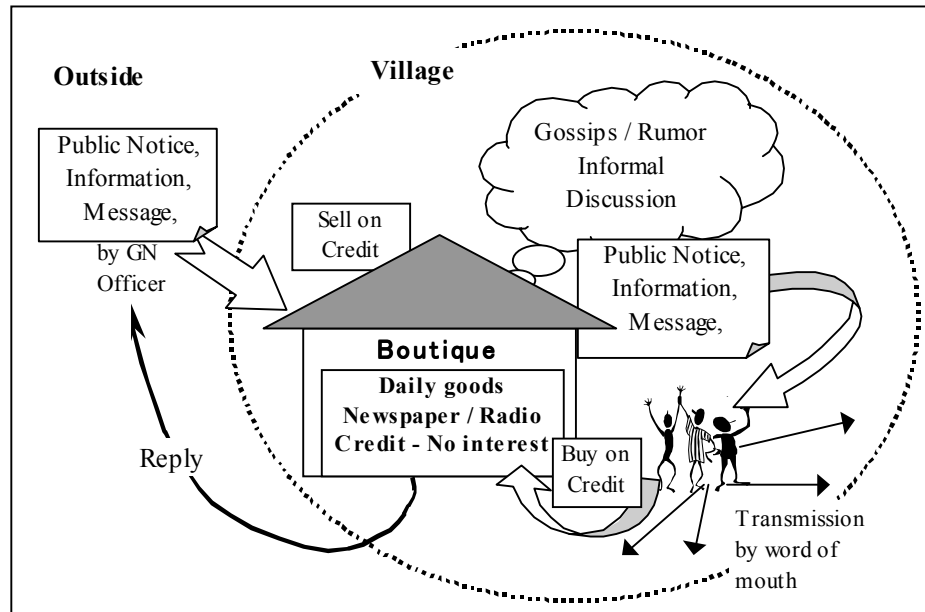
Any messages or directives from the Government Agent to the villagers are usually communicated through the *Grama Niladari*, and if it is a written message, it is pasted in a public place such as at the village boutique or the coffee shop. Such messages are also conveyed to the public orally by the boutique



Boutique in the village (front space & shop)

owner / keeper and also, through his customers. There is no fixed system or a community organisation which receives such communications, officially, as a representative or as head of the village. In addition, CBO leaders also pasted their information notice of such as general meeting at boutiques or teashops to inform members in the community. However, leaders of the Death Donation Society (*Maranadara Samithiya*) or the Welfare Society (*Subasadhaka Samithiya*) are generally recognized by government agencies as representatives of the village. It is therefore important to know the communication system in each village in order to reach the villagers or the village. In instances where any information is brought by the leader of a community-based organisation in the village, the “word of mouth” process is used to spread the message. It is one of the important methods to access the reality of the village.

The village boutique is common place to read the daily newspaper in rural areas. Usually there is a bench in front of the boutique and villagers gossip and also read the daily newspaper. The newspaper is supplied by the boutique owner.



A boutique has a function of multifunctional communication in the village

One of shops in the village has these mentioned functions in this village. Generally, villagers are buying their daily goods on credit and the shop provides a loan for agricultural inputs but it charges no interest.

However there are another type of shops also. They are selling illegal alcohol and customers can drink them at a hiding place of the shop. Many men who are working in the village are spending the day allowances at this type of shops on the way to their home. Thus, families have been getting poorer.

3.2 Rural Infrastructure

3.2.1 Roads

The main road within the village is not paved but broad enough for even a large truck to be driven, and is connected to the adjoining villages. The main bus route is on the Galgamuwa – Puttalam road, which is paved, and is 1.5 km away from the village.

The tank and the bund play an important role, as they provide the villagers a roadway to get to the paddy fields and water for bathing and washing.

3.2.2 Water Supply

The tank provides water to the villagers for their general domestic use and the daily bath but not for drinking. However, there are no permanent facilities for a drinking water supply in the village. The results of the workshop show that the most serious problem faced by the villagers is the lack of drinking water. There

are ten wells in the village, of which seven are private wells belonging to individuals, and the other three are agro-wells, constructed for agricultural use, however they are not used for the agriculture. In addition, all these agro-wells are constructed around the tank. They are only used for drinking purposes. During the dry season water in only four wells (3 private wells and 1 agro-well) of the seven wells in the village can be used for drinking. The water of the other wells becomes brackish.



Mother & daughter are coming to take a bath and get potable water in the evening, near the TANK

About twenty years ago, villagers had used water from the tank for drinking and domestic use, even during the dry seasons. However, this has been abandoned now, because the water is not suitable for drinking due to contamination, mainly as a result of the poor maintenance of the tank for a long time. Wells located at “Gangoda” (old residential area) close to the tank can get potable water throughout the year even in the dry season. (See following figure)

Almost all the wells that you can drink for in the dry season are located around the “Gangoda” (old residential area). It seems that there are some relations in the quality of water between tank and the wells

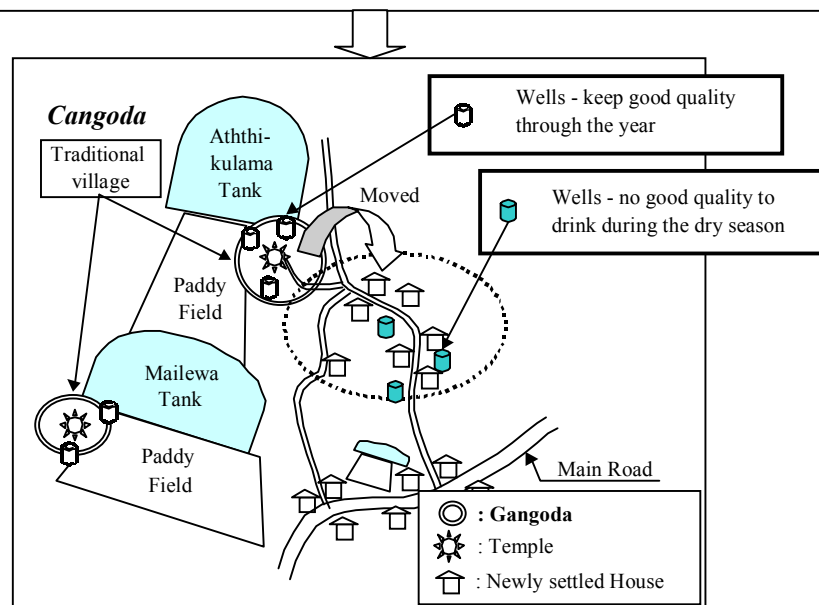


Figure -1 Relation of traditional village & new settlement area, and location of wells for potable water

3.2.3 Electricity Supply

Electricity services are not available in any of the villages in this area. Almost everyone uses kerosene lamps for lighting and firewood for cooking. And they do have a very few TVs. In the case of major schemes, many farmers' own TV sets are operated with rechargeable batteries, if electricity is not available. However, electricity supply line is available along the Galgamuwa – Puttalam road, only a 1.5-km distance away. There are two ways, to obtain the electricity line in the village. One is to send an application form of request to the Divisional Secretariat Office or obtain it by individual but should pay all necessary costs which is required by the Ceylon Electricity Board.

3.2.4 Educational Services

Many of the children in the village attend the Galgamuwa Central College, while others go to the Palkanda School. Those attending Palkanda School, which is located in the same GN division, either walk or ride a bicycle. Galgamuwa Central College is large and is better equipped and staffed than the Palkanda School. Therefore, many parents prefer to send their children to the Galgamuwa School.

(1) Private Tuition Class and Teachers' Moral Obligations

A few of the children in the village attend private tuition classes at Palkanda junction. During the recent past, most children in urban areas have begun to take private tuition, after school hours and on holidays. Now this practice has spread to rural areas as well. In Palkanda, the Buddhist temple



Tuition Class

provides the space to a teacher, on rent, to conduct the classes. At present many public schoolteachers conduct private tuition classes as an additional source of income. In most rural schools extra lessons are provided to students preparing for public examinations. These are conducted free of charge, and many teachers were very proud of helping the students in this manner. As a result of these activities the educational scene is changing even in remote rural areas. Preschool (kindergarten) facilities are not available in this village. A Sunday school is held at the Buddhist temple, although there is no resident monk at the temple.

3.2.5 Medical Services

There is a Government hospital, a private clinic and a pharmacy in the

Galgamuwa town. A major health problem in the village is the frequent incidence of virus fever. (The villagers just say, “Una”. Una means fever but not malaria) In the past 10 years malaria has been a very serious health problem in this village.

Almost all the villagers go to the Government hospital in Galgamuwa for treatment, rather than to the private hospital, because the services at the Government hospital are provided free of charge, and the private hospital provides the services for a fee. Furthermore, the services of a midwife are made available to provide pre-natal and post-natal care to the lactating mothers, and also provide advice on family planning. She visits the village at least once a month by bicycle.

3.2.6 Other Facilities

Aathikulama is a socially isolated village in the region (tank cascade region – about 10 of tanks exist and are linked), because the villagers belong to a, so-called, low caste. Therefore, most villagers visit the Galgamuwa town for the necessary services, rather than to the next closest village, where people belonging to a different caste resides, even if the services required are available in such a village. Many Muslims are doing business in the Galgamuwa town and the numbers of shops are managed by Muslim merchants is larger than the one's owned by the Sinhalese.

Access to Facilities

| No | Services | Aathikulama Village | Km to the Closest services | |
|----|--|---------------------|----------------------------|-----------|
| 1 | Boutique (Grocery for daily necessities) | 3 | | |
| 2 | Weekly Fair (Pola) | Nil | 4.0km | Galgamuwa |
| 3 | Cooperative Shop | Nil | 2.5km | Palkanda |
| 4 | Hardware Shop | Nil | 4.0km | Galgamuwa |
| 5 | Tractor Rental | Nil | 1.0km | |
| 6 | Wholesaler of Agri. Products | Nil | 4.0km | Galgamuwa |
| 7 | Rice Mill | Nil | 1.0km | |
| 8 | Fertilizer Depot (Dealer) | Nil | 50.0km | Maho |
| 9 | Agri. Chemicals Depot (Dealer) | Nil | 4.0km | Galgamuwa |
| 10 | Police Station | Nil | 4.0km | Galgamuwa |
| 11 | Post Office | Nil | 4.0km | Galgamuwa |
| 12 | Telephone/Fax | Nil | 4.0km | Galgamuwa |
| 13 | Bus Stop | Nil | 1.0km | |
| 14 | Railway Station | Nil | 4.0km | Galgamuwa |
| 15 | Clinic | Nil | 4.0km | Galgamuwa |
| 16 | Pharmacy | Nil | 4.0km | Galgamuwa |
| 17 | Ayurvedic Clinic (Veda Mahattaya) | Nil | 4.0km | Galgamuwa |
| 18 | Bank of Ceylon | Nil | 4.0km | Galgamuwa |
| 19 | Peoples Bank | Nil | 4.0km | Galgamuwa |
| 20 | Regional Rural Bank | Nil | 4.0km | Galgamuwa |
| 21 | SANASA | Nil | 4.0km | Galgamuwa |
| 22 | SAMURDI Bank | Nil | 1.0km | |
| 23 | IFAD Project Office | Nil | 4.0km | Galgamuwa |

3.2.7 Irrigation Facilities

There are two tanks in the Aathikulama village. One is Aathikulama tank and the other is Kotuwewa. There is no trans-basin canal and canal system. Therefore, water for the tank depends on rainwater. There are three sluices and one spill made by cement and almost of them is broken.

In addition elders said that this neighborhood exist in historic irrigation structure which was to collect and stock rainwater to utilize agriculture and daily life.

3.3 Previous Project and On-Going Projects:

3.3.1 Previous Project

Under the ‘Janasaviya’ Program the tank bund was rehabilitated about 10 years ago. But most villagers were not happy with the result. In 1997, NWP Participatory Rural Development Program officers visited the FO to commence tank rehabilitation. However farmers did not accept the program because they could not agree to their recommendation or ideas. The farmer’s opinions were as follows:

- Villagers’ first priority for rehabilitation item was the de-silting of the tank.
- To rehabilitate bund of the tank, the program proposed to bring soil from outside. Therefore they thought that the tank would be silted again.
- This was experienced before, during the of ‘Janasaviya’ program and
- Traditionally de-silted soils are put on the bund by farmers and repair the bund.

Only the “Janasaviya” Project is the previous project concerning irrigation facilities.

At present the following two projects are being implemented in the village.

3.3.2 On-going Project

(1) NWP Participatory Rural Development Project (NWP-PRDP):

NWP-PRDP is funded by IFAD and is implementing a number of projects through women in the Aathikulama village, from 1998. The following women’s society has been established to implement various projects:

| Pubudu Development Society | |
|----------------------------|-----------------------------|
| Starting Date: | 1998. October. 05 |
| Number of Members: | 17 persons |
| Funds Deposited: | Rs. 900 |
| Facilities Available: | Supply of cashew-nut plants |

Initially, each member is given Rs.2, 400 to maintain the plants, from a total of Rs. 9,000 which will ultimately be given to them. At the Monthly Meeting membership fee of Rs.5 is collected from each member. Purpose of this project is to encourage group saving and create self-employment.

| Leaders of the Pubudu Development Society | | |
|--|--------------------------|--------------|
| President: | Ms. Chandani Edirisinghe | 38 years old |
| Secretary: | Ms. S. H. Anulawathie | 42 years old |
| Treasurer: | Ms. T. P. Leanora | 32 years old |

This organisation has executed the following projects other than cashew cultivation with the assistance of the relevant officers:

- a) Perennial crop cultivation (lime, orange, jak-fruits, coconut) with 12 families;
- b) Goat farming, where 5 goats were supplied to 7 families;
- c) Poultry farming, where Rs.250 for the construction of a poultry shed and 10 chicks were supplied to 10 families.

(2) Sri Lanka Cashew Cooperation

Cashew development program was started in the area in 1998 by the Sri Lanka Cashew Cooperation. Thirty-three (33) villagers (7 females and 26 males) have joined this program, and 1,320 plants, for 33 acres, were provided free of charge under this project. The plant density of cashew is 40 plants per acre and the harvest will be collected 5 years after planting.

Cashew and Lime:

Cashew nuts are mostly growing in Puttalm District in the study area. Generally coconut is an important crop in Sri Lanka but they are not cultivating well in the area. However, cashew, Limes and Oranges are growing with good conditions. The main problem on the cashew cultivation is processing of the nuts, especially to shell nuts. Many of them are broken on processing. The damaged nuts are not able to sell with reasonable price. During the harvesting season of Lime, the retail price is very low because, many limeses are harvesting in the area at same period. Salted lime pickles “lunu-dehi” are very popular in the south Asia and they are selling at market in Colombo.

3.4 Village Community

3.4.1 History of the Village

It was said that originally there had been only 5 houses in the village. About 40 years ago, this had increased to 15 houses. Up to this time the village was located in the traditional village ‘gangoda’, located between the tank and the paddy fields.

Today there are 70 houses and the village has moved away from the ‘gangoda’ (see Figure -1 / page V-10). Although the traditional houses were of wattle and daub, and had straw or cadjan (roofing materials made by coconuts leaves) roofs, today most of the houses have brick walls and tiled roofs, and very much larger than the traditional houses. Traditional living style – plural generations were living under one roof – has been changed. Nuclear families are increased in the rural area.

Caste:

During the survey, a somewhat different mood was noted in this village, therefore, the adjoining village was visited to look for a reason.

- By caste they belong to the washer-men (*rada/henaya*) caste. Generally the ‘ge’ name gives an indication of the caste one belongs. For instance, the initial ‘H’, which appears in the names of most of the participants at the workshop, stands for ‘*Henayalage*’, which means that they are from ‘the house of the washer-man’.
- No active interchanges between the villages in the area.
- No relatives by marriage in the area.

3.4.2 Closed Economic Condition

FO leader said that only about 5% of the population is employed outside the village as permanent employees (military force, public servant). Young women are working in garment factories in Katunayake (close to International Airport) and Biyagama (about 20 km from the Colombo City) in the Gampaha district. Their average salary is Rs.6,000/month. There are a number of well-constructed houses in the village. All of them had been constructed with the allowances brought home by the daughters of farmers in the garment factories.

There are no industries in the village, but there are those who possess some technical capabilities, such as in welding, masonry, carpentry and mat weaving. But due to lack of capital, markets, power and raw material no industrial activity had taken place. Unemployment among the youth is a serious problem. There are about 50 to 60 unemployed youth in the village. There are more than half of families receiving *Samurdhi* assistance in the village, which is indicative of the low quality of life enjoyed by the villagers.

3.4.3 Landholdings

Depending on the information from FO leaders, the size of landholdings varies from ¼ acre to 2 ½ acres. About 25% of the families do not own any land at all. The land is usually divided equally among all children, irrespective of sex. The

land fragmentation was not happened practically when parents and children's family were living in a house. But, recently the land fragmentation increased because many families are not living with their parents. However, the villagers believe that land fragmentation is not being felt or regarded so far as a problem. They regard this as a traditional custom practiced among relatives. Recently two block of paddy land were sold to farmers of the next village, Kallandiya. The price of has been Rs.40,000/Acre, however in Palkadawewa, the price of the paddy land is Rs.100,000/Acre. The Gram Niladari explained that it is only 1.5 Km away from this village but it faces to the Galgamuwa – Puttalam road (paved B-Level road) and Electricity is available.

3.4.4 Conflict Management

When disputes occur among villagers, they are usually amicably resolved, because the villagers are all related to each other. Very few cases are taken to the Grama Niladari or the police. Alcoholism is a serious problem and some believe that much of the poverty in the village is due to the high prevalence of alcoholism. Probably because of this, women seem to play a more important role than men do in the village development activities.

Grama Niladari (GN):

'Garama Niladari', translated to English, means '*village officer*'. However it was called as 'Grama Sewaka' up to 1994. The meaning of it is '*village Servant*'. Up to 1994, many Gram sewakas were appointed from the villages who were living. But now many new officers are employed from outside of the area. Therefore, some officers are not familiar with tradition of dry zone. The GN is a residential administrative officer in the village level and GN has many important roles of which are conflict management between the village, administrative procedure and investigation of the number of the households and family etc.

3.4.5 Community Based Organisations

There are five organisations operating in the village. The most important is the Farmer Organisation. However, the one that is most effective and participation is maximum is the Death Donation Society. There is also the '*Dayaka Sabha*' at the temple, which at-



Meeting of Death Donation Society

tends to work related to the temple and helps to maintain it and conduct certain religious activities, such conducting a Sunday school for children, ‘*perahera*’ on ‘*Wesak*’ and ‘*Poson poya*’ days. IFAD has been instrumental in setting up a women’s organisation - “Pubudu Kantha Sanvidanaya” (See 3.3.2(1)).

Community Based Organisations in the Village

| No | Name of Organisation | No | Name of Organisation |
|----|------------------------|----|-----------------------------|
| 1 | Death Donation Society | 4 | Pubudu Women’s Organisation |
| 2 | Dayaka Sabha | 5 | Cashew cultivation Group |
| 3 | Farmers’ Organisation | | |

3.4.6 Religious and Cultural Activities

As far as religious and cultural activities in the village are concerned, a temple has been constructed only a few years ago, but there is no resident priest. The one who had been there had left sometime ago and no one has replaced him. For the usual religious observances the villagers visit a temple in a nearby village.

Three very important traditional religious / cultural activities are carried out primarily to thank the deities for the protection provided in the past and to seek their protection for the villagers, and the crops and other economic activities in the coming years.

Kiri Ahara Mangalya

First, the ‘*Kiri Ahara Mangalya*’ is held on the banks of the tank, under a ‘*Kon*’ tree, using paddy that had been newly harvested. Two to three measures of paddy are contributed by each family for this ceremony. The paddy is pounded, and milk-rice is cooked using cow, buffalo and coconut milk. ‘*Bulath*’ (Beetle leaves), ‘*Puwak*’ (arecanut), flowers and lamps are offered to appease the gods. Special prayers are offered to the gods to thank them and also to seek their protection. The deities who receive such offerings are: ‘*Gambhara Deiyo*’, ‘*Suniyan Deiyo*’ and ‘*Guruma Deiyo*’. The entire village partakes of the milk rice and is a rare occasion where everyone in the village comes together, irrespective of any past animosities and divisions.



‘Kon’ trees and place of festival

Vedi Kadawara Deiyo

Second, a ceremony is held to offer thanks and ask for protection from the '*Vedi Kadawara Deiyo*'. This ceremony is held in the village by those who own cattle. It is said that this is a ceremony was performed by hunters in the early days to seek the protection of deities for their hunting activities.

Dewakarrya

Third, there is the '*Dewakarrya*' that is conducted traditionally by three families in the village to thank and ask for protection from five deities: '*Kambili Deiyo*', '*Kadawara Deiyo*', '*Guruma Deiyo*', '*Bhahirawa Deiyo*' and '*Gambhara Deiyo*'. 21 offerings are made to the gods and sweets, fruits, beetle leaves and coins (*panduru*) are offered.

The last two ceremonies go on throughout the night. Although the last two ceremonies are conducted by individual families, everyone in the village participates. The villagers believe that these are three occasions that help to promote unity, cooperation and brotherhood among the villagers.

3.4.7 Wedding Ceremony

Wedding ceremonies held in the village are simple, and it is another occasion where everyone in the village gets together. Marriages are between members of the same caste, generally between members from different families within the village. However, marriages between individuals from different villages, belonging to the same caste, also takes place. It is important to note that the institution of caste is fast disappearing from the Sri Lankan society, although it still persists, to some extent, when it comes to marriage.

The use of auspicious times – "*Nakat*" is common. Generally, marriages are fixed, through horoscopes, to see whether the couple matches each other.

3.5 Agriculture

3.5.1 Farm Land

Total land area of the village is 250 acres. Extent of Paddy field is 50 acres and 170 acres are highland out of 250 acres. All paddy land is traditional private land with deeds, which are located in the "*Purana wela*". There is no "*Akkara wela*" or "*Badu Idam*". The size of land holdings vary from $\frac{1}{4}$ acre to $2\frac{1}{2}$ acres. There are no tenant farmers, but the "*Thattumaru*" system is practiced among relations. *Chena* cultivation is also practiced in a small scale. Basically, the villagers are

dependent mostly on the natural environment for their sustenance.

Almost agricultural land in the village was developed therefore, it is difficult to increase agricultural produce drastically. However their land around the house is large but they are not cultivating.

3.5.2 Crop Production

(1) Paddy Cultivation

The total paddy area sown and harvested is about 40 acres, and the farmers generally practice broadcast sowing. The yields are fairly low, normally in the range of 60 to 70 bushels per acre. During Maha the sowing is done in October, and harvesting is carried out in March. The farmers normally use about 3 bushels or 60 kilograms of seed paddy per acre. A Yala paddy crop is very rarely grown, but when it is done, sowing is in April and harvesting is in July and August and mostly “*Bethma*” and “*Kyakuran*” (dry direct sowing method) is practiced.

A very serious problem faced by the farmers is the severe damage caused to crops by wild elephants. Although the selling price of paddy is approximately Rs. 8/Kg, with the scarcity of water, crop damage by wild elephants and the low yields and small size plots cultivated, the amount that is sold is not much. The rice milling cost is about Rs.0.9 to Rs.1 per measure.

(2) Other Field Crops (OFC)

OFC cultivation is hardly done, systematically, by villagers during the last 5 to 7 years, even in the homesteads. The main reason being the damage caused by wild elephants. This is in addition the problem of water shortage. In the past many kinds of OFCs, such as, finger millet, cowpea, green-gram, snake gourd, eggplants, tomatoes, chilies, okra and red onion were grown. In the Yala season, finger millet, sesame and corn were cultivated. Chena cultivation had been done in the Maha season but that too is limited due to increasing population and the above mentioned factors.

As a result of all these factors, the villagers must now buy all their food items from outside, and the stable and simple life they enjoyed in the past has been lost. The economic problems are getting more acute and unbearable.

This season a few young farmers are cultivating long beans, sesame and ground peanuts in their homesteads using well water. One of the cultivated plots was fully damaged by a wild elephant. They said that the produce is usually sold to middlemen in the Galgamuwa town.

Cassava was a very popular crop to be grown in the homestead of every family,

but it is now abandoned because elephants are attracted to it.

Leafy vegetables, such as, gotukola, mukunuanna and kankun grows naturally around the tank and they are used by the farmers for home consumption. If environmental conditions are improved, the farmers hope to cultivate millet and beans to be used as a substitute staple food. They also



Shed for Goat - Keeping in only night

hope to cultivate cashewnuts and lime because physical conditions in the area are suitable for their cultivation and could be sold at a good price. The villagers feel that the coconuts cannot be grown well in the area because of a “*kiri-mati*” (white clay) layer in the soil. But lime, orange, and teak are grows well. In fact, total area cultivated with coconuts is less than 3 acres and it is mostly grown around the tank.

(3) Livestock Raising and Inland Fisheries

Most of the farmers’ rear cattle and goats on a contract basis for meat with Muslim merchant who is in Galgamuwa town. Farmers obtain calves from the merchant as loan, and farmers raise them for a certain period to sell them. The merchant deducts loan and interests when he buys cattle from farmers. In addition almost farmers bought many goods they are buying many things from the merchant on credit therefore, farmers could not calculate exactly how much they made profits or not. Selling price of the beef cow is Rs. 6,000/= and goat is Rs.80/Kg in living weight. Fishing is not being done by any of the farmers.

Self-helping system such as cultivation of OFC and keeping poultry at home gardens, will be appreciable method to decrease cash disbursement of household economy. (There are several shops to sell organic agricultural produce in the Colombo City. Farmers will be sell those produce from home garden, If they gather and sell their farm produce in cooperative shipment, marketing route will be established.) In addition, farmers can be organised in order to decrease farm-inputs for rearing cattle and goat on a contract basis for meat. To carry out these possible small and quick self-help style action, it is possible to increase the income comprehensively.

3.5.3 Marketing

(1) Marketing of Farm Inputs

Almost all the farm inputs are purchased from private shops in the Galgamuwa town. All inputs are available to be purchased in time and there are no serious problems in the purchase of inputs. However they are not implementing any cooperative purchasing of farm inputs. In addition, farmers do not have basic knowledge on the functioning and purpose on farmers' organisation. And there are no attitudes to develop their life and community through FO. Thus the farmer is not able to take any independent action by their own ideas, and this is the most serious problem on farmers.

Ceylon Fertilizer Cooperation and Ceylon Petroleum Cooperation (Agricultural chemicals) have special systems to the FO such as special discounts price of their produce and seminars for appropriate use methods of agricultural chemicals etc. Through the Agricultural Services Center, farmers can purchase agricultural inputs such as seed-paddy, fertilizers and agricultural chemicals in a bundle. The problem in present situation is that nobody knows enough of these systems even field officers, even farmers.

We asked about these systems to the farmers, but their information were very limited and nobody knows the system. However all of the farmers had much interest in the cooperative purchasing system and others. And they told that they want start it right away.

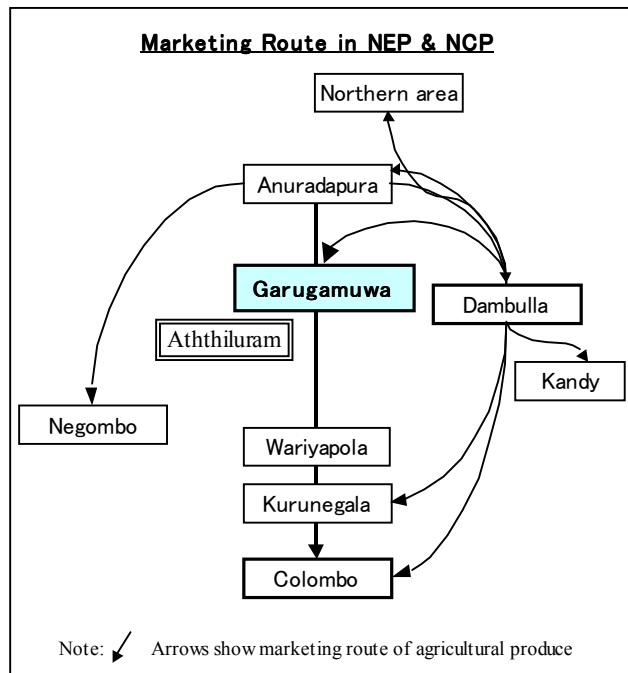
(2) Marketing of Produce

There is very little marketing activity taking place in the village. This is mainly because of the low productivity both in paddy and the cultivation of other field crops. The produce is generally used for home consumption. Whenever there is a surplus production they are sold to private dealers. The closest pola (fair) is in Galgamuwa, and sometimes farmers take their produce to be sold at this pola.

According to the villagers, the key necessity is to increase production. For this to happen the provision of water and inputs is essential. When this takes place, improvements to marketing facilities will be needed.

According to the merchants who are doing business with the periodic market fairs in Kurunegala, they have a idea to purchase agricultural produce from farmers directly, if farmers get ready agricultural produce periodically with at least a full load of quantity of agricultural produce.

Marketing routes in Garugamuwa and both provinces is shown followed figure. There is only one marketing route from Anuradhapura to Colombo through Galgamuwa. Almost all farm products are dealt centering Dambulla. Anuradhapura is not a place of collection of farm products and it is just a passage point to the northern part and the West Coast such as Negombo. Farm products of Anuradhapura are also forwarding to Dambulla. The merchant of Anuradhapura purchase vegetables from farmers on the road at night on the way to Kurunegala or Colombo. However, there is no regular vegetable collection point along the road from Anuradhapura to Kurunegala. The lorry of the merchant became full with the farm products before Wariyapola. At last many farmers could not sell their products. Thus such merchants are available in the area. Therefore farmers should prepare a regular collecting point of farm produce in the community to take agricultural merchants into the village. Organizing farmers will be the easier and valuable countermeasure for this.



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3.5.4 Credit Services

There is only one farmer who had taken a cultivation loan from a state bank. Others normally get loans from the village boutique keeper who gives the loan without charging interest. There are a few who get their farm inputs on credit, and in such instances the farmers have to hand over the produce to the private dealer to settle the loan. Generally the villagers do not like to get into debt.

In general, many farmers have not enough ability to negotiate with a bank to obtain loan with good condition. As the first step to bringing up them, introducing 'women's Bank' (such as, rotating loans, savings and credit associations) system would be helpful for them to learn banking and credit system step by step. The women's bank was commenced at slum in Colombo. Now the system was accepted by women in rural and many groups are doing their activities. The women's Bank has commenced joint activities with Department of Cooperative from 3years ago.

3.5.5 Extension Services

Extension officers from the Sri Lanka Cashew Corporation and officers attached to the Agrarian Services Center and the North Western Province Participatory Rural Development Project visit the village to provide extension services to those villages who are involved in their relevant projects. However, other extension activities are not carrying on well. Only an agricultural instructor (extension officer) is attached to the Agrarian Services Center (ASC) in the Mahananiya area and Farmers Animators (Govi Sewana Niyamaka) are assigned to the ASC and they are attached in each GN division to promote farmers activities and FO. However effective activities are not carrying by them because they do not have enough knowledge and not receiving enough basic training to implement such extension activities. It was observed that they have good nature and high educational background (more than O level). In order to provide them proper education program and training, they will be good facilitators to bring up farmers and they will be also good resident field officers in the village. Therefore their capability should be developed as soon as possible to involve them in a participatory rural development in the area.

We had a discussion with animators and the result of the discussions is shown Table V 3.1. In addition many kind of animators and institutional organizers are working in the field however, who are attached in deferent organisations. The lists of those animators are shown Table V 3.2.

3.6 Farmers' Organisation and Water Management

3.6.1 Historical Background of Farmers Organisation and Water Management

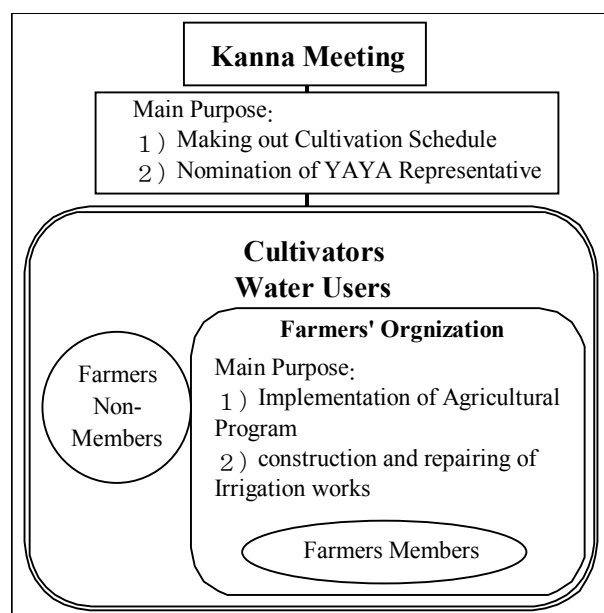
The Farmers Organisation was set up in 1997 after consultations with an officer from the Agrarian Services Center. It had been registered under Section 56A of the Agrarian Services Act. However, the FO is not functioning properly because even the leaders of the FO have not been educated on any aspect of the organisation. They do not know how or why they were registered or about it's advantages or it's usefulness to the farmer community. Consequently, monthly meeting are not held and the general meeting is held on same day as the Kanna Meeting (Cultivation Meeting). All the farmers in the village have been made members of the FO. No membership fee is being collected. The organisational structure consists of a President, Vice-President, Secretary, Assistant Secretary, Treasurer and a committee of four. For all purposes the organisation is non-functional.

3.6.2 Nomination of Yaya Representative at Kanna Meeting

The yaya (Tract) representative, nominated by Kanna meeting, who is called the 'Vel Vidane' by the villagers, releases the water for cultivation purposes. There are two sluice gates and the yaya representative. The entire pattern of water releases depends on the quantum of water available in the tank. The Yaya representative is also elected as secretary of the FO. Then it seems the FO managing irrigation water. Irrigation water and cultivation system are managed through Kanna Meeting (Cultivation Calendar) and elected Yaya representative who is mentioned Agrarian services Act No. 42. In fact, farmers have no information regarding act and laws that they need.

There are two farmers from a neighboring village who bought paddy lands 2years ago. They have not joined the FO in this Aathikulama, but they attend to the Kanna Meeting (Cultivation meeting) in the village. The Kanna meeting has important functions to connect all cultivators who are cultivating in the paddy lands.

There are no women members in the organisation, but they are joining 'Sramadana' or voluntary service organised by FO.



3.7 Workshop

The FO chairman was requested to organise a discussion with leaders of the community based organisations in the village. On that day at the community hall in the Buddhist Temple, about 40 villagers gathered. Consequently a workshop style discussion was held with those persons. At first problem analysis was implemented. The results are given below:



Workshop at Aathikulama village community center

3.7.1 Problem Analysis

The villagers were divided into 5 groups and a listing of problems was made. Then the more serious problems were highlighted by each group. Results of discussed items of problems are presented Table V 3.3.

And each group leader made a presentation in front of the villagers, presenting their own views and discussed about several problems. An all listed problems presented by each group are given Table V 3.3. Each list was made up by villagers in writing however there are only 5 old women are illiteracy. 23men and 18women gathered at this workshop.

Group discussion in enjoyable atmosphere:

In order to start group discussion, villagers were divided randomly and made a group that male and female mixed. However, when a drinking problem began to appear by females, their opinion was interfered by male. Then groups of females were made and the discussion was continued agreeably. After that females expressed a lot of opinions. The discussion taking in kind of game would make good atmosphere rather than just mere discussion. And it makes participants very active. Therefore many problems which are hiding usually, would also turn up. The villagers could understand the importance of system of discussions. After all, the pair-wise ranking ranked the drinking problem last.

3.7.2 Main problems

Main problems facing the village as identified by the 6 groups are:

| Main Problems Identified | |
|---------------------------------|---|
| A | No drinking water |
| B | No water for cultivation (Lack of irrigation water) |
| C | Alcoholism of male farmers |
| D | Wild elephant damage |
| E | No electricity |
| F | No permanent housing |
| G | No self-employment opportunities |

3.7.3 Pair-Wise Ranking

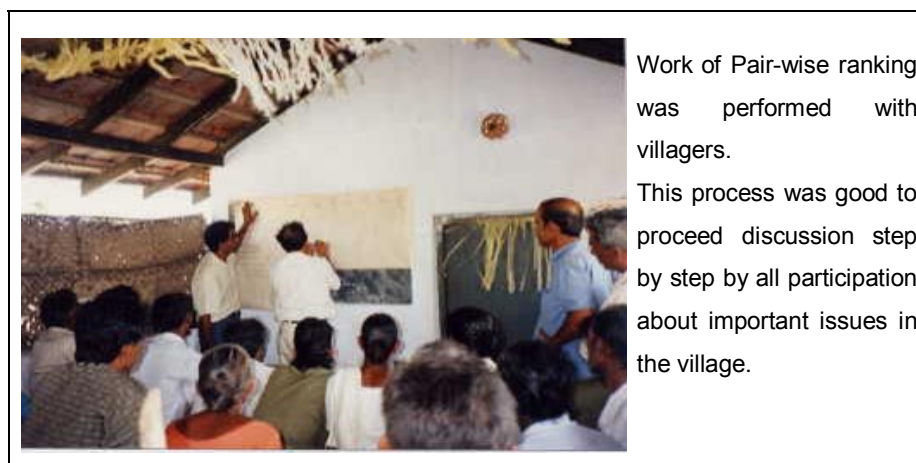
The Pair-wise Ranking method was used to prioritise problems, which were identified by villagers. The result are given below:

| Problem | | G | F | E | D | C | B |
|----------------|----------------------------|----------|----------|----------|----------|----------|----------|
| A | No Drinking Water | A | A | A | A | A | A |
| B | No Irrigation Water | B | B | B | B | B | |
| C | Alcoholism of Male Farmers | G | F | E | D | | |
| D | Wild Elephant Damage | D | D | D | | | |
| E | No Electricity | E | E | | | | |
| F | No Permanent Housing | G | | | | | |
| G | No Employment for Youth | | | | | | |

3.7.4 Score of each problem by Pair-wising

| No. | Problem | Score |
|-----|-------------------------------|-------|
| 1 | A) No Drinking Water | 6 |
| 2 | B) No Water for Irrigation | 5 |
| 3 | D) Wild Elephant Damage | 4 |
| 4 | E) No Electricity | 3 |
| 5 | G) No Employment for Youths | 2 |
| 6 | F) No Permanent Housing | 1 |
| 7 | G) Alcoholism of Male Farmers | 0 |

3.7.5 Then and Now



A discussion about problems that were identified by the farmers followed. Many villagers spoke about “Ekamuthu-Kama” (unity), “Manussa-Kama” (humanity) and changing social pattern. The discusses between the past and the present were then identified by the different groups and a discussion of each groups ideas followed:

All 6 groups mentioned “Unity” and “Water” and 4 groups out of the 6 mentioned concern about the agriculture problems. The detail of those issues and comparison of the past and the present are shown Table V 3.4.

Chapter 4 PERIYAKULAMA VILLAGE



Periyakulama Tank

4.1 Nature

4.1.1 Location

Periyakulama village is located in the Anuradhapura district of the North Central Province. It lies about 20 km southeast of the Anuradhapura town, which is the district capital. The A-9 road (Kandy – Jaffna through Dambulla) runs through the village almost along its western border. Periyakulama also lies within the Divisional Secretary's division of Tirappane.

4.1.2 Vegetation and Topography

Topographically the village has a flat to gently undulating terrain. The tank, the settlement and the cultivated area are surrounded by dense forest and scrub jungle. There is also a teak plantation towards the northeast, almost bordering the tank.

4.1.3 Climate

Climatically, Periyakulama experiences a seasonal pattern of rainfall in the Dry Zone, with the inter-monsoonal period from October to December providing the most reliable rainfall, for cultivation during the Maha season, and also for the storage of water for irrigation. The other rainy season from March to early May provides rain for the shorter Yala season. The Southwest monsoon from May to September does not provide any significant rainfall. The mean monthly temperature ranges from 25 to 29 degrees Centigrade.

4.2 Demographic Characteristic

Periyakulama has a population of about a 1000 people. It is a purana village and consists of about 175 to 185 households. Generally a family has about 4 to 5 children. Of the households, 90% are descendents of the purana village and the balance consists of those who migrated to the village living along the A-9 road, and 10 to 15 families are encroachers. The entire population is Sinhala by ethnicity and Buddhist by religion.

4.3 Rural Infrastructure and Public Services

4.3.1 Communication and Transportation

The Sub Post Office serving the village is located at the junction of A-9 Road but telephone facilities are not available. The bus stop is located in front of the post office. Most of the villagers use the private communication center at Maradankadawala (3.5 km) to get telephone calls. Facilities for overseas calls are also available.

The main Kandy - Jaffna (A-9) Road connects Periyakulama to Anuradhapura in the north and Maradankadawala, Kekirawa and Dambulla towns in the south. This A-9 road is a main route connected Anuradhapura and Colombo therefore many bus services are available at the Kekirawa town. The unpaved road that runs through the village connects it with the adjoining villages of Pudukkulama, Manakkulama and Karambegama.

4.3.2 Irrigation Facilities

Periyakulama tank provides water for cultivation. The tank has three sluice gates and water is released to the fields along two canals, two of the canals have anicuts built across them to divert water to fields lying above the level of the canal. Water management is being done by the 'Vel-Vidane'(formally called



Traditional Anicut – Periyakulama

Yaya-Representative and name of vel vidana is a traditional name of water controller). He is paid a 'salaris' – ½ bushel of paddy per acre cultivated per kanna or cultivation season. This has now being increased to one bushel per acre, half of

the collection is now being used to maintain the tank. Traditionally, the tank was maintained by the villagers who excavated the bed of the tank (*Katti kepima*) during the dry season, each farmer responsible for an area relative to the quantum of water he uses. The clearing of the tank bund, and the general maintenance of the bund is also shared by all farmers.

4.3.3 Roads

Other than the main gravel road that runs across the village, bund of the tank is a part of this road. One of the major shortcomings of the village is the lack of secondary roads, especially agricultural roads. This has effected both the transports of agricultural inputs as well as agricultural produce.



When they need to use 4-wheel tractors in the paddy field, only one road is available.

Mother is going to take a bath with children

4.3.4 Electricity

Electricity was supplied to the village in 1991 and now more than 70% of the households have electricity. The monthly electricity charge is about Rs.100 to Rs.300 in average. In comparison with Colombo, who are using air conditioners, the monthly electricity charge was Rs.3,000 to Rs.5,000.

4.3.5 Water Supply

There is no pipe-borne water supply and the villagers depend on wells for the supply of drinking water. The water is generally brackish, especially during the dry season, during which time there are only three wells that supply potable water to the entire village. This situation of potable water availability shows same with Aathikurama village. It could consider that problems on water in the dry zone are not quantity of water. Quality of water is the problems. Almost potable water is available around the tank.

4.3.6 Educational Services

There is a Senior Secondary School (Maha Vidyalaya) in Periyakulama and some

of the children attend the Central Colleges (Madya Maha Vidyalyaya) in Anuradhapura and Kekirawa. The teachers provide special tutoring to students appearing for public examinations, free of any charge.

4.3.7 Medical Services

There are no medical facilities available within the Periyakulama village and it's GN division, but there is a Government Dispensary in Tirappane, a Peripheral Health Unit in Maradankadawala, a Base Hospital in Kekirawa and a General Hospital in Anuradhapura, all, easily accessible to the villagers. This is so because all these facilities lie along the Jaffna Road. In addition there are a large number of private medical practitioners in all these towns providing services, but for payment unlike the government health facilities that provide free services.

4.3.8 Other Facilities

The village also has a Buddhist temple and a school for priests (Pirivena), with a total student enrolment of about 50 student priests. Their age vary from 10years old to 16years old. The facility of the school is dormitory, class-room, library. There are about 300 books in the library which of books are written Sinhala, Pari and english. It is opened for students and youths who are living in the area. In addition almost all monk who are studying this temple are children of farmers around this periyakurama village.



Today's lesson was over

List of Facilities in the Village

| | Items | Public | Private |
|----|--------------------------|--------|---------|
| 1 | Buddhist Temple | 1 | |
| 2 | School for Buddhist Monk | 1 | |
| 3 | School | 1 | |
| 4 | Pre-school | | 1 |
| 5 | Sub-Post Office | 1 | |
| 6 | Community Hall | 1 | |
| 7 | Rice mill | | 3 |
| 8 | Grinding Mill | | 2 |
| 9 | 2-Wheel Tractor | | 4 |
| 10 | Vehicles | | 4 |
| 11 | Agro-well | | 2 |
| 12 | Bus stop | | 1 |

4.4 Previous Project and On-Going Projects

4.4.1 Previous Projects

There were no previous project for the rehabilitation of the Tank or any other major project. As an on going project a NGO (South Asia Partnership Sri Lanka) has been servicing the women of Periyakulama village since 1996.

4.4.2 On-Going Projects

(1) South Asia Partnership Sri Lanka (SAPSRI)

A 25-acre farm has been set up in 1979 using funds from Netherlands, It had been managed by a NGO for 10 years to train farmers especially, females. But it was abandoned after the residential manager left. In 1996, SAPSRI took over this farm and commenced as a job training type of farm. Although the SAPSRI does not provide technical

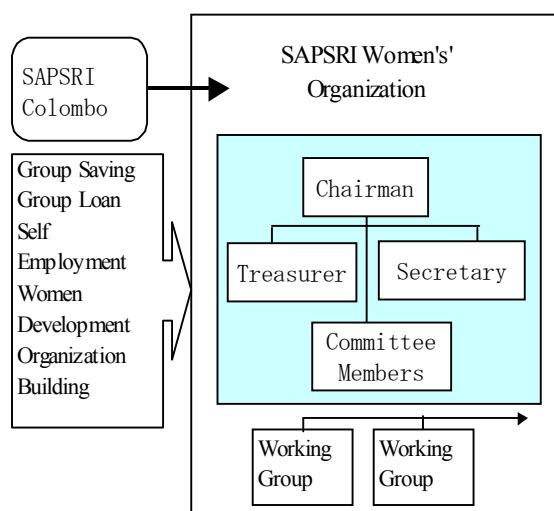


Without water, it very difficult to cultivate

training or advice to the women but they are supporting them financially. A officer of the NGO come to the farm and giving assistance on management of the women's association in every month from Colombo. Therefore everything on agricultural matters should be descided by the members through discussion.

Now 14 women from the Periya-kulama village, who had formed a Women' Organisation. They cultivate chilies, red-onions and Big Onions in this farm. Nine women out of the 14 are also receiving loan under the Credit and Enterprise Development Scheme of the SAPSRI. Six of the women will start a poultry farm. The poultry shed has already been constructed. A loan of Rs. 50,000/=, at an interest rate of

1.7% a month, will be obtained, to be paid back in one year. Another 3 women are cultivating big onion using the loan facilities available. Generally cultivation of onion is difficult rather than other OFC without any experience. For that, a woman



who came Periyakulama to marry from Dambulla, gave a technical assistance to the members. Now two male farmers are also working at this farm facilities of the farm: Agro-well – 01, highland – 20 acres, Office building – 01, Poultry shed – 01, Watter supply tank – 01.

4.5 Village Community

4.5.1 The Historical Background

Periyakulama is a purana village, which had derived its name from the tank-Periyakulama, meaning ‘large tank’. “Kulama” is Tamil language and means ‘Tank’.

Now only a few villagers lived in the old “*gangoda*” (old residential area). In 1957, floods caused by heavy rains in the Dry Zone also damaged the Periyakulama Tank. The tank had breached in two places and “*gangoda*” was also damaged, however, there was no harm to villager or the temple. Even today the old people remember the date and time of this devastating flood. They believed that gods saved all of villagers from the disaster.

4.5.2 Cultural Ceremonies & Rituals

Although the old physical characteristics are not visible any more, a few of the cultural practices and ceremonies continue to this day. Their trust in their deities is so strong that they believe that the deities still protect them from natural disasters and disease’ and shower their blessings on them. It is because of this belief that they continue to perform three of the traditional rituals.



Poson Poya (Special Full-moon Day)

The first, is the ‘*Mutti Mangalya*’ held in honor of deity ‘*Aiyanayake*’. The second, is the ‘*Kiri Ithirime Mangalya*’, boiling of milk under a ‘*Ehetu*’ tree, to fulfill a vow made the previous year seeking the deity’s protection and blessings for a prosperous harvest.

Finally, the ‘*Maha Dane*’- the big Arms giving - offered to the deities to ask for their protection of all the villagers and the village. Everyone in the village participates at these ceremonies, and no meat or fish is used. In particular, the villagers seek protection from sickness and disease. In addition to these three

ceremonies a '*Vishnu Mangalya*' is held annually, in honor of god Vishnu.

(1) Religious Activities

Traditionally there was a very close link between the farmer and the tank and a number of religious ceremonies were performed in the past and are being continued to date to thank the gods for protection and assistance provided and to seek their blessings for the future. Three notable ceremonies which are continued to date are first, The '*Mutti Mangalya*' where it is held to thank '*Aiyanayake deiyo*', god '*Aiyanayake*', second, '*The Kiri Ithirime Mangalya*' (Boiling of milk) and finally the '*Maha Dane*' (the big armsgiving). These ceremonies are held on the tank bund, under a '*Ehatu*' tree. No meat or fish is used for any of these ceremonies. They are primarily being performed to thank the deities for the protection they had given in the past, by way of fulfilling a vow, and to protect the villagers from disease and misfortune in the coming years. In addition there is a ceremony in honor of the Hindu deity '*Vishnu*' - the '*Vishnu Mangalya*'.

4.5.3 Traditional Cultivation Practice

Traditional cultivation practices, such as '*Attam*', '*Kaiya*' and '*Muththettuwa*' are still being practiced, but they are not seen as frequently as in the past. Furthermore, certain rituals performed on the threshing floor- the *Kamata*- in the ancient times are still continued, but these are also slowly fading away, with the use of tractors as threshers, instead of the threshing floor and the buffalo.

4.5.4 Main Industries

There are no major industries in the village, other than the 3 rice mills and the 2 grinding mills. One garment factory is operating at Tirrapane, which is located 6km north from the village along the A-9 road.

4.5.5 Living Patterns of People

Generally the villagers lead a very simple life. Their needs are few and their aspirations are limited. However, in recent times, with their exposure to life outside the village, the thinking of the villagers and their behavior patterns have begun to change.

Marriage and Birth

The marriage ceremonies are simple, and close relatives and friends get together for the occasion. The marriage ceremony is held at the bride's home. Astrology

plays an important role in all the activities connected to the ceremony. Accordingly, auspicious times are selected to climb the ‘*altar*’ on which the marriage ceremony is performed, the tying of the nuptial knot and getting down from the ‘*altar*’. After the ceremony and the partaking of a meal, the elders’ advice the newly wedded couple by delivering short speeches. The newly wedded couple either stay with the brides parents – ‘*Binnabahinawa*’, or the new bride is taken to the house of the groom – ‘*Kendanyanawa*’.

First Child

The birth of the first child - ‘*Kuludul Daruwa*’ - is looked forward to by all the relatives. A male child is preferred, but they also believe that the first girl brings good luck to the family, especially to the father! Normally a family has 4 to 5 children. In recent times however, the number of children has come down in rural areas also, especially among young couples.



With their ‘first child’ at Periyakulama

To be a barren women in the village is a serious problem – not only does such a woman even have to face ill-treatment from the in-laws, but everyone in the village regard her as a bad omen and avoid meeting such a woman when setting out on an important errand! A similar fate awaits a widow, especially so if it’s a young widow. If a widow remarries, this attitude changes. Unlike in the case of a barren woman, a widow receives everyone’s sympathy and assistance.

Disease and Death

Disease and death are two occasions that unite everyone in the village. This may be why the Death Donation Society (*Malanadara Samitiya*) is so popular and function well. The society provide the number of items and also prepares the followings at a member’s funeral. The items 1 to 8 below can usually be borrowed for the ceremonial occasion like wedding, housewarming.



Rented chairs to the housewarming

Unlike in the case of funeral, at the occasion those items are rented and charged. But at a funeral for a member all items are provided free of charge and a donation

of Rs.5,000 and needs are provided by the society. The fund of the society is maintained through the renting services and the membership fees. An entrance fee of Rs.100 and a monthly fee of Rs.10 is collected from each member.

Facilities & Services - Dead Donation Societies

| | Items | For Members | For Non-members |
|---|-----------------------------------|----------------------|-----------------|
| 1 | A set of tents | Free of charge | Rs.500/day |
| 2 | 30 nos. of steel chairs | Free of charge | Rs.3/day/01 no. |
| 3 | 50 nos. of glass | Free of charge | Not rented |
| 4 | 50 nos. of Dishes | Free of charge | Not rented |
| 5 | Jog sets | Free of charge | Not rented |
| 6 | Decorations | Free of charge | Not rented |
| 6 | Donation (for members family) | Rs.5,000 Rs.4,500 | Nil |
| 7 | Meals | 5 meals for 3days | Nil |

Ayurveda – Indigenous Medicine & Medical Treatment

Home remedies, Ayurveda medicine, exorcism, in this order, are initially used by the villagers to treat the sick, and western medical treatment is thought of only as a last resort in rural area. This attitude is also fast changing. Almost all villagers are now used to going to public hospitals for treatment. However, Ayurveda is still popular in the village.

4.5.6 Housing

There is a mixture of housing types. Most of the houses built recently are built of brick and have tiled roofs, but there are still a number of wattle and daub houses scattered over the village. Almost all the houses are owner occupied and about 15% live on encroached land.



Traditional house in rural

4.5.7 Women in the Village

Although the man in the house is generally regarded as the head of the household, the wife is treated with much respect and care. Work, both in the paddy field and in the chena, is shared by both the husband and the wife. However, the wife has the additional responsibilities of running the house and caring for the children.

In a typical dry zone village life revolves round the temple, but this close association is not seen in the village of Periyakulama.

Many of the normal behavior patterns of the villagers seems to change with drunkenness becoming a fairly serious problem in the village.

4.5.8 Major Income Sources

Primarily the major source of income to the villagers was agriculture. Unfortunately, these primary sources of income seems to have dwindled in the recent past, first due to crop failure, resulting from use of poor seed varieties, the shortage of water and second, due to damage by wild elephants and birds. The absence of market facilities had also been a critical factor.

As a result of low agricultural production levels, there had been hardly any excess produce to be sold. Basically they were growing crops used for home consumption. The chena cultivation was performed to produce supplementary crop to staple diets of rice. And the excess yield other than home consumption of chena cultivation was sold to have income. However, depend on the increase of population and land fragmentation, the agricultural productivity has been decreasing and their income also decreased. Recently many villagers had been moved to the chena cultivation located between the main road and village. Thereupon circumstance of the village so changed and the income from agriculture has been difficult. Along with this change, the quality life in the village is dropping and function of community also declined such as community resources management and implementation of traditional festivals and ceremonies.

As compared with agriculture of major irrigation scheme and traditional village, much different things could be find:

| <u>Type of Agriculture</u> | Agriculture Oriented towards Self sufficiency | Agriculture Oriented towards Commercialization |
|-----------------------------------|--|---|
| Area of Paddy Land | Small and fragmented | Big and one plot |
| Type of Village | Traditional | Settlement |
| Size of Tank | Small | Large |
| Quantity of Water | Not enough | Enough |
| Average Yield of Paddy | Low | High |
| OFC other than paddy | Supplementary crop to staple diets | High valued crop to sell |
| Risk in Paddy cultivation | Relatively High | Relatively Low |
| Trusted person | Relatives in the village | Family |
| Cultivation of paddy | Maha | Maha & Yala |
| Diversification of farming | Maha | Yala |
| Cultivation Loan | Mainly use own cash as possible or borrow it from relatives in the village | Usually obtain loan from bank or Businessmen |

(1) Income – Non-Agricultural

There are no industries within the village to provide employment opportunities. However, there are a few villagers employed as schoolteachers, police, and soldiers. Some of the young females are working at the garment factory in Tirappane (6km from the village).

However, many of poor farmers are earning work as laborers within the village. Brick production is the main work available in the village in the Yala season (dry season). Many villagers make bricks for the construction of their own houses or to sell. Brick production is also being done on a contract base. Materials of them are provided by the contractor, however all materials are freely available in their homesteads.

Other than household expenditure, the other important expenditure item is the money spent on the purchase of agricultural inputs, such as, seeds, fertilizer, agro-chemicals and payments for agricultural labor. Money spent on buying of electrical appliances and other luxury or semi-luxury items is nil or negligible.

| No. | Details | Male (Rs.) | Unit of Work |
|-----|-------------------|-------------------------|------------------|
| 1 | Labour for Paddy | 175 ~ 200 + Tea & Lunch | 01 day |
| 2 | Carpenter | 300 ~ 325 + Tea & Lunch | 01 day |
| 3 | Mason | 300 ~ 325 + Tea & Lunch | 01 day |
| 4 | Assistant | 150 ~ 175 + Tea & Lunch | 01 day |
| 5 | Brick cutting | 250 ~ 300 + Tea & Lunch | For 1,000 pieces |
| 6 | Brick Burning | 175 ~ 200 + Tea & Lunch | 01 day |
| 7 | Road construction | 150 | 01 day |
| No. | Details | Female (Rs.) | Unit of Work |
| 1 | High Land Agr. | 125 ~ 150 + Tea & Lunch | 01 day |
| 2 | Brick cutting | 250 ~ 300 + Tea & Lunch | For 1,000 pieces |
| 3 | Road construction | 150 | 01 day |



Two young farmers are try to sell vegetable in Anuradapura. They are waiting for a bus but almost all bus refuse them to get in. At Periyakulama junction

4.5.9 Community Based Organisations

There are five community-based organisations operating in the village of Periyakulama.

| | | | |
|---|------------------------|---|------------------------|
| 1 | Farmers' Organisation | 4 | Death Donation Society |
| 2 | SAPSRI Women's Society | 5 | Dayaka Sabha |
| 3 | Youth Club | | |

(1) Farmers' Organisation

A Farmers' Organisation has been formed in 1992, with a membership of fifty members and registered under the Agrarian Service Act – 56B in the same year. Thirty percent of households in the Periyakulama join the FO. The organisation deals mainly with the agricultural and irrigation activities of the village. The main objectives are i) to attend 'Kanna' meetings, ii) maintain the irrigation system iii) and provide agricultural inputs through Agrarian Services Center to its members and farmers.

(2) SAPSRI Women's Organisation

A Women's Farmer Society, with 14 members, is in operation, under the guidance, and with financial assistance from the South Asia Partnership of Sri Lanka, a non-governmental organisation. The objectives are to enhance the status of women and improve their economic status through agricultural projects.(see 4.4.2/page 35)

(3) Youth Club

A Youth Club with 34 members, 17 females and 17 males, aged between 18 years and 35 years, has been established under the National Youth Services Council (NYSC). It is involved in village '*sramadana*' activities, such as, clearing of the bathing place at the tank, the playground and the community hall, including doing repairs to the latter. It also conducts a three-month typing course for 10 members (4 male and 6 female) at the community hall in Periyakulama funded by the NYSC. This Youth club is a area center of the youth clubs of 5 villages around periyakulama. And also organizes a '*Bodhi-Puja*' (offerings to the Bo trees) at the village temple on '*Poya*' days.

The NYSC has an employment information centers in each district office and head office in Colombo. An officer of the NYSC told that the center was set up referred to the employment security office in Japan and introduced jobs to about 4,000 youths in the last year.

(4) Society of Devotees of Buddhist Temple

A *Kulagana Samithiya* (Women's Society) has been set up at the village temple to serve the temple and to attend to the religious work in the village.

4.6 Agriculture

4.6.1 Farm Land

According to the farmers, the total farm area consists of 280 acres. However an additional 120 acres is 'Akkara wela' or so is being cultivated through illegal tapping of water. Generally the land holdings vary in size from ½ acre to 2 acres. Former leaders of FO proposed as follow. As they could not manage effective water management because all of traditional canals were very old and not functioned well, they need improve existing canal system. To do so, they can use water more effectively and the 'Akkara wela' could be used as paddy field.

4.6.2 Paddy, OFC Cultivation and Other

Paddy is the main crop grown using irrigated water. The yields are relatively low, 70 bushels per acre (3.5t/ha) in the Maha season and 60 bushels per acre (3.0t/ha) in the Yala season. In addition to paddy cultivation a number of other field crops are grown in the chena's for both selling and for home consumption. Corn, Cowpea, Chilies, Kurakkan, Green-gram, Undu and Sesame are grown under rainfed conditions. Among these Corn and Cowpea are grown both for domestic use and for selling. Generally, each farmer has about a 1 or 2 acre chena plot. Extension of Chena cultivation has been decreased year by year. However they are not cultivate OFC at paddy field in Yala season. They explained that as the drain of the paddy field was not so good, OFC was damaged by water. But their height of bed for OFC cultivation is about 15cm, and they made the bed same way even in the paddy field. Therefore OFC cultivation in the paddy field in the Yala season may not succeed. "Kyakulan" (Dry sowing before rain) cultivation are usually performed by farmers. But this system is very risky. Therefore OFC cultivation will be more profitable to increase income than Kyakulan system and to succeed it basic technical improvement would be required such as height of bed/ridge and selection of crop and it's variety etc.

(1) Cattle for Security

There are about 150 of cattle, however no one gets a regular income from this. Some of farmers say "*uwamana ne*" meanings that farmers do not have a necessity to earn from cattle. The reason being the owners of cattle are well-off in the village and they treat them as



Rural Traffic Jam – by cows

another property. It is considered that keeping cattle is security for any emergency occasion. Some of them sold cattle to gain cash for the wedding ceremony, funeral or entering hospital. A villager said that every day, a lorry of collecting milk just passes the village to go to the next village! MILCO Co., Ltd. is come to collecting points of milk in the village. The company has collecting center at Anuradhapura and Kekirawa near the Periyalulama village. The location of the Periyakulama is very convenient to start the dairy farm.

4.6.3 Problems on Agriculture

Discussion was held with ex-leaders and present leaders of FO. The main issues, which expressed by them, are shown as follow

- a) High cost of farm inputs, high cost of production of paddy and OFC.
- b) Low price of selling price (Decline of Farm gate price, Decline of Substance income)
- c) Marketing facilities are not available in the area
- d) To damage crops by wild elephants.
- e) 'Chena' cultivation has virtually being abandoned and supplementary crops to the staple diets also should purchase from outside. Therefore total expenses are increased.
- f) Due to the all irrigation facilities are traditional system (anicut and canals are very large), irrigation water is not used effectively and proper management also is not performed
- g) As the community are not interested in FO so much, people are not gathered to the 'Sramadana'. Therefore it is difficult to manage community resources such as tank, roads etc.
- h) Luck of unity and norms and changing social pattern
- i) Agricultural extension services need improvement and Government officials should be more cooperative.

Chapter 5 NACHCHADUWA MAJOR IRRIGATION SCHEME

5.1 General

A detailed community survey was not conducted in Nachchaduwa because of the vastness of the Project. The scheme has 15 Farmers' Organisations, each covering 250 to 500 acres of irrigated land, and has a population of almost 24,000 people. The report will, therefore, consist of two sections, the first giving a general overview of the entire Nachchaduwa Irrigation Scheme and the second will be a comparative study of two Farmers' Organisations displaying contrasting characteristics.

5.2 Nature

5.2.1 Location

Nachchaduwa Irrigation Scheme is located in the Anuradhapura district of the North Central Province, and falls within the Divisional Secretaries Divisions of Nuwaragam Palatha East (80%) and Tirappane (20%). The scheme also covers 16 Grama Niladhari (GN - village level government officials) divisions. Furthermore, 80% of the area is serviced by the Sravastipura Govijana Seva Office (ASC - Agrarian Services Center) and the balance by the Tirappane Govijana Seva (ASC) Office. The overall management of the entire Scheme is by a Resident Project Manager (RPM) of Project Management Committee (PMC).

5.2.2 Vegetation and Topography

Except for a few pockets of Dry Zone Tropical forest scattered over the project area there is hardly any natural vegetation left in the area.

Topographically the area is flat and undulating, with the land generally sloping in a westerly and northwesterly direction.

5.2.3 Climate

Nachchaduwa Scheme is located in the Dry Zone of Sri Lanka. The mean monthly temperature varies from a low of 25.8°C, in December, to a high of 29.9°C in May, with a mean annual temperature of 28.1°C. The total annual rainfall received in 1996 amounted to 1068.3 mm. The highest rainfall was received in October, with a total rainfall of 256.8mm, and the lowest (0.5mm) was recorded in July. The month of April had also recorded a rainfall of 212.7 mm. Generally, October and November brings the heaviest rainfall to the area.

5.3 Demographic Characteristic

5.3.1 Population

The total population in the area amounts to 23,850, the male population is 11,687 and the female population is 12,162. According to ethnicity, 83% of the population is Sinhala, Muslims account for 15% and 2% are Tamils. Religion-wise 78% of the population are Buddhists, 15% Islam, 5% Christians and 2% Hindus. A survey of the population by age shows a very significantly young population, accounting for more than 50% of the population. 1,908 persons are over 60 years of age, 1,755 persons are between 30 and 59 years, 4,770 are between the ages of 20 and 29 years, and 10,017 are below 19 years of age.

5.3.2 Households

According to the RPM of PMC, there are 3,570 farmer families living in the project area and there are a further 1,202 non-farmer families.

5.3.3 Historical Background

It was said that Nachchaduwa Tank had been built in the second century AD, by King Sena II. The tank had been rehabilitated in the sixth century A.D., by King Mugallan II. In the present century, after it was discovered by the then British rulers, it was rehabilitated again in 1901. At the time the tank was discovered it was two canals, known as the 'Maha Ela' (the big canal) and the 'Heen Ela' (the small canal). The most recent rehabilitation was under carried out between 1984 and 1989, when together with the tank, the two main canals and the distributory canals were also rehabilitated. It was also at this time that the electrically operated spill gates were installed.

The Name of Nachchaduwa:

Folklore says that there was an old woman, by the name of Nachchiya who lived on a hillock in the center of place identified to build the tank, and the King had requested her to move out for him to build the tank. The King had promised the woman that once the tank is completed it would be named after her. The hillock where she lived stands today as a small island in the center of the present tank, which had been named after her as Nachchaduwa, 'duwa' meaning an island.

5.4 Rural Infrastructure

5.4.1 Communication and Transportation

The main postal facilities are located in Anuradhapura, Tirappane and Sravasti-

pura with a number of sub-post offices located within the project area. All post offices and sub-post offices are equipped with telephone facilities. All these facilities are easily accessible to the settlers.

There are two main roads, the Kekirawa-Anuradhapura and the Talawa-Anuradhapura roads located to the east and west of the project area respectively. A road that runs, from east to west, through the project area connects these two main roads. A system of roadways connects this road to the neighboring settlements of Wijayapura, in the north, Divulwewa and Kitugalwewa, in the



Two-wheel tractor is the best agricultural machine for multi-purpose use !

south, Srawasthipura, in the west and Puliyankulama, Tirappane and Galkulama, in the east. The project also has a system of agricultural roads, built for the benefit of the farmers to transport the agricultural inputs and the produce, but are badly maintained and therefore, difficult to use.

5.4.2 Electricity

More than 80% of the households use electricity for lighting, the balance using kerosene. The use of electricity appliances other than television sets, radios and lights are negligible. Generally, firewood is used for cooking, and in a few instances, kerosene, gas or electricity is used. Towns in the scheme are very small, however there are many shops such as grocery, tea shop and music recording center are opened up to around 8 o'clock in night. Electricity would be an opportunity to start a business and other productive activities such as rice mills and grinding mills in the rural area. Even the television is diffusing in this scheme than minor irrigation scheme and they could get much information.

5.4.3 Water Supply

Although there is no pipe-borne water distribution system to provide potable water to the settlers, almost all houses have their own wells to get their drinking water. These wells are also used to meet other domestic needs. Water in the irrigation canals, as well as the tanks, is used for bathing and laundering.

5.4.4 Medical Services

There are two hospitals within the project area to meet the health needs of the settlers. In addition, there are 8 private dispensaries. Since the project area is in close proximity to Anuradhapura, the base hospital located in the town is also easily accessible to the settlers. And many people are going to the base hospital.

5.4.5 Educational Services

There are 7 senior secondary schools in Nachchaduwa to meet the educational needs of the settlers. There are also 12 pre-schools. The Anuradhapura Central College also caters to the needs of settler children, especially to those who wish to study beyond the level of Grade 11.

5.5 Present Condition of Rural Community

5.5.1 Farm Land

The size of landholdings, within the project area vary, substantially from place to place. Allotments that have been given to settlers under the Village Expansion Scheme and the Wastelands Ordinance are 2-acre lots. Those living in Purana Gam (Ancient Villages) the size of allotments range from 0.5 acre to 25 acres, and owner and 'ande' cultivators, who occupy, mostly the highlands, the size of lots range from 10 to 25 acres.

5.5.2 Industries and Commercial Activities

Not many industries are located within the project area. The only large industry is a garment industry. There are 11 rice milling plants and a further 7 rice milling and packaging.

Livestock industry plays an important role as a commercial activity. Milk produced by the dairy farmers are collected at 5 'collecting points' to be delivered to the Anuradhapura Milk Producers Co-operative Society. Poultry farming is being carried on by 25 farmers who supply broilers to buyers in the Anuradhapura town. Goats are reared on a very small scale, mainly to be sold for meat.

An association of fishermen, from the project area, as well as outsiders, conducts fishing, on a commercial basis in the Nachchaduwa tank.

Commercial agriculture is also practiced by a significant number of farmers. Soya-beans and Corn is sold to Plenty Foods (Pvt.) Limited, a private company, with whom the farmers operate as out-growers. Similarly leafy vegetables, such as,

Gotukola and Mukunuenna are grown and supplied to the Sri Lanka Army on a contract basis. Big onions and vegetables are grown, especially during the Yala season, to be sold at both the Anuradhapura and Dambulla wholesale and retail markets. Bananas are cultivated on irrigated lands and are sold to wholesale dealers in Anuradhapura. In 1998, a fruit orchard growing lime, oranges and mangoes have been set up, but it would take sometime for the produce to reach the market.

A Farmer Company has also been formed in Nachchaduwa. Presently, it handle buying and selling of agricultural produce. It is planning to lease six 40' x 20' stores to use for storage of paddy. The storage facilities are located in Sravastipura and us used for storing fertilizer.

5.6 Farmers' Organisations (FO)

5.6.1 History and Objectives

Farmers' Organisations (FOs) had been first set up in 1985 and today, there are 15 such organisations. These have been registered under the Agrarian Services Act, Clause 56 A. They are also registered with the Irrigation Department. The Constitutions governing the FOs are based on model submitted by the Irrigation Management Division. However, the one submitted by the Department of Agrarian Services is also accepted. Necessary amendments to the model have been made according to the individual needs of each FO.

Each FO covers an area between 250 to 500 acres. The objectives of the FOs generally cover the following subject areas, namely:

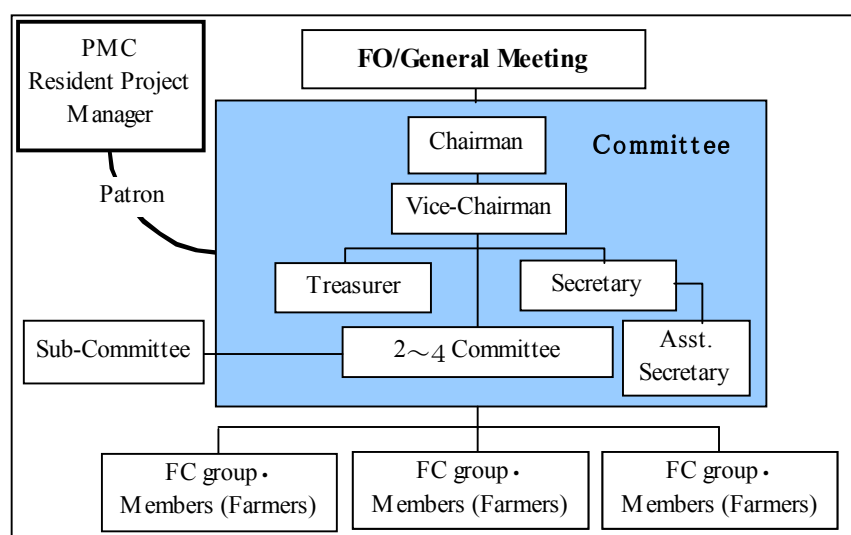
- Water distribution and management,
- Operation and maintenance of the distributory canals (field canals are maintained by the individual farmers),
- Supply of agricultural inputs to members,
- Assisting to improve agricultural crop yields,
- Promoting the cultivation of other field crops,
- Providing loan facilities, and
- Assisting the members in the marketing of paddy and other field crop produce.

5.6.2 Farmers' Organisation Committee

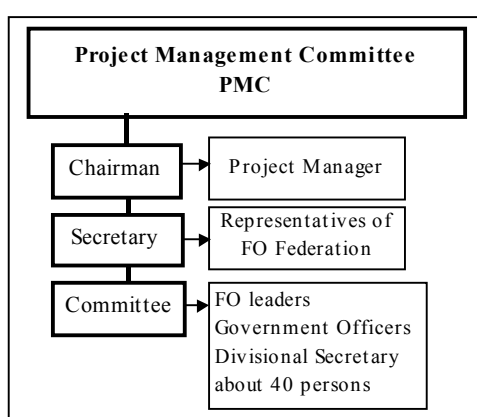
It is said by farmers that all operations of the irrigation system will be handed over to the farmers and the FOs once all construction is over, which is expected to be in the year 2002. At present an allowance is being paid to cover the costs of

operations and maintenance work done by the FOs. In 1997, the amount paid varied from a low of Rs. 4,084/= to a high of Rs. 32,692/=. There were 8 FOs that received more than Rs. 10,000/=.

The Committee of office-bearers consists of either 7 or 9 members, and since 1998 the Resident Project Manager is regarded as the Patron of all FOs. Earlier the Institutional Development Officer held this position. The office-bearers of the FO generally consist of a President, Vice-President, Secretary, Assistant Secretary, Treasurer and a Committee of 2 or 4 members. Elections are normally held once in two years. Farmers elect representatives by 'D' canal areas, and the office-bearers are selected from among these representatives and the appointments are approved at the Annual General Meeting.



5.6.3 Project Managing Committee Meeting (PMC)



According to the Irrigation (Amendment) Act, 1994, every major irrigation work being a part of a inter-provincial irrigation and land development scheme, there shall be a Project Management Committee and the Project Manager appointed by the secretary to the ministry of the minister in charge of the subject of irrigation who shall function as the chairman or secretary of the committee.

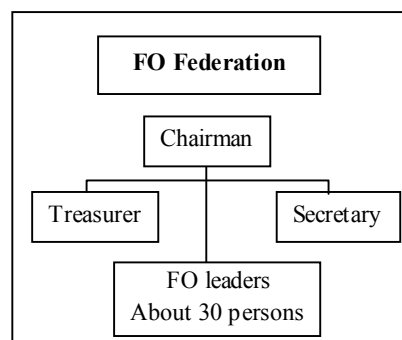
In the case of Nachchaduwa, there are two divisional secretariats Divisions in the Scheme. However there is only North Central Province. Basic objectives of the Irrigation (Amendment) Act-1994 will hand over the operation and maintenance

of the whole or part of the distributory canal system in the major irrigation scheme. And its basic concept to FO is operation and maintenance of irrigation facilities by farmers/water users. Therefore, ambiguous matters could be observed between the Agrarian Services Act (regulate and register the farmers' organisations) and Irrigation (Amendment) Act-1994.

Every month, on the 4th Thursday a Management Committee meeting is held with the RPM in the Chair. The meetings are attended by two representatives from each FO, normally the President and the Secretary or the Treasurer and the following Government Officers: 3 Technical Assistants, Colonization Officer, 4 Agricultural Instructors, 2 Divisional Officers and the Coconut Development Officer. And when necessary, the Livestock Officer and the Range Forest Officer are also invited. The Divisional Secretary attends the meeting once in three months.

5.6.4 Farmers' Organisation Federation

There is also a Federation of Farmer Organisations formed by the 15 FOs in the schemas. The 30 Management Committee members hold membership. As office-bearers there is only a President, a Secretary and a Treasurer. The main objective of this Committee is to bring pressure on Senior Government Officers and Politicians to resolve the farmers problems, and also to seek their assistance, through personal contacts.



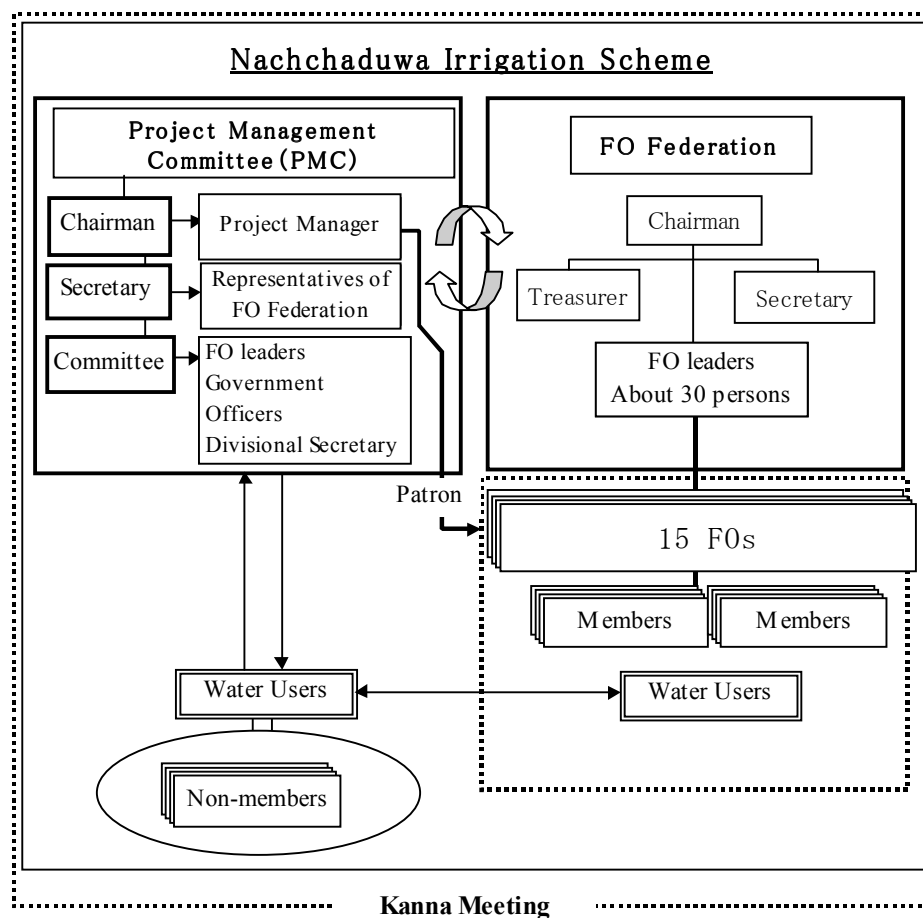
5.6.5 Kannna Meeting (Cultivation Meeting)

One of the most important activities of the FOs is to attend the seasonal 'Kanna' meetings. There is also a 'Pre-Kanna' meeting, held 30 days before cultivation starts. The meeting is presided by the RPM, and one meeting is held for five FOs. The meeting is attended by the Agricultural Instructor, Irrigation Engineer, Divisional Officer, Technical Assistant and the Grama Niladari. 149 farmer representatives are invited, and usually about 80 Attend the meeting. The meeting is held to meet and get the views and ideas of the farmers about the next cropping season. and deals with matters such as, water deliveries and the crops to be grown.

The 'Kanna' meeting that follows in about a fifteen days is presided by the District Secretary or the Divisional Secretary. Other than the 149 Farmer Representatives, farmers who are not members of FOs also attended. The RPM, Agricultural Instructor, Irrigation Engineer, Divisional Officer and the Additional

Director, Inter-Provincial Agriculture attends this meeting. The minutes of the discussions are recorded by the Divisional Secretary, and copies of the minutes are sent to all participants, plus the Banks, Insurance Corporation and the Grama Niladari and other relevant officers.

Outline of the Nachchaduwa scheme is shown as follows. Under the Project Management Committee, there are Department of Irrigation (DO), Agrarian Services Center, Department of Agrarian Services, Department of Agriculture, Divisional Secretary as a committee member and keeping cooperation. 15 FOs in the Nachchaduwa scheme also form a Federation of FOs and contribute the development in the area. Non-members are also cultivating paddy in the scheme because the membership to the FO is not compulsory. Therefore FOs has serious problems to control these non-members especially who come from outside of the scheme on the operation and maintenance of Irrigation facilities. Under the Kanna Meeting, every cultivator who are cultivating crops in the Nachchaduwa scheme with irrigation water are gathered.



5.6.6 Problems on Farmers' Organisations

There are tree major problems that could be highlighted in the project area.

- a) The existence of hidden land leases, because of them, it is difficult to manage the operation and maintenance of the irrigation facilities and water
- b) Insufficient and decreasing of profits from agricultural activities because farm inputs are getting increase but agricultural produce is getting decrease recent years.
- c) And the massive unemployment among the youth.

The secretary of FO federation said that it is estimated that about 60% of those between the ages of 20 and 29 years are either unemployed or under-employed.

5.7 Comparative Study of Al-Aksa and Gemunu Farmers' Organisations

The two Farmers' Organisations selected for the comparative study gives an indication of the contrasting conditions that prevail in the Nachchaduwa project area. Location-wise Al-Aksa FO is located at the head of the canal system, almost adjoining the main reservoir and was first settled in 1903, whereas, Gemunu FO is at the tail end of the canal system, and was first settled in 1935. Therefore, both areas are fairly old settlements, which would result in a number of problems generally not found in newly settled projects. (see Table V 5.1)

5.7.1 General

Al-Aksa FO covers a farmland area of 510 acres. The area was first settled in 1903. It has a total population of 4,000, with over 95% Muslims by ethnicity and Islam by religion. There are only a very few Sinhala, Buddhist families living within the area. It has a total of 700 households, but only 255 farmer households, which indicates that there are a significant number of households engaged in non-agricultural activities.

In contrast, Gemunu FO has an area of 426 acres, with a total population of only 1,450, the entire population being Sinhala by ethnicity and Buddhist by religion. It has 376 farmer households, which is the same as the total number of households. Therefore, it appears that all settler families are farmers, either full-time or part-time.

5.7.2 Farmers' Organisation

Al-Aksa FO was established in 1992 and was registered in the same year. It has an all-male membership of 255 and no periodic or entrance fee is charged. There are no women leaders or any women's organisation. Gemunu FO was established a year later, in 1993 and was registered in the same year. It has a membership of 248,

and this includes 64 female members. Furthermore, in contrast to Al-Aksa FO, it has separate women's organisations and women leaders. On the adequacy of water for cultivation, Al-Aksa by virtue of it being located at the head of the canal system does not face any water shortage. While in the case of Gemunu, the area faces a shortage of water in the Yala season.

5.7.3 Conflict Management

There are disputes among villages in both areas, regarding the use of water, as well as on other matters. In both areas water disputes are attempted to be resolved through the intervention of the FOs. In case such attempts fail, in the Al-Aksa FO area, the Mosque Board settles such problems with finality. It is in very rare instances that official intervention (Grama Niladari or Police) is sought. In the absence of any institution similar to the Mosque Board for mediation, in the Gemunu FO area, if the FO fails to resolve the problems, the next step is to seek the assistance of the Grama Niladari or the Police.

Use of 'sramadana' (voluntary service) has been a failure in Al-Aksa, where farmers do not respond positively to requests for voluntary work. In the Gemunu area it is being practiced, though not very often.

In the use of planting methods, Al-Aksa farmers use transplanting in the Maha season and broadcast sowing in the Yala season, whereas the Gemunu farmers use the broadcast sowing method in both seasons, although there are a few farmers who resort to transplanting.

Damage to crops by wild boar and parrots is sighted as a serious problem, both in the case of paddy and other field crop cultivation, by the Al-Aksa farmers, but Gemunu farmers face no serious damage to crops, except by stray cattle, and this is regarded as negligible. Other than the matters reported above, in all other aspects the two FOs display similarities.



Transplanting by women – Nachchaduwa

TABLES

Table V 3.1 Group Discussion with Farmers Animator (Govi Sewana Niyamaka) - Problems face by farmers Animators

| | Group 1 | Group 2 | Group 3 | Group 4 |
|----|---|--|--|---|
| 1 | Do not have the powers to approve a cultivation that has been damage | Problems face by Govi Sevana Animators when discharging there duties | Govi Sevana Animator is not regarded as a permanent employee | Do not have a office |
| 2 | Inability to supply seeds in time | Do not have a Bicycle | The Salary is not sufficient | They do not have at least a bicycle |
| 3 | Do not have the powers to resolve the problems that arise with farmers directly | Do not have a Office | Do not have officially accepted duties to attend | As he lives in the same are (Thulana) farmers do not give him much recognition |
| 4 | Do not have the powers to hold cultivation meeting | The salary is not sufficient | Do not have transport facilities to move about in the field | Farmers do not know much about the duties of Govi Sevana Animators |
| 5 | Inability to supply fertilizers and chemicals in time | Do not have Pior Practical Training | Do not have a Office in the specified area (Thulana) | Do not have enough water for agricultural activities |
| 6 | Inability to supply loans and aids in time | Only rain water is been used | Do not received sufficient stationary | Do not received seeds fertilizers and chemicals in time |
| 7 | Rain fall is very low and of facilities to store water is not available | Not enough agricultural training | The farmers Govi Sevana Animators do not have close connections with each others. | Farmers always expect aids from Govi Sevana Animators |
| 8 | Income of the Farmer animators is very low | Farmers do not get the profit directly | Farmers and officials in the agricultural sector meets Govi Sevana Animators is not accepted as one of them. | Govi Sevana Animators are not given the opportunity to take party in all agriculture activities of the village |
| 9 | Farmers do not trust the officers very much | Out siders are involved in activities that is supposed to be the duties of Govi Sevana Animators | When agricultural benefits are given agricultural officers and the political authority do not give due respect to Govi | Officials of Farmer Organizations do not due regard to Govi Sevana Animators |
| 10 | Not even a bicycle is available to move about in the field (Thulana) | Inability to serve the farmers by supplying the necessary services and supplies in time | As seeds and Planting materials are not supplied in time Govi Sevana Animator falls in to difficulties when attending farmers organizations | As reconstruction contracts are given to out side contractors Govi Sevana Animators find it difficult to complete the balance work. |
| 11 | Non availability of a standard market price for farm products | Unwanted influence of out siders with regard to farmers profit. | As the post Govi Sevana Animator is not an accepted official post and the Animator not given the necessary training farmers do not accept their instructions | |
| 12 | Farmers in Sri Lanka do not get the Vast amount of money that is been spent on behalf of them from the Officers and the Private sector organizations. | Farmers products do not have the standard price | All Government officers attached to agricultural activities do not give due respect to Govi Sevana Animators | |
| 13 | Difficulty to bring farmers to meetings. | | | |
| 14 | Do not have office equipments | | | |
| 15 | Do not have offices for specific areas | | | |

Table V 3.2 Comparison of Animators/Niyamaka in the Study Area

| Animator/Organizer | | | | |
|--|---|---|--|---|
| Name in Sinhala | Govi Sewana Niyamaka | WFP Niyamaka | Samurdhi Niyamaka | Niyamaka |
| Name in English | Farmer (Service) Animator | WFP Institutional Organizer | Samurdhi Animator | Institutional Organizer |
| Attached Organization | Department of Agrarian Services, Agrarian Services Center | Department of Agrarian Services, Agrarian Services Center | Ministry of Samurdhi & Sports, Project Office st DS Office | NCPADB Project Office |
| Arrangement of animators/organizer | Island-wide | Island-wide | Island-wide | NCP, Participatory Rural Development Project Area |
| Office | ASC center | ASC Center | DS Office, Samurdhi Project Off | DS office |
| Superior | Divisional Officer of ASC | Divisional Officer of ASC | Manager of Samurdhi | Project Director |
| No. of Arrangement | | attach to FO on the WFP program | 01 Animator per GN | 01 Animator per GN within the project area |
| Field Office | Basically one's home. | No | Samurdhi Centre | No |
| Employment | annual contract base | annual contract base | annual contract base | annual contract base |
| Allowance (Month) | Rs. 2,000 | | Over than Rs. 3,000 (?) | |
| Salary (Month) | Rs.3,900 | | about Rs.5,000 | |
| Educational Background | O-level | A-Level, should have experience of sociology | O-level | A-level |
| Age | 20 - 40 | 20 - 30 | 20 - 40 | 20 - 30 |
| Working Place & condition of Employ | Same Place | same area | not far | not far |
| Possibility of Permanent Employment | Recommendation and Selection | experience on sociology | Recommendation & selection | Experience on sociology |
| Official title of the Permanent Employment | Yes | No | Yes | No |
| Duty | Agriculture Development and Marketing Research Assistant | - | Samurdhi Development Officer | - |
| | Strengthen of FO | Strengthen of FO | Strength of low-income group | Strengthen of FO |
| | Provide necessary information to farmers & FO - purchasing and distribution of farm inputs from the ASC | coordination work - FOs, ASC, DAS | implementation of Samurdhi Program in low-income community | Implementation of community development work |
| | Attend on agricultural Committee meeting ASSC/DS | implementation of supporting program for farmers | making out of list of poverty, monitoring | Attendance on Agricultural meeting at DS |
| | Attend Kannna Meeting | Monitoring of the project | Extension work of group | Monitoring of the project |
| | Collection of acreage tax, survey on yield of crop, | | Attend development committee meeting | |

Table V 3.3 Result of Problem Analysis By Each Group - Aathikulama

| | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 | GROUP 5 | GROUP 6 |
|----|---|--|--|---|---|--|
| 1 | * Tank silted and not enough water is retained for cultivation | * No water for cultivation | * No drinking water | * No drinking water | * No drinking water | * No drinking water |
| 2 | * No water for drinking | No money to do farming | Educational difficulties | * There is no water in the tanks for bathing and cultivation | * No water for cultivation | * No water for cultivation |
| 3 | No paddy lands for all the farmers | * Crop damage by elephants | No permanent employment | * A lot of damage from elephants | * Damage by wild elephants | Crops destroyed by wild elephants |
| 4 | No agricultural equipment | * No drinking water | * No permanent housing | * Problems from alcoholism | No suitable road to come to the village | * There are economic problems in the village |
| 5 | Cannot do even rainfed cultivation because of economic difficulties | No transportation facilities | * No toilets | Difficult for poor people to live | * No toilet facilities | * No transportation facilities to go for educational activities |
| 6 | No permanent housing for many | No health facilities | No seeds for cultivation | There are no Agro-wells for cultivation | No proper cultivation for about three years | * No money to do farming |
| 7 | * There are some with technical knowledge, but lack of electricity a problem | * No facilities for self employment | * No water for cultivation | There are toilets in the village | No pre-school for the village | Family problems due to alcoholism |
| 8 | No suitable place for religious observances | No pre-school | No transportation facilities | No permanent houses | * No electricity facilities | No income sources for living |
| 9 | Damage by wild animals | No agricultural equipment | No electricity | No transportation facilities | No vehicular facilities to come to village | No money to spend for educational purposes |
| 10 | * Unemployment among youth | * No permanent source of income | Problems from elephants | No assembly hall in the village | No health facilities | No health facilities |
| 11 | No health facilities in the | | No health facilities | * No electricity in the village | No playground | No pre-school |
| 12 | Poor road facilities | | * Disputes because of drunk | There is no school for children's education | | No electricity in the village |
| 13 | * No assembly hall to have meetings | | There is no priest to develop our temple | No roads in the village | | No toilet facilities |
| 14 | Most villagers facing economic difficulties | | | There are shortcomings for Sunday school children | | No permanent housing |
| 15 | No seed and planting | | | No pre-school in the village | | |
| 16 | No toilet facilities | | | The main road to the village is damaged | | |
| 17 | | | | There is no playground for the village | | |
| 18 | | | | There are no jobs for the young men and women in the | | |


Note: *  main 5 problems facing the village as identified by each groups

Table V 3.4 Group Discussion - THEN & NOW (Aathikulama)

| GROUP 1 | | GROUP 2 | | GROUP 3 | |
|---|--|---|--|--|--|
| THEN | NOW | THEN | NOW | THEN | NOW |
| Reaped benefits from farming | Loss from wild animals - difficult to do agriculture | High values of Agricultural production | Could not get enough income from Agriculture | Unity | Political problems and no unity |
| Total population was low | Too much of population | There was unity | No unity | Enough water | No rain - not enough water |
| People were united | No unity because of economic difficulties | Agriculture was successful | Damage from wild elephants - Agriculture is not successful | Enough land | More population - shortage of land |
| There were few diseases | More sicknesses due to use of Chemical insecticides and fertilizer | There was income from agriculture | | No Drunkenness | |
| | No rain - not enough water | | Does not respect elders | | Illiteracy |
| | | | Does not listen to advise | | |
| | | | Shortage of Irrigation | | |
| GROUP 4 | | GROUP 5 | | GROUP 6 | |
| THEN | NOW | THEN | NOW | THEN | NOW |
| Everyone was happy | | Every body respect elders' suggestion | No values because of alcohol | There was rainfall | |
| There was unity among villagers | There is no unity | There was enough rainfall | No rainfall because of clearing of forests | There was unity | Less unity |
| There were adequate no of people | Population has increased | Living at Gangoda (traditional village) | Population increase | There were big forests | Less forests |
| People farmed together unitedly | Because of economic problems villagers cannot be | Maintaining tank every season by all | Water retention in tank is low because of siltation | There was more water in the tanks | Less water in tanks |
| Maintaining tanks were carried out by all | Not enough rainfall | Community work together to maintain village | No unity therefore nothing happens | Excavation of the tank was done | No excavation of tanks |
| Everyone helped each other in chena cultivation and shared the products | No rainfall, cannot do agriculture properly | | | Children had less sicknesses | There are more sicknesses because of use of chemicals and fertilizer |
| Rared animals, curd was made and shared | | | | Chena crops were not priced (sold). They were for home consumption | Chena crops are priced (sold) |
| | | | | Cultivation was done well | Cultivation could not done well |
| | | | | No damage by wild elephants | |

Table V 5.1 Result of Interview to Farmers' Organisation Leader - Nachchaduwa (1/4)

| | ITEM (Questions) | AI – Aksa FO | Gemunu FO |
|--|--------------------------------|---|--|
| GENERAL | | | |
| 1 | Name of interviewee | Mr. Y.M.Ismail, Treasurer – FO | Mr. Ekanayake Bandara-Pres. & R.A.D.Premaratne –Secy. –FO |
| 2 | Name of village | Nachchaduwa | Mahaneludewa |
| 3 | Total population | 4,000 | 1,450 |
| 4 | Total households | 700 | 376 |
| 5 | Farmers households | 255 | 376 |
| 6 | Ethnic group | Muslim / 5 families - Sinhala | Sinhala |
| 7 | Religion | Islam / 5 - Buddhist | Buddhist |
| 8 | Year settled | 1903 | 1935 |
| 9 | Total area-farmland | 510 acres | 426 acres |
| FARMER ORGANIZATION | | | |
| 10 | Year established | 1992 | 1993 |
| 11 | Year registered | 1992 | 1993 |
| 12 | Registration | ASC Act - 56A | ASC Act - 56A |
| 13 | No. of members | 255 | 248 (includes 64 women) |
| 14 | Membership fee | No fee | Rs. 20/= for 2 years |
| 15 | Organizational structure | Chairman, Vice-chairman, Secretary, Asst.-Secretary, | Chairman, Vice-chairman, Secretary, Asst.-Secretary, |
| | Committee Members | 4 | 6 |
| 16 | No. of Farm leaders - Field | 9 Yaya Representatives | 9 field canal representatives |
| 17 | No. of women leaders. | No | Separate |
| 18 | Election procedure | Farmers elect yaya leaders to form Comm. | 4 general meetings, elected for 4 years |
| 19 | Objectives/major activities | Increase yeild, maintain canals, co-op. experience, loans | Organize farmers for systematic cultivation, water management, encourage farmers to use new techniques, avoid middlemen in input supply, marketing, help raise quality of life |
| 20 | Articles/by-laws | DAS Constitution | DAS Constitution |
| 21 | General meetings | Once in 2 years | 4 meetings/year |
| 22 | Auditing system | Outside auditor appointed by RPM / IMD | By external auditor appointed by DO / ASC |
| 23 | Participating ratio | 75% | 75-80 % |
| 24 | Allowance – leaders | | |
| 25 | Amount/year | ½ bushel/acre or Rs.100/= per acre, per kanna | ½ bushel/acre or Rs.100/= per acre, per kanna |
| 26 | Financial source | Farmers | |
| 1) Need for strengthening of FO | | | |
| 27 | Do you want to | Yes | Yes, legal power, under supervision of GA/AGA |
| 28 | Who would do it | DAS | DAS |
| 29 | Who support it | Farmers | FO |
| 30 | Need for office | Yes, no office | Yes, now use part of fert. Store |
| 31 | Need for hall | Yes, now use RDS bldg. | Yes |
| 32 | Present problems | - | Legal limitations, funds, premises |
| 2) To strengthen FO | | | |
| 33 | Do you like to employ IOV | No NGO | Not now, future – yes |
| 34 | Establish youth group. | No | Yes |
| 35 | Women's group | No | Yes |
| 36 | Appointment of women's leaders | No | Yes in future |
| 37 | Establish Business Section | Yes | Yes |
| 38 | Turn-out group | - | yes |

Table V 5.1 Result of Interview to Farmers' Organisation Leader - Nachchaduwa (2/4)

| | ITEM (Questions) | AI – Aksa FO | Gemunu FO |
|---|----------------------------------|---|---|
| IRRIGATION WATER | | | |
| 39 | Irrigable area | 510 acres | 426 acres |
| 40 | Enough / short | Enough | Maha – Okay, Yala – not enough |
| 41 | Received in time | Yes | Yes |
| 42 | Need to increase | No, but canals must be repaired | Yes |
| 1) Water Management | | | |
| 43 | Rotational | Yes | Yes |
| 44 | Interval | | Every 4 days |
| 45 | How and who-decides | Farmer leaders | At kanna meeting |
| 46 | Attend to Kanna meeting | Yes | Yes |
| 47 | Water mngt.in drought year | Works Superintendent | Committee |
| 48 | Are there disputes | Yes | Yes |
| 49 | Who settles | FO, Mosque Board | FO, GN |
| 50 | Is there agreement | Yes | Normally, yes |
| 2) Disputes/ fighting in village | | | |
| 51 | Are there disputes | Yes | Yes |
| 52 | Who settles | Mosque Board | FO, GN, Police |
| 53 | Is there agreement | Yes | Generally, yes |
| 54 | Need to improve water management | Yes | - |
| 55 | Is there a need | Yes, main canals need | - |
| 56 | Who will do it | ID? | - |
| 57 | Who will support | Farmers | - |
| 58 | Measuring devices | Yes | Yes |
| IRRIGATION FACILITIES-O&M | | | |
| 59 | Need to improve facilities | Yes | Yes |
| 60 | Present situation | | Main canal –ID, d/c, f/c -FO |
| 62 | Turn-over of O&M | | |
| 63 | Turn-over or not | | |
| 64 | Do you agree | | |
| 65 | Condition of t-o | | |
| 1) O&M costs | | | |
| 66 | Irrigation service charge | No water charge, Acreage Tax Rs.6/acre/year | No water charge, Acreage Tax Rs.6/acre/year |
| 67 | Amount | | |
| 68 | In cash/kind | | |
| 69 | Punishment rule | | |
| 70 | Collection ratio | | |
| 71 | If low, why | | |
| 72 | Sramadana for O/M | Farmers do not come | Sometimes |
| 73 | Do you agree? | | Yes |
| 74 | Are farmers responsible for O/M | | Yes |
| 75 | If not who is? | | - |
| 76 | Strengthening O/M | | Yes |
| AGRICULTURE | | | |
| 1) Paddy cultivation | | | |
| 77 | Harvested area | 510 acres | 426 acres |
| 78 | Yield | Maha- 120 bushels/acre Yala- 85-90 bushels/acre | Maha – 90-130 bushels/acre, Yala- 80-110 bushels/acre |
| 79 | Planting method | Maha-transplant, Yala-broadcast | Mostly broadcast |
| 80 | Sowing/Harvesting | Maha: Nov.-sow., Mar.-harv., Yala: Apr-May-sow., Aug.-harv. | Maha:sow. Oct/Nov; harv.- Feb/Mar, Yala: sow.- Apr/May; |
| 81 | Crop damage | Wild boar | Very little:cattle |
| 82 | Selling price | Samba-Rs. 13/Kilo; Nadu-Rs.10- | Rs.7-9 / Kilo; now Rs.12/Kilo |
| 83 | Labor charge | 175/day | 175/day |
| 84 | Milling charge | =/90 cts/Kilo | Rs.1.25/Kilo |

Table V 5.1 Result of Interview to Farmers' Organisation Leader - Nachchaduwa (3/4)

| | ITEM (Questions) | AI – Aksa FO | Gemunu FO |
|--------------------------------|-------------------------------------|---|---|
| 2) OFC cultivation | | | |
| 85 | Kinds of OFC | Corn, chillies, soya, cowpea, Dubai pumpkins-only in Yala, for sale | Corn, Soya, (for Plenty Foods) Chillies, B. Onion, Vegetables |
| 86 | Yields | Vary | Vary |
| 87 | Crop damage | Parrots | Little |
| 88 | Selling price | Farm gate | Soya: Rs. 20-32/Kilo; Corn- Rs. |
| 89 | Productivity | | |
| 90 | Cultivating land | | paddy land |
| 91 | If highland, why not in paddy land? | Chena cultivation in Maha | |
| 92 | What OFC you wish to | Given above | |
| 93 | Need to improve crop cultivation | Private buyer, to take to Dambulla | |
| 3) Marketing | | | |
| 94 | Farm inputs | | |
| 95 | Where do you buy | Private shop | Private shop |
| 96 | Can you buy in time? | Yes | Yes |
| 97 | Problems? | No | - |
| 4) Farm products | | | |
| 98 | To whom do you sell paddy? | Out of area, rice mill owners | Private dealers |
| 99 | To whom do you sell OFC? | Outside buyers, Dambulla | Plenty Foods, Dambulla |
| 100 | Problems? | No | - |
| 101 | Is pola near village? | No, in A'pura | No |
| 102 | Do you sell at pola? | Some go | No |
| 103 | Need to improve marketing? | Yes | Yes |
| 104 | Who will do it? | | |
| 105 | Who will support? | Farmers | FO |
| 106 | Coop. Purchasing of farm inputs? | Not functioning | |
| 107 | Coop. Selling of farm | - | Yes |
| 5) Credit | | | |
| 108 | From where do you take | Bank loan / private dealer | Banks / private dealer |
| 109 | Interest rate? | Bag of urea-Rs. 330/=, on loan Rs. 375/= (private) | 20-25%- Banks |
| 110 | Diff. To get loan? | Private lender-easy, Bank-difficult | Banks- difficult |
| 111 | Need to improve? | Yes | Yes |
| 112 | What about group loan? | Good | Good |
| 6) Extension Activities | | | |
| 113 | Do you have? | Yes | Yes |
| 114 | Who provides service? | AI- visits once in two weeks | AI- twice a week |
| 115 | Need to strengthen? | Yes | - |
| WATER SUPPLY | | | |
| 116 | Source of water | Wells | Protected wells mostly |
| 117 | Need to improve supply? | Yes | - |
| 118 | Type of water supply needed | Taps | Taps |
| 119 | Who improves? | | |
| 120 | Who maintains? | | |
| 121 | ROADS | | |
| 122 | Condition of roads? | Poor, not maintained | Some are good |
| 123 | Bridges? | Poor | |
| 124 | Need to improve? | Yes | Agri. Roads |
| 125 | Who will do it? | | |
| 126 | Who will maintain? | | |
| ELECTRICITY | | | |
| 127 | Do you have? | Yes | Yes: 85-90% |

Table V 5.1 Result of Interview to Farmers' Organisation Leader - Nachchaduwa (4/4)

| | ITEM (Questions) | AI – Aksa FO | Gemunu FO |
|--------------------------------|---------------------------------|--|--|
| POST-HARVEST FACILITIES | | | |
| 128 | Storage | | |
| 129 | Existing no.? | In Sravastipura | No-only fertilizer |
| 130 | Needs? | | Yes |
| 131 | Collecting | | |
| 132 | Existing no.? | | Plan to collect for Farmer Co. |
| 133 | Needs? | | - |
| 134 | Rice milling | | |
| 135 | Existing no.? | 3 | 4 |
| 136 | Needs | | |
| 137 | Grinding machines | | |
| 138 | Existing no.? | 3 | 1 |
| 139 | Needs? | | |
| FARM POWER | | | |
| 140 | Farm machinery? | Tractors used on hire | Use tractors, 20 –2 whl. And 4- 4 whl tractors |
| 141 | Animal power? | Very little used | No |
| 142 | Labor force? | | |
| 143 | Problems? Who settles? | | |
| 144 | Do you have ‘Aththam’? | No | No |
| 145 | Is there ‘Kaiya’? | No | No |
| INHERITANCE | | | |
| 146 | Method | Permanent deeds | |
| 147 | Ratio-heir/heiress | | |
| 148 | Who sells products? | | |
| 149 | Who manages income? | | |
| 150 | Who manages home | | |
| LAND HOLDING | | | |
| 151 | Average size | | 1 Ha. |
| 152 | Land Tenure | | 99 yr. Lease; Swarnbhumi, Jayabhumi deeds |
| 153 | Subdivision | | No |
| 154 | Land rent | | - |
| LIVESTOCK FARMING | | | |
| 155 | Are you interested? | Yes | Yes |
| 156 | What kind? | Milk & beef cattle, poultry-eggs, meat, goats- meat only | Milk cattle, goats, pigs and poultry |
| 157 | If proposed, will you join? | Yes | Yes |
| INLAND FISHERIES | | | |
| 158 | Are you interested? | Yes | Yes |
| 159 | What kind? | Tank- fisheries committee, supply boats, nets | One tank |
| 160 | If proposed, will you join? | Yes | Yes |
| NON-FARM INCOME | | | |
| 161 | Major sources? | No | No |
| 162 | Emp. Opportunity around village | No | No |
| MAJOR PROBLEMS | | Unemployment among youth | No systematic support and guidance for agri. deve. |