

Appendix 1

MARINE FISHERFOLK OF TAMIL NADU: AN INFORMAL STUDY

This Appendix summarizes the findings of an informal study on the lives of the fisher-folk from some coastal villages in the districts of Kanyakumari, Tirunelveli, South Arcot and the Union Territory of Pondicherry. The study focuses on the economic and socio-cultural life of the fisher-folk and on their health. It also describes how the fisher-folk measure volume, length, time, and other units of measurement.

The study is based on observations, interviews and casual conversation with both fishermen and women. A team of five visited the villages in March 1984 to gather the information. They visited Kizhamanakudi, Kovalam, Muttam (in Kanyakumari district) ; Tharavaikulam on the southern seashore; Theresapuram in Tuticorin (in Tirunelveli district) ; Sonanguppam, Chettinagar and Chinoor Pudupettai in South Arcot district; and Veerampattinam in the Union Territory of Pondicherry.

1. The economic life of fisherfolk

The information collected covers, *inter alia*, the types of boats and nets used, their cost, repair and maintenance ; ownership patterns of boats and nets ; labour in fishing operations; consumption patterns of fish; its price, marketing, transport and storage; and indebtedness and savings among fisherfolk.

Marine fishing is seasonal, generally from March to October, though some catch is possible throughout the year. Types of fish caught vary with the seasons and also within a season. For example, in Kizhamanakudi village, types of fish caught in different seasons are:

Seasons (Months)	<i>Types of fish caught</i>
April-September	Sardine, belona. ribbon fish
September-January	Whitebait
Round the year	Ribbon fish, barracuda, seer, prawns, lobsters, rays, skate, sharks

The variation in the types of fish caught is attributed to water current. Whitebait and prawns bring in more money than sardines and seer species.

Kattumarams are seen in large numbers in Kanyakumari district. Generally, these are four logged craft with a 21-25 ft. sail. The life of an average kattumaram is reported to be about five years. The craft costs about Rs. 5,000.

Nine different types of nets are used : surface gillnets, set gillnets, bottom-se? gillnets of different sizes, cotton bagnets and hook sizes No. 6-12. The nets cost anything between Rs. 800 and Rs. 10,000.

Craft and nets are made locally. It takes two weeks to build a kattumaram. The time taken to make a net varies between ten days and two months when hand braided and two days to a week when machine-made. A cotton net lasts about three years, a nylon net between five and eight years.

Boats often sustain damage, especially while negotiating surf in rough water. They are prone to capsize -this may damage one or two logs of a craft. This happens once or twice a year to 5% of the kattumarams on surf-beaten coast. Repairs and replacements cost about Rs. 300 a year.

The nets are damaged mainly because of crab or shark bite. Sometimes also because they get entangled on rocky beds. Repairs to nets are carried out daily by the fishermen themselves on their return from the sea. At least Rs. 500 a year is spent in repairing nets.

Most of the fishermen own only one craft each. Kattumaram owners use different types of nets. Some borrow nets from other fishermen who are only net-owners, paying them a share from the sale proceeds.

Usually, different nets are used in different seasons. The fishermen do not sell the previous season's nets to buy what's suitable for the new season. But other fishermen have these nets and these are shared.

When fishing, the craft owners are accompanied by labourers. Sale proceeds are distributed on a "share" basis among a number of individuals : The auctioneer takes 6% as commission and 1% is donated to the church. Of the remaining amount, $\frac{1}{3}$ is the share of the boat owners, $\frac{1}{3}$ that of the net-owners and the balance goes to the labourers. The labourer is generally free to go in any kattumaram he wishes.

An owner earns about Rs. 7,500 a year whereas the average earning of a hired labourer is about Rs. 2,500.

Fish consumption generally follows a pattern. 10% of the catch is consumed in the village and the rest is auctioned and sold outside the village.

The auctioneer plays a crucial role in marketing fish. As soon as the catch reaches the shore, he sells it. He advances Rs. 1,000 or more to kattumaram owners for the right to auction the catch.

The loan is interest-free but the auctioneer takes 6% as commission from the proceeds of the sale. The responsibility for collecting the highest amount from the bidder rests with the auctioneer. The buyers sell the fish in the retail market.

The fishermen never store fish. The main mode of transporting fish to the markets is the bicycle. However, elderly women carry headloads within the village and to neighbouring villages. Dried fish is sent by buses or lorries to other districts. The buyers in turn take the fish on bicycles to markets in the interior or to places with ice plants.

Prices of fish vary from fishing village to non-fishing village, from small town to big city. It is about 25% more in a non-fishing village, 50 to 60% more in a small town and 75% more in a big city. Indebtedness is rampant amongst fisherfolk as on most days they spend more than they earn. Most of the family budget goes towards food, clothing and medicines. The fisher-folk borrow from banks and moneylenders by pledging jewels. Their main mode of saving is through chit funds; what they save is usually used for marriages.

Traditional fishermen feel that mechanized boat owners should not fish within areas specified for kattumarams.

2. The socio-cultural life of the fisherfolk

Family life and marriage, the status of men and women, the hold of caste and religion, addiction to drink and elections -these are some of the subjects touched on. The findings are summed up in this section.

Marriage: The average age for marriage is 18 or 19 for girls and 21 for boys. If all goes well, a girl might marry even at the age of 15. The elders select the mate. The custom of marrying cousins is very much in vogue. A boy may marry the daughter of his father's sister or the daughter of his mother's brother. Even in Christian communities, where marrying cousins is generally taboo, such marriages take place with special permission from the Church.

The custom of dowry is common. Dowry is paid in cash, jewels, household utensils, grain, cattle and poultry. Many girls marry late or remain single because of this custom. Divorce is unknown and unaccepted in these villages, though some couples live separately. The elders generally help separated couples to come together. Widow marriage is accepted. It is left to the widows to decide whether to marry or not. Monogamy is the accepted practice.

Family life: Most families are nuclear. Each family has anything between one and ten children. During the first pregnancy of the mother, 'Valaikappu' is celebrated. It is a ritual for the protection of women. During this period, a woman is taken to her parents' house where she is looked after until she delivers.

Among Hindus, a ceremony is performed on the 9th day after a child was born. The child is adorned with silver anklets and gold or silver bangles. Once again, this is a ritual to protect the child. Another important ritual for children is the ear boring ceremony, conducted at any age between two and ten years. A third is the offering of the child's hair to God -done at any convenient age. The fisher-folk also celebrate when a girl comes of age.

Christian children are baptized on the 10th, 13th, 16th, 21st, 30th or 40th day after they are born. It is an important day for fisherfolk. 'Narkurnai' or 'Poonanmai' (the first holy communion), is held at any age between 9 and 13, and is another day for celebration. Rituals are also conducted when girls come of age. The amount of money spent on these occasions depends on the financial status of a family.

Boys play kabaddi and ball games. The girls : skipping, pandi, and pallanguzhi (an indoor game).

Wrongdoing by children is punished with a scolding or a beating. A good deed is rewarded with a kind word or money to buy some eatables.

The boys begin bathing in the sea when they are five to seven years of age. They get on small pieces of wood and cover short distances on the sea. Between the age of 10 and 15, they go fishing with elders.

The status of women: The women cook, carry water, rear children and engage in making handicrafts. They are expected to serve their husbands when they return from the sea. They are not expected to quarrel but to compromise. Women are reported to be accorded some importance in only 10% of the households. Men believe that the women's place is the home; women feel that the decisions of men should be obeyed.

Fish marketing is generally undertaken by men. Only elderly women or needy mothers take up fish marketing.

Girls who come of age begin to wear sarees and are not expected to step out of their homes.

The bold participation of women in community issues in Kovalam, Kanyakumari district, is worth mentioning. They succeeded in building a wall on the seashore to prevent erosion, defying protests from fishermen who found the wall cumbersome for boat-launching and landing operations. They also got handpumps installed to procure more water and had lights installed on their streets. At the moment, they are fighting against the mechanization of net making.

The women said that they try to prevent men taking up such issues, because if taken into custody men are not released for days and thereby prevented from earning, while any woman if arrested is usually released before sunset.

Religion: Whether Christian or Hindu, fisherfolk are very religious and every village has a church or a temple. Festivals are celebrated with gusto and the villages accept religion as a part of everyday life.

The taxes collected on boats, nets and cycle traders become a part of temple or church funds. Every family pays special taxes for festivals. When a new net is put to sea, offerings are made to the Gods.

Caste: The two main castes in Kanyakumari are Bharatars and Mukkuvars. Pattinavars and Chettiars are the two main caste groups in South Arcot.

Every village has a powerful caste panchayat, whose main job is to settle disputes. These relate mainly to theft and clashes. The number of panchayat members (5 to 15) varies from village to village.

Those who are objective, God-fearing, hold a clean record and evince interest in the peaceful settlement of disputes are elected panchayat members. Usually it is middle-aged or old people who get elected to panchayats but youngsters find a place at times.

Elections: The fisher-folk feel that people who stand for elections make promises but never fulfil them. And that they only look after themselves and their families after they are elected. Villagers say one needs money to win elections: to buy voters drink and bribe them in other ways.

Almost all Tamil Nadu political parties are represented in the village panchayats. In urban Therasapuram, for instance, the caste panchayat has representatives from every political party.

The drink habit: Drinking is widespread amongst men in the coastal villages: in fact half of the earnings are spent on drink. Even boys are introduced to the drink habit at an early age, usually when they start going out to sea. Women agree that men need a drink after a hard day's work; what they are concerned about is drinking in excess.

One does come across a few men who are abstemious. Drinking by women is forbidden.

In a village in south Arcot, fishermen attributed poor hauls to various factors: the evil eye, special worship conducted by an enemy (or someone whose catch got reduced), *mantras* (magic words) chanted by someone with supernatural powers. It is believed that the mantras can be counter-acted by persons with greater supernatural powers or through special worship.

The fisher-folk also believe that there are ghosts in the sea, which sometimes become visible at night when fishermen go fishing for 'kola' (flying fish). On such occasions they pray.

3. The standard of health amongst the fisherfolk

A doctor in the team examined 53 men, 53 women, 20 pregnant women, 9 lactating mothers and 265 children in villages of Kanyakumari and Tirunelveli district. The examination was purely clinical. The findings are presented below:

The illnesses recorded amongst men are: Cataract (11 victims), corneal haziness (5), partial blindness (6), peptic ulcer (13), arthritis (4), burning feet syndrome (Vitamin B deficiency) (12), eczema (2), peripheral neuropathy (7), bronchial asthma (8) and tuberculosis (2).

Partial blindness could be induced by consumption of arrack or country liquor. The high incidence of peptic ulcers could be because of occupational tensions, because of the large quantities of spicy food consumed with arrack, because of irregular food habits including frequent bouts of starvation. Arrack is perhaps also behind the burning feet syndrome; and salt water exposure may have triggered eczema.

The illnesses noted amongst women were anaemia (4), undernutrition (8), bronchial asthma (14), malaria (4), white discharge (5), burning feet syndrome (5) and diabetes (1). There were also some cases of glossitis and angular stomatitis. Anaemia is a major ailment amongst pregnant and lactating women.

Antenatal care was hardly availed of regularly. Of the 20 pregnant women interviewed, only four had availed of antenatal immunization. No contraceptives appear to have been used and sterilization is considered taboo. However, a few had resorted to abortion.

'The most common nutritional deficiency found among children was vitamin A deficiency (31%). Other such deficiencies were *kwashiorkor** (26%), angular stomatitis (vitamin B deficiency) (21%) and anaemia (5%). A case each of corneal blindness, corneal scar, cataract and rickets were observed. Poverty and frequent child birth were the main causes of poor nutrition. The children also suffered from other ailments: ascariasis (25.3%), respiratory infection (16%), whooping cough (10%), dental caries, diarrhoea, worms and bronchial asthma (about 3% each), dysentery, malaria, progressive tuberculosis (about 1 to 1.5% each) and also pro-

* Protein Calorie Malnutrition or PCM.

gressive primary complex, giardiasis, scabies, massive parotitis, polio, leprosy and deafness. Most childhood diseases are due to malnutrition. More female than male children are under-nourished.

A look at infant-feeding practices helps us to understand the reasons for malnutrition. A child is fed with only sugared water for a period of three days after it is born. Two types of weaning practices were observed. Some mothers nurse children until they are 1½ to 2 years old but others start them on tinned baby food between the ages of two and eight months. All mothers use narrow-mouthed bottles for feeding children.

Rice and idlis are the first solid foods given; these are introduced when the child is between 1 and 1½ years old.

Lactating mothers are given certain kinds of fish which are believed to improve lactation, such as, kuduppu, kanal, thiracchy, vinai meen, uravam, mutty, memmen and soorai. They are also given medicinal spices, such as omum and chukku, to aid digestion.

A few mentally retarded children were observed in the villages. Some of these cases could be attributed to the lack of proper care during delivery.

Primary Health Centres and hospitals were usually available in the villages or in places nearby. Medical personnel in the centres were accessible only for a limited number of hours. ANMs (Auxiliary Nurse Midwives) and health visitors were popular in villages visited. There were noon-meal centres in all the villages.

The people were aware of available health facilities and their limitations. Reasons given for not using these facilities :

- * lack of access to health personnel round the clock.
- * inability to afford the services.
- * difficulty in reaching a hospital during an emergency.
- * inadequate stocks of drugs.

A brief study of the relation of health to socio-economic status in fishing communities in the city of Madras was conducted by Dorothy, Jayam and Sundari for the NFAE project. (Of the three who conducted the study, one was a specialist in child care and two were nutritionists).

Two fishing colonies on the Madras coast — Nochikuppam and Ayodyakuppam -with 6147 people in 1122 households — were chosen for this study. Nearly 100 women from these households were interviewed. Some highlights are presented in the following paragraphs.

The women interviewed were in the 15 to 25 age group. 70% of the families were nuclear and 30% were joint or extended families. The average family size was six. The average income of the majority of families was about Rs. 15 a day. A small number of families earned between Rs. 30 and Rs. 40. At least 25% of the families earned less than Rs. 10 a day.

The men worked in the harbour. Their incomes fluctuated widely since their jobs depended on weather conditions. The majority of the families owned houses provided by the Housing Board. Only 11 families had electric power. The rest used kerosene and firewood as fuel.

The families were always in debt, as expenditure always exceeded income. The extent of indebtedness ranged between Rs. 500 and Rs. 3,000. They generally borrowed from relatives (22), friends (30), boat and net owners (23) and fish traders (20). Savings, if any, were kept aside as cash.

Of the 100 women, 65 were literate, 23 women employed (in fish vending). The others did not sell fish because of social restrictions, responsibilities in the household and unfamiliarity with fish marketing. Most of them had no suggestions on how to improve marketing. The few suggestions offered concerned better transport and storage facilities.

The majority of the 23 fish vendors bought fish from others before selling them. Nineteen of them transported the fish to the market by cycle rickshaw, four carried the fish on their heads. Almost all the fish was sold within Madras city itself. Only one woman was reported to be

selling in nearby villages. The women usually sold fresh fish. They did not have insulated carriers to transport the fish.

Unsold fish was generally gutted, salted and dried on mats and covered with nets. They were dried close to the home or on the roadside. Net-making was no longer an important occupation for women, because machine-made nets were easily available. But a few women did continue to make nets.

The money women earned was either given to husbands (15), or used to meet expenditure at home (6). Many women said that their husbands consulted them while incurring major expenditure.

The majority (80) of those interviewed had three to four hours of spare time during the day when they slept, played with children or chatted with other women. Of the rest, 10 spent their time in net-making, four each in basket making and sewing and two in reading. Five women had kitchen gardens, but they said the vegetables did not grow well because of insufficient water, salty air and inappropriate soil. Two reared chicken and goats.

The quality of food consumed varied with the seasons. During the rainy season, there was not much to eat. At least four families went without even a meal a day. Many had only one meal a day.

Fish was eaten every day by all the families. They got it either from their catch or from the market. Vegetables were consumed in the form of curry once or twice a week — meat and eggs only occasionally. Milk was consumed only with coffee or tea. Fruits were eaten rarely. 57% of the families said they consumed leafy vegetables. Dosai, pongal, vadai and payasam were popular and prepared on festive occasions. So was meat.

Generally, the women had no prejudices about food. But some felt that potatoes cause constipation and that fruits and tomatoes cause colds.

The majority of the families spent between Rs. 10 and Rs. 20 a day on food. They usually paid cash for food, some availed of credit. When food was short, it's the women who went hungry. Quite a few women (65) went without meals on some days.

Of the 100 women, 17 had some ailment or the other. The common ailments were body pain, stomach ache, cough and cold, fever, rheumatism and chest pain. All these were caused by improper nourishment. The majority of women breast-fed their children for at least two years. A number of pregnant women suffered from anaemia.

The study on the nutritional status of children (a total of 482) shows that 171 (35%) were normal. 155 (32%) suffered from first degree malnutrition, 107 (22%) had second degree malnutrition, 16 (3.3%) had third degree malnutrition, and one child even fourth degree malnutrition. A total of 18 (3.7%) were considered vulnerable to risk. All of them suffered from diarrhoea and dehydration. The two major vitamin deficiency diseases are xerosis or Vitamin A deficiency (23%) and angular stomatitis (32%) or Vitamin B deficiency.

The other diseases are primary complex (3%), leprosy (3%), measles (52%) and respiratory infection (23%). Malaria is present in almost epidemic forms.

The fishing communities studied were covered by the ICDS (Integrated Child Development Scheme). Balwadis (nursery schools) functioned in both the areas studied. Anganwadi workers (mother and child care field workers) took care of the health of these children with the help of visiting auxiliary nurses and midwives. Immunization was carried out regularly. Children between one and five years old were covered under the mid-day meal programme. They were weighed once a month and records maintained. Nearly all pregnant women received iron and folic acid supplements and tetanus toxoid vaccines. Most of the women had access to supplementary nutrition and health education programmes.

4. Traditional methods of measurement amongst the fisherfolk

Traditional methods of measurements employed by fisherfolk were studied for developing a numeracy primer for use in non-formal adult education centres. Information was collected on

how the fisher-folk count and measure volume, length, time etc. This information is presented in the following pages.

The Tamil term to denote counting is *ennam* in Kanyakumari and Tirunelveli and *ennikkai* in South Arcot.

The catch is counted even as it is auctioned or sold. Hand measures, container measures and baskets of varying sizes are used for counting. The size of a basket (*koodai*, *potti*) gives an idea of the number of small, medium or large fish that it can hold. For example, a container or *potti* holds 1000 *Kavalai meen* (white sardines) and a *koodai* 2000 white sardines. Smaller quantities of fish are usually counted by the fingers on a *kai* (hand). One *kai* makes five, 20 *kais* make 100, 10 times 20 *kais* make 1000 and so on.

Grain is usually measured at home in a *padi* or *pakka* — a traditional standard measure. Small quantities are measured in fractions of *padi* measures, such as a half-*padi* (*araipadi*), a quarter-*padi* (*uzhakku* or *kalpadi* or *irattai magani* or *seer*), one-eighth of a *padi* (*araikkalpadi* or *magani*) and one-sixteenth of a *padi* (*veesampadi*). These measuring vessels are made of tin or bamboo. The volume measure that is most used is the quarter *padi*.

For even smaller quantities the women use hand measures. A handful is referred to as *sarangai* or *sirangu*. The hand measure is related to the *padi* measure. For example, one hand measure is equivalent to a *veesampadi*. People are aware of the metric standard but do not use it. The metric weight measures are also related to the traditional volume measures.

For example :

50 grams	—	<i>Arai veesam padi</i> ($1/32$ <i>padi</i>)
100 grams	—	<i>Veesampadi</i> ($1/16$ <i>padi</i>), one <i>kai</i> (hand)
1 kilogram	—	<i>Araiye Araikal padi</i> ($5/8$ <i>padi</i>)
2 kilograms	—	$1 \frac{1}{4}$ <i>pakka</i>

Length, width and height are referred to as *neelam*, *veedhi* and *thaw* in Kanyakumari and Tirunelveli districts and *neelam*, *agalam* and *aazham* in South Arcot.

Fisher-folk generally measure the length, width and circumference of fish with their fingers, hands and arms. For example:

One inch: is the length between the tip and the first crossmark on the forefinger.

one samba or jamka: is the width of four fingers put together.

one sottai or rottai: is the length between the tip of the thumb and the tip of the forefinger when both are stretched.

one jon: is the length between the tip of the thumb and the tip of the little finger (or middle finger) when both are stretched.

one muzham: is the length from the tip of the little finger to the elbow.

one mar or bagam: is the length between the finger tips when both hands are stretched out.

These different 'body units' are interrelated. For example:

1 mar/bagam	—	4 muzhams
1 muzham	—	2 jons

An important measurement is that of the depth of the ocean. Fisher-folk use this measurement (calculated in *bagams*) to determine the distance they have travelled from the shore. If the ocean depth is 4 *bagams*, then the distance covered is said to be 5 furlongs.

From here on each additional bagam (in depth) means that an extra furlong has been covered. This holds up to a depth of 30 bagams. Beyond this every addition of 10 *bagams* means an additional furlong. The length and depth of nets are also measured in *bagams*.

Generally, the time of day is gauged with reference to the position of the sun and the length of the shadows. At night, the fisherfolk work out the time with the aid of the stars. Tidal movement is calculated in the same manner. Men know more about these matters than women.

Days, weeks and months are calculated by observing the phases of the moon. Some use calendars.

In those south Tamil Nadu villages which have a very high Christian population, the date of birth is noted by priests. Both English and Tamil calendars are in vogue. Few fisherfolk remember their birth dates. However, they associate it with important events, close to that date.

Another important occupational calculation concerns the direction of wind and the water current. Fisher-folk give different names to winds and water currents, and name the months in which the winds are favourable and those in which they are not.

5. Fishing villages visited

Theresapuram (Tuticorin)

The urban slum of Theresapuram has:

-A school

- Three religious groups — Hindu, Muslim and Christian
- 450 canoes and 1500 skilled fishermen.

One vallam needs at least three persons to operate, a big canoe needs six. Half the catch goes to the boat and net owners and the other half to the crew members. Usually boat owners go along with the boat and get one share by virtue of being a crew member besides their usual 50%. The catch is usually auctioned. 6% of the catch goes to the auctioneer.

One fisherman said that they generally go to a fishing ground that takes 2 to 2½ hours to reach on sail and that they leave between 2 and 3 a.m. and return between 8 and 10 a.m.

Kizhamanakkodi (Kanyakumari)

The village Kizhamanakkudi has :

- 700 families with about 1000 fishermen
- a population which is 100% Catholic
- A school which runs classes up to the 5th standard
- No toilet except one that is housed in the Church.

The fishermen migrate to many places to fish during the lean season (January to March). Places they migrate to include Mumthal (between Tuticorin and Rameswaram), Tuticorin and Arokiapuram in Tamil Nadu, and Kerala. The sea is generally rough during the monsoon season but there are more fish about. They go fishing around 4 a.m. and return between 9 a.m. and noon. They own a variety of gear and their choice of nets is determined by the kind of fish they intend to harvest.

The majority of the fishermen drink liquor. Quarrels are frequent and sometimes lead to wife-battering.

Kovalam (Kanyakumari)

The village of Kovalam has:

- 1000 families of which 700 own one kattumaram each
- A co-educational school which runs classes up to the 5th standard (There are about 500 children in the school)
- No dispensary
- A church with a parish priest
- A village head, who has inherited his position as leader
- A few houses with toilets (men use the seashore; women the fields).

The fisherfolk migrate seasonally between June and September when the weather turns rough. They go fishing at 5 or 6 a.m. and return at 1 or 3 p.m.

90% of the fishermen drink. They spend 1 to 1 ½ hours at the arrack shop every day.

There is a convent-organized net-making centre where fishermen may place orders for nets. The centre's production has dropped because a net factory has been set up in the area. The residents have protested and have prevented more factories from coming up in the area.

Appendix 2

LEARNERS AND ANIMATORS

A summary of an informal survey conducted among a few animators and learners is presented below in order to give the reader some idea about their backgrounds, beliefs, attitudes and opinions. It is hoped that this information will be useful to administrators and officials who may be planning to implement NFAE programmes in coastal Tamil Nadu and elsewhere.

1. The Animators

A study of 21 animators from fishing villages along the Madras coast, eight animators from fishing villages along the coast of Thanjavur and eight who displayed potential to be animators (from fishing villages in Kanyakumari, Tirunelveli and South Arcot districts) was undertaken in March 1984.

Of the 37 animators studied, 16 were from rural backgrounds, 21 from urban. Their ages ranged from 18 to 35 (the majority were between 18 and 23). 30 of them were women, of whom 11 were married.

Education: The educational qualifications of the animators vary. Twenty two have passed the SSLC examination, 10 have studied between 6th and 9th standards and five have gone on to study beyond the SSLC.

Some of those from Madras who have passed the SSLC knew typewriting, have undergone telex or telephone operator training and undertaken courses in commerce, radio and TV mechanics. The number of animators who have not studied up to the SSLC is higher from the rural areas.

Family background: The animators hail from families that have between four and 15 members. The majority of the families have five to seven members. In the urban areas, family members have studied up to either middle school or high school. Children from these families are attending school. In the rural areas, the majority of older women are illiterates. The girls are primary school drop-outs and the boys have dropped out from either primary or middle school.

Only a few of the families in the rural areas own boats and nets. Most of them are coolie fishermen. Many family members work to add to family income. The type of work varies-fresh fish marketing ; dry fish marketing ; net making ; tailoring ; wire bag making ; spinning ; lime processing and trading; masonry; farm labour; preparing and selling idlies; preparing and selling vadai, murukku and appalams.

Three families own land which they cultivate. Most of them live in huts. Their incomes range from Rs. 200 to Rs. 700 per month, many earn only between Rs. 200 and Rs. 300 a month.

Very few heads of families are panchayat members or leaders of political parties.

Abilities of the animators: In the rural areas, the animators reported that they could make nets and wire bags, knew embroidery, stitching, gardening and cooking. Some compose poems and plays, mobilize youth for community work and organize women's groups. In the urban areas, drawing, photography and radio mechanics were also mentioned besides these abilities. Each of the animators can perform one or more of these tasks.

Interests of the animators: The animators from both urban and rural areas reported that they were interested in seeing movies, reading novels, short stories and magazines and listening to the radio.

Opinions of the status of women: The animators (both men and women) are of the opinion that women do not enjoy the same status as men and have less freedom and decision-making power.

Their concept of an ideal village: In the rural areas, it is felt that an ideal village is one that is free from drink-addiction, quarrels and dowry. They feel that people should earn enough to take care of their families and that facilities like bus transport, electricity, drainage and garbage disposal should be adequate. They also feel that people should live in good houses, that there should be decent schools and that higher education should be available.

In the urban areas, the animators feel that the basic needs of food, clothing and shelter should be met. They say that a developed city should have industries, electricity, drinking water, sanitary and educational facilities. There should also be less unemployment and an improvement in vocational education.

2. The learners

A total of 30 people, who were identified as possible learners in NFAE centres, were studied in March 1984. They came from coastal villages in the districts of Kanyakumari, Tirunelveli and South Arcot. Their ages ranged between 18 and 35, and 19 of them were women.

Family background: The learners are from families that have between three and 12 members. The majority of families have between five and eight members.

The family head does the fishing. Ten families own boats. The women braid nets to earn more money. A few of the families are heavily in debt.

Most of the males are cinemagoers, and fans of veteran cinema star M.G. Ramachandran. Some are fond of music, and like to sing devotional songs. The younger ones go for sports- they play games like kabaddi. And drink is of course the inevitable recreation of most of the men. Some of the women think it's only natural for men to drink after a strenuous day's work.

The women keep the household going, gossip with neighbours, and occasionally go to the movies.

The status of women: Women are accorded a low status. The men prefer the women to remain at home and serve the men.

Their concept of an ideal village: The learners feel that an ideal village is one where cooperation is the norm and quarrels never take place. They feel that everyone should own at least one kattumaram, that motorized boats should replace country boats and that there should be enough food and clothing for all.

They want better housing, roads, sanitary facilities and employment opportunities. They also want drinking water supply and access to medical facilities.

Appendix 3.a

EXCERPTS* FROM PROJECT PROPOSAL: PARTICIPATORY NON-FORMAL ADULT EDUCATION FOR TAMIL NADU FISHERFOLK

Title : Participatory Non-formal Adult
Education for Fisherfolk

Country/State : India/Tamil Nadu

Duration : 5 years

Budget : Total : Rs. 14 101 500
us \$ 1, 195 000

Abbreviations:

NFAE – Non-formal Adult Education; DNF/AE-Directorate of Non-formal and Adult Education;
SO -Supervisor; PO – Project Officer; DOF – Directorate of Fisheries; NGO – Non-govern-
mental organization; FT – Facilitating team.

* The project proposal has been reprinted here almost in full. What is missing is the curriculum package description -the package is described in greater detail earlier in this report. Also omitted is the diagram “Towards shared learning: evolution of curriculum”, which appears on page 2.

Summary

In this document a project for non-formal education for fishing communities in Tamil Nadu, India, is proposed. It is based on the results of the BOBP pilot project for curriculum development.

The literacy rate in coastal fishing communities is only 19% compared to the national average of 40%. About 90,000 of the 400,000 fisherfolk are illiterate. The literacy rate is a reflection of the low standard of living in fishing communities also characterised by low incomes, lack of social services, lack of potable water, proper housing etc.

The Government of India and the Government of Tamil Nadu implement programmes for non-formal education through the Directorate of Non-formal and Adult Education. These programmes are concentrated in rural agricultural areas and the coverage of coastal fishing communities is minimal. Moreover the training materials in use do not cater to the needs of the fishing communities.

The pilot project was carried out 1982-1985 for development of a curriculum package using a participatory approach. The package, "Towards Shared Learning", consists of:

- (1) Animators' Guide
- (2) Literacy Primer and Workbook
- (3) Numeracy Primer and Animators' Edition
- (4) Trainers' Manual
- (5) Supplementary Readers

The material was developed on the basis of surveys and investigations on different aspects of fishing communities and the content reflects the way of life of fisherfolk. It was field-tested on a small scale with positive results.

The Directorate of Non-formal and Adult Education, when reviewing the pilot project, wished to test it on a district level and then implement training in all coastal fishing communities.

The proposed project consists of a preparatory phase of 18 months during which animators (teachers at village level) will be trained to use the curriculum, and training will be imparted to trainers of animators. During the second phase (3½ years) it will be implemented throughout the state incorporating relevant adjustments identified during the first phase. By the end of the project opportunity would have been given to the 90,000 illiterate fisher-folk to attend non-formal education courses.

The total project period is 5 years. The total cost is US \$ 1,195,000.

Coastal Districts of Tamil Nadu

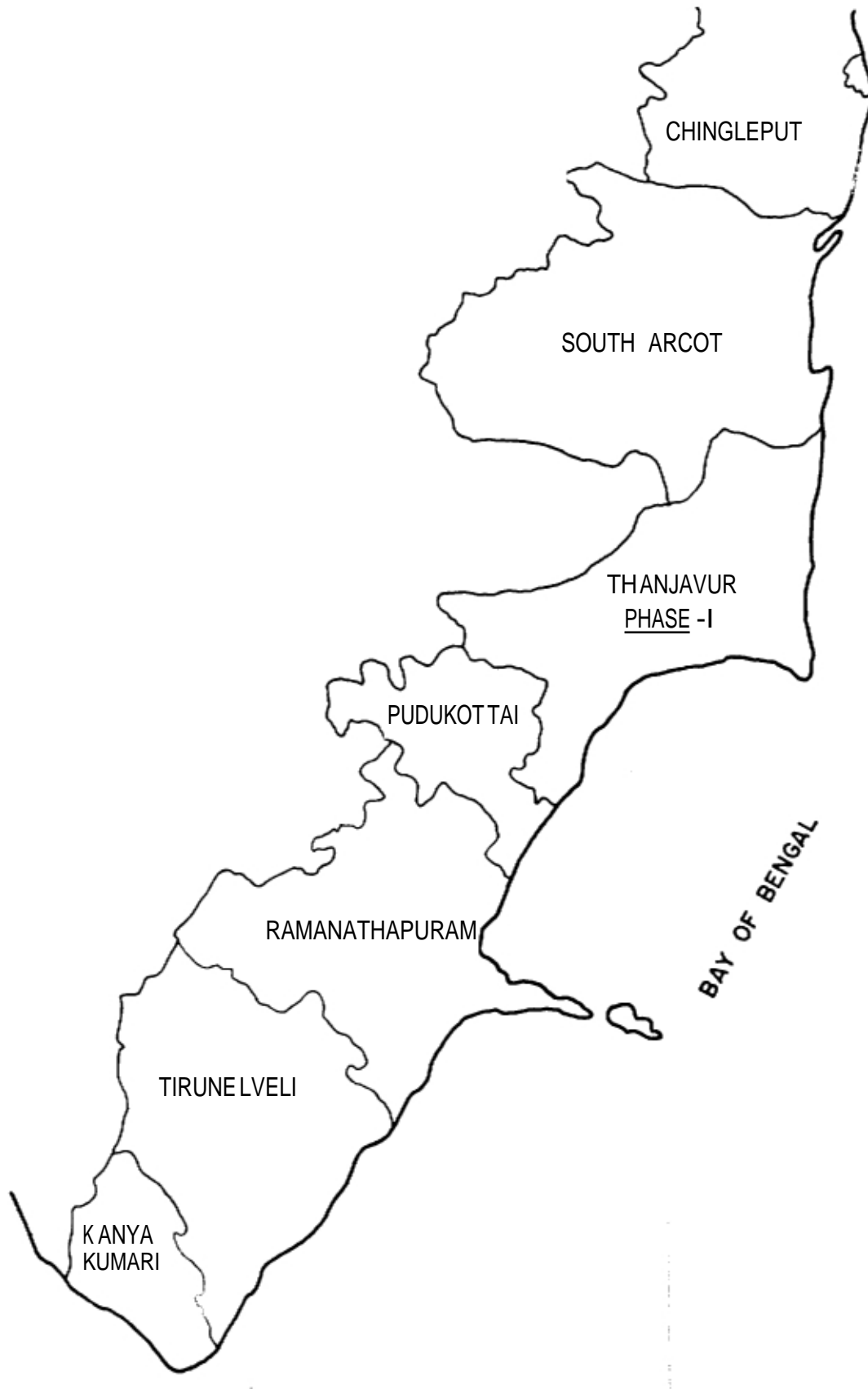


Table 1
Population in coastal villages of Tamil Nadu

Coastal districts		Chingleput	Madras	South Arcot	Thanjavur	Pudu-kottai	Ramanatha-puram	Tirunel-veli	Kanya-kumari	Total
No. of fishing villages		65	37	55	87	20	80	32	46	422
No. of coastal blocks		7	city slums	5	11	2	8	10	5	48
Population adults	M	10,426	10,667	11,538	21,782	2,473	21,582	14,559	33,940	1,26,967
	F	10,753	10,337	11,433	22,209	2,285	24,598	13,320	31,756	1,26,691
Total		21,179	21,004	22,971	43,991	4,758	46,180	27,879	65,696	2,53,658
81% illiterates		17,154	17,013	18,606	35,632	3,854	37,406	22,582	53,214	2,05,463
45% of 81% (15-35 age group)		7,720	7,656	8,373	16,034	1,734	16,833	10,162	23,946	92,458
No. of AE centres possible		257	255	279	534	59	561	339	798	3,082

Note: This calculation is based on 19% literacy among fisherfolk.

1. Background

1.1 Small-Scale Fishing Communities of Tamil Nadu

Tamil Nadu has a fisher-folk population of about 400,000 in 422 villages in 8 districts (see attached map). The district-wise distribution of the population is given in Table 1.

The low standard of living is characterized by low, decreasing and unevenly distributed incomes, indebtedness, lack of proper housing and potable water and lack of basic social services for health and education. The literacy level of marine fisherfolk is lower than the national average. In Tamil Nadu the fisherfolk literacy rate is only 19% compared to the national average of 36% and the Tamil Nadu average of about 40%.

Low incomes, the nature of the fisheries and the dependency of children in fishing activities to raise the family income and attitudes prevent the children from attending the inflexible formal school system. The low literacy rate is a result of the low standard of living. On the other hand increased literacy can also be regarded as a prerequisite for development and a tool for the fisher-folk to take action to improve their lot.

For more detailed information on the socio-economics of the fishing communities refer to the attached "Marine Fisherfolk of Tamil Nadu" (Appendix 1).

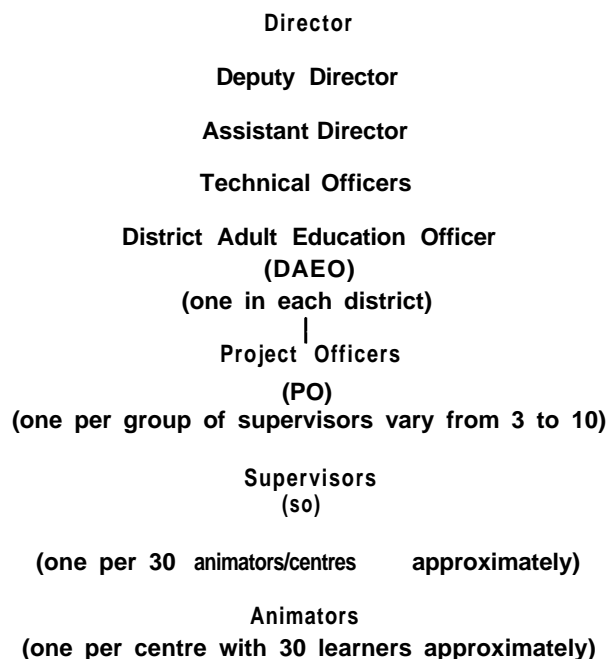
1.2 Government programmes for non-formal education

The Directorate of Non-formal and Adult Education (DNF/AE), Government of Tamil Nadu, is implementing adult education programmes. They have projects financed by both the Central Government and State Government. The Government of India scheme is called the Rural Functional Literacy Programme (RFLP) at present running 27 projects* with 8100 centres** in Tamil Nadu. The Government of Tamil Nadu implements the State Adult Education Programme, running 115 projects with 11500 centres. In total there are 142 ongoing projects in 18 districts, with 142 project officers, 615 supervisors and 19,600 animators. The ongoing centres are heavily concentrated in rural agricultural areas of the state and the coverage of the coastal area is minimal.

* In the Government set up the term project refers to the number of centres under one Project Officer, that is approximately 100 centres.

** The term centre refers to one group of learners taking one 10-month course.
Thus the number of centres in one village or an area varies according to the number of trainees.

The structure of the DNF/AE is illustrated below:



1.3 Context

Non-formal education, as used here, is a process of participatory learning, sharing of experiences and reflection on the shared experiences among the participants, the marine fisherfolk. The participatory approach to learning builds up the self confidence of the people which has a liberating influence on them, giving them tools for increasing their control of their lives.

The participatory approach promotes equality of relationships, respect for people, trust in one's own ability to solve problems; provides the trainers with the knowledge, attitudes and skills required to look at their problems, examine the alternative solutions, take decisions and action; helps in constantly looking at their own problems from time to time, going through the process of sharing experiences — reflection/action.

1.4 Pilot project for participatory non-formal education for fisherfolk

BOBP initiated in 1982 a pilot project for development and test of curriculum for non-formal education for fisherfolk. The curriculum package 'Towards Shared Learning' consists of:

- * Animator's Guide
- * Literacy Primer and Workbook
- * Numeracy Primer and Animator's Edition of the Numeracy Primer
- * Trainer's Manual
- * Supplementary Readers.

1.5 Summary of experiences from the pilot project

BOBP field-tested the Trainers' Manual during a 12-day training programme for a group of animators in the Government NFAE project in the coastal area of Tirunelveli district. A training model was also tested by a voluntary organization in North Arcot district, which conducted a training programme for their adult education animators (field workers).

The tests verified that the participatory approach was possible in the field situation with the use of the training model. The field workers were initiated into the process of self and group analysis, community analysis and into skills required for the job. The whole training was an opportunity for the field workers to closely look at their and others' attitudes and values. The

trainees' evaluation of the training brought out that this aspect was impressively achieved. A follow-up observation of the trainees in the field showed that this training for 12 days helped the animators to be confident in their work and to improve their relationships with the learners. The effect of these can be sustained with inservice training and field support.

The voluntary agency conducting the training found the self and group analysis and community analysis interesting and essential in involving the animators in the programme. The processing was difficult — to be non-directing and process oriented were difficult for the trainers. Though they were opposed to the purposelessness of the content oriented, directive approach to teaching and learning in formal education, it was odd for them to experience the non-directive process-oriented atmosphere.

For the training to stay effective, the training of trainers is crucial.

For further details refer to the Report of the Dialogue on Relevance and Scope of BOBP's Non-formal Adult Education Experiences in Tamil Nadu, Madras, March 13-14, 1985.

2. Project Description

2.1 General

The project is a further testing and application of the above results achieved in the pilot project described above. The main emphasis is on increasing the literacy rate through the participatory approach to learning and thus improve the fisher-folk's control over their own lives. Training of officers and animators will be undertaken with the training aids developed and tested by BOBP. The project is divided into two phases, of which the first one is a further testing of the material on a district level, and the second phase a coverage of all coastal fishing communities. The field testing during the first phase and the results obtained will form the basis for the detailed work plan for the second phase.

The project will support the Government programmes for non-formal education in coastal fishing communities.

2.2 Objectives

The objectives described below are quantitative and qualitative with both dimensions regarded as essential.

The *development objective* is improvement of the standard of living in coastal fishing communities.

The outputs of the project are:

Quantitative	Qualitative
— Non-formal education offered to the 90,000 illiterate villagers in Tamil Nadu	<p>The adults who participate in the programme would have become —</p> <ul style="list-style-type: none"> * literate and stay literate-be able to read and write and comprehend written materials, be able to write simple letters, filling in forms/applications, be able to handle numbers and simple arithmetical operations involved in day-to-day life * self reliant and cooperative through acquiring skills in <ul style="list-style-type: none"> — discussing and analysing their own problems and — taking decisions collectively towards solving their problems.

Quantitative	Qualitative
— 3000 participants in training and refresher courses for animators	<p>The animators who participate in programmes will :</p> <ul style="list-style-type: none"> * have a better understanding of community and its problems * be skilled in discussion methods involving the learners; in using various techniques to involve learners in problem analysis and problem solving in a group * be confident in their own abilities * be more resourceful and help people to become more resourceful * have belief in people's potential * have belief that learning is a shared experience
— 130 supervisors and project officers trained in applying the participatory NFAE method	<p>Supervisors and Project Officers who participate in the programme will</p> <ul style="list-style-type: none"> * acquire all skills that the animator requires * be able to transfer the skills acquired through training.

2.3 The target group ,

The target group is the 90,000 illiterate marine fisherfolk in 422 coastal villages of Tamil Nadu. For a description of the target group refer to Appendix 1 (Pages 32-40 of this report-H).

2.4 Work Plan

Stage I (18 months)

Stage I will be implemented in Thanjavur district with the aim to test the method on a district level. The detailed planning of the 2nd stage will be based on the results obtained.

A facilitating team will be set up. Participants in the team will have a long experience of the approach to non-formal education described above. The team will assist the Directorate of Non-formal Adult Education in the training of supervisors, project officers and animators, follow and advise on their implementation of the scheme and review results and problems and advise on changes in the plan.

1. Preparation

- | | |
|--|---|
| 1.1 Base line survey | Identifying villages for establishing centres, identifying animators, supervisors assessing people's attitudes towards themselves, towards their role in solutions. |
| 1.2 Seminar of District Development Officers | An orientation to NFAE — 'Towards Shared Learning'. |

2. Training of Trainers (3 weeks)

The facilitating team will conduct a training programme for project officers at the central office and the Thanjavur district, all supervisors recruited from the coastal villages and a few trainers from the non-government organizations. A 16-day residential training will be followed by field guidance. The training will focus on understanding and the use of Trainers' Manual and the other materials in the curriculum package.

Summary of the Work Plan for Phase I

Phaso	Activities	Month																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Phase I Implementa- tion in one district	1. <i>Preparation</i>																		
	(a) setting up the project																		
	(b) base line survey																		
	2. <i>Training</i>																		
	(a) Training of trainers (SO & PO) 16 day residential training of 20 trainers from DNF/AE and NGO																		
	(b) Training of <i>animators</i> 6—12 days resi- dential training course																		
	(c) In-service training of <i>trainers</i>																		
	(d) Field support for animators by trainers																		
	(e) In-service training for animators and trainers																		
	3. <i>Report</i>				*				*				*					*	
	4. <i>Planning for Phase II</i>																		

3. *Training of animators by trained trainers (2 weeks)*

The trainer teams (supervisors) will conduct a 12-day residential training course for animators with the guidance from the facilitating team.

4. (a) *Field support of the facilitating team*

Field visits, discussion, analyses of the observations during field visits. The trainers (supervisors) will visit the centres and observe the animators' performance, discuss their problems and feelings about their work and observe the involvement and comprehension of learners and the relationships and attitudes that exist.

(b) *In -service training*

A total of 7 days will be spent in in-service training of animators at intervals during the year according to the needs identified during the visits, discussions and analyses. In-service training will also be given for supervisors and project officers.

5. *Documentation*

All activities — base-line survey, seminars, trainings, field support visits, in-service training etc. will be monitored and documented.

6. *Study (4 weeks)*

A study will be conducted to evaluate the programme in terms of the objectives. This study and all information documented about the earlier activities will be used to plan the implementation in Stage II.

Implementation plan — Stage II (3.5 years)

Stage II is a replication of Stage I in other coastal areas with necessary adaptations,

The pilot district will be used as training ground for other districts. Selected project officers and supervisors who possess good understanding of the participatory approach to NFAE and performed effectively in assisting animators will be trainers to the trainers in other districts. About 3 new projects (1 project consisting of 100 centres, hence 100 animators, 3 to 4 supervisors and 1 or 2 project officers) should start in every new group. The number of new projects should be kept low to ensure close guidance during the initial part. The selection of the new project will be done according to the convenience of the government's programme. Therefore the number of new projects and the number of those experienced persons who give guidance (FT and PO and SO of the pilot district) should be kept in balance, which means the number of new projects towards the latter part of Phase II could be higher than the earlier part. The steps each new project should go through are the same as those in the pilot district. The facilitating team will put emphasis on their guidance to the new projects while still giving guidance to the pilot district to ensure that the approach is sustained.

2.5 *Project administration*

The DNF/AE of the Government of Tamil Nadu is responsible for the implementation of the project. The Department of Fisheries will assist technically, and give cooperation in the field. BOBP will provide the secretariat for the facilitating team who will directly work with DNF/AE and DOF. NCERT (National Council for Educational Research and Training) will give guidance to a local NGO who will do the evaluation of the project. (A local NGO in Tamil Nadu or Kerala will be identified during the preparation period). The job description of the facilitating team is to :

1. closely work with DNF/AE and DOF to plan and implement each step of the project
2. plan for and train trainers, give guidance and field support to trainers and animators in the project

3. coordinate and assist NCERT in doing the participatory evaluation throughout the period
4. coordinate with Directorate of Adult Education -central government — concerning progress and findings of the project
5. be responsible to DANIDA for reporting.

2.6 Reporting and evaluation

Reporting: Quarterly progress reports will be prepared by the facilitating team.

Evaluation: National Council of Educational Research and Training (NCERT) will provide guidance in evolving a plan for participatory evaluation of the programme and implementing the same in the field.

The evaluation will be in terms of:

1. Evaluation of the training of trainers and training of animators in Phase I and Phase II
 - Quantity and quality of trainers trained.
2. Evaluation of the adult education programme in the field
 - Quantity and quality of the animators trained
 - Learners — human resource development e.g. self-reliance and cooperation in analysing and solving their problems.
3. Evaluation of the whole implementation phase of adult education in coastal Tamil Nadu
 - coordination of various agencies
 - the problems faced
 - the ways and means of overcoming the problems.

The evaluative devices will be evolved during the implementation phase. The evaluation efforts will be participatory in nature.

3. Budget (in Rs.)

Items	Phase I			Phase II		Total
	Year 1	Year 2	Year 3	Year 4	Year 5	
Activities Expenses:						
1. Base line survey	15,000	22,500	37,500	37,500		112,500
2. Seminar for District Development Officers	6,000 (1 seminar)	12,000 (2 seminars)	18,000 (3 seminars)	12,000 (2 seminars)		48,000
3. Training of Trainers	40,000 (1 trng)		80,000 (2 trngs)	80,000 (2 trngs)	40,000 (1 trng)	240,000
4. Training of Animators	66,000 (8 trngs)	66,000 (8 trngs)	1,98,000 (24 trngs)	3,30,000 (40 trngs)	3,30,000 (40 trngs)	9,90,000
5. Field support	14,000	14,000	52,000	70,000	70,000	220,000
6. In-service training :	28,000	56,000	168,000	168,000	84,000	504,000
a. Animators	36,000	36,000	108,000	180,000	180,000	540,000
	10,800	10,800	42,400	54,000	54,000	162,000
b. Supervisors	12,000	12,000	36,000	60,000	60,000	180,000
7. Running of NFE centres	574,000	574,000	1,722,000	2,870,000	2,870,000	8,610,000
8. Evaluation study	30,000	30,000	30,000	30,000	30,000	150,000
9. Publication and dissemination	10,000	10,000	10,000	10,000	10,000	50,000
10. Consultation of Non-formal Adult Education experts	15,000	15,000	15,000	15,000	15,000	75,000
11. Facilitating team (3 persons, 1 secretary)						
a. Salary	336,000	336,000	336,000	336,000	336,000	1,680,000
b. Per diem	108,000	108,000	108,000	108,000	108,000	540,000
Grand Total	1,300,800	1,302,300	2,950,900	4,360,500	4,187,000	14,101,500

Appendix 3b

A PROPOSAL FOR ADAPTING THE NFAE CURRICULUM PACKAGE FOR USE IN OTHER COASTAL STATES/COUNTRIES

The package of materials described in this paper has been developed for Tamil Nadu. Adapting the package for another location would mean keeping intact the basic NFAE approach while changing the content to suit a different culture.

Methodology for adaptation

A workshop is suggested on adapting NFAE materials to suit local needs elsewhere. NFAE and fisheries experts from the coastal state/country concerned would take part — plus members of the Tamil Nadu team that helped develop the NFAE package for Tamil Nadu.

Adaptation of the Trainers' Manual and Animators' Guide could be done in a single workshop provided information about local conditions is available.

Before adapting the Numeracy Primer in a new location, one needs to study the types of mental calculations generally practised by people from coastal villages there. The Numeracy Primers could then be examined in the light of this study and necessary changes made, perhaps in the examples they contain. The Tamil Nadu team could provide guidelines, both for the study and for an adaptation workshop. This workshop should be conducted in English so that the Tamil Nadu NFAE team can take active part.

The supplementary readers to impart literacy skills and information could be assigned to writers from popular magazines- particularly for such areas as rural economy, food and nutrition, mother and child care, health, fishing occupation and so on.

Translation of adapted materials

The materials finalized at the adaptation workshop in English need to be translated carefully into the state/country language so that they are simple, lucid and culturally appropriate.

Development of literacy primer and workbook

Languages vary widely. Each state/country ought to develop its own Literacy Primer and Workbook with the help of its own NFAE and linguistic experts. Adult education literacy primers currently in use in the state could be examined and recommended for use if found adequate. (The literacy primer and workbook for Tamil Nadu fisherfolk could serve as a point of reference).

Field-testing/follow-up

The Tamil Nadu NFAE package was field-tested in the state. Other states/countries should also field-test their adapted versions, and evaluate the curriculum package after field-testing to determine its impact.

Implementation

Once the NFAE package has been adapted for the new location, care should be taken to develop NFAE skills in the animators. This is crucial. The trainers of animators, selected at state and district levels, should also be trained, so that they can guide the animators. The implementation plan for Tamil Nadu could be used for providing guidelines on the training of animators elsewhere.

Budget

The following estimate is based on the BOBP experience and the prevailing costs in Tamil Nadu.

Guidance and supervision :

* 1 full-time national/state consultant to help execute the whole project (18 months)	Rs.	90,000
* 4 man-months for BOBP staffer and national consultant (a member of the team that developed the curriculum package) 2 months each for overall monitoring/supervision	Rs.	110,000
* Travel and per diem	Rs.	36,000
Total . .	Rs.	236,000

Adaptation :

* Animators' Guide and Trainers' Manual workshops-7 days each, 12 participants	Rs.	1,50,000
* Numeracy Primer-survey and adaptation-a team of 3 to 32 persons over period of 3 months	Rs.	60,000
* Supplementary Reading Materials — adaptation to be done by specialists from various areas — health, nutrition etc. -over a period of 3 months for 50 Supplementary 'Readers'	Rs.	15,000
Total . .	Rs.	2,25,000

Development:

* Development of Literacy Primer and Workbook (if needed) : workshop of 7 days, 8 to 10 participants	Rs.	50,000
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Translation :

* Translation of Animators' Guide, Trainers' Manual, Support Papers and Numeracy Primers over a period of 2 months . .	Rs.	12,500
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Field-Testing :

* Training of animators (25 animators, 4 supervisors and Project Officers for 12 days)	Rs.	50,000
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Printing :

1. Animators' Guide 3,000 copies, Rs. 20 each . .	Rs.	60,000
2. Trainers' Manual 200 copies, Rs. 40 each . .	Rs.	8,000
3. Literacy Primer 8 Workbook (if needed) : 100,000 copies, Rs. 3 each . .	Rs.	3,00,000
4. Numeracy Primer 100,000 copies, Rs. 4 each . .	Rs.	4,00,000
5. Animator's Edition of Numeracy Primer 3,000 copies, Rs. 5 each . .	Rs.	15,000
Total printing costs . .	Rs.	7,83,000
Grand Total . .	Rs.	13,56,500

Appendix 4

ABSTRACTS OF REFERENCE MATERIALS ON TRAINING

1. *The 1982 Annual for facilitators, trainers and consultants. J. W. Pfeiffer and L.D. Goodstein. University Associates, California, 1982*

This publication serves as a handbook in group development-mainly in the areas of management and organizational ability. However, it is useful in any situation where the emphasis is on "relating to people". The first section (p. 3-70) on "Structured experience games/exercises" is the one most relevant to our purpose. These games introduce the element of teamwork in group problem solving, provide experience in establishing priorities and in obtaining a consensus in decision-making.

2. *ASEAN modular training program for trainers of population and development personnel in extension methods and techniques, Module IV: How learning occurs. National Family Planning Board, Malaysia.*

This module lists the conditions which facilitate and make learning permanent and also the basic requirements for learning to occur. It presents various types of learning methods which are described as "Teacher-learner centered", and "Learner-learner centered". It contains practical exercises relating to talks, method demonstrations, group discussions, field trips, role plays and trial techniques. It describes each method in terms of how and in what situation it can be employed, and its advantages/disadvantages.

3. *Ashton-Warner Literacy Method. Jock Gunter. Massachusetts University, School of Education, Amherst (Technical note 15).*

This method teaches the learner to express himself in words that are relevant to his everyday situation.

4. *Basic managerial skills for all, E.H. Mc Grath. Xavier Labour Relations Institute, Jamshedpur, 1978.*

The following topics are discussed — How to read, write, learn, speak, listen ; self-discovery and development; how to run a meeting; how to teach, train and manage. These topics are dealt with in an industrial setting. However, most of them can be applied to other situations. The sections on "How to teach and train," "How to manage," and "Leadership and Change" (p. 243-325) have wider application and are hence more relevant to our purpose.

5. *Bicountry training course for social work educators and trainers on the development of indigenous training materials to prepare social welfare staff for effective role in combating poverty. Social Welfare and Development Centre for Asia and the Pacific (SWADCAP), Manila, 1979.*

Presents 19 training plans on various topics relevant to rural development problems in Nepal and Pakistan. Each plan follows the following format -objective, background of the target group trainees, training time, audio-visual aids, methods/strategies, summary of content to be taught. This is followed by a step-by-step presentation of the conduct of the session. The pros and cons of various teaching aids/methods are also discussed.

6. *Breaking barriers: A South Asian experience of training for participatory development. Kamla Bhasin. FAO, FFHC/AD, Rome, 1979.*

This is a report of the Regional Change Agents Training Programme presented as a reference tool to answer certain questions on effective and participatory methods of training. "Nature and

Methodology of Training" (Chapter 3) is the one most relevant to our purpose. Other sessions are on "Analysis of development issues", "Role of the coordinator" and follow-up-activities.

7. Chains: A simulation game. J. Nair and others. SEARCH, Bangalore.

The game simulates some of the dynamics of relationships in a 'free market' economy. It is meant to encourage the participants to reflect on society and the economy. It can be used to raise questions about the ownership of industry, distribution of wealth, economic structure and power, employment, individualism and the organization of the poor and the unemployed.

8. Chikkannahalli: A didactic exercise: Part 1. J. Staley. SEARCH, Bangalore.

This exercise gives the village-level development worker an opportunity to identify some of the situations he might face at work and helps him to make the choices or decisions at every stage.

9. Concientizacao and simulation games. W.A. Smith. University of Massachusetts, School of Education, Amherst (Technical note 2).

This paper attempts to explain Paulo Freire's philosophy of non-formal education and the applicability of Freire's concepts to the instructional methodology of simulation gaming.

10. Dcsigning learning materials for adult education: a manual. (Pilot edition). M. Good and others. SRC, Madras, 1980.

This manual describes methods for preparing teaching/learning materials like wall charts, literacy and numeracy games, exercise books and magazines as supplementary reading materials. It also contains a simple drawing programme for literacy tutors.

11. Educational change: A humanistic approach. Ed. by Ray Eiben and Al Milliren. University Associates, California, 1976.

The theme of the book is "humanizing the formal education process". However, as the stress is on exploring the experience of relating to people, the approach can be utilized in any learning situation. The sections on brainstorming (p. 54), three group techniques (p. 56) and role playing (p. 81-108) may be of particular interest.

12. Facilitating community change: A basic guide. D.R. Tosslet. University Associates, California, 1976.

This book is meant for professional and non-professional change agents. It discusses various concepts of group process applicable in facilitating community change. The topics covered are — change and social environment, sociological factors in change, involving the disadvantaged and the uninterested in change, change and power structure, the professional change agents' approach to change, dealing with controversy in the change process, the role of crisis and leadership in change, maximizing individual capabilities in change efforts, group decision-making, logical problem-solving process, training of community leaders, group norms, conformity pressure, principles of group process, the circular process of a social interaction, role of leadership in group activity, the problem-identifying workshop and the community forum.

13. Fotonovela. P. Barriga and R. Villacis. University of Massachusetts, School of Education, Amherst, (Technical note 13).

Describes the development and use of "Fotonovela", a pictorial communication device, as an instrument for raising literacy and consciousness in the community. The Fotonovela used here is in the form of a newsletter and serves as a supplementary reading material.

14. From the field: tested participatory activity for trainers. Compiled by C.D. Crone and C. St John Hunter. World Education, New York, 1980.

This manual is aimed at trainers who try to help animators/field level development workers/facilitators to work effectively with adult learners. The activities are grouped in five major, categories :

- (1) **Becoming a learning group:** The activities may be used to discover what participants expect from training sessions, to increase their self-awareness, to enable them to learn about each other, and to stress cooperation and trust in a learning group.
- (2) **Discovering Needs :** To help trainees see that there may be differences between the way they view learners' needs and the way learners view them. Some are intended to help participants to define needs and need assessment, and ways to collect information from and about learners.
- (3) **Choosing and using methods and materials:** Covers techniques and materials to encourage adults to take an active part in the learning.
- (4) **Evaluating impact and results:** To assess the learning activities in terms of how well they fulfil learners' objectives. Simple methods for evaluating the learning session and the facilitators' performance are also included.
- (5) **Planning and Field-Testing Participatory Learning Activities:** To provide a model for helping the trainees themselves to plan a series of learning activities and then carry these out with a group of learners.

15. Games and simulations in literacy training. David R. Evans. International Institute for Adult Literacy Methods, Teheran, 1979.

Three major categories of games-skill practice games, role playing and simulation games — are described with example. Similarly, designing simulation games is described in nine steps. Finally, questions such as: "How to maximise the effectiveness of the games? Can the same game be used in a different setting ?" are tackled.

16. Group discussion: a handbook. W.J. Cousins. UNICEF, New Delhi, 1978,

Group discussion, a democratic process for learning and solving problems, is meant to stimulate cooperative group action. The book describes the functions of the people who form the group — the chairman and members. Four types of chairman -the outside leader or manipulator, the autocrat, the laissez-fairist and the democrat-are defined. The role and functions of a democratic leader are listed. The conduct and evaluation of a discussion is detailed.

17. A handbook of structural experiences for human relations training. (8 Volumes). Edited by J. W. Pfeiffer and J.E. Jones. University Associates, California, 1974.

These volumes contain structured exercises in applied behavioural science which can be used by facilitators, organizations, development consultants and students. The exercises cover topics like interpersonal communication, verbal-non-verbal communication, inter-group competition, group starters/ice breakers, group decision-making, role-playing, leadership practice, team-building, problem-solving etc. The objectives of the exercises and details like group size, time required and physical setting are given for each exercise. The handbooks are supplemented with a reference guide.

18. Market Rummy. Jock Gunter. School of Education, University of Massachusetts, Amherst (Technical note 4).

Describes a game named Mercado or Market Rummy to teach basic mathematics. Aims to increase the ability (and correspondingly the confidence) of rural folk in marketing operations.

19. Monsoon: A Simulation Game. J. Staley, SEARCH, Bangalore, 1981

This game simulates the conditions of poverty in an imaginary village near Mysore. The participants of the game assume the role of farmers and simulate the situations that farmers face in their day-to-day lives. Other roles played are those of the moneylender and development worker. The issues raised in the games are the dependency on the monsoon, cooperation and leadership within the village, polarization of the rich and the poor, the role of the moneylender, the relevance of development programmes, the role of the development worker, the effect of irrigation, mal-nutrition and its consequences, and the pressures of social conformity.

20. *Orientation for NAEP Animators. J.T. Matheikal. AICUF, Madras.*

This book is intended to be used by people who already have some background in NFE work. It identifies the obstacles to development and describes strategies and tactics to be employed to overcome them in order to build a new society. It briefly describes the methodology to be adopted in adult literacy sessions.

21. *Participatory training for development. Kamla Bhasin. FAO, FFHC/AD., Rome, 1976.*

This is a report of the Regional Change Agents Training Programme held in 1976. The training methodology employed was participatory wherein the participants shared experiences through dialogues, case studies, field visits and collective living. The programme provided an opportunity for reflection, and various aspects of development were discussed.

22. *People in Development: A Trainers' Manual for Groups. J. Staley. SEARCH, Bangalore 1982.*

The material for the manual is drawn from the training programme of SEARCH and is designed to provide trainees with the basic knowledge, attitudes and skills necessary for development work. The organization and the conduct of activities for each session of the complete course are discussed. They are — getting started ; the early days (communication among the members of the group, the moderators' role etc.); everyday work of the group, such as daily reports; individual and group functioning of the members; exercises in understanding self and the other members of the group; sessions on understanding the society and creating a future; sessions on evaluation of the programme and self. It contains a list of publications useful for the trainees and also an index to the exercises.

23. *Poverty and Development: A Programmed Course. J. Staley and C. Sudgen. SEARCH, Bangalore, 1981.*

Contains some basic statistics on the nature and extent of poverty in India. Examines the general attitudes towards poor people, poverty, maldistribution, injustice and development. It studies the approaches to development of various voluntary agencies and the Government. It discusses the theories of Marx, Gandhi and Freire on equality, freedom and social change. It also examines the pros and cons of integrated development work and the 'bottom up' approach.

24. *Report/workshop on the development of indigenous training materials for the trainers of para-professionals (18-23 September, 1978, Kuala Lumpur). S WADCAP, Manila, 1978.*

The objectives were to prepare prototype materials for discussion and to experiment in the development of indigenous training materials. Guidelines on the preparation of teaching aids/techniques and their advantages and disadvantages are discussed (p. 62-79). Training plans on 17 topics prepared by the participants are presented. Each plan includes, besides the contents, the audio-visual aids and teaching techniques/strategies used.

25. *Resource manual for a living revolution (Second edition). Virginia Coover and others. Movement for a New Society, Philadelphia, 1978.*

This manual is expected to offer people the opportunity to regain control over their own learning and decision-making, and make changes in their everyday lives and in the social institutions that affect them. It also provides information for developing skills in managing and resolving social and interpersonal conflicts creatively. The following areas are covered -ways and means to develop a theory for change; working in groups (group dynamics, facilitation of meetings, tools for group work, conflict resolution) ; developing communities of support, personal growth (personal disciplines, personal decisions) ; consciousness raising ; training and education (its basis and uses, workshops, training in schools, resources); organizing for change (getting started, building organizational strength, example of organizing for change) ; exercising and other tools for action, practical skills (first aid, fund raising, cooking for large groups, mass communication). At the end of most of the chapters there is a list of resource materials on the area concerned.

26. *Role and training of development activists: report of the workshop held 26-30 November, 1979. Kamla Bhasin and others. FAO, New Delhi, 1980.*

This is the report of a workshop on the content and methodology for training of activists. The attitude and perspective of an activist is defined. He should work towards increasing peoples' self-confidence and help them in critical analysis of the situation. There should be a two-way relationship between him and the people; he should not be rigid and should be open in his approach; he should follow democratic methods and work to build people's power and not his own. It also answers questions like: Should the activist have an ideology of his own? Should he be involved in projects for economic improvement? What methods should he adopt to make the projects a means for structural change? Besides this, it describes how the training should be undertaken and argues that it should be a continuous process of learning through group interactions/participatory explorations.

27. *Rural development and social change: an experiment in non-formal education. C.M. Heredero in collaboration with P.T. Contractor and B.B. Siddique. Manchar Publications, New Delhi, 1978.*

This book relates the experience of a team of educators from rural Gujarat. It describes their experience in developing a system of teaching that integrates man with his community, and promotes many-sided growth. The book is presented in seven sections.

- A comparison of this approach with other possible approaches to rural development.
- An explanation of the way the team perceives the trainees and the teams' assumptions about them and their society.
- The history of the team's work and the evolution of its thought on education and development
- A description of the team's understanding of development, the objectives and method of teaching
- A detailed explanation of three courses given by the team
- An elucidation of the steps taken in consolidating the work
- A description of the economic impact of the training.

28. *Trace: Training Animators in Conscientization and Education. James and others. TRACE team, Maharashtra.*

This book emphasizes conscientization, basic information on various areas of health (human body, environment and sanitation, diseases, government health care schemes), civic rights, police, duties of local officials and code of criminal procedure. There are exercises on topics like the process of change, social analysis, capitalism, approaches to development leadership and unity. It briefly describes the concept and methods of literacy. A special feature: a list of contacts such as producers of audio-visuals and publishers of books and periodicals, is provided.

29. *Short-term training and social development: the preparation of front-line workers and trainers. Ed. by B.D. Rigby. International Association of Schools of Social Work, New York, 1978.*

This book examines the training aspect of field workers, motivators/animators who serve to stimulate development activities at the local level. It deals with various training strategies involving schools of social work and their graduates. It also presents guidelines for training and ideas for incorporating non-formal education concepts, approaches and methods into the training. It examines the major factors behind the planning of any training experience and describes the organization and conduct of the participative workshop as a means of effective short-term training. A list of knowledge and skills needed in development work, and examples of the sort of participative activities which can be used in training, are contained in the Appendix.

30. *Thiramai mikka ookkunara uruvakka. . . payirchi vazhikatti. (Animator's skill development: training' manual). V. Mohankumar and M.J.A. Ranjinadoss. State Resource Centre, Madras, 1982 (in Tamil).*

The two volumes of this Manual discuss aspects of literacy training, conscientization and skill development. On literacy training, it describes games like "word building" and details, methods of preparing learning materials, such as a primer, posters, word/number discs, scrap books for creative thinking and word building etc. The section on conscientization deals with the methods to be adopted in getting people involved. This includes dialogues and discussions, the fish bowl technique, group discussions, panel discussions, question techniques, debates, case-studies, simulation games, role plays and dramas. It also details the procedure for establishing and running an NFE centre. It discusses the methodology of social analysis and communication methods (individual, group and mass contact) to be used in making the community understand the objectives of the project. The use of cultural/entertainment activities in making the programmes more interesting and effective is stressed. Besides, the following points are also discussed- maintenance of a diary by the animator, his functions and duties as a manager of the centre, how to evaluate the programme, how to make the NFE a continuous process of education. It explains how to mobilize resources — both human and material — in conducting the sessions and running the centre effectively.

31. *Training of Adult Education Functionaries. Directorate of Adult Education, New Delhi, 1980.*

This is in four volumes. The first volume is on the general methodology of training which emphasizes the participatory approach -which is experience-based, close to the field, and an experiment in community living. Four typical methods of training are discussed. They are:

- Activity-based methods which include problem-solving, project methods and discussions.
- Lectures, lecture demonstrations and their links with discussion.
- Individual learning.
- Combined methods which include residential and camp training, field operational seminars and other forms of combining training with field work.

The need for in-service training is also emphasized. The second volume discusses the specific aspects of training the instructors (or animators). The animator may be an ex-serviceman, a teacher, a student, an unemployed or under-employed youth, a field-level Government worker. As an animator, he is expected to help organize the centre, teach literacy, initiate discussion for generating awareness, disseminate functional information, mobilize resources, lead and organize cultural-recreational programmes, record the process of change and learning, and manage the centre. The training content therefore takes into account the varied background and the different functions of the animators. The training consists of nine units. It is assumed to be spread over a period of 1 O-I 2 months-the complete duration of a NFE session. This is split into four phases:

- pre-programme phase of two to three weeks,
- mid-programme phase for one week,
- monthly meetings with supervisors,
- self-training while on the job.

An illustrative example of the initial training is presented. Volume 3 is on training of supervisors. The following areas are discussed -the expected roles and functions of the supervisors, criteria for selecting supervisors, contents and methods/techniques of training, organizational requirements of training. An initial orientation programme for supervisors is outlined. Volume 4 discusses the training of project officers.

32. *Training of functional literacy personnel: a practical guide. (A method of training for development). UNESCO, Paris, 1973.*

This guide covers two aspects of training :

- training of cadres (officers), and
- recruitment and training of instructors.

Under the session on training of cadres, the guiding principles of functional literacy are listed. The educational approach derived from these principles is also presented. As training is conceived as a continuous process, the book examines training beyond the initial stages. The initial training is designed to be conducted in three phases.

Phase 1 -Conceptualization of the system

Phase 2-Study of programme and teaching material

Phase 3 — Study of evaluation and feed-back of 'continuing training'. This includes operational seminars for refresher training, visits by training officers, one-day briefing sessions, duplicating educational circulars, self-instructional teaching materials etc.

33. *Training of functionaries for non-formal adult education: A training module: R. Gomez State Resource Centre, Madras, 1980.*

The State Resource Centre, Tamil Nadu, organizes animator training programmes. This booklet lists the programme schedule and discusses in brief the way it is conducted.

34. *Vizhippunarchikku Vilayattukal (simulation games for awareness). Compiled by D.J. Ravindran and T.K. Sundari. AICUF, Madras, 1978 (in Tamil).*

A detailed discussion of the points to be considered in making public speeches, in conducting group discussions, and in organizing consensus games and group action games.

35. *Visual aids for non-formal education: a field guide to the production and use of inexpensive visual aids in non-formal education. Jane Kathryn Vella. Centre for International Education, University of Massachusetts, Amherst, 1979.*

This guide offers models and modes of operation for field workers to produce and use inexpensive visual aids. The following are considered: formal objects (things, materials and situations encountered in day-to-day life), charts, maps, pictures and models.

36. *The Watch: A Case. J. Staley. SEARCH, Bangalore, 1980.*

This case study is based on a presentation by a group of participants during a residential course : each participant narrated the story of a lost watch. The case material is supplemented with notes to the instructor, helping him, inviting interpretations and pointing out contradictions.

37. *Working with villagers: prototype lessons. The American Home Economics Association and The East-West Communication Institute (AHEA), Washington DC, 1977.*

This manual of training for field workers on integrated home economics and family planning, is in three volumes.

- Trainers' Manual : offers a schedule and a methodology for conducting a programme/workshop with units on the following topics — setting the climate, overview of home economics, integrated family planning, experiencing prototype lessons, identifying and verifying village problems, creating effective lessons, reviewing and practising, using prototype lessons, increasing learner involvement and participation, stimulating participation through questions and discussions, overview of teaching methods and tools, teaching techniques, how to assess learning, working with other organizations, creating new lessons and teaching materials. It also includes a section, Media Lab exercises, which helps field workers in the preparation and use of teaching aids.

- **Prototype lessons:** On infant and toddler nutrition, decision-making, family food supply, family relationships, family planning. Each unit of a lesson provides basic facts on the topic, appropriate teaching aids, the approach and objective of the lesson.
- **Media resource book with three sections:**
 - (a) **Skill exercise section:** 19 step-by-step illustrated exercises providing the basic skills needed to construct visuals. Also contains information on using blackboards, flannel graphs and flip charts and some ideas on colour and design.
 - (b) **Line drawing section :** Simple line drawings which can be traced, copied and enlarged, on subjects familiar to rural folk.
 - (c) **Guidelines for making teaching tools and materials :** Formulae and directions for making teaching tools; art materials and equipment from easily obtainable low-cost materials.