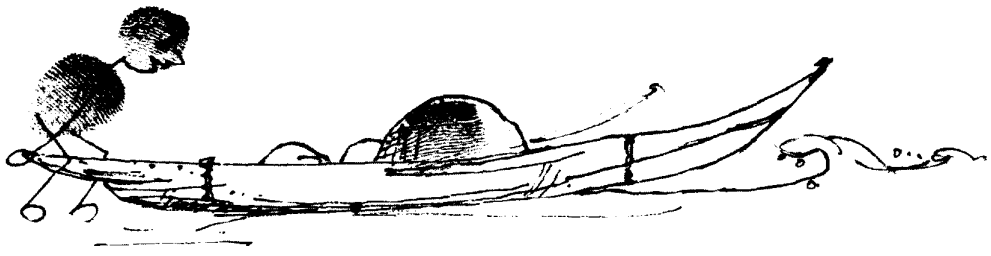
Area - 2

Occupation

NOTE TO ANIMATORS

The first two lessons in this area are designed to help the animators appreciate the learners knowledge and ability and their environment. This will build more self confidence in learners and strengthen trusting relationships.



How Do We Go Fishing?

OBJECTIVE To help learners appreciate their environment and their occupation

Beyin the session by asking learners to think of the environment in which they live and work : the sea, the community, things which surround them. Then ask each 0f the learners to say quickly one word about it. The animator writes these words on the board.

> **NOTE** To prepare for this lesson and bring variety and life into the discussion, the animator can collect pictures concerning the fisherfolk's environment, e.g., sky, moon, stars, sea (calm, rough), sea wealth (fish, clam, sea weed, pearl, etc.), boat net, etc. Those animators who can draw can use their skill to produce these pictures. Put these these pictures up on the board (flannel) as the learners name them.

- What do you feel about these things ? What do they mean to you in relation to your life and living ?

  Can you imagine a life without these ?

  What are our beliefs regarding sea and sea-wealth ?

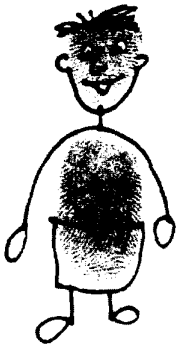
- Do we consider the sea to be something alive and close to us?

  Do we give any form to it, such as 'kadal kanni?'*

  What are our beliefs about kadal kanni?

  How do we express our beliefs related to these ?

  Do we have celebrations ?



- What are our beliefs regarding the relationships between the movements of sun, moon, stars and fishing?

- How do we use the sea and the sky to our advantage ?

- What are the man-made devices to get the wealth of the sea ?

- What are some of the beliefs regarding craft and gear ?

The answers could be in terms of:

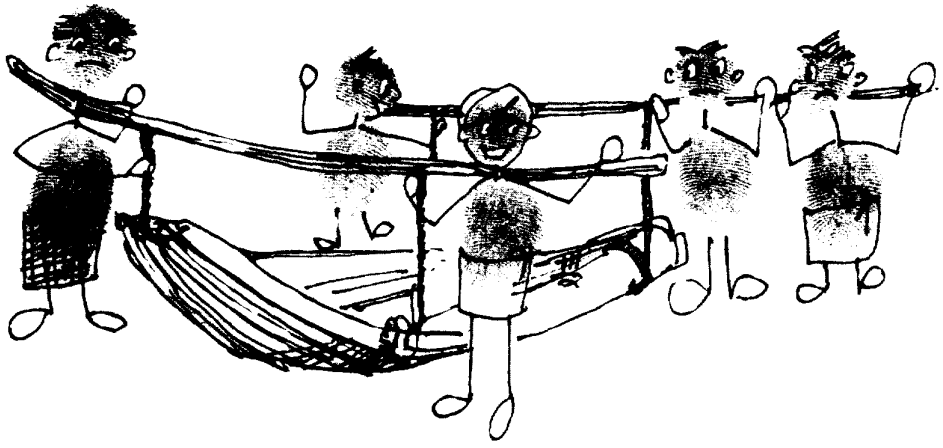
(1) The sea is their very life, it means everything to them
(2) They may conceive the sea as a mermaid or sea-nymph -- or believe in the presence of sea-nymphs in the sea, their movements within the sea, towards the shore or away from the shore -- festivals related to these

* 'Kadal Kanni'; literally, sea nymph

(3) They may have beliefs or observations related to celestial bodies in the sky and fishing procedures in terms of time and operation and the quantity of haul – for example, sunrise, sunset, amavasai (new moon), Pournami (full moon), the thithis (the days in terms of lunar phases), the stars, effect of each one of these on fishing and the haul

(4) The man-made devices to get wealth from the sea are the craft and the gear. The beliefs regarding these could be in terms of the presiding deity of the boat, the festivals associated with the first floating of the boat in the sea, disasters to the boat and beliefs associated with them, the number of meshes in the net in relation to the birth rasi (sign) of the owner, the time a net is made ; rituals associated with starting to make a net and net taken for the first time to the sea, days considered auspicious for making and floating the boats and nets.

The answers should be obtained and recorded, never suggested. Participation of the village-folks should be actively encouraged.



Our Knowledge

OF THE FISHING ENVIRONMENT

OBJECTIVE

To help learners review comprehensively their knowledge of the directions of the wind and the flow of water in relation to fishing operations

Marine fisherfolk live with the winds and the flowing water. They fish with their knowledge of directions of winds and of the flow of water. They have come to some conclusions about these through their observations. They relate these to their fishing operations. Helping them organize the knowledge they have in a consolidated and comprehensive manner may help them further their knowledge and also help them gain confidence in themselves and their abilities.

Start the class by asking the fishermen to describe their experiences in the fishing that day with reference to the types of wind and the directions of the flow of water they had to negotiate..

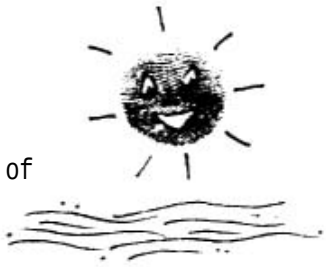
Allow them to speak for 15 to 30 minutes. Encourage every individual to speak about his experience.

Each one may come out with the directions of wind he faced and the directions of the flow of water and how he steered the kattumaram through and what the catch was like.

Help the discussion further by suggesting the following questions

Can we name the winds that we have faced during the last year ?

Can we name the direction from and to which each type of wind blows ?



- Can we talk about the usefulness of each type of wind to fishing ?

  Which are the winds which are unfavourable or dangerous while fishing ?

- Can we predict the change in the direction of wind ?

Lead the discussion about direction of flow of water by suggesting the following questions

- Can we name the different directions of the flow of water which we have faced ?

  Can we name each one of them ?

  Can we talk about the usefulness of the direction of the flow of water and fishing?

  Which directions of flow are useful or favourable?

  Which directions are unfavourable or dangerous ?

- Can we predict changes in the direction of water flow ? How much ahead of time can we predict ?

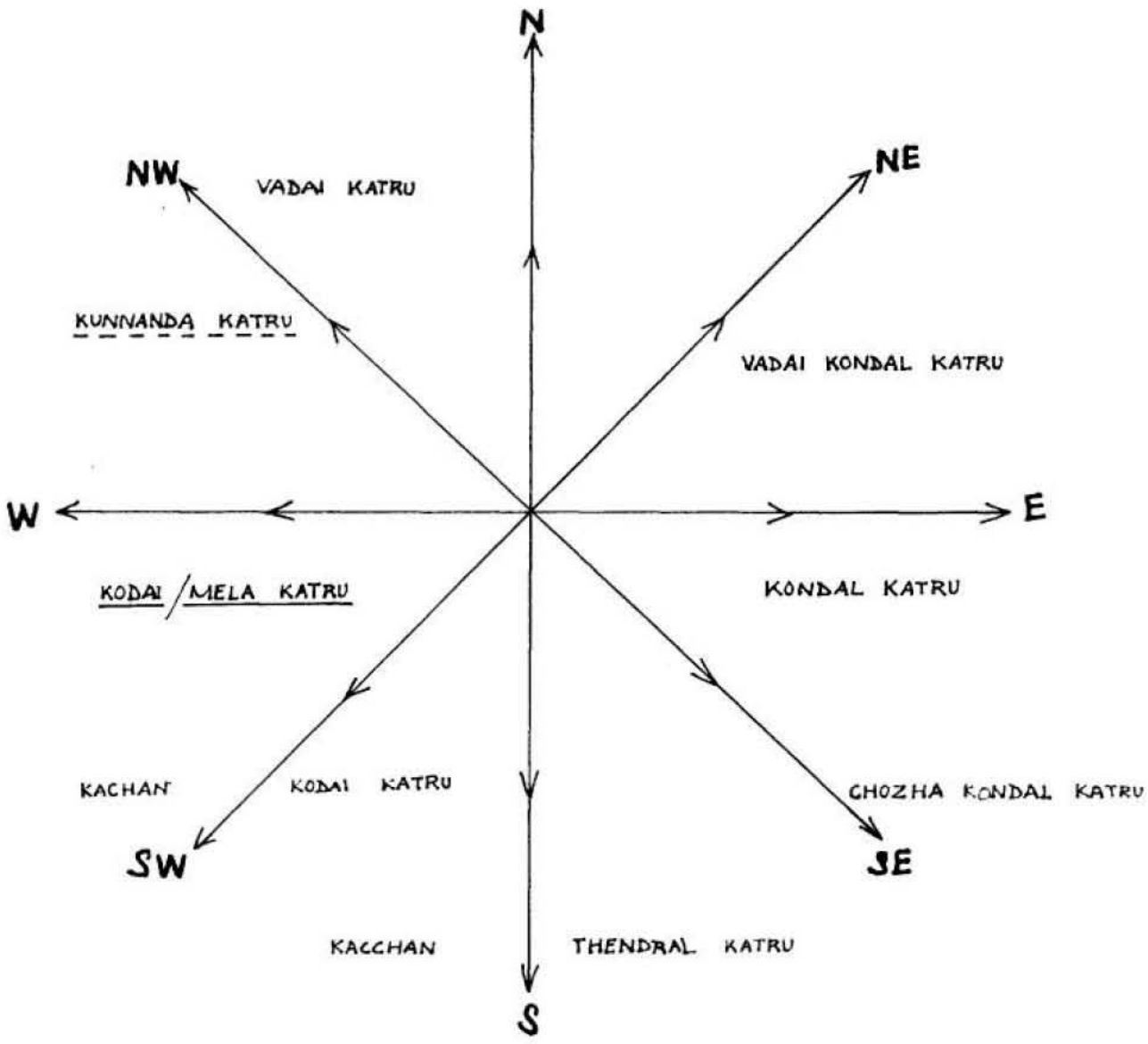
As the responses are given by the participants, the picture may emerge on the board. (pages 24, 25)

Information about the wind directions and the directions of the flow of water, collected from a village in South Arcot district in Tamil Nadu are presented here for reference

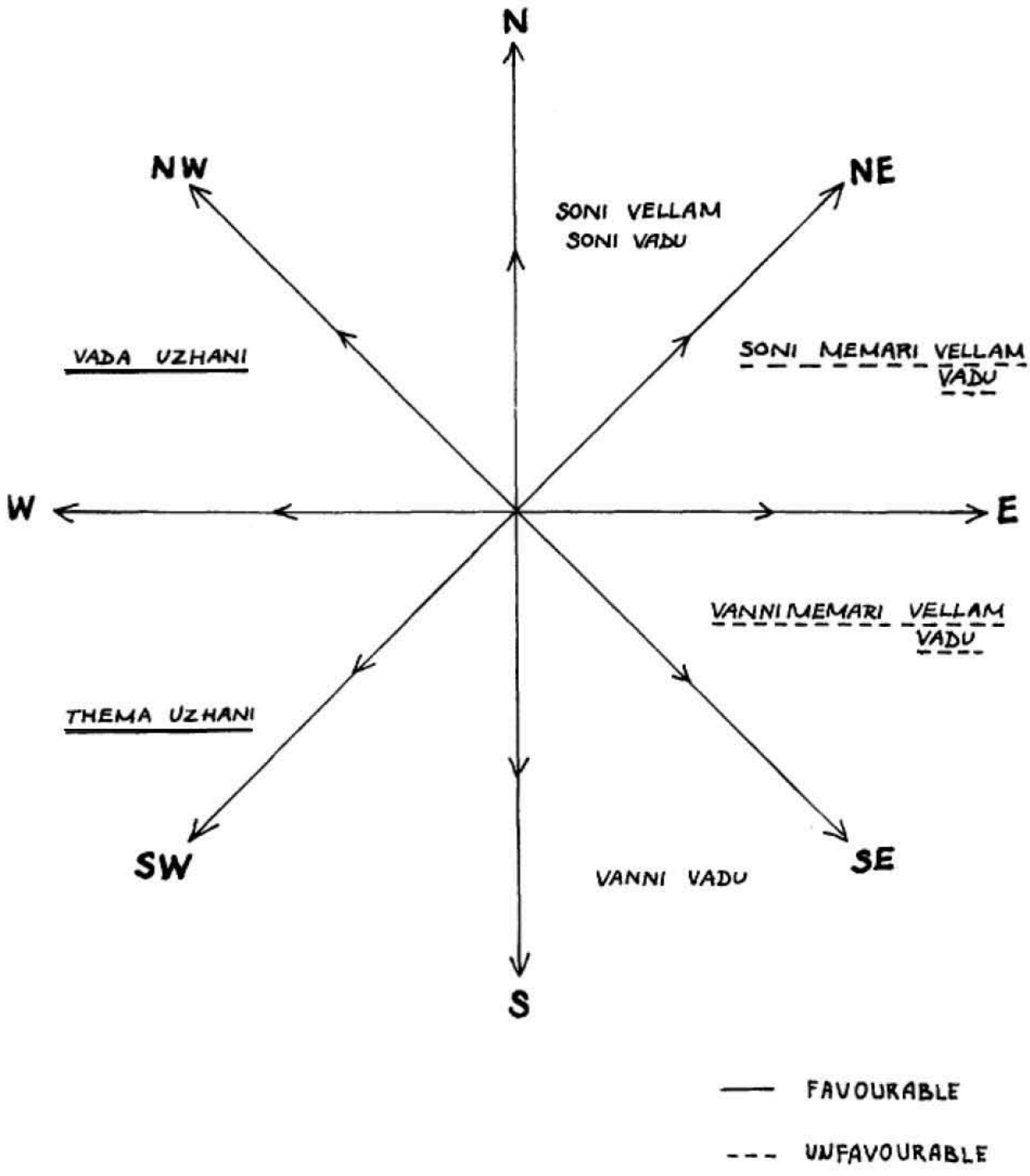
The wind that is favourable is Kodai Katru (wind blowing from East to West) and the cyclonic wind is Kunnanda Katru (wind blowing from North East to South West)

The favourable directions of the flow of water are Vada Uzhani (from South East to North West) and Themma Uzhani (from North East to South West). The unfavourable directions of the flow of water are Vanni Memari (from West to East) and Soni Memari (from South West to North East). The net does not stay in its place. It gets rolled preventing the fish from entering the net.

WIND DIRECTION



WATER FLOW


N
NW
NE
SONI VELLAM
SONI VADU
VADA UZHANI
SONI MEMARI VELLAM
VADU
W
E
VANNI MEMARI VELLAM
VADU
THEMA UZHANI
SW
SE
VANNI VADU
S
FAVOURABLE
UNFAVOURABLE

Our Status

BOATS AND NETS

OBJECTIVE

To analyse the existing pattern of ownership of boats and nets, utilization pattern of boats and nets, the extent of difference of owning boats and nets and working as a coolie

Begin by getting the learners to talk about the different kinds of boats found along coastal Tamil Nadu by using the following questions

- What are the types of boats available in our village ?
- How many of each kind of boat identified are there in the village ?
- How many fishermen can go fishing in each type of boat identified ?

  What is the loading capacity or the maximum weight of the haul that could be carried by each type of boat identified ?
- Who makes these boats ? Where are they made ?

  How mch does it cost to make each of the various types of boats identified ?

How many in the village own boats ?

. What is the distribution of the number of boats among the owners ?

How many in the village do not own a boat ?

How do fishermen in the village use the limited number of boats available ?

What is the general pattern of rent for the boat (each type) ?

Generally, what are the minor and major repairs that need to be carried out ?

Who does the repairing ?

How much is the cost of repairing per season, or per year (for each type of boat) ?

Gt the learners to talk about the different kinds of nets by using the following questions

' What are the types of nets used in our village ?

How are these nets made ? Who makes them ? Where are they made ?

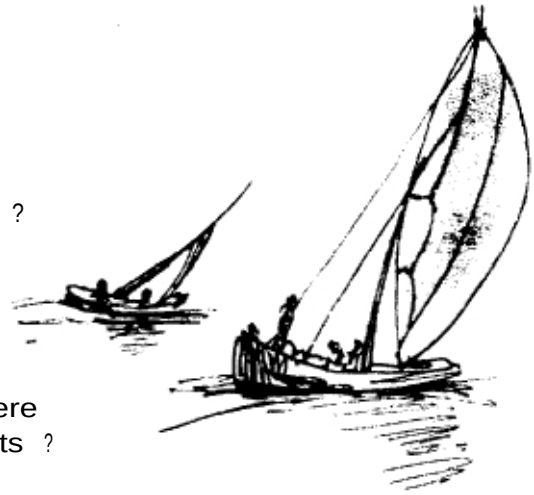
. How much does it cost to make each type identified ?

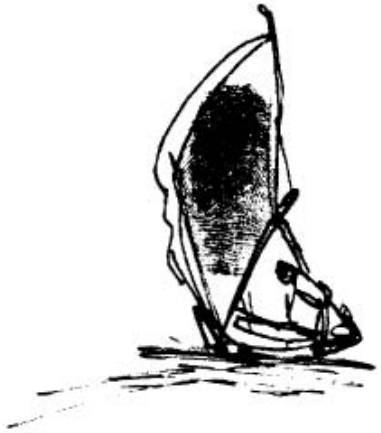
How many of each type of net identified are there in the village ?

How many fishermen are there in the village who own nets ?

What is the distribution of fishermen owning nets according to types of nets ?

How many do not own any nets ?





Which particular type (or types) of net is (are) most useful in your village ?

- How many of the type most needed are there in the village ? How many more would increase the catch ?
- How often are the nets repaired ?

  Who does the repairing ?

  What is the cost of maintenance of nets in terms of time and money ?
- How are nets preserved ? What precautions are taken to preserve them ?
- How many nets does each fishing unit take ?

Help discussion further with the following questions

- How many people own boats and nets and thus have easy access to the sea and its wealth ?

  How many of those who own boats and nets go out to the sea for fishing and how often do they go ? In other words, how many days do the owners go to the sea in a month ? How many days do the coolies get to the sea in a month ? Is there a difference ?

- How is the haul shared ?

  What proportion is taken by the the boat/net owners and what proportion is given to the coolies ?

- What is the yearly or monthly income of those who own boats and nets and those who do not ? (The previous week's income could be added up if the learners are not able to give a consolidated figure.)

- What was the yearly or monthly income of the owner and coolie fishermen 5 or 10 years ago ? Is there a difference ? (If the learners do not know, they may be encouraged to get the information from older members of the group.)

- How many coolie fishermen have earned enough to buy boat or nets ?

- How many of the owner-fishermen have lost their boats and nets and become coolies in our village (in the last 10 years)?

- What is the bond between the owner-fishermen and the coolie-fishermen ? Do the coolies continue with the same boatowner for a longtime, or do they change frequently ? Under what conditions do they stay on ? Under what conditions do they change ?

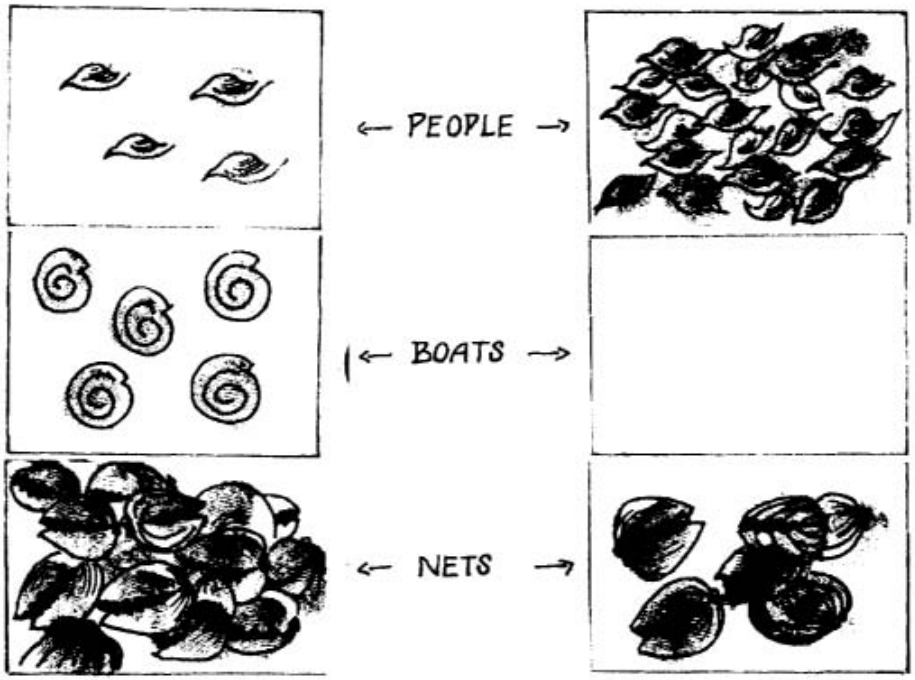
- What are the conditions of living of the coolie fishermen today ?

- What are the possibilities of their improving their conditions ? What should they do about it ?

DISCUSSION AID

Animator can use the different types of shells found in the area to represent person, boat, net etc. According to the numbers of persons boats and nets revealed during the discussion, pile up the shells representing each group.

This may help the learners to see clearer the situation of the village regarding ownership of means of production, such as boats. Most probably it will show that a majority of people own very few production assets. They have to depend on the few persons who own assets.



Fishmarketing

OBJECTIVE To analyse the existing pattern of marketing the catch from the sea

Present the following case study

Veerampattinam is a coastal village. The catches that land on the shore from the Kattumarams are irmiediately surrounded by a group of fisherwomen belonging to the village, and male traders who come from non-fishing villages. There appears on the scene an auctioneer, who has leased the auction rights in the village for a few years by paying a specified amount of money to the village common fund. He starts his job by shouting the price specified by a starting bidder. He repeats this several times. He continues shouting the price till it reaches a peak beyond which no one bids. If the price is acceptable to the fisher-man, then this highest bidder gets the quantity auctioned. (It may or may not be the whole catch.) The buyers, if they get the quantity required at a reasonable price, move out to sell their lot. The women who do the marketing, carry the loads of fish in baskets either on their heads or in a cycle rickshaw. Those who carry it as head-load, walk two to four kilometres to the nearby villages and sell it either door to door or in a small market place in those villages. From Veerampattinam. they go to Ariankuppam or Vamba Keerapalayam. The women who carry their loads in a cycle rickshaw go to

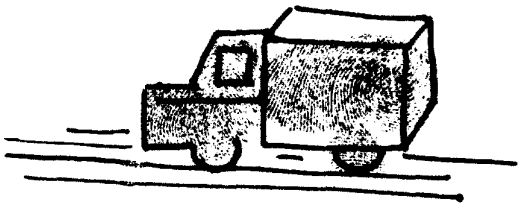
Pondicherry (8 km), Mudaliarpettai (6 km), Murungapakkam (5 km), Nellithoppu (15 km), Gingee Road (10 km). Usually three or four women, each carrying a basket, take one rickshaw and they pay Rs 10 or Rs 12 per day for this transport. There is a total of about 50 women who do fish marketing in a village with 1500 houses. These women have to wait on the shore for hours before they can buy their requirements of fish.

Besides these women, about 200 cycle traders come to Veerampattinam almost every day from distant non-fishing villages within the district of South Arcot. These cycle traders cover about 18 coastal villages to buy fish. In a day, they may cover a few villages or all villages – depending upon the quantity of fish landing in these villages.

The cycle traders come from scattered interior villages in the district. They cycle a distance of 20 to 40 miles one way. Each pays Rs 0.30 to park his cycle at Veerampattinam. (The right to collect this money and pay it to the temple fund is again leased out to a villager for a few years for a specified amount.) On an average, each trader buys fish worth Rs 150 to Rs 200 and up to a maximum of Rs 450 to 500. They generally bring Rs 200 in cash and take the fish on credit for the balance amount. Soon after getting the catch, they rush to their villages. The sooner they get there, the better the price. If three or four traders come from the same village, they come together, but when they get back, they try and get back fast. The competition is stiff. They prefer selling fish fresh as they will get cash for the next day's investment. If they cannot sell the fish fresh, they could sell them after drying, but then they will not have enough money for the next day.

All these 200 cycle traders operate individually. The average income per day is around Rs 5. There are wide fluctuations in their earnings. Some days they may return without any fish. Some days they may get a profit of Rs 10 to Rs 30. The whole process takes them 12 - 14 hours every day.

Besides these fish vending women and cycle traders, there is a third category : big traders who come to Veerampattinam for buying prawns only. A big processing company has taken the right to every prawn brought in from the sea to coastal village of



Veerampattinam. A van with cold storage facility comes here every day and takes the prawns. The company has paid a lumpsum lease amount to the village.

Ask the learners to respond to the case study in their own way. Allow 5 to 10 minutes for such free comments. If they have interesting comments, it could continue for another 10 to 15 minutes. Record the comments, edit them and sum up.

They may comment on the similarity or dis-, similarity of marketing pattern, comparing it to their own village, or on the luck or ill—luck of Veerampattinam people, or they may want to hear some parts of the story

After the free session, help the discussion along with the following questions

- What do you think of the pattern of marketing in Veerampattinam ?
- Is it the same in your village ? Or is it different ?
- What are the similarities and what are the dissimilarities ?
- What problems do women face in undertaking the marketing of fish -- from the time of buying at auctions to the time they bring money back home How much time, energy, money, etc., do these women spend, and what is the return ?
- What problems do cycle traders from non-fishing villages face in procuring and selling fish from the time they start on their trips to the coastalvillage till the time they get the benefits of their labour ?

- What do you think about the prawn dealer and his type of marketing ?

- What advantages and disadvantages would this imply for the trader and the people ?

- Can the trading by women be improved in terms of saving their time, energy or alleviating any hardships they may face ?

  Can they get themselves organized to increase their efficiency ?

- In what ways could this be done ? Can they think of ways to increase their income as a group and not as individuals ?

- Can the trading by cycle traders be organized so that as a group, even if not as individuals, they gain ?

- Do these people have to wait for long on the seashore to get Rs 5 or Rs 10 at the end of the day ?

- How does the presence of these traders help the fishermen ?

- To what extent is the trading of the big company to be allowed ?

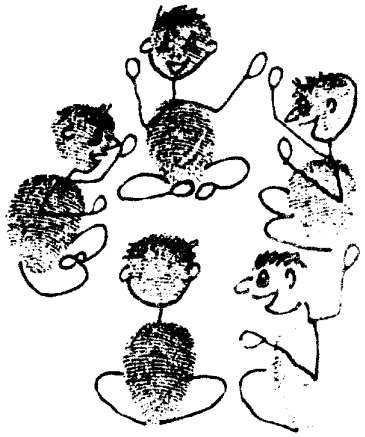
- Should it be allowed at all ?

- Can we evolve a system of marketing which would benefit the fishermen, women traders, cycle traders ?

- Can we try out that system and see how it works ?

The women and the cycle traders face problems of spending long hours on the seashore. There is a very strong competition at fish auctions, in getting to the market, selling and earning their living. They all operate individually and face all the problems alone. Very few emerge as successful traders.

There can be ways of cutting down the long hours and high competition through organized purchasing, preservation and distribution among the traders by a body consisting of fishermen in the village, through the use of available technology, such as preservation of fish with ice.



Mechanization

OBJECTIVE

To help learners analyse the problem of mechanization of marine fishing

Begin the session by asking the learners to recall the earlier session, presenting the total picture of ownership pattern of boats that emerged from the discussion conducted. Help the discussion further by raising the following questions

- How many mechanized boats are there in our village ?
- What proportion of the total number of boats in the village is mechanized ?
- Can we compare the mechanized and the country boat in terms of catch, strains and risks of the fishermen ?
- What are the rules and regulations to be followed by those who fish with mechanized boats ?

After this initial discussion, present the following story, either narrating it with feelings, or through a set of flannel graph pictures.

STORY

KAVAL* (PROTECTION)

by Banumathy Basco

Arulappan is a young hardworking fisherman who owns a few nets and a kattumaram. His toils in the last few years have just begun to pay dividends. He supports a family of three teenaged unmarried sisters, a paralysed mother and a brother who is not interested in studies. Arulappan looks forward to good catches of prawn in the coming season. His hopes are, however, thwarted by the emergence

* Taken from 'Ananda Vikatan' Tamil weekly magazine

of rich, influential mechanized boat-owners who disregard the ruling of the panchayat and fish within 3 miles from the shore, an area which has been declared out-of-bounds to them and reserved for traditional fishermen. This has led to rampant damage to the nets of poor fishermen and decrease in their catch.

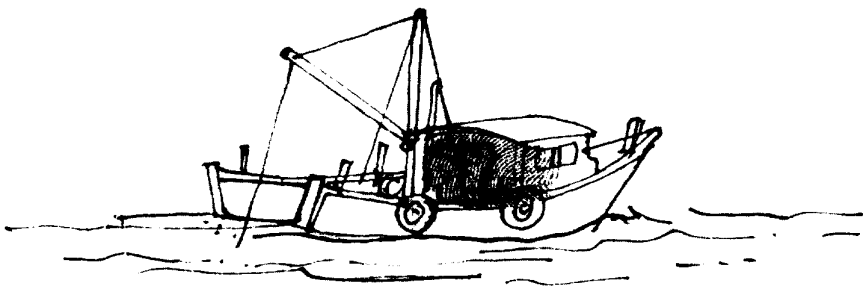
Arulappan is very depressed with this state of affairs and decides to confront the mechanized boats during their night fishing. He is accompanied by his friend Mariadoss. He awaits the arrival of the mechanized boats. One arrives with 4 operators. Despite their pleas, they are defied by the mechanized boat operators. They willfully damage the nets of Arulappan and resort to violence, which culminates in the murder of Arulappan and his friend.

After the presentation allow some time (5 to 10 minutes) for the group to think it over, without any discussion.

Then raise the following questions

- How do you feel listening to the story ?
- Has there been a similar incident in our village or anywhere nearby ?
- Have we heard of such incidents happening anywhere ?
- What do you think of a situation such as the one depicted in the story ?

  How do you think the problem should be tackled ?
- What steps could be taken by the group in the NFAE Centre to reduce the intensity of the problem ?



42

Marine Fisheries

OBJECTIVE To help learners get a general idea of marine fisheries in Tamil Nadu, India

Start the session by saying "To-day let us look at the situation of the marine fishing community as a whole." Then read the following paper to the learners. Read slowly, stop for questions and clarification.

MARINE FISHERIES IN TAMIL NADU & INDIA

SOME BASIC INFORMATION

COAST LINE

The Bay of Bengal coastline in Tamil Nadu is about 1,000 km long. This forms about 13% of the total coastline of 7,514 km in India.

COASTAL DISTRICTS

Of the total of 16 districts in Tamil Nadu, 8 districts are coastal districts. They are Chengalpattu, Madras, South Arcot, Thanjavur, Pudukottal, Ramanathapurair, Tirunelveli and Kanyakumari. There are about 59 coastal districts in the whole of India, covering eight States (West Bengal, Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Maharashtra, and Gurajat), and the Union Territories of Pondicherry, Karaikal . Mahe, Yenam, Goa, Daman, Diu.

COASTAL VILLAGES

Altogether there are 422 marine fishing villages in Tamil Nadu. This forms about 17% of the total number of 2,500 marine fishing villages in India.

For the 422 villages in Tamil Nadu, there are 375 landing centres. The maximum number of fishing villages and landing centres is in Thanjavur district, being 87 and 84 respectively. Ramanathapuram comes next with 80 fishing villages and 64 landing centres, followed by Chengalpattu with 65 each. In all the other districts, the number of villages and landing centres is less than 60.

POPULATION

There are 76,000 fishermen households in Tamil Nadu, with the total marine fishermen population of 3.96 lakhs. This forms about 21% of India's 3.67 lakh fishermen households and nearly 19% of the marine fishermen population of 21 lakhs in India.

The maximum number of marine fishermen households in Tamil Nadu is in Kanyakumari District (25%) followed by Thanjavur (20%), Ramanathapuram (17%), and Tirunelveli (10%). In the remaining four districts, the percentage is less than 10. The average number of fishermen families in the village in this State works out to 179, varying from 77 in Pudukottai to 387 in Kanyakumari.

Of the total fishermen population of 3.96 lakhs in Tamil Nadu, 25% is in Kanyakumari, followed by Ramanathapuram and Thanjavur each 18% and Tirunelveli 11%. In the remaining districts the percentages are less than 10.

AVERAGE FAMILY SIZE

The average family size is 5.2, which is less than the national average of 5.7.

PROPORTION OF MEN, WOMEN & CHILDREN

Adult males and females comprise 32% each and 36% are children in the marine fishing villages of Tamil Nadu.

The national figures for marine fishing villages show 31% each of adult rrrales and females and 38% of children.

EDUCATION

Of the total fishermen population, 15% have completed primary school, 3% secondary school, and 1% beyond secondary school. These figures match exactly the all-India figures for fisherfolk.

POPULATION ACCORDING TO RELIGION

Of the total fisherfolk population in Tamul Nadu, Hindus constitute 54%, Christians 40% and Muslims 6%.

The Christian fisherfolk are concentrated in Kanyakumari and Tirunelveli districts, where over 95% of the fishermen are Christians, while the Muslims are concentrated in the districts of Pudukottal and Ramanathapuram.

FISHERMEN ENGAGED IN ACTUAL FISHING

The total number of fishermen engaged in actual fishing in the State is 96,500 forming about 24% of the total fisherfolk population. Of these, the number of fishermen engaged in full-time fishing forms 91%, part-time and occasional being 4% and 5% respectively.

In the whole of India, the fishermen engaged in actual fishing form 23% of the total fishermen population. Among those engaged in actual fishing, 82% come under full-time, 11% part–time and 7% occasional categories.

Besides fishing, these people engage actively in fish curing, drying, net-making, and marketing.

FISHING CRAFTS

There are about 46,000 fishing craft in Tamil Nadu, of which 94% are traditional and non-mechanized. Of these, 73% are Kattumarams, the rest being plank-built boats and canoes. Kattumarams form the major fishing craft in all the districts in Tamil Nadu, except in Pudukottai and Ramanathapuram, where plank-built boats are predominant.

Kanyakumari district possesses the maximum number of non-mechanized boats (29%), the corresponding percentages for the districts of Chengalpattu, Thanjavur and Madras being 20, 15 and 5 respectively. In all the other districts, the percentage is less than 5 each. Of the 46,000 craft, 2,750 are mechanized.

Ramanathapuram district has the maximum number of mechanized boats (38%), Thanjavur district comes next (21%), followed by Kanyakumari (19%) and South Arcot (11%). The percentage is less than 5 each in the other districts.

Out of a total of 1.57 lakh units of fishing craft in the whole of India, of which 1.35 lakh units, or 86%, are traditional and non-mechanized, 55% are kattumarams and the rest plank-built boats and canoes. Of the 1.57 lakh units of crafts, approximately 19,000 are mechanized.

OWNERSHIP OF BOATS

It has been estimated that about 40,000 fishermen of the 96,500 in Tamil Nadu, do not own either boats or gear, 60% of the earnings goes to the owners of the craft and the gear, and 40% of the earnings to the crew. Of the 2,750 mechanized boats 150 are owned by outsiders. Of the approximately 19,000 mechanized boats in India, about two-thirds of mechanized boats is not confined to fishermen

alone. There are mechanized boats owned by industrialists who do not reside in the marine fishing villages. Statistics of ownership outside the fishing community are not readily available.

FISHING GEARS

There are about 6,200 trawl nets in Tamul Nadu, Ramanathapuram, accounting for the maximum (49%), followed by Thanjavur (24%), South Arcot (9%) and Kanyakumari (8%). Of the total of 1,70,320 non-mechanized gears in the State, 1,18,300 are drift/gillnets, followed by hooks and lines (22,111), traps (8,919) and boat-seines (7,220).

Drift/gillnets form the dominant gear in all the districts, hooks and lines forming the next important gear, except in Pudukottai. Relatively higher proportions of shore-seine are seen in the districts of Thanjavur and Ramanathapuram. Traps constitute an important gear in Pudukottai, Ramanathapuram and Kanyakumari districts.

In India, there are about 14,000 trawl nets and 240 purse seines. Among other gear, drift/gilinets are of the order of about 2.16 lakhs, hooks and lines being then next major gear with 57,000 numbers. The other gear includes bagnets (49,900), boat seines (30,000), shore seines (19,000), scoop nets (6,000) and Rampans (190).

Out of the 2.16 lakh drift/gillnets, Tamil Nadu accounts for 55%. Of the 30,000 boat seines, Tamil Nadu accounts for 24%.

FISH PRODUCTION

Marine fish production in Tamil Nadu increased from 45,000 tonnes in 1951/52 to 212,000 tonnes in 1968/69 - a 400% increase in 17 years. In the next 12 years, the production fluctuated between 192,000 and 224,000 tonnes. In the year 1979/80, it was 216,000 tonnes. This is 15% of the nation's marine landings. It is also 57% of the State's total fish landings from inland and marine waters.

The non-mechanized craft of the small-scale fisheries sector accounted for 70% of the total landings in 1978/79; the rest came from the mechanized sector.

FISH CONSUMPTION

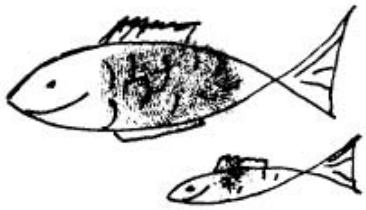
About 80% of the population in Tamil Nadu consumes fish. The annual per capita consumption of fish works out to 7.5 kg.

About 65% of the total marine fish landing is consumed in fresh from, 28% is salted and dried, and the remaining 7% is either frozen or reduced to fishmeal. This is mainly for export packing of prawns, lobsters, cuttle fish, etc. Tamil Nadu is India's third largest fish exporting State, accounting for about 11% of India's total value of fishery exports in 1979.

FISH MARKETING

Fish is generally auctioned on the beaches by traditional auctioneers on a commission basis. These traders also take the responsibility for realising the sale proceeds.

About 25% of the marine fish production is marketed directly through local retailers near the landing centres. The major part is taken to private stalls or markets situated in the cities and towns.



SOURCES

1. Marine Fisheries Information Service. Technical and Extension Series. Central Marine Fisheries Research Institute, Cochin, India, ICAR. No.30. August 1981.

2. Directorate of Fisheries, Census Report on Marine Fisheries Government of Tamil Nadu, 1982.

3. Marine Small Scale Fisheries of Tarnil Nadu, A General Description, Development of Small-Scale Fisheries in the Bay of Bengal, Madras, India. December 1983.