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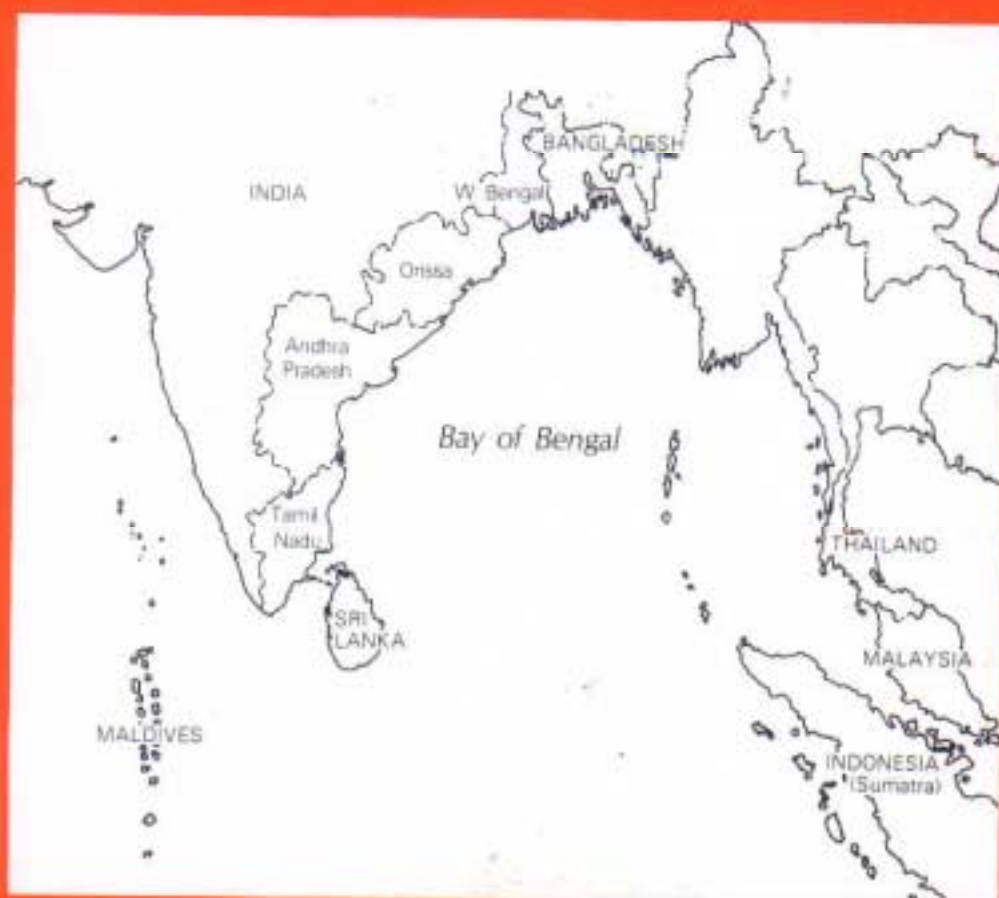
**BAY OF BENGAL PROGRAMME**

**BOBP/REP/29**

**Development of Small-Scale Fisheries**

**GCP/RAS/040/SWE**

# Towards Shared Learning : An Approach to Nonformal Adult Education for Marine Fisherfolk of Tamil Nadu, India



**SWEDISH INTERNATIONAL DEVELOPMENT AUTHORITY**



**FOOD AND AGRICULTURE ORGANIZATION  
OF THE UNITED NATIONS**

TOWARDS SHARED LEARNING :  
AN APPROACH TO NON-FORMAL ADULT EDUCATION  
FOR MARINE FISHERFOLK OF TAMIL NADU, INDIA.

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## PREFACE

This document reports on the efforts of the BOBP (Bay of Bengal Programme) at developing a curriculum for a non-formal adult education programme (NFAE) for marine fisherfolk in the villages of coastal Tamil Nadu. It describes the curriculum package devised towards this end, "Towards Shared Learning", which consists of a number of publications. Two of these publications, the Trainers' Manual and the Animators' Guide, were published by the BOBP in English in July 1985. Other publications have been printed in Tamil by the Directorate of Non-Formal/Adult Education, Tamil Nadu.

This report also discusses the findings of field testing of the curriculum package. In addition, it summarizes the results of an informal study on the lives of Tamil Nadu marine fisherfolk, and another study on typical learners and "animators" (village-level teachers) in order to acquaint readers with the people for whom the curriculum package was devised.

The report includes a project proposal for applying this package among coastal fisherfolk throughout Tamil Nadu. The possibility of adapting the package for use elsewhere in the Bay of Bengal region is also discussed separately.

The BOBP's work on the curriculum package began in 1982 and concluded in 1985. The work was coordinated by a BOBP sociologist, and was executed in cooperation with a number of institutions and individuals whose role is acknowledged below.

The preparation of this report is an activity of the small-scale fisheries project of the Bay of Bengal Programme (BOBP). The project is funded by SIDA (Swedish International Development Authority) and executed by the FAO (Food and Agriculture Organization of the United Nations), and covers five countries bordering the Bay of Bengal — Bangladesh, India, Malaysia, Sri Lanka and Thailand. The main goals of the project are to develop, demonstrate and promote appropriate technologies and methodologies to improve the conditions of small-scale fisher-folk in member countries.

This document is a working paper and has not been officially cleared either by the FAO or the government concerned.

## Acknowledgements

The authors acknowledge and appreciate the efforts of the Directorate of Non-Formal/Adult Education, Tamil Nadu and the Directorate of Fisheries, Tamil Nadu, whose cooperation made possible the development of a curriculum package in harmony with government goals in education and development.

The BOBP is grateful to the Adult Education Division and the Directorate of Adult Education, Ministry of Education and Culture, Government of India, for their support to curriculum development, for participating in a discussion on BOBP's NFAE experiences in Tamil Nadu, and for showing interest in adapting the curriculum package to other states. Thanks are due to Mr. Anil Bordia who was then Additional Secretary, Ministry of Labour, for his concern for the fisher-folk as an unorganized labour force and his vigorous support to the implementation of the NFAE project in coastal Tamil Nadu.

The BOBP express its appreciation of the following agencies from India and Bangladesh for their contribution to workshops conducted during the course of the project: State Resource Centre, Tamil Nadu; the Adult Education Evaluation Cell of the Madras Institute for Development Studies; the Tamil University, Thanjavur; Department of Linguistics, University of Madras; Council for Social Development, New Delhi; Seva Mandir, Udaipur; University Grants Commission, New Delhi; Institute of Development Studies, Jaipur; Bangladesh Rural Advancement Committee (BRAC) ; CONCERN, Bangladesh; Rural Development Seva Centre, Tamil Nadu.

The following individuals are thanked for their effort in developing the curriculum package:

- \* Dr. A.K. Jalaluddin, Joint Director, National Council of Educational Research and Training, for his inspiration, guidance and encouragement throughout the development of the package.
- \* Mrs. Valli Seshan, who was one of the project's workhorses, and a driving force behind the curriculum package.
- \* Mr. R.S. Anbarasan and Mr. R. Venkatachari for their assistance.
- \* Mr. P.K. Srinivasan for his contribution to the two editions of the Numeracy Primer.
- \* Ms. K. Kripa, Mr. Kalvi Gopalakrishnan and Mr. Ramakrishnan for valuable work on the supplementary reading materials.
- \* Dr. N. Deivasundaram, Mr. S. Palanisamy and Mrs. Rama Narayanan for translating the Trainers' Manual and the Animators' Guide from English to Tamil.
- \* Mrs. Lalitha, Mr. V. Dakshinamurthi, Mr. VS. Murugaraj, Ms. Sylvia Doss, Mr. Pradeep and Ms. Christine- the energetic artists who helped to lay out and illustrate the curriculum package.

Finally, the BOBP thanks those Tamil Nadu marine fisher-folk who, by sharing their experiences with the project and by helping it identify their needs, provided the basis for the evolution of the curriculum package.

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## **SUMMARY**

This document describes BOBP's efforts to operationalize the concept of non-formal education by developing a curriculum package (named TOWARDS SHARED LEARNING) for the marine fisherfolk of Tamil Nadu. The curriculum package consists of a number of publications that are devised to be used in adult education centres in coastal Tamil Nadu.

The package adopts the 'participatory teaching - learning method' which encourages the participants to share their life experiences and systematize these experiences. The crucial assumptions of such an approach are:

- \* Education is an internalized process and not the sole activity of the outsider.
- \* Education is possible only in an atmosphere which promotes equality between teachers and learners.

The idea of developing a curriculum package came from the marine fisherfolk of Adirampattinam village in Thanjavur district, Tamil Nadu. They were participating in another BOBP project and requested an education programme. This led BOBP to consider evolving a curriculum package for use in non-formal adult education centres in Tamil Nadu. The process of developing the package included :

- \* A study of marine fisher-folk in some Tamil Nadu coastal villages in order to understand their life-styles.
- \* Testing the viability of the participatory approach with fisherfolk from Adirampattinam.
- \* Conducting workshops to develop the curriculum package.  
(Representatives from government and non-government agencies and other NFAE experts were invited to participate in these workshops.)
- \* Field testing the curriculum package and revising its contents after field testing.

A brief description of each of the components of the curriculum package is presented below.

### **Animators' Guide (Printed in English by BOBP)**

A handy, well-illustrated book which helps the animator to encourage learners to discuss their lifestyles, work environment and beliefs in order to actively involve them in their own learning process. It consists of 33 lessons from eight broad areas of life: community, occupation, health and nutrition, social problems, leadership, income and savings, cooperation and education.

### **Literacy Primer and Workbook (Printed in Tamil by the Directorate of Non-Formal/ Adult Education, Tamil Nadu)**

The Literacy Primer is an attractive four-colour publication with 16 lessons that introduce 147 commonly used letters of the Tamil alphabet. The letters of the alphabet are taught through words and pictures. The Primer's workbook contains exercises for learners to practise reading and writing at home.

### **Supplementary Readers (A few printed in Tamil by the Directorate of Non-Formal/ Adult Education, Tamil Nadu)**

These easy-to-read, well-illustrated colour booklets provide fisherfolk with reading materials to sustain their interest in reading and enhance their self-awareness. About 40 such booklets have been prepared, of which four have been printed.

**Numeracy Primer** (Printed in Tamil by the Directorate of Non-Formal/Adult Education, Tamil Nadu)

The Numeracy Primer is intended to help learners sharpen their numerical skills, learn basic arithmetic, how to read and write numbers. It also helps relate the traditional modes of measuring time, volume, weight, length, etc., common among fisherfolk, with the standard mode.

**Animators' Edition of the Numeracy Primer** (Printed in Tamil by the Directorate of Non-Formal/Adult Education, Tamil Nadu)

The purpose of this book is to help animators to use the Numeracy Primer for learners effectively. It covers the topics contained in the Numeracy Primer for learners and explains the concepts introduced and the method of teaching each lesson.

**Trainers' Manual** (Printed in English by BOBP)

This Manual, well-illustrated with sketches, is a guide to trainers of animators in NFAE centres. It contains easy-to-use, step-by-step explanations for trainers conducting their sessions. It also contains a 12-day model training programme to enable the trainees to become effective animators.

The training model was field-tested by BOBP in Adaikalapuram village, Tamil Nadu, in September 1984. It was also field-tested by the Rural Development Seva Centre (RDSC), a non-government organization which conducts adult education programmes in rural villages. The results of the field-testing are presented in this report.

The report also discusses the points raised at several BOBP-sponsored meetings to examine the possibility of implementing the curriculum package in coastal Tamil Nadu and adapting it for use in other areas. Various government and non-government agencies participated in these meetings.

## 1. INTRODUCTION

The BOBP's (Bay of Bengal Programme's) strategy for the development of small-scale fisheries is two-pronged :

1. To boost fish production and income in order to improve the economic status of fisher-folk.
2. To develop the potential of fisherfolk to participate in and influence their own development — economic, social, cultural.

The relevance of non-formal adult education (NFAE) is crucial to the second approach. Non-formal education means participatory learning and sharing of experiences. It helps build the self-confidence of people, has a liberating influence on them and allows them better control of situations that affect their lives.

The NFAE learning atmosphere promotes equality of relationships, respect for people and trust in one's own ability to solve problems. It provides the knowledge, attitudes and skills necessary for learners to examine their own problems, consider alternative solutions and take decisions to act. The atmosphere facilitates participation by everyone in the programme. In short, the approach is 'participatory'.

This approach to non-formal education is appreciated by everyone who is active in adult education. But getting it to work — "operationalization" — has been difficult. That is what BOBP has tried to do in this project.

The project aimed at evolving a tool for operationalizing the concept of non-formal education and making it a reality. The tool employed is the curriculum package developed for the marine fisherfolk of coastal Tamil Nadu.

The 'participatory approach' -the central focus of the tool evolved — had to be practised for evolving the tool itself. This meant constant interaction among the marine fisherfolk, the field workers, the government and NGOs. The process was long and collaborative. This was recognized as the process of operationalizing the concept of non-formal education.

Those involved in the production of the curriculum package strongly believe that people are aware of their needs and problems, but lack the opportunity to find solutions to them. Also that development is an internal process and not the activity of an outsider.

This publication is an overview of the efforts of BOBP in evolving an approach to non-formal education in the form of the curriculum package "Towards Shared Learning". Figures 1 and 2 indicate the evolution of different components of the curriculum and the interaction of the people involved in its production.

The report begins with a description of the various publications that form the curriculum package. Each publication is taken up in turn ; its purpose, format and contents are outlined, the approach behind it and its evolution are described. The curriculum description is followed by a discussion of efforts to field-test the package.

Curriculum evolution is the basis of any educational programme. But it is not an end in itself. How far it succeeds in helping tap and develop the potential of the target group-in this case marine fisherfolk — is vital. Much effort went into examining this question.

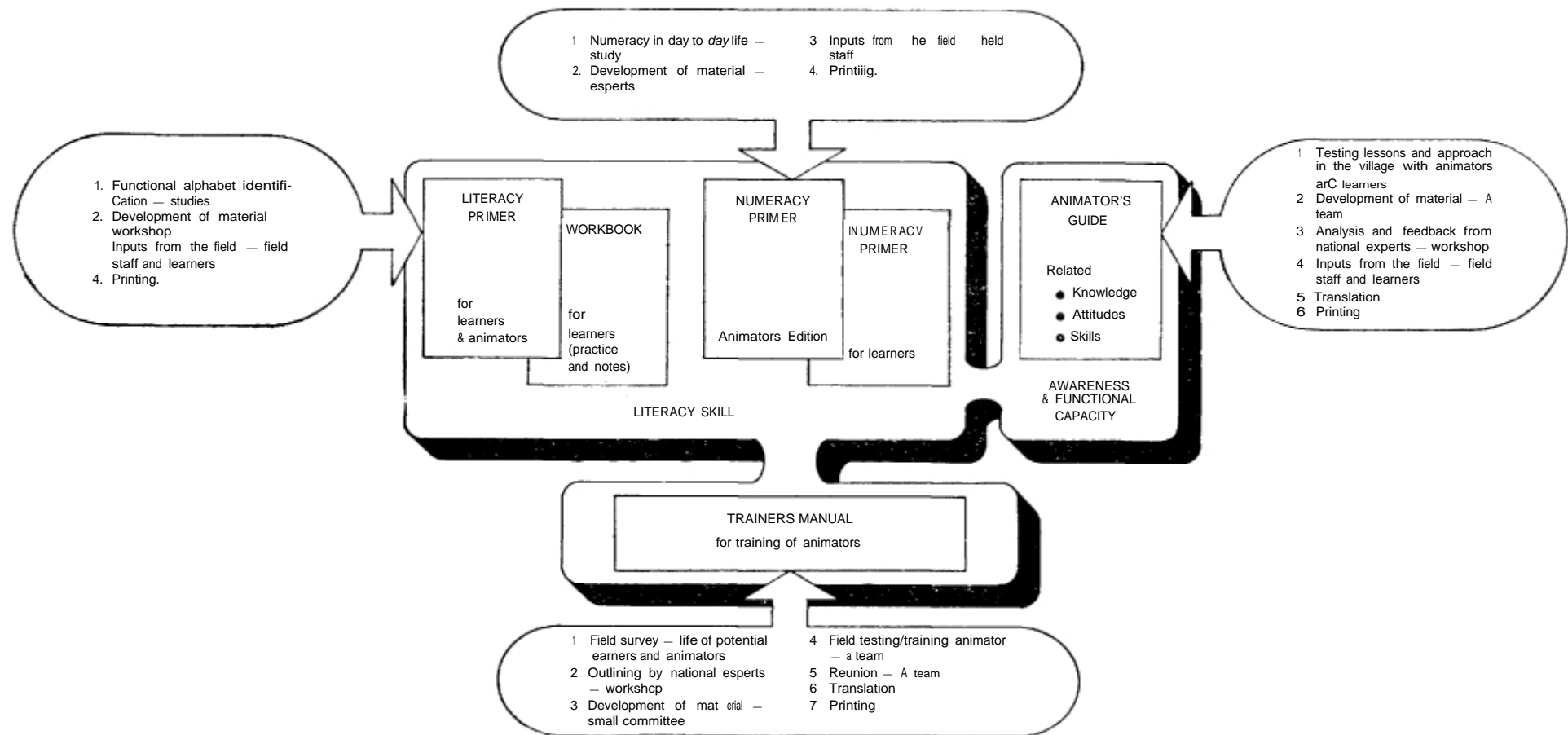
At several BOBP-sponsored meetings held in 1985, various governmental and non-governmental agencies examined proposals for implementing the curriculum package in coastal Tamil Nadu and for adapting it for use in other areas. These discussions are summarized in this publication.

An informal study on the lives of the fisherfolk from some coastal villages in Tamil Nadu and a short profile of some typical animators and learners are presented in Appendices 1 and 2 respectively. These are meant to acquaint the reader with the lives of the people for whom the project was evolved.



Figure 1

TOWARDS SHARED LEARNING: EVOLUTION QF CURRICULUM



## 2. TOWARDS SHARED LEARNING: A NFAE CURRICULUM PACKAGE

### 2.1 Background

The inspiration for developing a curriculum on non-formal education came from the marine fisherfolk of Adirampattinam, Thanjavur district, Tamil Nadu. They were participating in another BOBP project on Coastal Villages Development (CVD) and requested an education programme. This led to a search for materials to implement a non-formal adult education programme (NFAE) for fisherfolk stressing the participatory learning process. But such materials were hard to come by. The BOBP then began developing a curriculum package for use in non-formal adult education centres in Tamil Nadu. The process took three years (1982 to 1985).

The package, "Towards Shared Learning" consists of the following publications :

- \* Animators' Guide
- \* Literacy Primer
- \* Literacy Workbook
- \* Supplementary Readers
- \* Numeracy Primer
- \* Animators' Edition of the Numeracy Primer
- \* Trainers' Manual.

In this section, each of these publications is discussed in some detail so that readers may understand their purpose, format, the approach employed and the process of developing them. Reactions to these publications from various people involved in planning and/or implementing non-formal adult education programmes are also presented. (Please see pages 7-14 for pictures of these publications.)

### 2.2 Animators' Guide (for the animators; in English)

*(Developed during June 1982-February 1985; No. of pages: 18+172; black and white, with sketches, printed by BOBP in June 1985).*

An animator is a village-level teacher who motivates and works with NFAE target audiences (the fisherfolk, in this project).

**Purpose:** The aim of this guide is to provide animators with a tool to assist them in encouraging learners to discuss their lifestyles, work environment and attitudes in order to actively involve them in their own learning process. The guide will help the animators develop some skill in handling discussions.

**The format:** The Animators' Guide is a handy book: a mix of words and interesting sketches. Its 33 lessons cover eight areas of life in Tamil Nadu coastal villages. There is an annexure — 'Guide to making your own sketches' -which helps animators to prepare teaching and learning aids.

The eight areas covered by the Animators' Guide and the topics for discussion in each are as follows :

#### Area 1 — Community

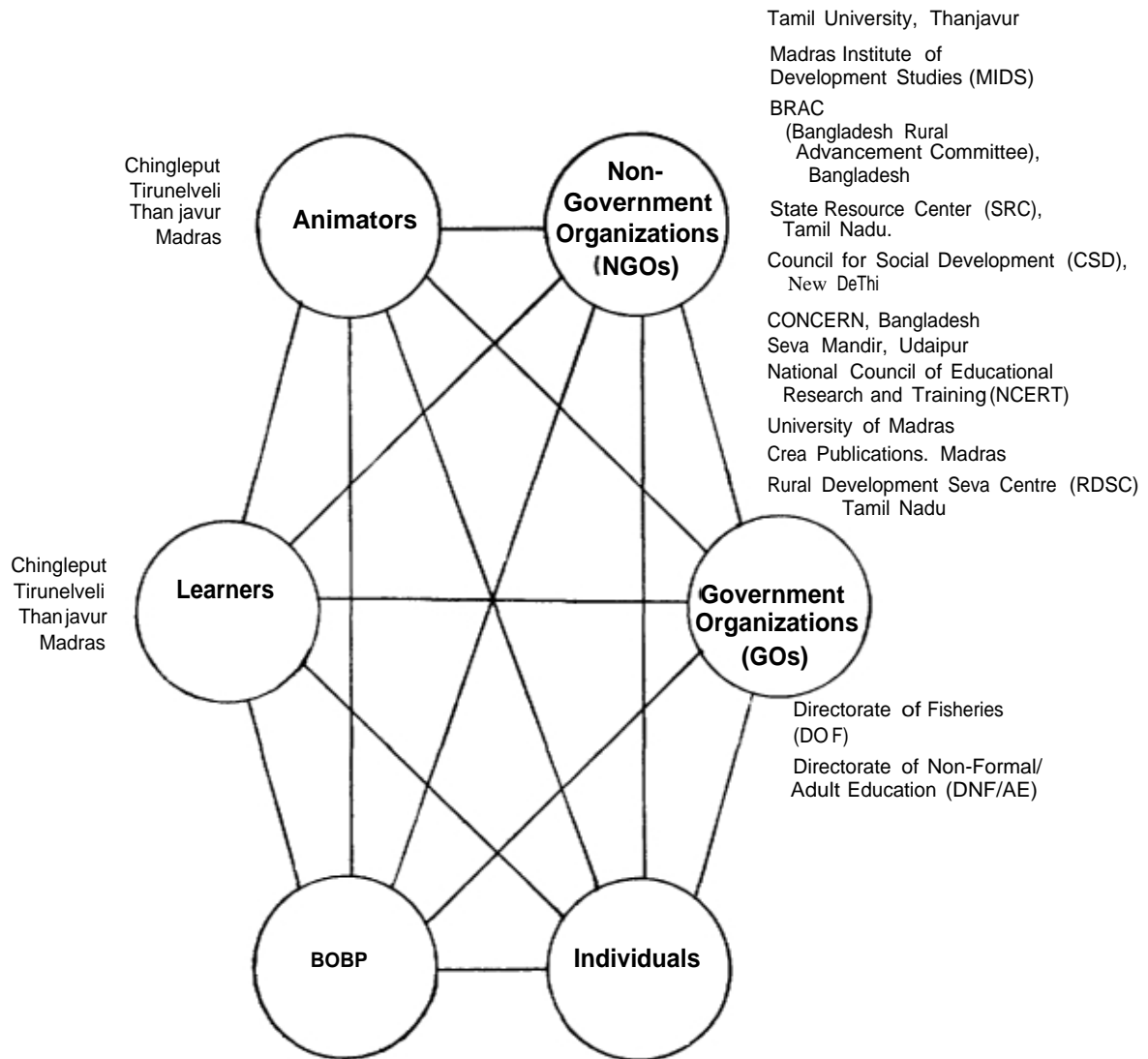
Introduction ;  
"Our community";  
"Who are we ?";  
"People in our lives";  
"Our dependency";  
"Our potential".

#### Area 2 — Occupation

"How do we go fishing ?";  
"Our knowledge of fishing";

**Figure 2**

**INTERACTION AMONG INSTITUTIONS AND INDIVIDUALS WHO HELPED  
PREPARE NFAE CURRICULUM FOR TAMIL NADU MARINE FISHERFOLK**



	"Environment"; "Our status; Boats and Nets"; "Fish marketing"; "Mechanization"; "Marine fisheries".
Area 3 — Health and Nutrition	"Food we eat" (two parts) ; "How should we eat?"; "Pregnancy"; "Our family"; "Planned family"; "Health clinic".
Area 4 — Social Problems	"Excesses in life (drink)"; "Excesses in life (gambling)"; "Fairness"; "Dowry".
Area 5 — Leadership	"When I was a leader"; "Importance of the panchayat"; "The panchayat : structure and functions".
Area 6 — Income and Saving	"Our needs"; "Saving" (Two parts) ; "Alternative income".
Area 7 — Cooperation	"Group action"; "Our cooperative".
Area 8 — Education	"Children's education".

*The structure of individual lessons:* Every lesson states its objective at the outset. It begins either with questions that elicit some basic information on the learners' life, or a story, case study, or role play. These form the basis for ensuing discussions.

The discussion is generated through questions designed to help learners systematize their ideas about problems and issues. The guide also provides animators with notes containing useful information on the issue or problem under discussion. Such information is contained in boxes to distinguish it from the information intended for the learners.

*Approach to preparation of the Animators' Guide:* The approach stresses sharing of experiences by learners. It does so by:

- \* ensuring that the basis for generating discussion — stories, case studies and role plays — come from the learners themselves and are based on their knowledge and ability;
- \* seeing that the questions raised in the Animators' Guide are of the kind that encourage learners to share their life experiences and systematize these experiences;
- \* using methods and materials that ensure the active participation of learners in the learning process.

*Use of the Guide:* The guide is structured to be flexible. Animators may use the Guide's lessons if they are relevant to conditions in their village. They may also develop their own lessons or adapt the ones in the Guide, if necessary. Lessons or problems are not ordered sequentially and may be taken up for discussion in any order.

*The process of development:* The development of the Animators' Guide began with efforts to test the viability of the participatory approach. To do this, a number of animators were selected from the local community with advice and help from the State Resource Centre for Non-Formal Adult Education and the Directorate of Fisheries, Tamil Nadu.

The animators were trained by the State Resource Centre and the BOBP, after which they were placed in NFAE centres opened specifically for this purpose in Adirampattinam, Thanjavur district. The programme conducted by the animators was monitored by BOBP to ensure that the participatory approach was effectively followed.

After this was done, 54 lessons were prepared during several small group sittings. A three-member committee (L.S. Saraswathi, R.S. Anbarasan, Patchanee Natpracha) drafted the lessons. These were reviewed, analysed and revised during a week-long workshop organized by the BOBP in November 1983. Sixteen participants from India and Bangladesh with many years of experience in non-formal adult education attended. They were drawn from BOBP, Directorate of Non-Formal/Adult Education (Tamil Nadu), Directorate of Fisheries (Tamil Nadu), the State Resource Centre for Non-Formal Adult Education (Tamil Nadu) plus non-government agencies from India — Madras Institute of Development Studies; Centre for Social Development, Delhi; Seva Mandir, Udaipur; and from Bangladesh- BRAC and CONCERN.

The revised draft copy was given to project officers and animators active in adult education in Tamil Nadu, and several others working on education/development within and outside the state, in order to elicit their reactions. Comments from these reactions were incorporated into the draft. It was printed in English by BOBP in June 1985.

### **Reactions to the Animators' Guide Draft**

#### *A. From those in education/development:*

The suggestions of the NFAE experts were :

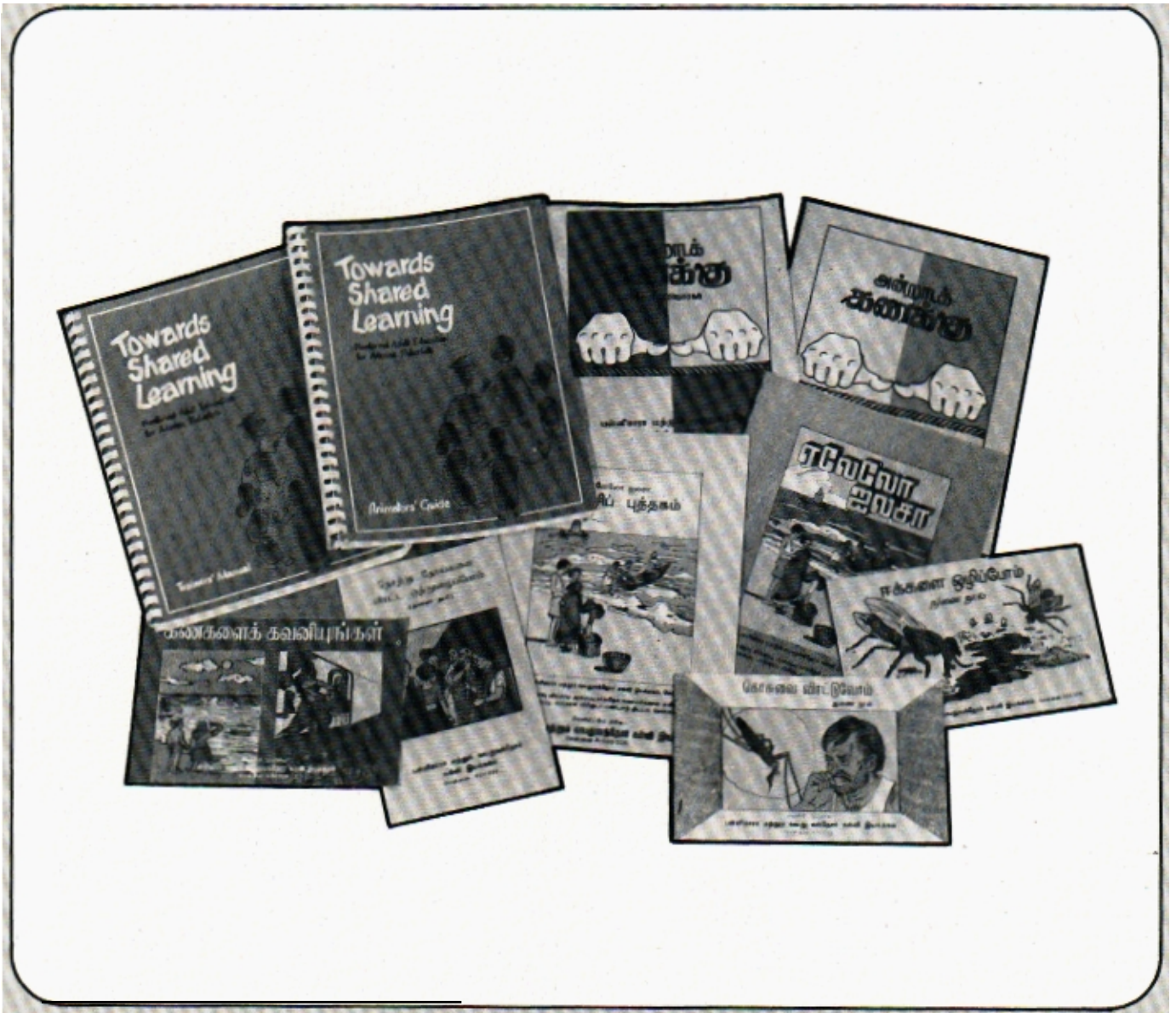
- \* A preamble is needed to introduce the Guide with information on:
  - the background of marine fisherfolk, their problems and needs
  - the role of animators.
- \* Additional information could be incorporated on:
  - ownership pattern of boats
  - marketing of fish
  - problems of mechanization
  - elements of leadership
  - description of a cooperative
- \* The methodology employed in the lessons could be improved by:
  - summarizing what is taught in the sessions
  - introducing other pedagogical techniques such as simulation exercises and brainstorming
  - including a short evaluation after each area.
- \* Additional lessons could be included on matters such as:
  - the socio-economic, political and cultural situation in the fishing villages
  - meaning of "community"
  - the role of each individual in the community
  - barriers to community-building
  - the organization of people working towards unity and harmony
  - pressing issues and problems
  - role of culture and religion in development.
- \* The participatory training approach requires disciplined self-restraint on the part of the animator, besides the ability to guide discussions, and hence calls for special training for animators.
- \* The Animators' Guide is a carefully conceived publication — effective only if used by a well-trained, competent and imaginative teacher.

Some general comments were:

- \* That the extensive use of different NFAE methods is welcome

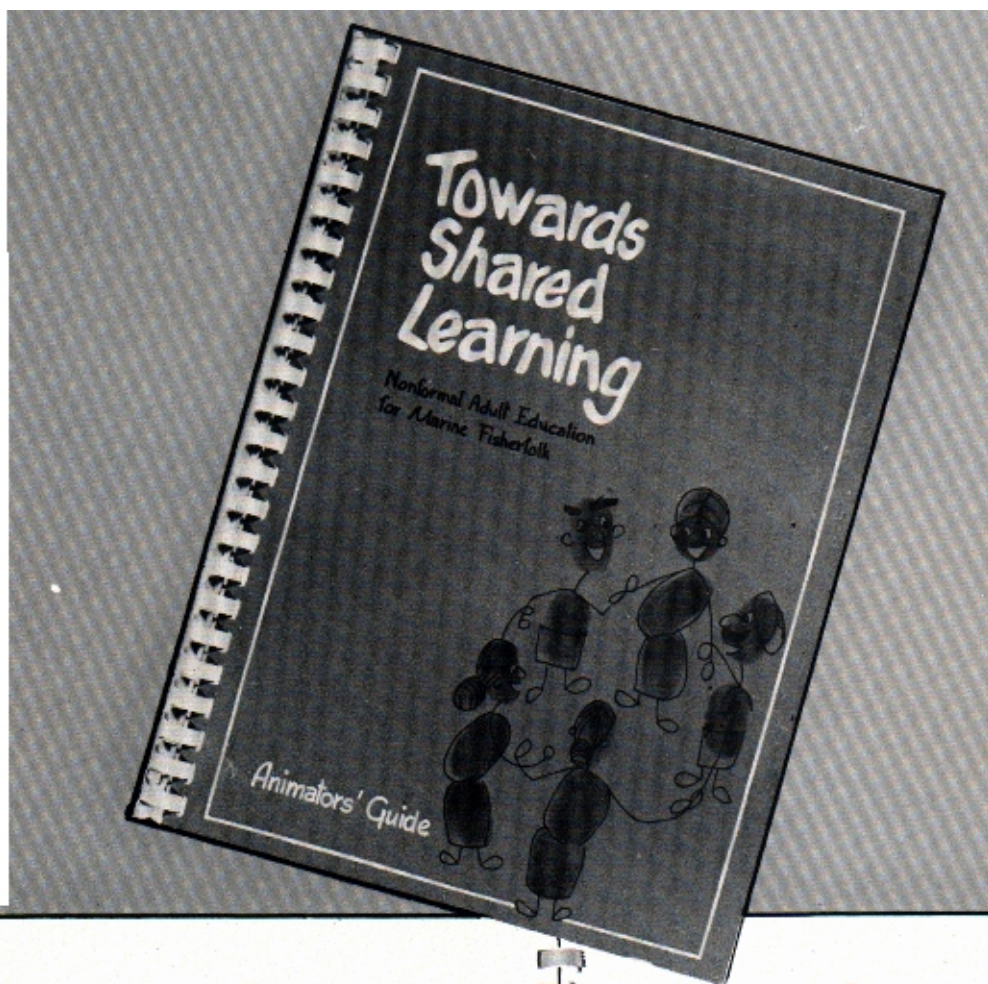
## THE NFAE CURRICULUM PACKAGE IN PICTURES

The pictures on these pages show the NFAE publications for Tamil Nadu marine fisherfolk. These were developed by BOBP in cooperation with numerous institutions and published either by BOBP or by the Tamil Nadu Directorate of Non-formal/Adult Education.



A montage of the NFAE publications. The Trainers' Manual and the Animators' Guide are in English, all the other publications in Tamil.





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The condition is difficult to change.

Probably, the idea that one individual cannot do anything about the situation, but together they could make some efforts by the creation of community funds through small savings, may emerge. Similarly, contacting government and other agencies to get the benefits of schemes which will improve their occupational status and thus their economic conditions may also be identified as possible actions to come out of their state of dependence on other, more advantaged, groups.



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## Our Potential

### OBJECTIVE

To help learners recognise the qualities they have and their potential and to understand the qualities that help in keeping their solidarity and those that divide them.



Parur Kuppam village is known for its temple festival in the month of Adi.\* Everyone in the village starts preparing for the festival from Vaikasi.\* Elumalai, Raman, Krishnam.

\* Months in the Tamil year  
Adi - July-August  
Vaikasi - May-June

Animators' Guide: The cover (above) and a sample of inside pages. This 190-page publication was printed by BOBP in June 1985. The paper helps animators (teachers) in their task of assisting the fisherfolk-learners to discover themselves, their work, their life, their environment.





## 5. மீனவர் சமூகம்

மீனவர் சமூகம் கட்டுப்பாடானது.  
மீனவர், சொன்ன சொல்லை மதிப்பவர்கள்.  
உனர் பஞ்சாயத்து முடிவுகளை மீற  
மாட்டார்கள்.  
அவர்கள் கடினமாக உழைப்பவர்கள்.  
சூரியன் உதிக்கும் முன்பே கடலுக்குள்  
தொலைதூரம் போய்விடுவார்கள்.  
உயிருக்கு ஏற்படும் ஆபத்துக்கு  
அஞ்சமாட்டார்கள்.  
உணர்வு ஒன்றுகூடி விழாக்களை நன்றாக  
நடத்துவார்கள்.  
மீனவரின் சிறப்புகளாக இன்னும் எதைச்  
சொல்லலாம்?

படித்துப் பழகவும்:

விழா தூரம் உணர்வு  
சொல் சூரியன் பஞ்சாயத்து

உ  
ஞ்  
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ஈக்களை ஒழிப்போம்  
துணை நூல்



தொற்று நோய்களை  
விரட்டி ஒத்துழைப்போம்  
(துணை 2-ம்)

கண்களைக் கவனியுங்கள்



கோசுவை விரட்டுவோம்

துணை நூல்



பள்ளிசாலை மற்றும் வயது வந்தோர் கல்வி இயக்ககம்

சென்னை-600 006.

கண்களைத் துரி விழாமல் கவனமாக  
காக்கக்கூடாது.



ஒரு மெல்லிய  
கூரைவற்ற  
குச்சியை, கண்  
இமைவின் மேல்  
பொருத்தி  
இமைவை  
வெளியுறவை  
மடிப்பதில்லாமல்  
கண்ணில் விழுந்த  
துரிவை எளிதில்  
அகற்றலாம்.

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மலேரியா நோய் உள்வளங்கள்  
உடம்பில் மலேரியா கிருமிகள் சிதைவு  
இருக்கும்.

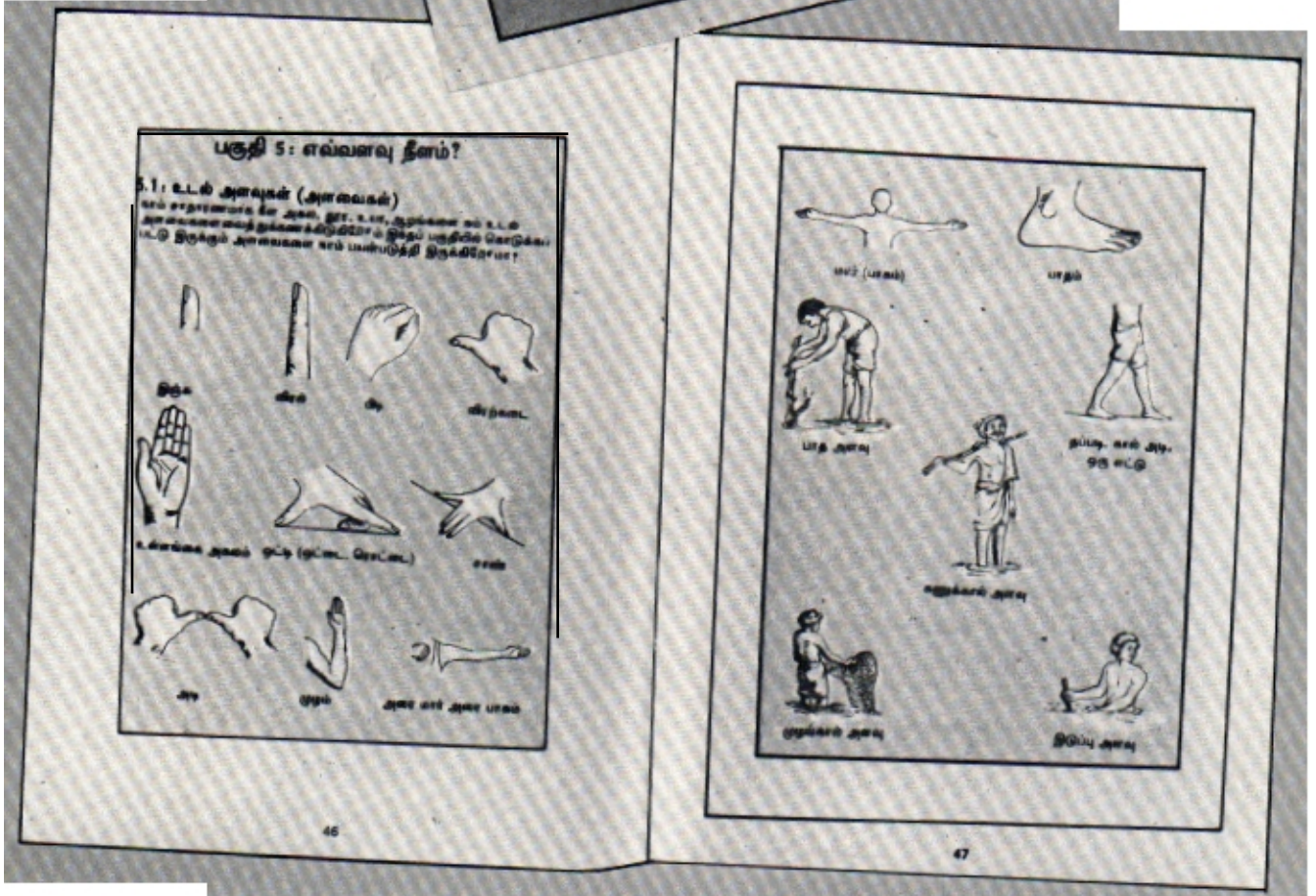
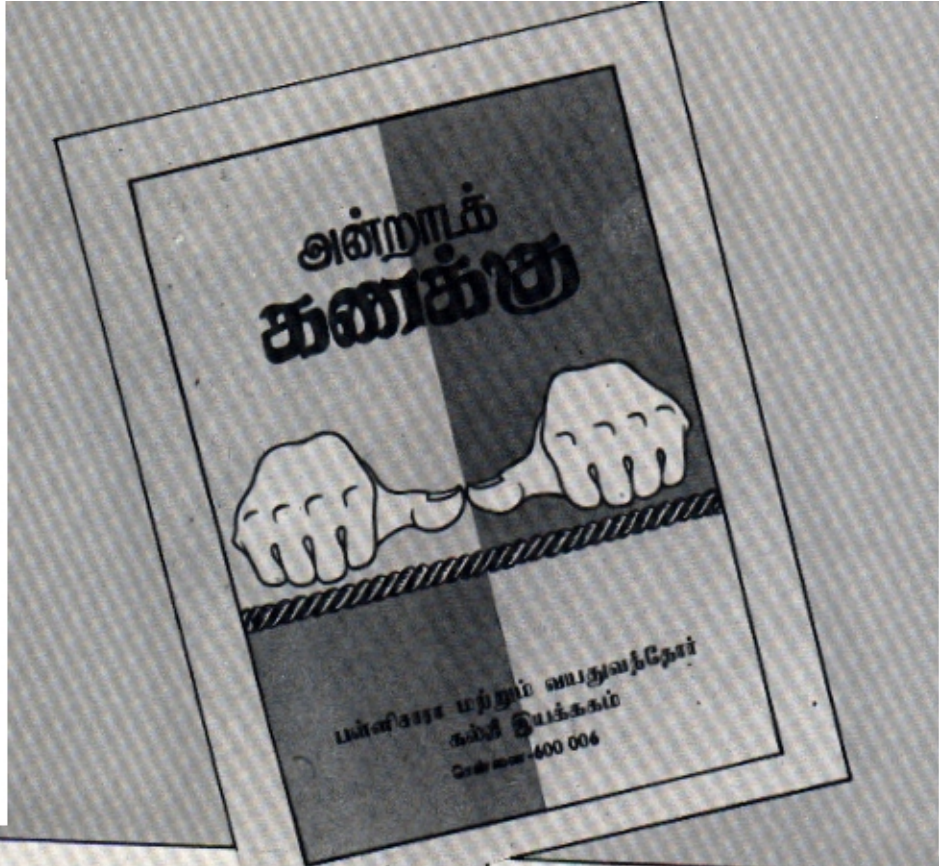


இந்தக் கிருமிகள் உள்வளங்களைக்  
கடித்த கொடி, மற்றவர்களைக்  
கடிக்கும் போது மலேரியா காய்ச்சல்  
பரவுகிறது.

14

Supplementary Reading Materials: A montage of the covers of four supplementary reading materials (above) and a sample of inside pages. 38 booklets of supplementary reading materials have been prepared by BOBP, of which four have been printed so far. Each contains about 20 pages, and has illustrations in colour. The supplementary reading materials are meant to help learners (fisherfolk) to practise and further develop their literacy skills.





Nureracy Primer; The cover (top) and two inside pages. This 96-page colour publication is meant to help learners to sharpen their numerical skills and assist them in their everyday life.



மூலக் கருத்து என்னவென்று தெரிந்து கொள்ள வேண்டும். அதற்குக் முன்பாக  
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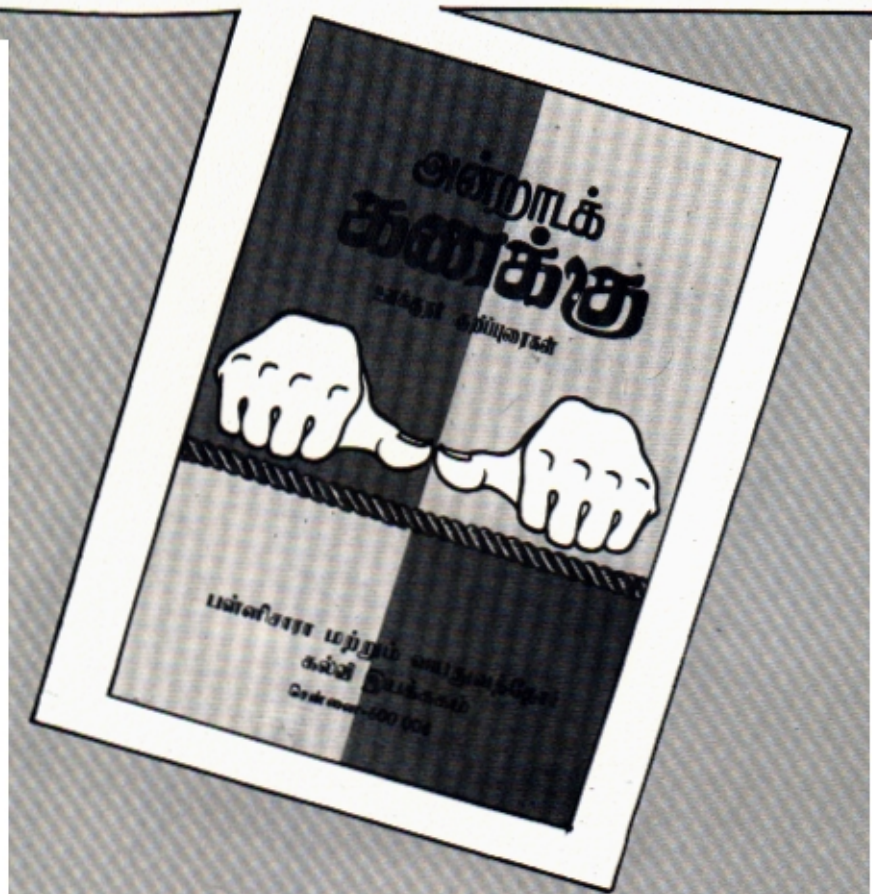
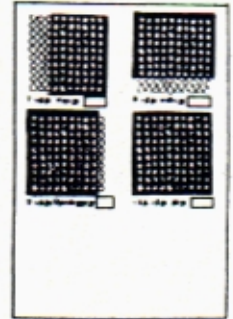
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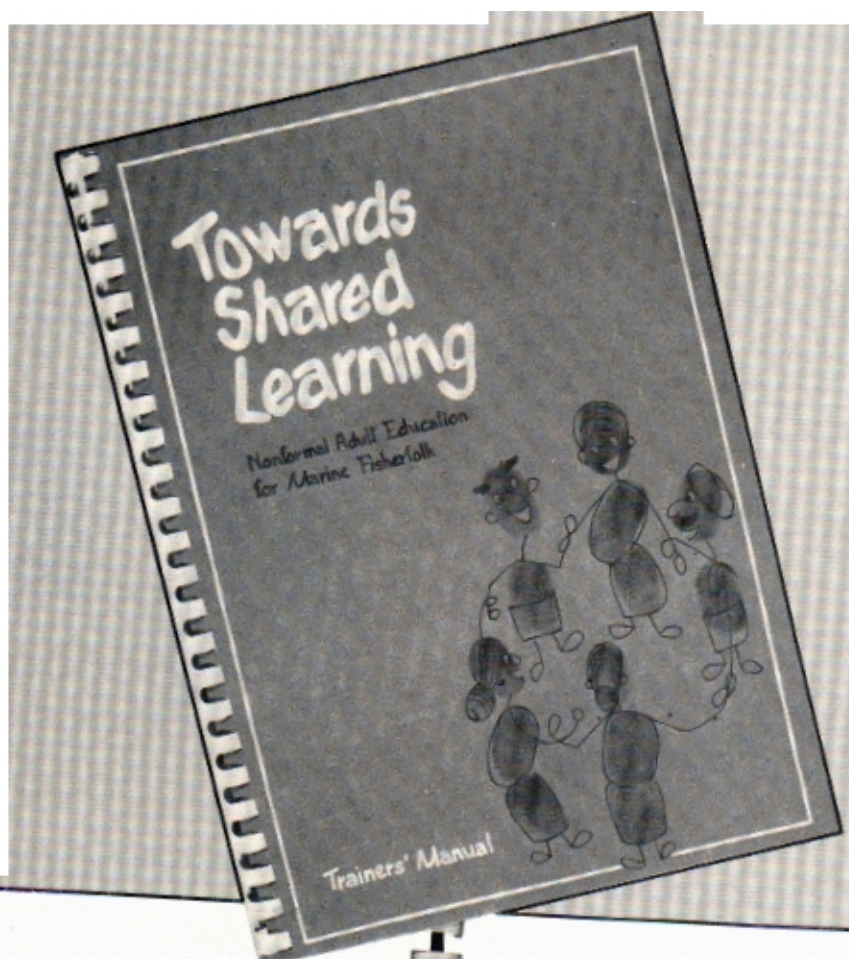
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AFTERNOON

#### 4. KEEPING UP THE INTEREST

##### GAME

##### Freezing

One, two, or three players are 'freezers.' The remainder are 'freezable,' but are also 'de-freezers.' When a freezer touches a freezable player, the latter remains frozen (i.e., still) until a de-freezer touches him. The game continues until all are frozen.



#### 5. UNDERSTANDING THE VILLAGE COMMUNITY AND ITS PROBLEMS

##### EXERCISE 2.

The trainer tells the trainees that they will be role-playing a few scenes with a view to highlighting different problems that exist in the community. He/she discusses the problems briefly, the various characters. The trainees are then divided into three groups and given one of the following scenarios each:

It is evening. Some men from village are sitting in front of the toddy shop. The shop owner is counting cash. Parvathi, wife of Velusamy, comes there.

Poent, the fisherman from Periakuppam, who had not paid up fully for the fish she auctioned the previous day, is talking to Mathu, the auctioneer, about taking a loan.

Kuppan, returning from the sea, is very upset as he had no catch. Murugan, his grand uncle, tells him 'Nothing is in our hands, we don't put the fish in the sea. It is God who puts it. What can we do?'

The trainer suggests that the groups take time to select the characters and rehearse the roles.

All the trainees come together and do the role-play, one after another. Each group is given 5-10 minutes (or until some of the main points have been brought out).

After all the role-plays are over, the trainer conducts a discussion.

- Are these familiar scenes in your village?
- What problems do they highlight?
- What do you think are the causes of these problems?
- What do you think are some of the possible solutions?
- What were your feelings when you played the roles?



- \* That the case studies taken from the lives of the learners are used competently. The use of stories from popular Tamil magazines like Ananda Vikatan is a good idea.
- \* That it is comprehensive
- \* That most of the problems touched upon in the guide are common to most communities.
- \* That it could be adapted for several purposes.

#### **B. Reactions from field personnel**

1. Project officers implementing NFAE programmes for the Government of Tamil Nadu were asked to comment on the Animators' Guide draft during an orientation programme on approaches to NFAE organized by BOBP at Mahabalipuram in August 1984. Eleven project officers participated in the programme. Their reactions were:
  - \* The Animators' Guide relates well to the needs of the fishing community
  - \* It is easy to understand and handle
  - \* It can help the animator to function effectively
  - \* An adequately trained animator will find the book useful.
2. Animators from NFAE centres in Tamil Nadu were asked to react to the guide during a training programme organized by BOBP in September 1984 in Adaikalapuram Village, Tiruchendur Taluk, Tirunelveli District, Tamil Nadu. They felt:
  - \* It is easy to understand
  - \* Its information is useful for discussion
  - \* It encourages thinking
  - \* The stories it contains are attractive and adaptable to local situations.
  - \* In the past they would have handled the same subject through lectures, but after reading the Animators' Guide, feel that learners will understand the subject better by means of discussions
  - \* The intellectual level of the questions is perhaps a little too high for the learners.

#### **On translating the English version of the Animators' Guide into Tamil:**

It was decided that the English version of the Animators' Guide should be translated into Tamil. It was believed that the translation should not be done literally as that would distort the meaning; the approach should be flexible, to preserve the nuances and subtleties of the Tamil language.

#### **2.3 Literacy Primer and Workbook (for the learners; in Tamil)**

*(Developed during November 1983-February 1985; Literacy Primer-No. of pages 7+34. Printed in colour, March 1984. Workbook-No. of pages 7+39. Printed in black and white with the cover in colour, 1985).*

The learners are the fisherfolk from coastal villages of Tamil Nadu.

**Purpose:** The purpose of the Literacy Primer and the Workbook is to help learners to read and comprehend Tamil and write it correctly.

**The format:** The Literacy Primer, titled *Elele Eilasa* (a theme song of the fisherfolk in Tamil Nadu coastal areas), is an attractive pictorial publication, with many illustrations in colour. It has 15 lessons (12 with themes relating to the lives of the fisherfolk and 3 revision lessons) dealing with subjects such as fishing craft, health, indebtedness and children.

The lessons are titled as follows:

- |                         |                            |
|-------------------------|----------------------------|
| 1. Country Boat         | 9. For the child           |
| 2. Kattumaram and Net   | 10. Let's discuss together |
| 3. The fruits of labour | 11. Rights                 |
| 4. The burden of debt   | 12. Let us revise-2        |
| 5. Fishing Community    | 13. Question hour          |
| 6. Let us revise-I      | 14. Happy ending           |
| 7. Healthy life         | 15. Let us revise-3        |
| 8. Fish and rice        |                            |

The Literacy Primer is divided into three parts. The first part consists of six lessons. Of these, the first five introduce 78 letters of the Tamil alphabet and the sixth is a revision lesson. The second part consists of lessons 7 to 12 -the first five introduce 69 letters and the last is meant for revising them. Lessons 13 and 14 in the third part are intended to help learners master the 147 commonly used letters introduced in the first two parts and also to understand words and sentences formed with these letters. Lesson 15 once again is a review lesson and is designed to allow a comprehensive examination of all the 247 letters of the Tamil alphabet-the 147 commonly used letters already mentioned and another one hundred used rarely or not at all. The last few pages of the Primer explain the format and the use of the Primer and Workbook for the benefit of animators in detail.

The Literacy Workbook also has 15 lessons, each of which corresponds to a lesson in the Primer. It contains exercises to improve the reading and writing abilities of the learners.

*The structure of individual lessons in the Primer and Workbook:* Each lesson in the Primer contains a few words that are to be taught to the learners. The animator is to help the learners recognize these words and the letters forming them with the help of the Primer.

The Workbook has exercises for reading and writing, with lessons corresponding to those in the Primer. The first two lessons have exercises in drawing on dotted lines and free hand drawing to help learners get familiar with the feel of a pen or pencil. The rest of the Workbook is devoted to exercises for reading and writing words, phrases and sentences.

*The approach:* The Primer employs the analytico-synthetic method for teaching and learning literacy, i.e., the method of introducing words which are familiar and meaningful and then analyzing the words in terms of their constituent letters. Once the letters are learnt, new words can be synthesized (by combining letters) by the learners themselves.

The Workbook lays emphasis on the word as a unit of recognition. The words given in reading exercises are composed with letters which are already introduced in the Primer. It is structured to make each lesson a review of the previous one. It was felt that literacy aids that help to associate letters and words with their sounds should complement the Primer and Workbook. The method of preparing these aids is incorporated in the training manual.

The efforts made to involve the learners in the process of learning include :

- seeing that the contents relate to the everyday life of the fisherfolk through colourful pictures of familiar scenes of coastal villages;
- introducing words that are familiar to the fisher-folk;
- seeing that the Primer, Workbook and other aids are designed for handling by the learners themselves;
- introducing literacy games through different aids.

*Use of Literacy Primer and Workbook:* The lessons in these two books are to be used only in the order in which they are presented.

Each lesson may need three or four hours and the review lessons may need about eight hours. To attain literacy with these books may require a total of about 70 hours spread over a period of seven months.

Deciding when to introduce the Primer and Workbook in the NFAE programme is left to the animator, as only he or she will be able to assess the readiness of the learner.

*The process of development:* The November 1983 national workshop which reviewed, analyzed and revised the Animators' Guide also provided guidelines for the development of a Literacy Primer for the fisherfolk. It was suggested that the Primer should introduce the 'functional' (or commonly used) letters of the Tamil alphabet, that it should focus on words used by the fisherfolk and that each lesson should stress a single concept or issue.

A study of the Tamil daily *Dina Thanthi* and the Tamil weekly *Rani* (both readily available in the villages) was undertaken to arrive at a set of functional alphabets. News items, articles and stories from these publications were selected at random for careful study to identify letters that occurred most often. Of the 247 letters, only 147 were found to be frequently used.

A workshop was held by the BOBP in December 1983 to develop the Literacy Primer and Workbook. There were eight participants from EOBP, the Directorate of Non-Formal/Adult Education (Tamil Nadu), and the State Resource Centre (Tamil Nadu), besides experts from the Department of Linguistics of the Tamil University, Thanjavur and the University of Madras. The linguistics experts had had previous experience in teaching Tamil to adult learners.

Towards the end of the workshop, a few participants visited a fishing village in Chingleput district in order to determine whether the vocabulary of the Primer and the Workbook was too advanced for fisherfolk. They found that the fisherfolk were able to understand the words easily.

### **Reactions to the Literacy Primer**

A. **From NFAE specialists:** An English translation of the Literacy Primer was given to those who developed the Trainers' Manual. They were also given a printed copy of the original Tamil version. While appreciating the colourful pictures, they felt that there were too many sentences on one page and that this visual strain on learners must be reduced.

B. **From field personnel:** Officers implementing adult education projects for the Government of Tamil Nadu were asked for their comments during an orientation to NFAE approaches held in August 1984. They had the following comments to make:

- \* It is colourful and attractive
- \* It is well-illustrated
- \* The key word approach has been used satisfactorily
- \* Though the lessons are graded satisfactorily, reading and writing skills cannot be developed in all learners within 10 months.
- \* There is provision for reinforcing what has been learnt.

**A problem with the lay-out of the Primer:** Animators used the Primer in a test lesson during a 1984 training programme. The animators tended to teach the sentences at the beginning of each lesson although these sentences were introduced only as a device to teach certain words to the learners. This mistake was made due to the lay-out of the Primer which carried the sentences in bold letters, thus giving the impression that they were meant for the learners. It was suggested that the sentences meant only for the animators be printed in small letters to avoid such confusion in future.

**Period of development:** It took about 15 months (from November 1983 to February 1985) to develop, make copies, elicit reactions and modify the Literacy Primer.

### **2.4 Supplementary Reading Materials (for learners and animators; in Tamil)**

**(Developed during September 1983-March 1985. 38 booklets prepared, of which four printed, about 20 pages each, many illustrations in co/our).**

**Purpose:** The Supplementary Reading Materials were designed to:

- \* help learners to practise and further develop their literacy skills;
- \* provide adult learners with information useful for improving the quality of their lives;
- \* create a desire in them to continue learning;
- \* help animators to conduct discussions effectively.

**The format:** The Supplementary Materials are easy to read and well illustrated. The classification of subject matter is similar to that of the Animators' Guide. A total of 38 booklets have been prepared for printing. They cover nine areas and their titles are:

<b>Areas</b>	<b>Titles</b>
1. Community	* The coastal village
2. Occupation	* Fish marketing
3. Health and Nutrition	* Environmental sanitation
	* Cleanliness



- \* Let us cooperate to eradicate infectious diseases
  - \* The enemies who invade us (worms)
  - \* Let us eradicate mosquitoes
  - \* Let us get rid of flies
  - \* Potable drinking water
  - \* Child health
  - \* Diarrhoea
  - \* Leprosy control
  - \* Look after your eyes
  - \* Nutrition
  - \* First aid
  - \* Health facilities
  - \* Smokeless chula
  - \* Solar energy for cooking food
  - \* Biogas for cooking food
4. Social problems
- \* Dowry and its problems
  - \* Status of women in the coastal villages
5. Leadership
- \* Leaders can be made
  - \* Village panchayat
6. Incomes and saving
- \* Bank schemes for village development
  - \* My story and your story (Alternative incomes)
7. Cooperation
- \* Importance of cooperation in the changing environment
  - \* Fishermen and cooperation
  - \* Fishermen's cooperatives
8. Education
- \* Let us try (to attend school)
9. Law
- \* The need to know the laws
  - \* Contracts
  - \* Accidents
  - \* Civil law and procedures
  - \* Loans
  - \* Criminal law
  - \* A criminal case procedure

These booklets are graded in terms of the reading ability of learners. They contain fewer illustrations and more text as the learner progresses. The materials are divided into three grades.

Grade 1: with 75% or more of pictures

Grade 2: with about 50% of pictures

Grade 3: with 25% or less of pictures

**The process of development:** The preparation of Supplementary Reading Materials was assigned to authors who had some understanding of the subjects that they were asked to write about. Mr. 'Kalvi' Gopalakrishnan drafted several of the publications relating to health, while Ms. K. Kripa prepared the booklets relating to law. The other booklets were assigned to a team of writers from Crea Publications, Madras.

A few of these booklets were taken to coastal villages and read out to the people there to find out whether they could be understood. However, all the booklets could not be tested in a planned manner because time was short and skilled personnel were not available.

**Period of development:** It took nearly two years (September 1983 to July 1985) to produce the Supplementary Reading Materials.

## **2.5 Numeracy Primer (for the learners; in Tamil)**

(Developed during March 1984-February 1985. No. of pages: 9+87. Printed in colour, 1985).

**Purpose:** The Numeracy Primer is intended to help learners sharpen numerical skills in order to assist them in everyday life. It also attempts to help learners make the transition from oral competence with numbers to numerical literacy.

**The format:** The printed version of the Numeracy Primer, titled 'Andradakkanakku' (day-to-day arithmetic), is a well-illustrated book. It has two major parts — numbers and basic arithmetic, and measurements and units.

**The approach:** In preparing the Numeracy Primer, stress was laid on basic aspects of numeracy that are relevant to real life. Fisherfolk deal with numbers every day, but carry out calculations mentally. The effort of the Numeracy Primer was to help the learners become numerically literate so that they acquire the ability to read and write numbers and work out calculations on paper if necessary.

### **Part I: Numbers and Arithmetic**

#### **Section 1 : Counting and numbers**

- \* Learning to read and write numbers
- \* Understanding the concept of zero
- \* Knowing the general principles of writing numbers-the place value
- \* Cardinal and ordinal numbers
- \* Counting up to a thousand

#### **Section 2: More numbers from numbers**

- \* Addition: Basis — counting and adding.
- \* Multiplication : Basis, skipping and counting, knowing the relationships between addition and multiplication, building multiplication tables.
- \* Subtraction : Basis -taking out or removing. Comparing — how many more or less knowing the relationship between addition and subtraction.
- \* Division : Basis-dividing equally, knowing the relationship between multiplication and division.

### **Part II: Measurements and Units**

#### **Section 3 : How does time pass ?**

Methods of estimating time. Methods used in the past and methods used today. Relating the traditional mode of measuring time to clock time.

#### **Section 4: Money**

Present day notes and coins, calculating change, calculations concerned with occupational money transactions, and expenditure, debt and interest.

#### **Section 5: How much is length?**

Units used for measuring length, width, height, depth, body units, standard units-both imperial and metric: relationships among the three types of units; calculating distance, relationship between area and space.

#### **Section 6 : How much will it hold?**

Volumetric measure-the relationships between body measures, container measures and the standard measures.

#### **Section 7 : How much is the weight?**

Approximate estimate of weights and the standard weights of the metric system.

#### **Section 8: Very big numbers**

Reading big numbers from newspapers.

**The process of development:** Two studies formed the basis for developing the Numeracy Primer. The first was an informal study of everyday numerical calculations made by the fisherfolk of some coastal villages in Tamil Nadu. (A report of the study is contained in Appendix 1). The second is an extensive and scientific study on the numeracy practices of rural adults all over Tamil Nadu. The findings of these studies were used to develop the methodology of the Primer. The publication was drafted by Dr. L.S. Saraswathi and Mr. P.K. Srinivasan.

**Reactions to the Numeracy Primer:** Officers implementing adult education programmes for the Government of Tamil Nadu were asked for their reactions to the Numeracy Primer during an orientation to approaches in non-formal adult education held in August 1984. After carefully going through the Primer, the project officers felt that:

- \* The numeracy primer is relevant to everyday situations.
- \* It is well prepared. Simple arithmetical operations are dealt with very well.
- \* The book is easy for animators to follow.

After studying the Primer and using one of its lessons as a demonstration, animators from adult education centres in Tiruchendur block, Tirunelveli district felt:

- \* This book helps to make everyday calculations easier to learn.
- \* This book converts habit into knowledge.
- \* The book is clear enough for use.

## **2.6 The Animators' Edition of the Numeracy Primer (for the animators; in Tamil)**

*(Developed during March 1984-February 1985. No. of pages 72. Printed in black and white with the cover in colour, 1985)*

**Purpose:** The purpose of the Animators' Edition of the Numeracy Primer is to help animators use the Numeracy Primer for learners effectively. It gives them guidelines to facilitate learning in NFAE centres.

**The format:** The Animators' Edition, titled '*Andradakkanakku — Ookunar Kurippuraigal* (Day-to-Day Arithmetic — The Animators' Notes) has topics corresponding to those in the Numeracy Primer for learners. It explains the concepts being introduced and the method of using each lesson. Every page of the Numeracy Primer for learners is reproduced in reduced size in the Animators' Edition to facilitate quick and easy reference.

**Reactions to Animators' Edition of the Numeracy Primer:** Officers implementing adult education projects in Tamil Nadu described the book as useful. Animators who used the book for a demonstration lesson in the training programme said it improved their understanding of how arithmetic should be taught.

## **2.7 Trainers' Manual (for the trainers of animators/field workers; in English)**

*(Developed during March 1984-February 1985. No. of pages 24+ 172. Several sketches. Printed in black and white, June 1985).*

**Purpose:** The Manual is intended as a guide to trainers of animators or field workers in the NFAE centres. It contains guidelines for the trainers and a 12-day model training programme to enable the trainees to become effective animators.

**The format:** The Trainers' Manual is an attractively produced publication with sketches, exercises and essays.

It explains the goals and basic beliefs of non-formal education, and contains a description of the participatory training approach and its principles and assumptions, a profile of the animators, and a 12-day model training programme for animators, with notes and suggestions for the trainers and exercises for the animators.

The 12-day training model is divided into five stages:

- \* Understanding oneself and others in a group (two days)
- \* Understanding the community (three days)
- \* Understanding the present educational system and its relevance (one day)

- \* Practising the role of the animator (four days)
- \* Designing a work plan for the NFAE centre (two days).

A total of 88 sessions are allocated for the 12-day period (17, 24, 8, 26 and 13 sessions for stages 1, 2, 3, 4 and 5 respectively). The sessions allocated per day range from 5 to 10.

Each session of the manual has a statement of objectives, an exercise (a step-by-step explanation of the tasks to be conducted by trainers), a set of questions to help the trainees analyze their own responses, and special notes for the trainer.

The manual also contains support papers on various topics to provide resource material to both trainers and animators. They deal with:

- \* Respect for other people (for trainers)
- \* Feedback (for trainers)
- \* Health problems of India (for the trainers and animators)
- \* Poverty (for the trainers and animators)
- \* Source book (for the trainers and animators)
- \* Levels of individual functioning in group discussions (for trainers)
- \* Development, what do we mean by it? (for trainers)
- \* Status of education in India (for trainers and animators)
- \* Stimulating participation through questions (for trainers)
- \* Role play (for trainers and animators)
- \* Literacy aids (for trainers).

*The approach:* The approach of the training model is participatory. The action-reflection process is crucial. Participants are made to work on tasks and problems similar to the ones they face in their jobs. They are helped to analyze their approaches to the tasks and problems and clarify the standpoint from which they approached it. This helps to widen and deepen the participants' ability to understand and deal with many situations. The stress is more on *how* to think than *what* to think. Action and discussion are the methods used.

*The process of development:* The Trainers' Manual resulted from a strong belief amongst those involved in the preparation of the curriculum package, that such a manual was needed to 'operationalize' the concept of non-formal education.

As preparation for developing the Trainers' Manual, an informal field survey was undertaken to gain a better understanding of various aspects of the lives of fisherfolk of Tamil Nadu. A summary of this survey is contained in Appendix 1.

A week-long workshop was held in April 1984 to guide development of the Trainers' Manual. The workshop was attended by 14 participants from the Directorate of Non-Formal/Adult Education (Tamil Nadu), the Directorate of Fisheries (Tamil Nadu), the State Resource Centre (Tamil Nadu), the National Council of Educational Research and Training (NCERT), voluntary agencies and the BOBP.

The participants reviewed the curriculum package, familiarized themselves with various aspects of the lives of the fisher-folk, studied profiles of learners and animators made available from field studies, identified the training needs of animators and developed an outline for the Trainers' Manual. Subsequently, a model training programme was prepared by a committee of four members (Valli Seshan, Anita Dighe, L.S. Saraswathi, Patchanee Natpracha) during May 1984. Copies of the draft were ready by June 1984. After field testing, this draft was revised in November 1984 and published in July 1985.

*Reactions to the Trainers' Manual:* A draft copy of the Manual (June 1984) was circulated to several agencies and individuals concerned with non-formal education in India and abroad.

Their comments were mostly appreciative :

- that the manner in which the participatory approach was used in developing the manual and in incorporating the process in the training itself is impressive.

- that it will be of great use to the trainers.
- that the support papers are extremely valuable, clear and informative.
- that it is a very practical manual with exercises that are effective, relevant and interesting.

Reactions from *project* officers (the trainers in the field) : Reactions of project officers elicited during a NFAE orientation programme held in August 1984 were as follows :

- \* It is novel, innovative and practical.
- \* It enables the animator to develop the skills required to carry out his role successfully.

*Field Testing' of the Trainers' Manual:* A residential training programme (from September 2 to 12, 1984) was organized to try out the 12-day model training programme suggested in the Trainers' Manual. There were 36 participants-32 animators, three supervisors and one project officer from the DNFE/AE project in Tiruchendur. The training was undertaken at Adai-kalapuram village, about 6 km from Tiruchendur town.

The Manual was field tested with a view to assess:

- (a) The feasibility of the model training programme proposed in the Trainers' Manual -whether the time allotted was adequate, whether it was relevant to the field situation and whether its contents were clear.
- (b) The extent of trainee participation in different sessions.

Details of the field test have been set out in a paper, a summary of which is presented below:

*Summary of results of field testing' of the Trainers\* Manual*

*Feasibility in terms of time:* The time taken for the 12-day programme exceeded the allotted time by only four hours. Yet, the sessions were conducted without keeping an eye on the clock. The extra time taken was spent largely on community analysis, as the following table indicating the differences between time allotted and time spent on seven important aspects of training shows.

Important aspects of training	Time allotted		Time spent	
	hrs	mts	hrs	mts
Self and group analysis	9	15	10	45
Community analysis	9	45	13	40
Information input	10	45	10	45
Skill development	18	15	17	55
Becoming conscious of one's own learning (self evaluation)	9	20	10	45
Job perception	2	45	1	40
Miscellaneous activities	4	35	3	25
	64	40	68	55

*Clarity of exercises:* Generally, the tasks prescribed in the Training Manual exercises were clear: there were very few exceptions.

*Relevance of the exercises to the field situation:* The exercises seemed to be relevant to the field situation. This was borne out by the fact that the 36 participants took active part in the 12-day programme. They understood the materials prepared and used.

**Achievement of objectives\*:** The objectives of the first four stages of the training model were achieved. This was revealed by the trainees themselves.

The objective of the fifth and final stage — to help animators design a work plan for a 10-month NFAE programme — was not attained. Animators were not able to design the plan.

**The revised version of the Trainers' Manual:** Many suggestions to improve the Trainers' Manual came up during field testing. They are:

- helping animators develop the ability to design programmes by introducing the component of planning throughout the training.
- improving animators' understanding of the process of communication (especially two-way communication) and the factors that affect it.
- providing more information in the Manual in the form of support papers to develop certain important skills relating to group discussions, role plays, source book preparation and literacy aids.
- increasing awareness of the process of group work and improving understanding of its advantages.
- improving understanding of the importance of values in behaviour.
- improving the clarity of some of the exercises—for example, those on job perception, community, poverty, the educational system and literacy aids.

Exercises to strengthen these requirements were incorporated in a revised version of the Trainers' Manual.

*Translation of the Trainers' Manual:* The Tamil translation of the draft Manual was ready by September 1984 and the revised Manual by February 1985.

*Period of development:* The whole effort of developing and revising the Manual took 11 months— from March 1984 to February 1985.

## 2.8 Printing of the curriculum package

On a request from BOBP in March 1984, the Directorate of Non-Formal/Adult Education agreed to print the curriculum package in Tamil. The Literacy Primer, the Workbook, the Numeracy Primer, the Animators' Edition of the Numeracy Primer and four Supplementary Readers have been printed. The remaining 34 Supplementary Readers have yet to be printed. The Trainers' Manual and Animators' Guide were printed in English by BOBP in July 1985. Tamil versions of these two publications are being processed for printing by the Directorate of Non-Formal/Adult Education.

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\* The objectives of the five stages of the model training programme (see Trainers' Manual, BOBP/MAG/1) :

1. Understanding oneself and others in a group
2. Understanding the community
3. Understanding the present education system and its relevance
4. Practising the role of the animator
5. Designing the work plan for the NFAE centre.

### **3. EXPERIENCES WITH TRAINERS IN NFAE -POINTERS FOR FUTURE PLANNING**

Evolving a tool to operationalize the concept of non-formal adult education is part of the effort to improve the quality of adult education programmes. The process of 'tool development' does take field situations into account; but it is additionally necessary to understand the needs of trainers who have to adopt a process-oriented participatory approach as opposed to the information-oriented approach which characterizes formal education. Special efforts were made towards this end. They are described below.

#### **3.1 Orientation for trainers of animators on the NFAE approach**

A three-day orientation programme was held from 14th to 16th August 1984 at Mahabalipuram near Madras city. There were 15 participants: 11 project officers from the Directorate of Non-Formal/Adult Education, Tamil Nadu (whose main responsibility is to train animators) ; two extension personnel from the Directorate of Fisheries; and two project officers from non-governmental organizations (NGOs) who had had some experience in training animators.

The programme's objectives were to help the trainers critically analyze the training they had conducted in the recent past and acquaint themselves with the new approach.

The orientation programme gave the BOBP important pointers on the needs of the trainers.

1. Though the participants themselves expressed strong views about the inefficacy of the formal approach to education, they resisted the non-formal approach of the orientation programme, which was process-oriented rather than information-oriented.
  - The trainers wanted a specific schedule for the three-day programme and appeared lost without it. BOBP's approach to the programme was: 'We are meeting as equals to discuss NFAE. We are not lecturers passing on information. . .'
  - The trainers wanted the organizers to judge their (the trainers') performances during the orientation as "right" or "wrong" rather than make an assessment themselves.
  - When the organizers tried to discuss the NFAE concept through charts, the trainers responded enthusiastically. They were happy with this information-oriented mode of presentation and eagerly copied the charts.
  - During the orientation programme, the trainers were asked to make collages that described their idea of NFAE. They also played a word game, for which they were asked to think of objects or concepts associated with the word 'education'. The trainers regarded these two exercises as additional teaching tools they had learned, rather than as methods towards recognizing their own potential.
  - When given opportunities for self-reflection during the orientation programme, the participants showed difficulty in recognizing and clarifying their own thoughts and feelings.
  - The ideas expressed through the collages showed that the trainers understood the tools of NFAE better than its ideology.
2. The usual training programme for animators appeared to stress 'content' rather than 'approach'. To illustrate :
  - As many as 42 hours in a standard 65-hour NFAE programme in Tamil Nadu were devoted to lectures.
  - The standard training programmes conducted by the trainers stressed government

schemes and lectures by government officials. The need for two-way communication, the need to instil a critical attitude in the animators towards judging the community's needs, and to help them evaluate how best government schemes could meet these needs, was not considered.

- When asked how the training could be improved, the trainers suggested more and more information components, rather than critically examine the approach to the training. They emphasized the “what” (or content of the programme) rather than the “how” (its method or approach) -just as the formal system of education does.
- While the trainers were able to define NFAE quite well, they resisted the process-oriented approach. In mentioning their problems, the trainers talked about the large number of animators they had to handle and the rigid rules of the system, rather than on their own handicaps and how to overcome them.
- The trainers tended to compartmentalize their training programme, breaking it down into components like aid preparation, assignments, practical work and lectures. Their approach was similar to that of the information-oriented formal education system. An integrated approach to learning, necessary for NFAE, was lacking.
- The trainers seemed to believe strongly in vocational skill training as a solution for various problems encountered among NFAE target groups (such as low income, poor health, social discrimination and so on). There was no appreciation of the limitations of available vocational skill training, which are of little use unless the skills imparted are marketable and viable.

The orientation programme gave the NFAE trainers an insight into the NFAE approach. This was indicated by their positive comments on their experiences in getting to know others, and by the interest and enthusiasm they displayed during the collage-making exercise. It was also demonstrated by their readiness to take part in various exercises, some of which are normally intended for animators.

However, the time they spent on the orientation programme was too limited for them to come to grips with the NFAE approach. Obviously, *trainers need extensive exposure to the process-oriented approach for them to help trainees.*

### 3.2 Training of animators conducted by Rural Development Seva Centre (RDSC)

It was believed that the training model suggested in the Trainers' Manual should be tested by trainers who were not involved in the preparation of the manual. A voluntary agency in Tamil Nadu, Rural Development Seva Centre (RDSC), which conducts adult education programmes in agricultural villages, came forward to organize a 12-day programme in the Mahatma Gandhi Gramam near Malaiyur, North Arcot district. Thirty women animators from 30 villages of Vandavasi Taluk in North Arcot district participated in the training programme, held September 5-16, 1984 with BOBP funding.

A sociologist, two consultants and a documentalist, all from BOBP, attended the training programme for one day on September 16, 1984. A detailed report on the 12-day programme was given to BOBP by the agency.

The purpose was:

- \* to give BOBP some idea about how the RDSC used the training model; and
- \* to understand the needs of the trainers in using the participatory approach.

#### Analysis of the RDSC Training Programme

RDSC's report was analyzed, keeping in mind the objectives of the NFAE programme. The analysis was conducted in terms of the seven important aspects of the training programme referred to in Section 2.7. (See table on p. 22.)



*I. Self and group analysis:* The RDSC held nine sessions, as recommended by the Trainers' Manual, for developing an understanding of oneself and of others in a group.

The RDSC training report shows that the sessions on 'Introducing oneself,' 'Getting to know one another,' 'Sharing anxieties and expectations' and 'Working in a group' were received well.

The report reveals that the session on 'Understanding oneself and others' emphasized role play as a method rather than helping the trainees to understand their own attitudes and behaviour.

The session on 'Understanding values and their role in behaviour' and the exercise given in the Manual (on Muniamma's plight) was replaced by a movie 'Punnagai' which stressed the value of being truthful and principled. The film stressed abstract ideals rather than helping to recognize or identify one's own values-the latter is a key element in the NFAE approach.

The report of the session on 'Looking at one's idea of health' showed that the trainees appeared reluctant to discuss their own health. Every trainee described her health as good. This was in contrast to their conception of the general health of the village community, which they believed was bad.

The RDSC's report on the last day's session on 'Identifying one's own strengths and weaknesses', reveals that the trainees were asked to identify only one strength and one weakness common to all of them rather than flesh out their various individual strengths and weaknesses.

*II. Community analysis:* A total of eight sessions-again, as recommended in the Trainers' Manual -were held to help the trainees analyze the community at the village and the national level.

For the exercise on 'Perceiving one's own village community', the trainees were asked to identify what they perceived as the village community's problems. Some of the problems they cited reflected their own feelings and prejudices. Some examples:

- \* There is too much unproductive gossip.
- \* Villagers do not grasp the many opportunities open to them.
- \* Superstitions abound.
- \* Religion influences all decisions of the community.

The trainees should have been made to examine whether these problems really exist in villages or only in their minds,

The report of the session on 'Understanding the village community with its problems' reveals that the method of role play suggested in the model was changed to a discussion. While the trainees identified many problems with village communities, they did not seem to be able to explain why these were regarded as problems.

The report of another session, 'Understanding the interrelatedness of the community's problems,' reveals that the method of role play was used instead of a collage or model as suggested in the Manual. From the report, it appears as if the presentation of problems and their solutions were too simplistic, as they are in movies. The trainees appear to have been unable to relate one problem to another and thus grasp the complexity of the problems.

The trainees described the conditions of health in the village in another session. However, no visit to the village was made as was suggested in the Trainers' Manual.

The session on 'Understanding the magnitude of health problems' was conducted, but the discussion following the paper was not described in the report.

The session on 'Identifying and understanding common local problems and their preventive measures' was conducted using available resources: the RDSC's visiting medical doctor and printed materials.

The session on 'Understanding poverty' was conducted by reading and discussing the paper given. The trainees expressed chagrin at the exploitative situation described in the paper.

The trainees were introduced to Gandhian economics. But there was no discussion on this subject.

The session on 'Understanding the present system of education' was conducted by reading and discussing the paper given. The report said the trainees understood that the system did not cater to the majority. But the solution they offered to achieve the goal of universalizing primary education — namely, free boarding and lodging to all — was too simplistic.

III. Information inputs: The Manual provides for 11 sessions on information inputs but the RDSC trainers conducted only three. They were 'Learning various sources of information', 'Understanding one's idea of education' and 'Focusing attention on education'.

The first is an exercise to help trainees cite various sources of information. The other two allowed the trainees to air their views on education. But the other sessions in the category of 'Information inputs' were not conducted by the RDSC, perhaps because these sessions formed a part of their normal training programmes. The following sessions were not conducted :

- \* Understanding the features of a good group discussion;
- \* Getting introduced to the Animators' Guide; Basic assumptions of the curriculum and its approach (with reference to Animators' Guide) ;
- \* Understanding the need for literacy and numeracy;
- \* Getting introduced to the Literacy Primer;
- \* Getting introduced to the Numeracy Primer;
- \* Understanding the need for numeracy.

IV. **Skill development:** There were 11 sessions devoted to skill development in the Trainers' Manual, but RDSC trainers conducted only five.

Two exercises were conducted on 'Understanding the communication process' and one on 'Relaying the message'. This latter exercise was meant to underscore the factors behind the communication process. However, the RDSC report shows that the trainees came to the wrong conclusion that written communication is superior to oral communication.

Two exercises are contained in the Manual in the session on 'Discussing in a group'. The RDSC trainers conducted only one—that on the 'Status of women'— in their training programme. The object of this session was to develop discussion skills amongst the trainees. However, the RDSC report shows that their training stressed the content of the exercise rather than the method of conducting discussions.

The session on 'Collecting and organizing information' was spent in preparing some aids, posters and charts for use in the adult education centres, rather than develop relevant skills to collect and organize information.

The other sessions in the 'Skill development' category that were conducted by RDSC trainers were :

- + Practising lessons in the Animators\* Guide
- \* Demonstrating a literacy lesson from the Primer.

Those that were not conducted were:

- \* Discussing in a group
- \* Role-playing the problem of dowry
- \* Preparing the literacy aids
- \* Preparing to demonstrate teaching a numeracy lesson
- \* Demonstrating a numeracy lesson
- \* Examining the NFAE programme plans.

The reasons for leaving out these sessions were not known.

V. *Becoming conscious of the learning:* The Manual contains three kinds of sessions to be conducted under this category. They are:

- (a) *Daily reporting:* The Manual suggested that this session be held at the beginning of each day of the training programme in order to review what was learnt on the previous day. Although the RDSC conducted these sessions, the full details of the ensuing discussions are not contained in their report. Hence it is not possible to evaluate the success of these sessions.
- (b) *Reflecting on the day's learning:* The Manual suggested that these sessions be conducted every day, but RDSC trainers held them only on two occasions in their training programme. These sessions were not given the importance that was due to them.
- (c) *Evaluating the programme:* The Manual provides for one session to be carried out at the end of the training programme. The manner in which the RDSC conducted this session did not allow the trainees to evaluate their own development in a detailed fashion.

The RDSC also conducted one session on self-evaluation which was not contained in the manual. No details of this session were contained in its report, nor was the purpose of conducting this session clear.

VI. *Job perception:* The Manual recommends three exercises be conducted at different points in the training programme under this session. They are intended to clarify the animators' roles in NFAE centres.

- \* At the beginning of the training programme, each animator-trainee is asked to write a letter describing his or her job to a friend.
- \* In the middle of the training programme, they are made to write out an application for the job of animator in response to an advertisement.
- \* At the end of the training programme, they are asked to design a 10-month adult education programme.

The job perception exercises were not given much importance by the RDSC. The first exercise was conducted, but results have not been reported. The second exercise was not carried out; no details are given with respect to the third. The RDSC trainers said these exercises were not conducted because there was no time.

VII. *Miscellaneous activities:* The exercises under this category include games for relaxation and those that deal with the conclusion of the programme. The RDSC trainers said they conducted games every day and that these had the intended effect of relaxing and improving the concentration of the trainees.

*Training needs of trainers:* An analysis of the RDSC's training programme reveals the following :

1. The importance of the sessions on self and group analysis was recognized by RDSC. But the trainers may or may not have analyzed the exercises, as they apparently did not give the importance necessary to tasks that require coming face to face with one's own attitudes and values.
2. Although eight sessions were held on community analysis, the trainers apparently found it difficult to help the trainees analyze their own responses. Although the animators got opportunities to express their ideas on the village community and its problems, they did not question the validity of the ideas expressed in such a way that they could come to grips with the real problems.
3. The sessions intended to develop an appreciation of such curriculum components as the Animators' Guide, Literacy and Numeracy Primers etc., were not conducted. Likewise, a number of sessions on skill development were not conducted. It is possible that these sessions were conducted in the standard RDSC training programme.

4. The built-in evaluation component for helping the trainees was not fully utilized by the trainers.
5. The training on job perception, considered an important component in the Manual, was almost lost sight of.

The above analysis of the RDSC training programme highlights the need for a training programme for trainers that helps the trainees to systematize and analyze their experiences.

### 3.3 In-service training of animators

Training of animators is considered to be a continuous need, at least in the first year of a NFAE programme. The Trainers' Manual recognized three types of training needs — pre-service, in-service and field support. The BOBP organized an in-service training programme for animators for two days in Veerapandianpatnam, Tiruchendur taluk, at the end of January 1985, as a follow-up to the pre-service training conducted in September 1984. The in-service training was undertaken in order to understand how animators could provide the inputs necessary to enhance their own skills. The in-service training was conducted by the same team which organized the pre-service training.

*In-service and field support inputs required:* The team which visited Veerapandianpatnam to provide in-service training found that the pre-service training had instilled confidence in the animators and ensured good rapport between them and the fisherfolk. The team felt that in-service training and field support were essential to sustain their confidence and improve their skills further.

This could be ensured by:

- \* helping the animator-trainees understand the educational process by analyzing the experiences of the learners and also that of themselves.
- \* helping the animators understand their attitudes and values and relate these to the results attained at the centre.
- \* developing skills in handling different participatory methods such as role plays, discussions, organizing functions etc.
- \* helping them understand the implications of activities introduced among learners.
- + helping them understand the necessity for planning the programme and developing skills in planning it.

*Conclusions:* The team felt that the following conditions must be satisfied if the participatory approach was to be successful.

- \* The trainers and the animators should *share* the basic assumptions of non-formal education outlined in the manual.
- \* Only animators who are motivated should be selected.
- \* Continuous field support and in-service inputs should be ensured throughout the period. This means that the supervisors should be given pre-service and in-service training as well as field support for some specific period.
- \* Constant reflection during the process of training is a must.

#### 4. FUTURE OF THE NFAE PROJECT

The future of the NFAE project depends on whether its curriculum package can be used in adult education programmes in coastal villages and in other contexts where it is relevant. Some of the possibilities for its use are:

- \* in NFAE programmes in coastal Tamil Nadu conducted by the Directorate of Non-Formal/Adult Education in collaboration with the Directorate of Fisheries;
- \* by adapting it for use in other coastal areas;
- \* by adapting it for use in other backward areas.

*Implementing NFAE programmes in coastal Tamil Nadu:* Efforts at creating a climate for implementing NFAE programmes in coastal villages in Tamil Nadu had begun by developing a curriculum package. The Directorate of Fisheries, the Directorate of Non-Formal/Adult Education and voluntary agencies had helped develop the package. Specific efforts at initiating implementation included :

- \* A meeting of high-level officials on the feasibility of implementing the curriculum developed by BOBP for Tamil Nadu
- \* A dialogue on the relevance and scope of BOBP's NFAE experience in Tamil Nadu.

Meeting of high-level officials on the feasibility of implementing a non-formal education programme in Tamil Nadu (November 7, 1983).

The meeting was attended by the Director and Deputy Director of Fisheries, a technical officer from the Directorate of Non-Formal/Adult Education, a representative of the adult education evaluation cell of the MIDS (Madras Institute of Development Studies), a Professor from NCERT and a Senior Development Adviser and Sociologist from the BOBP. The minutes of the meeting were recorded and circulated.

The decisions made during the meeting were:

- \* The Directorates of Fisheries and Non-Formal/Adult Education will work in close collaboration in implementing the NFAE programme. Practical problems arising during the implementation will be met by the Directorates through proper procedures.
- \* The NFAE activity and fisheries extension work will be closely linked. In the initial stages, it will be closely linked with the Fisherwomen's Extension Service.
- \* The NFAE programme will be implemented in a phased manner to cover all the coastal villages in eight districts in four to five years.
- \* Decisions taken at higher levels should percolate to lower levels.
- \* The DAEOs (district adult education officers) and the Assistant Director of Fisheries should collaborate at the district level. Supervisors and animators should collaborate with inspectors of fisheries at the block and village levels.
- \* The Directorate of NF/AE will provide funds for the NFAE project centres in the villages.
- \* The Directorate of Fisheries will support the programme by identifying and recruiting animators; by assigning sub-inspectors of fisheries to perform the role of supervisors at the village level; by developing an audio-visual programme to cover the coastal villages.

**Dialogue on the Relevance and Scope of BOBP's NFAE  
Experiences in Tamil Nadu, Madras (March 13-14, 1985)**

This dialogue was organized by BOBP and attended by adult education and fisheries officials from the Government of India and the State Governments of Tamil Nadu, Andhra Pradesh and Orissa, representatives from non-government organizations, universities, representatives of the funding agency DANIDA and organizers and representatives from BOBP.

Some of the points made:

- \* The curriculum package approach is effective in raising awareness and organizing people for development. Training and reflection are important components of the programme.
- \* The Director of NF/AE, Tamil Nadu, outlined his organization's contribution to the development of the curriculum package. This included participation in workshops, providing support while the package was field-tested, undertaking to print the curriculum package in Tamil and planning for adult education projects in coastal Tamil Nadu. According to him, the Directorate is capable of providing a well-knit infrastructure of adult education centres all along the Tamil Nadu coast. He suggested that the Department of Fisheries could cooperate in identifying learners, providing expertise and information on development schemes.
- \* The Joint Director of Fisheries, Tamil Nadu, expressed interest in methods that would help people participate in his department's development programmes.
- \* The Director in the Directorate of Adult Education, Government of India, said the curriculum package could be implemented as it is for Tamil Nadu fisherfolk and adapted for use in other states.
- \* Interest in adapting the curriculum package for use in their own States was expressed by fisheries and educational officers from Orissa and Andhra Pradesh.
- \* The educational component of programmes of radical activist groups can be strengthened by adapting the BOBP curriculum package to suit their needs. The process of adaptation may give rise to interesting innovations.
- \* It was felt that university students engaged in community work could use the curriculum package profitably.
- \* The BOBP's curriculum package could help sharpen the methodology of training and evaluation in formal education.

The representative from the funding agency DANIDA expressed interest in project implementation in Tamil Nadu and in providing additional funds to strengthen the training component in present adult education projects. Both possibilities were suggested in BOBP's project proposal, outlined below.

***Proposal for implementing the NFAE programme in Tamil Nadu***

A draft proposal for implementing NFAE in coastal Tamil Nadu was placed by BOBP before the participants. The idea of a facilitating team to strengthen the training component in existing government-run adult education projects was welcomed. Several suggestions were made to improve the draft proposal. These were incorporated before presenting it to DANIDA for additional funds. A copy of the revised proposal is contained in Appendix 3.

***proposal for adapting the NFAE curriculum package for other coastal states***

This proposal was prepared because the Norwegian funding agency NORAD had shown interest in the possibility of adapting the package to suit the needs of coastal Orissa. This proposal was placed before the participants; excerpts are found in Appendix 3b.

## 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-

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\* 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.

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\* 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

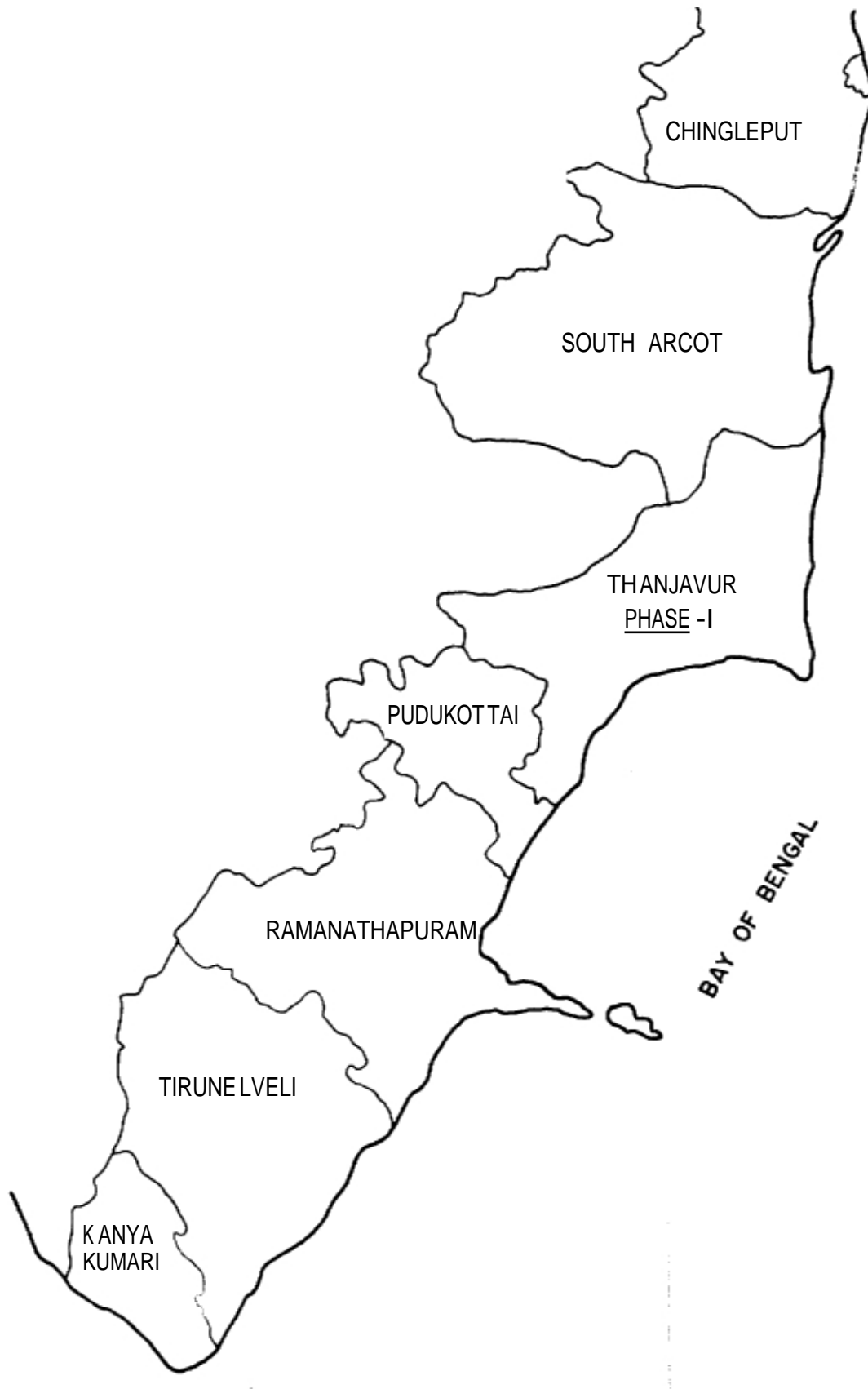
The material was developed on the basis of surveys and investigations on different aspects of fishing communities and the content reflects the way of life of fisherfolk. It was field-tested on a small scale with positive results.

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*

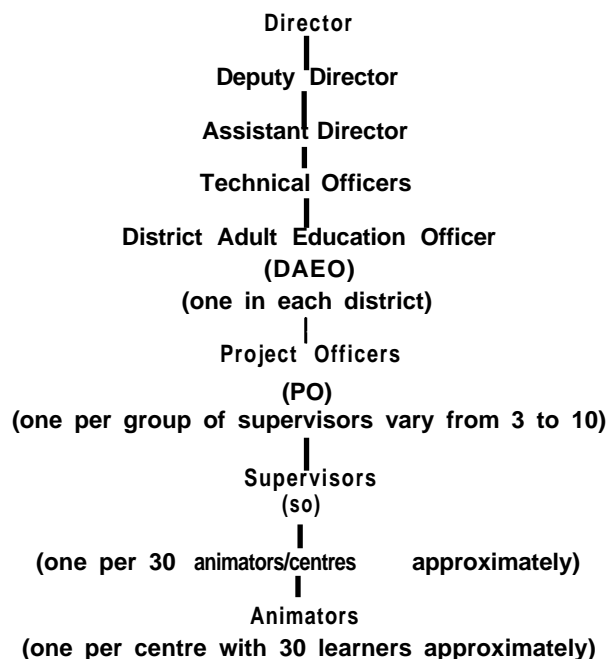
The Directorate of Non-formal and Adult Education (DNF/AE), Government of Tamil Nadu, is implementing adult education programmes. They have projects financed by both the Central Government and State Government. The Government of India scheme is called the Rural Functional Literacy Programme (RFLP) at 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.

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\* 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"> <li>* 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</li> <li>* self reliant and cooperative through acquiring skills in               <ul style="list-style-type: none"> <li>— discussing and analysing their own problems and</li> <li>— taking decisions collectively towards solving their problems.</li> </ul> </li> </ul>



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"> <li>* have a better understanding of community and its problems</li> <li>* be skilled in discussion methods involving the learners; in using various techniques to involve learners in problem analysis and problem solving in a group</li> <li>* be confident in their own abilities</li> <li>* be more resourceful and help people to become more resourceful</li> <li>* have belief in people's potential</li> <li>* have belief that learning is a shared experience</li> </ul>
— 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"> <li>* acquire all skills that the animator requires</li> <li>* be able to transfer the skills acquired through training.</li> </ul>

### ***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.



## *Publications of the Bay of Bengal Programme (BOBP)*

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The BOBP brings out six types of publications:

Reports (BOBP/REP/. . . ) describe and analyze completed activities such as seminars, annual meetings of BOBP's Advisory Committee, and projects in member-countries for which BOBP inputs have ended.

Working Papers (BOBP/WP/. . . ) are progress reports that discuss the findings of ongoing BOBP work.

Manuals and Guides (BOBP/MAG/. . . ) are instructional documents for specific audiences.

Miscellaneous Papers (BOBP/MIS/. . . ) concern work not originated by BOBP staff or consultants — but which is relevant to the Programme's objectives.

Information Document (BOBP/INF . . . ) are bibliographies and descriptive documents on the fisheries of member-countries in the region.

Newsletters (Bay of Bengal News), issued quarterly, contain illustrated articles and features in non-technical style on BOBP work and related subjects.

A list of publications follows.

### **Reports (BOBP/REP/. . . )**

1. Report of the First Meeting of the Advisory Committee. Colombo, Sri Lanka, 28-29 October 1976. (Published as Appendix 1 of IOFC/DEV/78/44.1, FAO, Rome, 1978)
2. Report of the Second Meeting of the Advisory *Committee*. Madras, India, 29-30 June 1977. (Published as Appendix 2 of IOFC/DEV/78/44.1, FAO, Rome, 1978)
3. Report of the Third Meeting of the Advisory Committee. Chittagong, Bangladesh, 1-10 November 1978. Colombo, Sri Lanka, 1978. (Reissued Madras, India, September 1980)
4. Role of Women in Small-Scale Fisheries of the Bay of Bengal. Madras, India, October 1980.
5. Report of the Workshop on Social Feasibility in Small-Scale Fisheries Development. Madras, India, 3-8 September 1979. Madras, India, April 1980.
6. Report of the Workshop on Extension Service Requirements in Small-Scale Fisheries. Colombo, Sri Lanka, 8-12 October 1979. Madras, India, June 1980.
7. Report of the Fourth Meeting of the Advisory Committee. Phuket, Thailand, 27-30 November 1979. Madras, India, February 1980.
8. Pre-Feasibility Study of a Floating Fish Receiving and Distribution Unit for Dubla Char, Bangladesh. G. Eddie, M. T. Nathan. Madras, India, April 1980.
9. Report of the Training Course for Fish Marketing Personnel of Tamil Nadu. Madras, India, 3-14 December 1979. Madras, India, September 1980.
- 10.1 Report of the Consultation on Stock Assessment for Small-Scale Fisheries in the Bay of Bengal. Chittagong, Bangladesh, 16-21 June 1980. Volume 1: Proceedings. Madras, India, September 1980.
- 10.2 Report of the Consultation on Stock Assessment for Small-Scale Fisheries in the Bay of Bengal. Chittagong, Bangladesh, 16-21 June 1980. Volume 2: Papers. Madras, India, October 1980.
11. Report of the Fifth Meeting of the Advisory Committee. Penang, Malaysia, 4-7 November 1980. Madras, India, January 1981.
12. Report of the Training Course for Fish Marketing Personnel of Andhra Pradesh. Hyderabad, India, 1-26 November 1980. Madras, India, September 1981.
13. Report of the Sixth Meeting of the Advisory Committee. Colombo, Sri Lanka, 1-5 December 1981. Madras, India, February 1982.
14. Report of the First Phase of the "Aquaculture Demonstration for Small-Scale Fisheries Development Project" in Phang Nga Province, Thailand. Madras, India, March 1982.
15. Report of the Consultation-cum-Workshop on Development of Activities for Improvement of Coastal Fishing Families. Dacca, Bangladesh, October 27-November 6, 1981. Madras, India, May 1982.
16. Report of the Seventh Meeting of the Advisory Committee. New Delhi, India, January 17-21, 1983. Madras, India, March 1983.
17. Report of Investigations to Improve the Kattumaram of India's East Coast. Madras, India, July 1984.
18. Motorization of Country Craft, Bangladesh. Madras, India, July 1984.
19. Report of the Eighth Meeting of the Advisory Committee. Dhaka, Bangladesh, January 16-19, 1984. Madras, India, May 1984.

20. Coastal Aquaculture Project for Shrimp and Finfish in Ban Merbok, Kedah, Malaysia. Madras, India, December 1984.
21. Income-Earning Activities for Women from Fishing Communities in Sri Lanka. Edeltraud Drewes. Madras, India, September 1985.
22. Report of the Ninth Meeting of the Advisory Committee. Bangkok, Thailand, February 25-26, 1985. Madras, India, May 1985.
23. Summary Report of BOBP Fishing Trials and Demersal Resources Studies in Sri Lanka. Madras, India, March 1986.
24. Fisherwomen's Activities in Bangladesh: A Participatory Approach to Development. Patchanee Natpracha. Madras, India, May 1986.
25. Attempts to Stimulate Development Activities in Fishing Communities of Adirampattinam, India. Madras, India, May 1986.
26. Report of the Tenth Meeting of the Advisory Committee. Male, Maldives. 17-18 February 1986. Madras, India, April 1986.
27. Activating Fishcrwomen for Development through Trained Link Workers in Tamil Nadu, India. Edeltraud Drewes. Madras, India, May 1986.
28. Small-Scale Aquaculture Development Project in South Thailand: Results and Impact. E. Drewes. Madras, India, May 1986.
29. Towards Shared Learning: An Approach to Non-formal Adult Education for Marine Fisherfolk of Tamil Nadu, India. L. S. Saraswathi and Patchance Natpracha. Madras, India, July 1986.
30. Summary Report of Fishing Trials with Large-Mesh Driftnets in Bangladesh. Madras, India, May 1986.

#### Working Papers (BOEP/ WP/ . . . . )

1. Investment Reduction and Increase in Service Life of Kattumaram Logs. R. Balan. Madras, India, February 1980.
2. Inventory of Kattumarams and their Fishing Gear in Andhra Pradesh and Tamil Nadu. T. R. Menon. Madras, India, October 1980.
3. Improvement of Large-Mesh Driftnets for Small-Scale Fisheries in Sri Lanka. G. Pajot. Madras, India, June 1980.
4. Inboard Motorisation of Small G.R.P. Boats in Sri Lanka. Madras, India, September 1980.
5. Improvement of Large-Mesh Driftnets for Small-Scale Fisheries in Bangladesh. G. Pajot, Madras, India, September 1980.
6. Fishing Trials with Bottom-Set Longlines in Sri Lanka. G. Pajot, K. T. Weerasooriya. Madras, India, September 1980.
7. Technical Trials of Beachcraft Prototypes in India. O. Gulbrandsen, G. P. Gowing, R. Ravikumar. Madras, India, October 1980.
8. Current Knowledge of Fisheries Resources in the Shelf Area of the Bay of Bengal. B. T. Antony Raja. Madras, India, September 1980.
9. Boatbuilding Materials for Small-Scale Fisheries in India. Madras, India, October 1980.
10. Fishing Trials with High-Opening Bottom Trawls in Tamil Nadu, India. G. Pajot, John Crockett. Madras, India, October 1980.
11. The Possibilities for Technical Cooperation between Developing Countries (TCDC) in Fisheries. E. H. Nichols. Madras, India, August 1981.
12. Trials in Bangladesh of Large-Mesh Driftnets of Light Construction. G. Pajot, T. K. Das. Madras, India, October 1981.
13. Trials of Two-Boat Bottom Trawling in Bangladesh. G. Pajot, J. Crockett. Madras, India, October 1982.
14. Three Fishing Villages in Tamil Nadu. Edeltraud Drewes. Madras, India, February 1982.
15. Pilot Survey of Driftnet Fisheries in Bangladesh. M. Bergstrom. Madras, India, May 1982.
16. Further Trials with Bottom Longlines in Sri Lanka. Madras, India, July 1982.
17. Exploration of the Possibilities of Coastal Aquaculture Development in Andhra Pradesh. Soleh Samsi, Sihar Siregar and Martono. Madras, India, September 1982.
18. Review of Brackishwater Aquaculture Development in Tamil Nadu. Kasemsant Chalayondeja and Anant Saraya. Madras, India, August 1982.
19. Coastal Village Development in Four Fishing Communities of Adirampattinam, Tamil Nadu, India. F. W. Blase. Madras, India, December 1982.
20. Further Trials of Mechanized Trawling for Food Fish in Tamil Nadu. G. Pajot, J. Crockett, S. Pandurangan, P. V. Ramamoorthy. Madras, India, December 1982.

21. Improved Deck Machinery and Layout for Small Coastal Trawlers. G. Pajot, J. Crockett, S. Pandurangan and P. V. Ramamoorthy. Madras, India, June 1983.
22. The Impact of Management Training on the Performance of Marketing Officers in State Fisheries Corporations. U. Tietze. Madras, India, June 1983.
23. Review of Experiences with and Present Knowledge about Fish Aggregating Devices. M. Bergstrom. Madras, India, November 1983.
24. Traditional Marine Fishing Craft and Gear of Orissa. P. Mohapatra. Madras, India, April 1986.
25. Fishing Craft Development in Kerala: Evaluation Report. O. Gulbrandsen. Madras, India, June 1984.
26. Commercial Evaluation of IND-13 Beachcraft at Uppada, India. R. Ravikumar. Madras, India, June 1984.
27. Reducing Fuel Costs of Fishing Boats. O. Gulbrandsen. Madras, India, July 1986.
28. Fishing Trials with Small-Mesh Driftnets in Bangladesh. G. Pajot and T. K. Das. Madras, India, March 1984.
29. Artisanal Marine Fisheries of Orissa: a Techno-Demographic Study. hf. H. Kalavathy and U Tietze. Madras, India, December 1984.
30. Mackerels in the Malacca Straits. Colombo, Sri Lanka, February 1985.
31. Tuna Fishery in the EEZs of India, Maldives and Sri Lanka. Colombo, Sri Lanka, February 1985.
32. Pen Culture of Shrimp in the Backwaters of Killai, Tamil Nadu: A Study of Techno-economic and Social Feasibility. Rathindra Nath Roy, Madras, India, January 1985.
33. Factors that Influence the Role and Status of Fisherwomen. Karuna Anbarasan. Madras, India, April 1985.
34. Pilot Survey of Set Bagnet Fisheries of Bangladesh. Abul Kashem. Madras, India, August 1985.
35. Pen Culture of Shrimp in the Backwaters of Killai, Tamil Nadu. M. Karim and S. Victor Chandra Bose. Madras, India, May 1985.
36. Marine Fishery Resources of the Bay of Bengal. K. Sivasubramaniam. Colombo, Sri Lanka, October 1985.
37. A Review of the Biology and Fisheries of *Hilsa* *ilisha* in the Upper Bay of Bengal. B. T. Antony Raja. Colombo, Sri Lanka, October 1985.
38. Credit for Fisherfolk: The Adirampattinam Experience. R. S. Anbarasan and Ossie Fernandez. Madras, India, March 1986.
39. The Organization of Fish Marketing in Madras Fishing Harbour. M. H. Kalavathy. Madras, India, September 1985.
40. Promotion of Bottom Set Longlining in Sri Lanka. K. T. Weerasooriya, S. S. C. Pieris, M. Fonseka. Madras, India, August 1985.
41. The Demersal Fisheries of Sri Lanka. K. Sivasubramaniam and R. Maldeniya. Madras, India, December 1985.
42. Fish Trap Trials in Sri Lanka. (Based on a report by T. Hammerman). Madras, India, January 1986.
43. Demonstration of Simple Hatchery Technology for Prawns in Sri Lanka. Madras, India, June 1986.
44. Pivoting Engine Installation for Beachlanding Boats. A. Overa, R. Ravikumar. Madras, India, June 1986.
45. Further Development of Beachlanding Craft in India and Sri Lanka. A. Overa, R. Ravikumar, O. Gulbrandsen, G. Gowing. Madras, India, July 1986.
46. Experimental Shrimp Farming in Ponds in Polekurru, Andhra Pradesh, India. J. A. J. Janssen, T. Radhakrishna Murthy, B. V. Raghavulu, V. Sreekrishna. Madras, India, July 1986.
47. Growth and Mortality of the Malaysian Cockle (*Anndura* *Crassoa*) under Commercial Culture: Analysis through Length-Frequency Data. Ng Fong Oon. Madras, India, July 1986.

*Manuals and Guides (BOBP/MAG/ . . .)*

1. Towards Shared Learning: Non-formal Adult Education for Marine Fisherfolk. Trainers' Manual. Madras, India, June 1985.
2. Towards Shared Learning: Non-formal Adult Education for Marine Fisherfolk. Animators' Guide. Madras, India, June 1985.
3. Fishery Statistics on the Microcomputer: A BASIC Version of Hasselblad's NORMSEP Program. D. Pauly, N. David, J. Hertel-Wulff. Madras, India, June 1986.

*Miscellaneous Papers (BOBP/MIS/ . . .)*

1. Fishermen's Cooperatives in Kerala: A Critique. John Kurien. Madras, India, October 1980.

2. Consultation on Social Feasibility of Coastal Aquaculture.  
Madras, India, 26 November-1 December 1984. Madras, India, November 1985.

*Information Documents (BOBP/INF/. . )*

1. Women and Rural Development in the Bay of Bengal Region: Information Sources.  
Madras, India, February 1982.
2. Fish Aggregation Devices: Information Sources. Madras, India, February 1982.
3. Marine Small-Scale Fisheries of India: A General Description. Madras, India, March 1983.
4. Marine Small-Scale Fisheries of Andhra Pradesh: A General Description. Madras, India, June 1983.
5. Marine Small-Scale Fisheries of Tamil Nadu: A General Description. Madras, India, December 1983.
6. Marine Small-Scale Fisheries of Sri Lanka: A General Description. Madras, India, November 1984.
7. Marine Small-Scale Fisheries of Orissa: A General Description. Madras, India, December 1984.
8. Marine Small-Scale Fisheries of Bangladesh: A General Description. Madras, India, September 1985.
9. Food and Nutrition Status of Small-Scale Fisherfolk in India's East Coast States:  
A Desk Review and Resource Investigation. V. Bhavani. Madras, India, April 1986.

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