CONTINUITY AND CHANGE IN ARTISANAL FISHING COMMUNITIES

A Study of Socio–Economic Conditions of Artisanal Fishing Communities on the South–West Coast of India Following Motorisation of Fishing Crafts

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PREFACE

The 80s had been a period of great change in the artisanal fisheries sector of Kerala. The South Indian Federation of Fishermen Societies (SIFFS) and the Programme for Community Organisation (PCO), two non-governmental organisations based in Trivandrum, had each in their own way made a number of interventions in the artisanal sector through the people's organisations they work with. By the late 80s various new questions were thrown up regarding the future of the sector under the impact of the new changes. Answers were not easy to find and proceeding without a proper analysis of the situation was unscientific. Hence in October 1987, PCO, SIFFS and the Intermediate Technology Development Group (ITDG), U.K., that was associated with the technology inputs, decided to "monitor the health of the small scale fisheries sector with particular reference to the effect of motorisation in Kerala". Whereas it was clearly intended that this study should take into account the total changes in the sector - including the social, economic and technological aspects - it was initially modelled on the earlier study made by the PCO and the FAO on the "Economics of Artisanal and Mechanised Fisheries in Kerala"(1980).

Shortly before starting the study it was evident that it was rather exclusively techno-economic biased. It was felt that the framework and the infrastructure of personnel could not be effectively modified to accommodate socio-economic aspects and consequently it was decided that the overall study would be split up into two separate studies, one a techno-economic study and the other a socio-economic study.

To lead the socio-economic study team and to bring out the study report, Nalini Nayak, who has been working for over two decades with fishworkers in Kerala was requested to take up the responsibility. Assisted by two young research associates R.Beena and A.Sabitha, Nalini undertook the study in 1989. The ITDG separately funded the study and also exposed the SIFFS-PCO study team to new research methodologies in social science through a training workshop conducted by Ms.Ruth Alsop who was working as a social scientist with ITDG at that time.

The data collection was completed in 1989 and the draft report was ready by end of 1990. After revisions it was released for limited circulation in June 1991. Encouraged by the interest shown by a number of persons in the study we have now printed the report. We hope this report helps in throwing more light on the complexities of the artisanal fisheries sector.

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This study was undertaken in 1989 with the financial assistance of the Intermediate Technology Development Group (ITDG), UK. The ITDG took a great deal of interest in the study and Ms.Ruth Alsop of ITDG in particular gave valuable suggestions for the conduct of the study. She provided inputs on tools for data collection and gave valuable suggestions on the design of the study. Unfortunately, Ms.Alsop left ITDG before the completion of the study. Ms.Cathy Watson, her successor, and Brian O'Riordan have also provided useful suggestions which helped in the completion of this work.

The data was collected and tabulated mainly by R.Beena and A.Sabitha, two young social science graduates. They undertook the work with a sense of responsibility and have certainly learnt a great deal in the process. Beena continued to assist us during the phase of report writing, rechecking the data and drafts, and thereby greatly facilitated this process.

Colleagues like John Kurien willingly helped with constructive comments and suggestions throughout the study. Sebastian Mathew, V.Vivekanandan and J.B. Rajan also studied the draft report and suggested changes.

All the computer analysis was done under the guidance of Satish Babu of SIFFS. C.R.Aravindan and P.K.Krishnan fed in the data and produced the printouts. Prema and Vijayalekshmi of the PCO patiently typed and retyped the initial drafts. The final editing was done by Keith Saldanha.

I would like to thank all these who made such a study possible. In particular, thanks are due to the fishworkers and local leaders who collaborated in all the villages where the study was undertaken. From them we were able to learn about their lives and problems and how they view the future. We also got valuable insights and understood the need to interact with fishworkers in other districts of Kerala. Our first priority is to feed the information generated by this study back to the fishworkers.

NALINI NAYAK

General Findings

The study reveals that the fishing sector is in a state of transition, influenced by socio-economic forces operating at the macro level. While they have created new pressures on the coastal economy for survival and further integrated it into the market economy, these forces have not led to a major transformation of it.

1. The Community

1.1 The forces influencing the community have been fishery dependent as well as fishery independent—the latter playing a more significant role in enhancing the general living conditions of the community. For example, the State has played an important role in providing infrastructure such as roads, water and electricity in the villages and in making available food rations. Health facilities and health practices have also improved. Even the number of latrines existing compare well with the State average. The adoption of outboard motors has certainly lessened the labour burden of the fishermen. But this technology has not been accessible to all.

1.2 The need for secure housing seems to be a high priority for the fisherfolk. Although State grants provided some support, the major part of the resources have been mobilised by individuals themselves. Security of land tenures facilitated these steps and only 18 per cent of the sample population still live on perumboke land.

1.3 In South Kerala the family is generally nuclear. The joint family which was predominant in North Kerala shows signs of gradual disintegration. This seems to be because of the changes in the ownership patterns which were earlier family-based. Now they have been replaced by larger units with small shares, making for new groupings and no longer necessitating use of the family's accumulated assets.

1.4 While the practice of family planning is spreading in the fishing communities, it is still mainly the women (except in Nattika) who go in for sterilisation. The age at marriage seems to continue to be low. The importance of dowries is increasing. In fact, it has become a practice even in communities like the *Arayas*, in which it didn't exist earlier.

1.5 The sex ratio in the fishing community is different from the State figure which shows more females to males. In the fishing community, in contrast, the number of males exceeds that of females. Enayam, on the other hand, shows an exceptionally large number of females to males.

2. Work Organisation and Financial Aspects

2.1 About 27 per cent of the households in the sample own no fishing equipment at all and fall into the category of "coolie". This includes the women-headed households in the sample. Around 19 per cent have craft that are not motorised. The remaining 54 per cent have become owners of motorised craft, either individually or in groups.

2.2 Motorisation has been encouraged by subsidies from the State. There has also been a great deal of private mobilisation of funds. The co-operatives organised by non-governmental

agencies have also helped finance motorised units as in Enayam. Collectivisation of fishing, both in ownership and in operation, a distinctly new phenomenon, is seen in Nattika. Reorganisation of work is observed specially in the areas where the ring seine has been introduced. This has to do with the division of labour according to the various skills required, like operating of the motor, indicating where the net should be lowered, mending the net, etc. All shareholders do not necessarily go out on a fishing trip but get their share for being present when the boat is launched. The process of collectivisation is therefore a means of ensuring that a larger number of people continue to be operative in fishing despite the substantial increase of investment in craft and gear. This would suggest that the artisanal sector cannot be said to have become capital-intensive, though larger investments are made.

2.3 It cannot be denied that indebtedness has been on the increase. With added investment in the sector just being able to keep the fishermen employed, no substantial surplus has been reaped. As a result, levels of indebtedness and borrowings for household expenditure still remain high. Dead investment is also considerable, as much of the old craft and gear lies unused.

2.4 Significantly, the new division of labour has not had an impact on the conventions regulating fishing, nor is there any real consciousness about the need for this. Earlier, in some areas at least, the community had some say in such regulations like the time for using certain nets and catching or not catching certain varieties of fish. Some of these conventions did have an ecological base, though most of them were meant to control fishing conflicts. However, only a few fishermen even remember these conventions today.

2.5 Unlike what happened when trawler fishing was introduced, the present changes in North Kerala have not attracted large numbers of non-worker investors. The *tharakans* (merchants-cum-money lenders) continue to play an important role by providing tied loans, which gives them the right to auction the catch, taking one crew-share as interest. This ensures that interest on loans does not increase when they remain unpaid. The principal amount has to be repaid if the fishermen desires to sell his catch through other means.

2.6 There is no real change in the borrowing patterns of the fisherfolk despite access to new institutional sources, such as banks. The local money-lenders still play an important part. Free loans are also high in the subsistence economy.

2.7 Fish auctions are increasingly conducted on a ready-cash basis. This has adversely affected the position of women in fish procurement, because they are unable to participate in auctions, when landings are large. This is the first step in the process of their marginalisation.

2.8 Fishing basically remains a traditional activity with no significant entry of labour from outside. Apparently, there is a shortage of labour in this area, despite under-employment, mainly because of the demand currently for more skilled labour.

2.9 Only 54 per cent of the total number of households surveyed fish for nine months or more in a year. This is more an outcome of problems in procuring engines and poor availability of fish than the lack of labour.

2.10 An awareness of the lack of other employment opportunities compels fishworkers to remain in this sector despite all odds. They have responded by demanding their rights for survival and by being innovative within the sector.

2.11 There is no major change in the migration patterns of the fishermen—the southern fishermen being the most accustomed to this. The motors generally facilitate travel to longer distances without forcing the fishermen to be away from home for long periods of time.

3. Women's Participation

3.1 Nearly 35 per cent of the women in the sample are engaged in remunerative work. Only the Muslim women in Parappanangadi as a rule remain at home.

3.2 Women believe they contribute about a third of the income of the household. In most areas, except Nattika and Parappanangadi, they also take the responsibility for raising loans to meet daily consumption needs.

3.3 Women feel that their participation in society has improved mainly because of their having greater freedom of movement. But they are otherwise still marginalised. The responsibility of securing water for the household and obtaining raw material for work fall on their shoulders as very little has happened to lighten the labour burdens of women. The introduction of transport facilities for women fish vendors in some areas has been the only intervention to lighten the labour of women and that too after persistent struggles on their part. In a decade when the expenditure on the productive tools of the men has increased a hundred fold, the absence of any such developments to facilitate the work of the women is striking. Although the working time for women does not seem to have increased, work itself is more strenuous and raw material more difficult to secure.

3.4 Demands for dowry mainly in the form of gold are on the increase. Little of the gold is however retained in the family. Most of it is sold or pawned when the need arises. The exchange of women then becomes a means to accumulate capital for survival (primitive accumulation).

3.5 Except in Anjengo, women's consciousness about their rights is generally low. In Kasba, which was a matrilineal community, women have less and less say in decision-making now as the men have begun to acquire ownership of the productive assets with the assistance of new government schemes. This is a typical case of how State programmes lead to dispossession of women, a process which needs to be further highlighted.

3.6 None of the existing institutions provide scope for the women to exert pressure for change. The only option appears to be for them to organize themselves on an autonomous basis, but there are few signs of this happening, except in Anjengo.

4. Social participation

4.1 Once fairly isolated from the mainstream socially, the fishing community now seems to show signs of becoming less marginalised. The influence of political parties and secular

institutions is on the increase. There is also a growing influence of the electronic media in the fishing villages.

4.2 Religion and religious festivals continue to play an important cohesive role, subsuming even an under–current of dissent. These events draw large numbers. In Nattika, the role of the temple or temple committee had totally declined in the past decade but began to revive when one per cent of the earnings from the ring seines were contributed to a festival fund. In Kasba, the temple plays a significant social role. In Enayam, the main institution for social interaction is the co-operative. While such institutions play an useful role in conflict resolution, their involvement in fisheries management issues is limited. Nevertheless, they could be used as platforms for social mobilisation.

4.3. The levels of people's consciousness vary greatly. Only an insignificant number participate actively in trade union activity. Most see their lives as ordained by God. However, consciousness does exist about resources and the need for selectivity in technology applied, constituting an area for future discussions. But at present, except in Anjengo, very few discussions on these lines seem to be taking place. Thus, organisations working among the fishworkers ought to focus on these issues.

5. Income-Expenditure Ratio

5.1. Consumption expenditure exceeds income for most workers. This suggests that these workers are in a permanent state of indebtedness. Only 12 per cent of the total sample have an income slightly higher than their expenditure. The borrowings are proportionately highest among workers who have purchased motors individually. The ring seine workers seem to break–even with minimal borrowings, but just at the level of subsistence. The coolie/fish vendor category of workers and the non-motorised group seem to be in a very precarious financial situation.

5.2. There are wide fluctuations in consumption expenditure every season, which indicates that income has a direct bearing on consumption.

5.3. Diets, for the most part, are made up of a variety of foods, including vegetables, animal protein, fat and starch. The major item consumed is rice. Here, too, there are differences in consumption between the rich and the poor in each area.

5.4. Regarding calorie intake, only Enayam reaches the basic standards of caloric requirements.

Conclusion

Despite all the changes that are taking place in the small-scale fisheries along the south-west coast of India, it remains essentially a labour-intensive sector. This suggests :

(i) That the artisanal fishing sector itself is of such a nature which does not promise a large surplus to capital invested; and

(ii) That the fisherfolk do not envisage earning their livelihood in any other sector.

A minority of fishworkers have been able to reap enough surplus to reinvest in more craft and gear and some of these have had the fortune of making good catches. These are the few who fall into the new category of the prospering motorised fishermen. But for the great majority, motorisation and the accompanying developments have just provided means for survival. They remain on the borderline being barely able to break–even or often falling into debt.

In reorganising their activities, the fisherfolk have tried to ensure that as many of them as possible should continue to find employment in the sector. This effort indicates a high level of consciousness, which must be acknowledged as a spontaneous development from within the sector itself leading to both collectivisation of capital and operations. The consciousness is probably a spillover of the "traditional" values of mutuality that still exist in communities which depend on natural resources for survival. Significant is the absence of consciousness to protect the resource base itself. Considering the fact that the fishworkers over the past decade have been on the warpath demanding a ban on trawl fishing, it is disturbing to observe that the question of resource base has not had an impact on their own area of activities. Limited exposure to the macro problems affecting the fishery may be a cause. There is need and scope for studying such interaction in the future. So far, the Fisheries Departments and the NGOs have failed to pursue such a dialogue with the fisherfolk.

The utter disregard for women and their labour in sustaining the economy is also striking. Considering that prices of fish have been very low in certain areas, efforts could and should be made to improve post-harvest technology in which women play an important role. Such technology exists, but no effort has been made to actually extend it to the villages for it to be assimilated in the day-to-day practices of the women.

Creating more local women's organisation to undertake supportive activity is another area which needs more effort.

While it is commendable that through organisations like Matsyafed, the State has tried to reach out to the people, such a process has not provided opportunity for initiative and participation of the people. The Matsyafed, as the main actor in the delivery system, suffers from all the limitations of a top heavy bureaucratic set-up. Unless ways and means for the participation of local peoples groups are found, the sector will suffer from a lack of creative and decentralised responses that alone can sustain it and keep up its productivity.

Recommendations

1.1 While there is great scope to improve the general infrastructure like roads, water supply, fair - price shops and health facilities, improved housing within the reach of poorer groups must receive added attention. Regularisation of house sites will also help in demarcating areas that should strictly be guarded for common activity like beaching of craft, post harvest work and recreation. Added child care facilities in local areas must also receive consideration.

1.2 General awareness raising in these communities should include questions like wasteful and exploitative dowry practices, stressing the unpaid value of women's contribution to the household.

2.1 With the growing differentiation in the community, a multiple pronged strategy should be envisaged while interacting with the sector. The motorised fishermen should be assisted to reap maximum benefit from the new investments and helped to understand when and how diminishing returns operate. The near shore areas should be protected for those who cannot venture further.

2.2 Efforts must be made to strengthen local institutions like the temple committee, the council of elders, etc. wherever they exist and even influence them to take a more active role in evaluating options that fisherfolk have at their disposal.

2.3 Serious efforts must be made by all the agencies interacting with the fishing community to stimulate local resource management practices. The local Kadal Kodathi(sea courts) should be encouraged to look into these areas. Providing them with information is an important task. Co-operatives, wherever they exist, should evolve some working strategies in management.

2.4 All new institutions created to market fish should consciously see that they do not displace women in the activity and that women are well integrated in the new systems.

3.1 Efforts should be made to extend the experimentation on post harvest technologies to the village itself. Infrastructure that women can use, in time of need, should be provided by institutions like Matsyafed.

3.2 Efforts to create more local women's organisations to undertake supportive activity is another area where efforts could be made. In this way the participation of women in ongoing decision making processes will be enhanced. Women should be included in local and other institutions.

3.3 Non fish related activity that women are engaged in, like coir and mat making, should also be encouraged and assisted. This will also help develop other income generating employment in fishing areas where the pressure on the fish resource has reached a limit.

4.1 The religious bent of mind among the fisherfolk should not be taken lightly or negated. Efforts should be made to demystify some of the religious conceptions of their interaction with nature while not destroying the unifying faith that sustains them as a community. The interdependencies, rather than individual growth, should be stressed.

5.1 With rising prices, curbing indebtedness will be a difficult task. Here, the role of the State to curb inflationary tendencies on the one hand, and the force of the people's movement to demand this from the State on the other hand, is imperative.

6.1 Institutions at the service of the sector should realise that no one "State Plan" which results in stereotyped development programmes should be attempted. While the creation of the Matsyafed as a State institution will have much to contribute in terms of coordination of inputs into the sector, programmes undertaken should be based on the needs and specificities of the local fishery and time and funds for experimentation should be provided.

Means and ways to sustain the fishery and those who continue to be dependent on it should therefore be creatively devised. A more comprehensive development policy has to evolve. This cannot be the task of any one agency or group of fishworkers. Efforts to encourage dialogue between various sections of fishworkers should be made. This alone may help to find the most viable ways of sustaining both the fishery and the fisherfolk.

Areas for further study

1. While at the all-Kerala level the number of females is higher than that of males, it is vice versa in the fishing community as per this study. This should be looked into further.

2. Dowry plays an increasingly important role in the fishing communities. Further studies regarding the source and use of this money and the consequences it has on the household and the economy should be undertaken.

3. The majority of the community appear to spend more money than it earns. What makes this possible ? Who are the real losers in the process ?

4. A deeper understanding of the role of religious institutions, practices and taboos in determining the world view of the fishworkers will help understand further how the community sustains itself.

5. Further research into the process of marginalisation of women should be undertaken. In Kasba, there is evidence that the State plays a role in the process of displacing women's control of productive assets. This research could help reconstruct women's historical role in the community.

Chapter I

Introduction

A study of the impact of motorisation on the artisanal fishing sector from the techno-economic point of view was proposed to be undertaken. But then it was felt that such a study would be incomplete unless the socio-economic impact of these changes was also examined. This would help to situate the adoption of new technologies in their historical context and to understand better the complexities created in the sector, by these changes.

Monitoring social impact is a complex task. Not only is quantification of such data difficult but the generalisations drawn may also not accurately account for the variations that exist in each area. Moreover, base line data on social parameters especially with regard to fishing villages, simply does not exist, creating more difficulties.

It was, therefore, decided to use the case study approach for this part of the study, i.e. the socio-economic conditions of the artisanal fishworkers. This approach would help capture the variations in each particular context and illustrate more clearly the different creative responses to the changing situation. The assumption is that in the period of transition following changes, people evolve survival strategies that rarely get documented or are understood. If these were examined, indications could be got on how to avoid the undesirable effects of development. While each case study may reveal a different reality, the methodology of study has been similar. It follows that some broad-based conclusions can be drawn, which may give a comprehensive understanding of what takes place at the State level.

It must be added that all social parameters have not been scrutinised equally. In the case of health and education only the existing situation has been recorded as this could be compared with State averages. An attempt has been made to probe the economic impact on the one hand and, people's organisational responses on the other. These two aspects are to be seen in the historical context not only of the fishworkers but of the State as a whole, at the macro level. All the changes in the fishing sector cannot be attributed merely to motorisation.

Objectives

This study has been undertaken mainly with the aim of providing feedback to the base on the wider implications and interlinkage of the changes taking place in their local areas. It aims to provide information about certain fishing communities and highlight areas where further educational inputs can help the communities to participate creatively in processes of sustained development. Simulations have been avoided.

Methodology

Once the case study approach was decided on, the next step was to select the areas for study. Besides geographical representation, the other criteria used were, the kind of fishery, religion (Hindu, Muslim and Christian areas) and the history of organisation and mobilisation in the area. The five areas selected were Enayamputhenthura, Anjengo, Nattika, Parappanangadi and Kasba. The salient features according to the stated criteria, of these areas, are given below.

1. Areas selected and their salient features

Enayamputhenthura in Kanyakumari district was chosen to represent the southern-most region. Here the predominant fishing craft is the kattumaram, often fitted with outboard motors (OBMs). It is a totally Christian area. A people's co-operative (as opposed to an official cooperative) has handled fish marketing for its members over the past 10-12 years and is reckoned as a force in the village. A women's organisation and a preventive health programme have existed here for over a decade.

As for the changes in the fishery, Enayam is traditionally a kattumaram area with skilled hook and line fishermen. It came under gill net fishing when the Government introduced the 32 feet mechanised boats in the 60s. Even today some fishermen here own gill net boats, despite the numerous trawl fishing boats in neighbouring villages. Nevertheless, this little strip is one of the most forward areas as far as innovation in various fishing gear is concerned. This would suggest that the pressures faced by the fishery have forced the fishermen to be innovative in order to find ways to survive.

The formation of the fishermen's co-operatives in this area is not a new phenomenon, though these organisations are called 'sangams'. The word 'co-operative' has acquired a negative connotation in these areas because of their record in putting people into debt and imposing unwarranted restrictions on them. These sangams or local co-operatives under the Kanyakumari District Fishermen Sangams Federation, organised at the initiative of the Kottar Social Service Society (KSSS), have succeeded in helping fishermen to come together and work collectively. In fact, their performance dispels many negative impressions about the dependence of fishermen, their ability to save etc. The sangams have grown on the initial savings of their members, and are based on the principle that they will receive as much as they contribute. Interest rates in the village have been controlled and the sangam has helped to drive away unscrupulous merchants. It is still to be seen how these sangams have helped fishermen cope with change and how they have intervened in the social life of the community and enhanced its consciousness; what role does such a co-operative play in a village vis-a-vis the traditional mechanisms of social control.

Women have always played an important role in the fish distribution process in these traditional areas of kattumaram fishing. While this gave women some degree of independence, it also meant a heavy workload for them. Traditionally, women also participated in the making of nets and this provided a subsidiary income. How has change affected the women needs to be examined. In Enayam almost 50 per cent of the women still market the fish. It is therefore, important to see what role women play in meeting the subsistence needs of the family and how this raises their social consciousness.

Anjengo, once a landing port, is a coastal village lying about 40 k.m. north of Trivandrum. It is one of the biggest fishing areas in this region, a reason probably for its being so heavily populated. The Mukkuva fisherfolk settled here have been Latin Catholics for the last four centuries, but live in close harmony with the Hindu and Muslim non-fishing communities on the eastern side of the coastal road. The fishing population of this area is squeezed into a strip between the granite sea wall, that was constructed because of sea erosion about 20 years ago, and the road which separates them from other non-fishing communities.

Though an important fishing centre, the area is greatly wanting in proper waste disposal and sanitary facilities. There is much trading, social and political activity in the area which has schools, churches and a primary health centre. The church gives the locals a sense of belonging and identity. Lack of basic amenities also affects the functioning of schools and primary health centres. The public and private transport plying in Anjengo, surely gives an impression of the area being well-connected.

Anjengo, situated 3 km from the main railroad and 10 km away from an active fish market permits easy disposal of bulk fish catches. The large number of women engaged in fish vending can use the train either to sell or to procure fish from other landing centres.

Traditionally, an area of vibrant fishing activity where changes in craft are on the increase, Anjengo seemed to be an ideal area for study. Several factors are seen to operate, namely Government schemes, involvement of NGOs, local people's co-operatives and most political party interests. Why Anjengo provides such fertile ground for all this activity and what influence such activity has on the consciousness of the people, becomes important to understand.

Nattika in Trichur district lies about 20 km north-west of Trichur and about 2 km off the main highway. It is mainly a Hindu area made up of Arayar fisherfolk. Unlike fishing villages elsewhere, Nattika does not suffer from overcrowding. This leads to an impression of the community being more segmented than the other southern fishing communities. The houses for the most part are well-constructed and surrounded by coconut gardens, with some of the families keeping cattle and fowl. So while fishing is the primary occupation in the area, farming is not excluded. Moreover, Nattika in many ways is an advanced fishing village, since many of the younger generation have been able to go in for other professional education and to secure both government and other jobs. Although the educated youth do not interact much with those who are still fishing, the culture of the village outwardly seems to be marked by more discipline and organisation than in most traditional fishing villages.

A landmark in the area is the fisheries school, which has been converted into a regular school, subsidised by the Fisheries Department. Public transport stops 2 km. away from the village despite the good access roads right upto the fish landing centre on the beach. Expanses of beach are covered with coconut and even casuarina groves, a part of the coastal afforestation programme. Small shrines or family altars dot the village, but there is no big temple. Male fish vendors carrying baskets of fish attached to a pole carried on their shoulders, are a common sight. These men belong to the same community as there is a division of labour among males between fishing and vending, but there is no discrimination against the latter. Bigger merchants, some from the same community, transport the fish on their bicycles or by truck.

Nattika was chosen because the traditional *vallams* were replaced by the large Alleppey *vallams* with OBMs and ring seines about three years ago. This meant a radical change not only in technology but also in the organisation of work. Earlier people used dugout canoes and a variety of nets, which were owned on an individual basis. Now these large units have taken over, leaving only about 10 per cent of the small units, both motorised and non-motorised. Old small *vallams* lying unused are a common sight on the seashore, beside the large new *vallams* as well as the massive nets being taken to sea on trolleys—hitherto an unusual sight for a fishing village in Kerala.

Another reason for the choice of Nattika was its being a Hindu village, but with a difference. There seems to have been a change in the realm of social control. The former regulatory village committee (panchayat), which had grown defunct in the last 10 years, is gradually being revived with the increased returns in fishing. There are no voluntary organisations operating in the area but a number of party cadres and the caste organisations are active here.

Women in Nattika do not engage in fish-related activities. In fact, they do not go to the sea shore and know very little about fishing operations in general. The large homestead sites have engaged women around the household. They tend the gardens and the cattle if any. Most of them are also engaged in mat-making, a cottage industry, earnings from which supplement the family income. So, although the contribution of women in monetary terms may be minimal, it will be interesting to see how much of the income in the area comes from non-fishing activity, in which the women play a major role.

Parappanangadi in Malappuram district is a Muslim village where the traditional *vallams* are being replaced by larger *vallams* with OBMs and the ring seines. It looks like a typical southern fishing village, overcrowded and dirty, though lying adjacent to coconut plantations that belong to rich Muslims with political clout. Though Parappanangadi has been the base for important political leaders, this does not appear to have benefitted the fisherfolk here.

The large patriarchal family is still typical of Parappanangadi and was one reason for the choice of the village. In fact, respect for the male head of the household is very obvious. All of the younger generation, male or female, do not speak up in discussions in his presence. But signs of the breakdown of the joint family are visible—sometimes one finds little huts around the main house. Community control, through the local committee of elders, is still prevalent and the mosque is the axis around which the community revolves. Signs of wealth, in the form of new concrete houses and of remittances from the Gulf are noticeable.

Women remain mostly within the house, very few of them being engaged in post-harvest activity. Older women seem to have a slight advantage over the younger ones, who are subject to certain sanctions, despite their being more educated and exposed to the outside world.

The mosque and the communal political party, the Muslim League, appear to be the main forces of ideological production. It is important to see how changes in the fishery affect these social institutions and vice versa.

Kasba is the northern-most village in Kasargode district and is predominantly a Hindu village made up of Arayar fisherfolk. It is located close to the Kerala-Karnataka border, across which is Mangalore. Kasba was first part of the Madras Presidency, then Karnataka and only with the reorganisation of the states in 1956 became a part of Kerala.

Having a natural harbour, Kasba was selected because in this area fishermen operate both the mechanised trawlers and the traditional crafts in apparent harmony and owners of the mechanised trawlers do not belong to a separate class. This unusual pattern is the result of a very cohesive social structure created by the temple committee or *karayogam* which is both a very powerful institution and a custodian of law and order in the village.

Kasba is also different from other fishing villages in that the development activity of the State seems to have made more of an impact here. There are well-paved paths through the village,

with public taps and public latrines well-placed and cared for. The housing, though old and somewhat congested, still seems comfortable for human habitation with only a few huts beginning to spill over on to the commonly owned wide expanses of beach.

Women play a very active role in the fish economy probably as a result of the matrilineal system. They claim their share of the catch when the fish is landed and take the responsibility to sell it. Their role as owners of craft and gear has dwindled with State intervention but they are still active in the post-harvest activities.

2. Establishing contacts in the field

After selecting the villages an attempt was made to explain to the local people, who were generally receptive, the objectives of the study and its importance at this particular juncture. Credentials also had to be established, since there had been no previous contact in the northern areas. Discussions based on the PCO's long contact with the artisanal sector in the south finally convinced the people.

3. Methods of Data Collection

It was decided to collect two types of information.

1. General information from the selected households in order to capture the changes experienced in all the aspects of life over the last 10 years. This information would be collected only once.

2. Day-to-day income and expenditure data. It was felt that detailed income-expenditure data would be necessary firstly to identify daily needs and then to see actually how these are met. This detailed data would have to be collected all through the year because of the seasonal fluctuations in income. In order to capture these variations, daily monitoring for one month in each of the four seasons was to be undertaken, to record the actual income and expenditure.

The data was collected between December 1988 and April 1989. The daily household income and expenditure was collected until October 1989. The household data was collected by the research associates. A minimum of two visits was required to complete a schedule. Details of the responses were filled in after discussion with the respondents. Over 90 per cent of the respondents were co-operative. They did not seem to have too many difficulties understanding the questions which for the most part were direct.

The questionnaire included only one indirect question which was included for factorial analysis, to understand the thinking of the respondents. Including just one question would at least be indicative, though perhaps not conclusive.

After data-collection, discussions took place in each area. The promise to return with feedback, after the analysis of the material, still stands.

The day-to-day income expenditure monitoring was a little more complex as people are not used to keeping an itemised account of expenditure and as there is always confusion about purchases made on credit and those made with cash.

In collecting the data, many questions had a time reference—the situation *now* versus *10 years ago*. This was because motorisation was introduced within the last 10 years and it was intended to see what impact this has had on the lives of people.

4. Sample size and selection

A sample size of 50 households was taken for each of the five areas. This makes a total of 250 families studied. From this sample 10 households from each area (50 families of the total), were chosen for daily monitoring. All the ten units of the techno-economic study have been included in the household study and two of them in the daily monitoring study in each area.

The wealth-ranking method was used to select the samples. This method is as follows: With the help of a few youngsters in each area a list of 100 names taken at random from all over the village was drawn up. These names included the 10 respondents of the techno-economic study. All the 100 names were then written up separately given to three or four persons for ranking according to four categories—'rich', 'fairly comfortable', 'struggling to make both ends meet' and 'really poor'—with reasons for their classifications. It was interesting to note that there were very few differences in the way people were grouped and at least 70 per cent of the total fell into the lower two groups. As the study sample was 50, half of each of the four categories was taken to ensure that the sample would be quite representative of the stratification of the village.

It must be noted here that mere ownership of craft and gear were not the only criteria for grouping individuals. Other factors considered were the fishing ability of the father, the enterprising nature of the mother, the number of healthy children, the number of daughters to be married and other sources of income.

5. Fishing in Kerala: General background

Nine of the fourteen districts of Kerala border the Arabian Sea, giving Kerala a coastline of 590 km inhabited by a population of over half a million, of which 150,000 are active fishermen. Kerala played a very significant role in the marine economy of India contributing over 35 per cent of the total marine landings and 60 per cent of the marine exports in the 70s. But in the mid and late 80s, Kerala began to be overtaken by other States, causing concern in Kerala about the sector.

In the post-independence period of development planning, the Government gave importance to modernising the fishing sector. But till the early 70's, the traditional sector in Kerala still remained predominant constituting 80 per cent of the fishermen, who account for 70 per cent of the catches and 60 per cent of the value of fish. The mechanised sector, which was mainly oriented to shrimp catches for export, recorded peak catches in 1975-76 but by 1979 the catch per unit began to decline and the competition between the traditional and modern sectors for the same fishing grounds led to a conflict situation.

The struggles of the traditional fishworkers reached a peak during the mid 80's. This was an indication that under the growing pressures they could no longer manage to make a living. Their demand on ecological grounds for a ban on trawl fishing during the monsoon months—June, July and August—which they say are the spawning months for fish, and for increased welfare measures, were an expression of this situation. A look at the developments in the fishing sector from the mid-60's will help to appreciate better the current problems of the hitherto traditional sector. Until the end of the 70's, it looked as if the fishing sector was clearly divided between the mechanised and the traditional sectors. The modern sector included the mechanised 32-36 foot trawlers, purse-seiners and gill net boats operating from better harbours. The trawlers, which accounted for the vast majority of the mechanised boats, concentrated mainly on shrimp catches while the purse-seiners were bringing in bulk catchers of oil sardine and mackerel. The declining fish and shrimp catches in the mid 70s, created a stir at the over-fishing by the modern sector, and a concern about the need to manage the fishery began to evolve. But in the early 80s, the traditional sector, in its bid for survival, went in for motorisation of its crafts. This was an outcome of the need to reach more distant fishing grounds where more fish was available. By the mid-80s, this sector also went in for larger and more efficient nets, which meant increasing capital costs. These developments have disrupted the clear division between the modern and traditional sectors and calls for a new understanding of the development of capitalism in the fishing sector. The demand for ecological management raised by the traditional sector also becomes a misnomer in the wake of its own increasing aggressiveness.

The example of Trivandrum district is illustrative. When efforts were made in the mid-70s to introduce the OBM in Trivandrum district it was not accepted for the following reasons (i) it seemed to require added costs which the fishermen didn't think were justified and; (ii) there were so many technical problems which the fishermen were unable to handle that they felt more secure with their sails. Moreover, the availability of fish near the shore and its low cost, did not warrant the use of motors. The situation changed after 1980. The growing depletion of the coastal waters and the competition with the mechanised boats appeared to necessitate motorisation. Today, about half the traditional crafts are motorised and about three-fourths of the fisherfolk work on them. In some areas, motorisation is total.

Changes in the craft and gear as well have accompanied motorisation. Earlier, the "kattumaram" was the predominant craft south of Quilon. The "thanguvallam" and the encircling net were predominant in the central area and from Trichur northwards it was the dugout canoe and the "kollivala" or boat seine belt. In the south, the *kattumaram* is being replaced by the new plywood boat adopted by the more adventurous fishermen. In the central area, the *thanguvallam* has become bigger and the encircling net has been replaced by the ring seine. The mini-trawl net used seasonally with a medium plank canoe is also another technological innovation, ironically introduced by the traditional fishermen as a survival strategy. The *kollivala* of the north has also been completely eliminated by the different versions of the ring seine. The earlier belief that traditional fishermen could never change, has proven to be false, especially in the light of changes since the early 80s.

From the outside, it would appear as if these new technologies have been superimposed on a system or mode of fishing that remains essentially traditional. In fact, one of the important aspects of the fishing sector, namely the sharing system, has been retained, without significant changes in the relative shares to capital and labour. Despite retention of this system in principle, further detailed differentiation has taken place in the calculation of net earnings,

which affects the returns to the workers vis-a-vis that which goes towards capital. On the whole, therefore, there have actually been tremendous changes in the sector leading to the greater need for capital. But these changes are inevitable and have been introduced more as survival strategies, than merely for the sake of modernisation. Thus, terms like 'artisanal' and 'small sector' have to be redefined to understand the new developments.

Modernisation as the only way to increase the fish catches was the thrust of the Government's involvement in fisheries since the 50s. These strategies paid dividends in States where the fishworkers in the artisanal sector were not as numerous as in Kerala or where the fishing traditions were not as specialised. The fishermen in Kerala were the masters of their trade and were able to integrate, in a more economic manner, the forces of production, i.e. the relations between human labour, nature and inputs in terms of capital and technology. They were probably also aware of the limited resource base on which such a large population was dependent. In Kerala, these modernisation strategies soon began to back fire.

By the mid and late 70s, when the competition for the resources increased and they began to be confronted with the powerful trawlers and purse seiners, the traditional fishworkers developed a two pronged strategy: to oppose the trawlers, on the one hand and develop their own survival strategies, on the other.

These efforts seem not only to have changed part of the social matrix but have also transformed the fishery itself radically. In fact, the policy suggestions outlined in the study by Platteau et.al. entitled 'Technology, Credit and Indebtedness in Marine Fishing', (which compares the state of the economy in three fishing areas, namely a kattumaram area, a vallam area and a mechanised trawler area), highlight this position in the following words:

"Two measures need special emphasis. First, research and development efforts ought to be devoted to modernising the traditional technologies which are often well suited to the local natural condition. The motorisation of the kattumaram is a case in point. What is mainly needed here is a profound change in the attitude vis-a-vis traditional fishermen and their technologies. More precisely, it must be realised that (1) what is traditional is not bound to remain technologically stagnant and (2) small scale fishermen are open to innovations provided the latter are both feasible and adequate. Secondly, the Government ought to protect the small scale fisheries against anarchic increases in the mechanised fleet. There is now enough evidence to show that during the last decade in Kerala the mechanised sector, far from developing a complementary relationship with the small scale sector by operating in deeper waters, has come into direct competition with it causing severe hardships for the artisanal fishermen. Unless drastic measures are taken to prevent biological as well as economic overfishing, small-scale fishermen will have to be content with smaller and smaller incomes and other steps in their favour will be of no avail[1]" They further added that the development of the small-scale fishery sector does not entail any major social disruption while, due to its low costs of catching, preserving, transporting and distributing the fish, it was in a good position to provide cheap protein to the masses.

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1 J. Philippe Platteau, Jose Muricken and Etienne Delbar, "Technology, Credit and Indebtedness in Marine Fishing—A case study of three villages in South India"; Hindustan Publishing Corporation (India) Delhi (1985) Page 380.

Table-1. Trends in Fish Production in Kerala and India ('000 tonnes)

Period	Kerala		All India	
	Quantity	Production Index	Quantity	Production Index
1951-55	131	100	566	100
1956-60	259	198	763	135
1961-65	264	202	735	130
1966-70	349	266	931	164
1971-75	406	310	1200	212
1976-80	332	253	1331	235
1981-84	348	266	1539	272
1985-86	295	225	1716	303

Source: T.R. Thankappan Achari, 1987 Paper presented in seminar on Fisheries Crisis and Policy Approaches, Kerala.

The authors of the study emphasized the role of the small sector but they did not at the time of the study anticipate how dramatically the traditional sector itself would change.

Tables 1-7 indicate the developments that have taken place over the last three decades.

Table 1 indicates that fish production in Kerala was on the increase till about 1975 but kept falling steadily after that. The all India figures continued to show an increase in production.

The data in Table 2 shows that with the coming of mechanisation, total and prawn catches of the non-mechanised sector dwindled towards the end of the 70s.

Table-2: Landings from Mechanised and Non-mechanised Fishing Sectors in Kerala

('000 tonnes)

Period	Mechanised		Non-mechanised		Total	
	Total	Prawn	Total	Prawn	Total	Prawn
1961-65	NA	1	NA	23	264	24
1966-70	NA	6	NA	24	349	30
1971-75	92	41	314	18	406	59
1976-80	103	33	229	8	332	41
1976	59	20	227	15	331	35
1977	107	34	238	6	345	40
1978	117	39	256	6	373	45
1979	95	25	236	5	331	30
1980	135	46	145	8	280	54

Source: T.R. Thankappan Achari, 1987.

Table-3: Sector-wise Production of Different Craft-Gear Combinations ('000 tonnes)

Period	Trawling	Purse-seining	Gill netting	Motorised fishing	Non-motorised fishing	Total
1982-83	71	10	10	88	169	348
1984-85	98	17	13	144	105	377
1985-86	91	13	10	115	103	332

Source: T.R. Thankappan Achari, 1987.

Compared to 1976-80, the artisanal sector in 1982-83 and 84-85 made certain marginal gains but the performance remained much below the earlier years as shown in Table 3.

Table-4: Estimate of Productivity and Income of Fishworkers in the Modern and Traditional Sectors of Kerala's Fish Economy

	Category of workers					
	Modern sector (Those using new technology)			Traditional sector (Those using traditional technology)		
Year	Productivity (kg/year)	Income* (Rs/year)		Productivity (kg/year)	Income* (Rs/year)	
		Current prices	60-61 prices		Current prices	60-61 prices
1961	NA	NA		3540 (80700)	330	330
1965	NA	NA		3820 (88600)	540	380
1969-70	5150 (7800)	1590	790	3340 (90660)	1270	630
1979-80	7540 (15300)	9080	2630	1780 (106600)	1830	540
1982	7700 (19200)	7000	1560	1620 (109000)	1880	420

* Assumes income to be 30% of total value of output per worker
* Assumes income to be 70% to total value of output per worker
Figures in brackets () are the number of workers

Source : John Kurien 1987.

Table : 5
New technologies and trends in marine fish production in Kerala State (1956-1984)

	Periodisation	Total fish Harvest (000 tonnes)	Harest by species-type * (000 tonnes)				Harvest by technology * (000 tonnes)			Percentage of harvest by Geographic Zones (for select years)		
			Pelagic		Demersal		Non-mechanised	Motorised	Mechanised	North Zone	Central Zone	South Zone
			Total	Oil sardine & Mackeral	Total	Prawns						
Slow Modernisation phase	Initial years 1956-1959	237	182	130	55	14	237	-	Negligible	NA	NA	NA
	Nylon Nets & GIll Net Boats 1960-66	288	230 (80)	180	58 (20)	23	276 (96)	-	12 (4)	67	(1965-66) 17	16
Rapid modernisation phase	Trawlers and trawl nets 1967-1975	380	264 (69)	189	116 (31)	46	319 (84)	-	61 (16)	49	(1969-71) 34	17
	More Trawlers & Purse-seiners 1976-80	332	220 (66)	131	112 (34)	40	230 (69)	-	102 (31)	25	(1978-80) 28	47
Dilemma Phase	Outboard Motors & aggregation devices (1981-1984)	352	236 (67)	130	116 (33)	28	157 (44)	67 (19)	128 (37)	32	(1981-84) 35	33

* - Figures in brackets () are percentage of total harvest.

Source : John Kurian 1987. Paper presented at State Seminar. "The Impact of New Technology Introduction into Fishing in Kerala".

Table-6: Distribution of Total Value of Output of Fish in Kerala Between Workers and Owners (Rs.lakhs)

Year	Working class in fish production*	Owner class	
		Modern sector	Traditional sector
1969	1030 (63)	190 (12)	410 (25)
1974	2930 (55)	1430 (27)	990 (18)
1982	3400 (45)	3140 (43)	880 (12)

(Figures in brackets () are percentages)

* Workers share calculated at 30% of M-sector value of output and 70% of T-sector value of output

Source : John Kurien 1987

Table 4 illustrates how both the productivity and income of the workers of the modern sector have been on the rise. On the other hand the productivity and workers' income of the traditional sector increased till the early 70s after which the productivity fell. Till 1980 the income has been rising because of the higher prices. Table 5 describes the development of the sector till 1984.

Table 6 shows that while the working class has received more of the total value of output, the percentage that has accrued to the owner class of the modern sector has more than tripled. The share to the owner class of the traditional sector has only doubled.

Table 7 below shows that even the per capita availability of locally consumed fish in Kerala has fallen drastically since 1972.

Note must also be made here of the plans and efforts of the government to reorganise the small scale sector. Realising that their attempts at creating cooperatives had failed and that efforts at modernisation had led to unintended effects, the government tried to make new efforts at supporting the small scale-sector. Even these efforts have been ridden with contradictions and

Table-7: Per Capita Availability of Locally Consumed Fish in Kerala (1956-82)

Year	1956-58	1960-62	1965-67	1970-72	1975-77	1980-82
Availability (in Kg/year/ person)	14.5	14.8	16.6	19.0	12.1	9.4

Source : John Kurien 1987.

problems, but the final outcome is that in all fishing villages, societies have been formed through which all government funds for development are channelled. The government co-operative federation, Matsyafed, supervises these societies and claims to provide new fish marketing channels to free the fishermen from the clutches of merchants and money-lenders. Whereas this reorganisation certainly helps to get a better picture of the facts and figures of the small-scale sector, how far it has achieved its purpose has yet to be studied. It is important to note, however, that the government has created an intricate network to interact with the small-scale sector and that too in the decade of transition.

Chapter II

General Features Of Selected Villages

From a closer look at the rural situation in Kerala it becomes evident that it is not possible to isolate the socio-economic changes that have resulted from the process of motorisation *per se* or for that matter from fishing alone. There are many fishery independent factors—the role of the State, for example—that have had an impact in the fishing villages. Unlike other States, Kerala has chosen a model of development which places emphasis on the quality of life. It has a fairly intricate social service infrastructure and over the years, its benefits have gradually trickled down to the coastal areas. Such developments may not necessarily be reflected in the conventional socio-economic indicators such as per capita income.

Kerala's fishing villages are all accessible by road and are serviced by public transport. This does not mean that transport is very regular but in general people feel that public facilities like transport, postal services and medical facilities have improved. Water and sanitation however continue to be major problems in the south Kerala area. People also feel that they have access to better food because of the Government public distribution system and the increase in private petty trade. Land distribution has also facilitated better housing although the plots are generally small.

The Status of Land Tenure

One of the significant differences between the habitat pattern of a fishing village, and other areas in Kerala, is its over-crowded and even unhygienic appearance. The disorganised housing pattern gives the impression of very little or no planning or even control on how and where people construct their dwellings. The extent of legal ownership of occupants in such areas may be doubtful. The data, on the other hand, as presented in Table 8 is revealing.

There are different categories of land possession:

(a) Pattayam is a legal title deed;

(b) Living right from the church or temple indicates that the land is legally owned by the local church or temple and people have the living rights on it; and

(c) Perumboke is land that is considered 'no man's land', coming under control of local bodies. People finally get the pattayam after occupation for several years.

The only groups that have a security of tenure and the right to dispose off land are those with the pattayam or title deeds and they constitute 70 per cent of the entire sample, only 18 per cent being settled on perumboke land. Enayam presents a special feature with 46 per cent of the households living on land owned by the church on which they have living rights. This is a secure tenure and families living on this land have pucca houses but no right to transact them. Those with inherited rights are the rightful owners with secure tenures but not necessarily with the title deeds.

Table 9 shows that in terms of land ownership, the fishing villages in the study compare favourably with state levels.

There are significant differences in land ownership between villages, with Nattika showing holdings that are much larger than in the other villages, and closer to State levels. In comparison, the proportion of people who live on perumboke and who have no rights on the land is much higher in Anjengo than in other areas. While fishing villages were almost four times as crowded as the State average in 1980, the villages monitored present an even worse picture 8 years later. This reveals that the man-land ratio is extremely high in the fishing villages and that there are no signs of improvement. The larger land ownership in Nattika indicates that the family has recourse to the produce of the garden. This has a bearing on income from sources other than fishing.

Of the total number of plots, 22 per cent have been acquired through Government distribution. This demonstrates that these villages have not been marginal in receiving the benefits of the political process of a more equitable redistribution of land. But 27.5 per cent of the sites have been bought, which indicates that even the poor in the fishing community give private ownership of land and housing a high priority. While land distribution is indeed a positive step, the negative fall out of this, is that landlords who own land on the shore have stopped allowing people to live on their lands as was customary and have begun to fence off these lands. In fact, erection of walls and fences to indicate private property is a new phenomenon

Table - 8: Land Ownership

(Figures in percentages)

Place	Status of land	below 2 cents	2-3	4-5	6-10	above 10 cents	Total
Enayam	With Pattayam	-	4	4	6	-	14
	Living right from church	34	28	8	2	-	72
	Inherited	4	6	2	2	-	14
	Perumboke	-	-	-	-	-	-
Anjengo	With Pattayam	28	18	12	10	-	68
	Living right	-	-	2	-	-	2
	Inherited	-	-	-	-	-	-
	Perumboke	24	6	-	-	-	30
Nattika	With Pattayam	-	2	12	18	66	98
	Living right from temple	-	-	-	-	-	-
	Inherited	-	-	-	-	2	2
	Perumboke	-	-	-	-	-	-
Parappa-nangadi	With Pattayam	6	8	30	36	10	90
	Living right from church	-	-	-	-	-	-
	Inherited	-	-	-	-	-	-
	Perumboke	2	-	2	4	2	10
Kasba	With Pattayam	56	20	2	-	4	82
	Living right from temple	2	-	-	-	-	2
	Inherited	10	-	-	-	-	10
	Perumboke	2	4	-	-	-	6

Table -9: Land Ownership Vis a Vis State and Marine Fishing Village Averages

(Figures in percentages)

Average	No land*	5 cents	6-10	11-100	101-500	500
Kerala (State 1989)	-	9	-	73	15	3
Fishing village (1989)	16	32	28	23	1	-
Enayam	-	90	10	-	-	-
Anjengo	30	60	10	-	-	-
Nattika	-	14	18	68	-	-
Parappanangadi	10	44	36	10	-	-
Kasba	6	78	-	10	-	-

* Those cases that are in the 'no land' area are those that live on the perumboke and have no land rights whatsoever.

in the coastal areas and has come to stay. The expanding fishing community will be forced to occupy the common beaches which are not only dangerous for living in the monsoon months, but which will reduce the common lands, generally used by the community for the beaching of craft.

Table 10 illustrates how land owners have come to own their land.

Housing Pattern

The type of house construction is an indication of the economic status of the family. All families desire to have a permanent or *pucca* structure one day. Housing has been a high priority in Kerala over the last decade. It is interesting to see to what extent the fishing villages have been affected by this. Table 11 shows the changes in the methods of housing construction over the past 10 years.

Whereas there have been marked changes in Nattika and Kasba and to a lesser degree in Anjengo, there has been little change in Parappanangadi and Enayam where around 80 per cent of the homes already had a permanent structure 10 years ago. The slight regression observed in Anjengo is a result of the increased economic pressure whereas in Parappanangadi, it is because of the break up of the joint family.

The sample villages appear to be better off in terms of housing when their figure are compared to the State and fishing village average (Table 12).

In Anjengo, despite the fact that 24 per cent of the respondents live on perumboke, only 6 per cent live in *kacha* houses. In Enayam, although 72 per cent enjoy only living rights from the church, 80 per cent live in permanent structures. Only 15 per cent of the entire sample have *kacha* houses, which is even below the State average.

The number of latrines in the sample studied seem to be higher than the fishing village average and, in some cases, the State average. The low number of latrines in Kasba is due to the

Table -10 : Type of Acquisition
(Figures in percentages)

Place	Land area (cents)	Type of acquisition				
		Bought	Government distribution	Inherited	Living right	Purum-boke
Enayam	below 2	-	-	4	34	-
	2-3	4	-	6	28	-
	4-5	4	-	2	8	-
	6-10	6	-	2	2	-
	above 10	-	-	-	-	-
Anjengo	below 2	8	16	-	-	24
	2-3	12	6	-	-	6
	4-5	10	6	-	2	-
	6-10	10	-	-	-	-
	above 10	-	-	-	-	-
Nattika	below 2	-	-	-	-	-
	2-3	2	-	-	-	-
	4-5	4	-	8	-	-
	6-10	10	2	6	-	-
	above 10	32	-	36	-	-
Parappa-nangadi	below 2	-	6	-	-	2
	2-3	-	4	4	-	-
	4-5	-	26	4	-	2
	6-10	2	24	10	-	4
	above 10	2	-	8	-	2
Kasba	below 2	20	12	32	2	2
	2-3	2	8	12	-	4
	4-5	2	-	-	-	-
	6-10	-	-	-	-	-
	above 10	4	-	-	-	-

existence of community latrines which are well maintained. The numbers in Parappanangadi are strikingly low, considering the large joint families and the congestion, which restricts the availability of free and private spaces for women to ease themselves. An utter disregard for the needs of women is reflected. The number of latrines in Anjengo is exceptionally high despite it being congested. This reflects the role played by voluntary agencies in stressing the need for latrines in the area. Surprisingly, in Enayam, where a health programme has been in existence for over a decade, the figure is still low.

Housing Finances

Over the years, various agencies have provided loans for housing. In the fisheries sector, the Fishermen's Welfare Corporation devised a scheme with a loan component of Rs. 6,000 payable in small instalments over 15 years. Nevertheless the individual families have had to raise a large part of the funds on their own too, as shown in the following Table 13.

It is clear that constructing a house ranks high in the priorities of the fishing community. Nattika, Parappanangadi and Kasba have received an impetus from the Government loans for housing, but the average amount received is only nominal considering the total costs. Substantial amounts come from the individual's own savings and local borrowings.

Other Basic Amenities

The above tables show that people have improved their living conditions by their own efforts, aided by some Government incentives. This does not mean, however, that basic amenities have also become easier to come by. Basic amenities like water, firewood and food rations are the measures generally used for assessing the quality of life and access to them has an impact on the lives of women. The table below points to the problems in these areas.

Table - 11: Housing Pattern

(Figures in percentages)

Place	Time	Kacha	Semi kacha	Semi pucca	Pucca
Enayam	Now	4	14	2	80
	10 years ago	4	16	2	78
Anjengo	Now	6	28	34	32
	10 years ago	4	56	12	28
Nattika	Now	10	6	8	76
	10 years ago	28	24	6	42
Parappan-angadi	Now	10	2	2	86
	10 years ago	6	6	4	84
Kasba	Now	2	-	2	96
	10 years ago	22	-	-	78

Kacha house - entirely made of coconut palm, a hut.
Semi kacha - a firm floor, thatch walls and roof.
Semi pucca - a firm cemented floor, brick walls, thatch roof.
Pucca - a permanent structure.

Table-12: Housing Pattern vis-a-vis Kerala State and Marine Fishing Village Averages

(Figures in percentages)

Area	Kacha	Semi Kacha/Pucca	Pucca	Latrine
Kerala State (1989)	24	4	72	19
Fishing villages (1989)	48	36	16	5
Enayam	4	16	80	18
Anjengo	6	62	32	48
Nattika	10	14	76	38
Parappanangadi	10	4	86	10
Kasba	2	2	96	6

Table - 13: Source of Funds for Present House

Place	Source	No.of cases	Average amount in rupees
Enayam	Owner savings	44	11,000
	Loan from Govt/agency	4	3,500
	Loan from NGO	8	2,625
	Borrowed locally	6	26,500 *
Anjengo	Owner savings	82	12,000
	Loan from Govt/agency	6	3,500
	Loan from NGO	4	3,000
	Borrowed locally	42	7,400
Nattika	Owner savings	90	9,700
	Loan from Govt/agency	56	4,000
	Loan from NGO	-	-
	Borrowed locally	46	8,600
Parappa-nangadi	Owner savings	78	15,600
	Loan from Govt/agency	36	3,000
	Loan from NGO	-	-
	Borrowed locally	36	8,300
Kasba	Owner savings	50	10,000
	Loan from Govt/agency	32	3,000
	Loan from NGO	-	-
	Borrowed locally	12	10,300

* This amount is disproportionately high because of the borrowings of one family in the first rank.

Table - 14: Availability and Cost of Firewood, Water & Rations
(Figures in percentages)

Place	Item	Number of persons (respondents)		
		Easier	More difficult	More expensive
Enayam	Firewood	-	100	100
	Water	100	-	-
	Rations	80	20	100
Anjengo	Firewood	10	78	98
	Water	4	94	-
	Rations	52	48	98
Nattika	Firewood	4	96	100
	Water	100	-	-
	Rations	38	62	100
Parappan-angadi	Firewood	12	92	98
	Water	78	20	-
	Rations	28	72	98
Kasba	Firewood	-	98	98
	Water	94	4	-
	Rations	2	2	98

All these amenities are found to be more expensive, except for water which is still not charged for in most fishing villages. However, water availability is a great problem in Anjengo. Availability of rations through the Government distribution system is greater except where the dealers are corrupt. But, despite overall development in society, the scarcity of basic necessities, exerts pressure on daily existence and as mentioned earlier, the pressure is more on women. In Anjengo, though pipelines have been laid after struggles and demands by the local people, water is supplied for only a couple of hours each day and that too at night, and it is the women who have to stay awake to collect it.

The Family

Regarding the family, only some very superficial observations can be made and these too cannot be generalised as the family patterns are very different in each area. In the Christian areas of the south, the family is for the most part nuclear. The older parents may live on in the home of the daughter. In the Hindu communities, the joint family is breaking up. These families were earlier matrilocal and matrilinear but significant changes have occurred over the last 10-15 years. The ownership of equipment, which was earlier in the hands of the women, is now held by men, a result of the institutional loans being made available to them for purchase of new equipment. In the Muslim area, the families are for the most part still joint families and patriarchal, but one finds signs of such a family arrangement becoming less feasible and viable.

One son, or the other breaks way. Or in some families, which may remain together, members are not on talking terms. In all areas, the young want to break away from the old pattern, which means that it will not be voluntarily adhered to in the future. The role that religious sanctions play in maintaining social controls and in preserving the status quo is very significant.

A simple break-up of the families studied is given in Table 15.

Table 15 indicates that families in Enayam and Anjengo and Nattika are mainly nuclear and that those which fall into the joint family category are extended families where the old parents may continue to live with their daughters. In some cases, one brother or sister may continue to stay with the family when the equipment has not yet been divided. The structure of family

Table-15: Nature of Family and Family Size

Nature	Place	No.of families (%)	No.of kitchens	Composition (%)					
				Adult		Children		All	
				Male	Female	Male	Female	Male	Female
Nuclear	Enayam	27(54)	27	19	28	21	33	40	60
	Anjengo	33(66)	33	27	25	26	22	52	48
	Nattika	31(62)	31	33	27	20	20	53	47
	P.angadi	9(18)	9	25	21	25	29	50	5
	Kasba	16(32)	16	25	34	25	17	50	51
Joint	Enayam	23(46)	26	33	30	18	18	51	49
	Anjengo	17(34)	20	37	33	18	12	55	45
	Nattika	19(38)	19	34	34	16	16	50	50
	P.angadi	41(82)	52	27	26	22	24	50	50
	Kasba	34(68)	60	32	30	21	18	52	48

Table-16 : Sex Ratio

Centre	Female	Male
Enayam	1184	1000
Anjengo	861	1000
Nattika	951	1000
Parappanangadi	1016	1000
Kasba	936	1000

is also related to the nature of the fishery of the area. In areas where kattumaram fishing is practised the pattern tends to be nuclear.

Data on the male-female ratio is striking. Enayam shows an exceptionally large number of females over males, the reason for which is not easily identified. The lower number of females to males in the fishing community in Kerala, is in contrast to the situation at the State level. The figure is even more striking in Anjengo and the reasons for this should be further investigated.

Especially in Nattika, with education and with the younger generation going for other jobs, the tendency to break away from the joint family has increased. Now, despite the larger investments in craft and gear, the new pattern of shared ownership has facilitated greater atomization of the family and collectivisation of work.

Parappanangadi and Kasba have the greatest number of joint families though they are differently organised. In Parappanangadi, the patriarchal joint family exists with an average size of 14.4 members. The substantial increase in investment for fishing equipment has necessitated the formation of groups that cuts across families. This is aiding the disintegration of the joint family system. Large families still live under one roof, but with the household economy being individualised, different kitchens have been set up.

In Kasba, the daughters used to inherit a share in the fishing equipment of the family. As all the shares were on the same craft and gear, the family generally lived and ate together. But with the government loan schemes and, later, motorisation, men became the beneficiaries and as they began to gradually acquire their own fishing equipment, the earlier pattern of the family also disintegrated. The change in ownership has also affected the place of women in these communities. They no longer inherit a share and have gradually become victims of the dowry system.

Health Practices

A greater awareness regarding health seems to be a common feature. This has probably resulted in improved health practices. All the respondents do accept that general facilities have improved. This is reflected in the health statistics cited in Table 17.

The number of home births is low in all areas except for Parappanangadi where nearly 48 per cent of the births take place in the home. On an average 50 per cent of the births take place in Government hospitals. Immunization is also on the increase, even in Parappanangadi with a large percentage of home births. This means that home deliveries are conducted by local skilled midwives which in itself is a good practice. Kasba and Nattika are the only areas where the practice of birth at home is non-existent now. In Kasba, immunization is total. The mortality rate of children under 5 here is also nil. This would suggest that the reason for deaths in this category in other areas is probably due to the poorer immunization levels. In Enayam, since there is no Government hospital in the area, people increasingly frequent the private hospital. This is significant because it involves higher costs and reflects the increasing importance respondents give to the birth of their children.

Status of Women

Two indicators—the age of marriage and the practice of dowry—can be used to examine whether there is any discrimination against women.

The official minimum age of marriage for women is 18 years. It is generally assumed that this legislation is followed more than before. The data, presented in Table 18, reveals some interesting facts.

Women above 50 years of age in Anjengo, Nattika and Parappanangadi, were all married below the age of 18. In Enayam it would appear that women are now marrying at an earlier age than before. This drop could be attributed to the older women having difficulty in recalling their exact age at marriage. On the other hand, the reasons for the lower age at marriage could be (i) that families no longer feel they can "protect" their daughters and so wish to marry them off as soon as possible and (ii) that the younger the girls the lower the dowry that has to be paid. In Anjengo, while the age of marriage continues to be low, it is on average higher than before. Nattika presents the most favourable picture. In Parappanangadi, the age is still very low and this probably has to do with the fact that (i) a young bride in the joint family has little responsibility and (ii) the cultural pressure that a woman should become a mother. The picture is most distressing in Kasba where there is a marked increase in the number of women married below the age of 18 years. In Kasba, particularly, where descent was matrilineal earlier there was no reason to marry the daughters at a young age and divide the family assets. Today, with the loan and subsidy schemes started by the Government, more of the assets are held by the men and the system of dowry is gradually being introduced. Hence, the earlier the marriage, the less the liability.

Dowry was non-existent in the Arayar communities of Nattika and Kasba. In Kasba, this practice has started only very recently and could be because the females no longer inherit a share of the fishing equipments. In fact, most people in Kasba are not even conscious that the system exists in that village. However, today dowries are not demanded but are expected. They are seen as a necessity, to give the new family, productive assets. For example, in Nattika and Kasba today, the number of cases where people have fallen into debt because of the payment of dowry are as follows:

Nattika: to pay dowry—18 cases, average Rs. 15,000
to buy gold—1 case, Rs. 25,000

Kasba: to pay dowry—3 cases, average Rs. 6,000
to buy gold—1 case, Rs. 15,000

On the whole, the demand for dowry has increased. This has resulted in

(i) families being thrown into deep debt if there are many daughters to marry; and

(ii) the fear of having more female children has pressurised couples to go in for family planning. This is supported by the fact that the survival rates of the children have also improved, and the number of successful pregnancies have increased.

Despite Government legislation making dowry illegal this widespread phenomenon appears to be on the increase and has even started in communities where it did not exist earlier. There are various theories about causes of dowry, but in the fishing village it seems to be a way of helping the young men in some productive activity—either to help them acquire productive assets or to get them NOCs to find employment in the Gulf. In many cases, the dowry received is used to marry off another daughter and many family feuds develop on account of promised but unpaid dowries.

In many northern areas the 'Kuri kalyanam' still exists, in which the whole community participates in mobilising resources for the marriage—you get for your needs as much as you give when someone else's child gets married. All the same, marriage is still an important social event and an obligation which places pressures on the family. The impact of the increasing pressure is seen on the growing preferences of a boy to a girl child.

Demographic Factors

Preference for a boy child has many reasons but openness to family planning is certainly on the increase. Sanctions against this used to be very strong in the Christian and Muslim areas. Although women no longer feel that God will punish them if they do go in for family planning, they seem to be afraid of their husbands, who are reluctant to adopt it, except in Nattika. Table 19, which provides data on family planning, is informative.

The data indicates that most people who adopt family planning go in for sterilisation perhaps because they feel it is the easiest method. Another reason is the lack of awareness about other methods. Even in the Muslim community which has adopted family planning the least, their use is increasing. This indicates that there is a gradual change of attitudes and both in Enayam and in Parappanangadi where the women go in for family planning despite strong religious taboos.

Table-19 : Family Planning Measures

(Figures in Percentage)

	Place	Methods and cases			
		Loop	Condom	Sterili-sation	Others
Wife	Enayam	-	-	24	-
	Anjengo	-	-	60	-
	Nattika	-	-	42	-
	Parappanangadi	-	-	26	2
Husband	Kasba	-	-	48	-
	nayam	-	-	-	-
	Anjengo	-	-	4	-
	Nattika	-	-	50	-
	Parappanangadi	-	-	-	-
	Kasba	-	-	2	-

Table-17 : Child birth and mortality

Place	Age group	No.of children born by age group	Place of delivery (%)			Immunised (%)	Child mortality (by age group)		
			House	Govt. hospital	Pvt. hospital		0-1	2-5	5
Enayam	0-5	47	9	-	92	96	4	-	-
	6-12	57	23	-	77	79	12	5	2
	13-18	47	57	-	43	57	9	6	2
	above 18	76	88	-	12	17	18	21	4
Anjengo	0-5	26	19	54	27	77	4	-	-
	6-12	48	58	29	12	50	17	2	-
	13-18	51	90	8	2	10	16	2	-
	above 18	126	97	3	-	2	18	5	5
Nattika	0-5	17	-	82	18	94	6	-	-
	6-12	36	47	50	3	64	-	3	3
	13-18	57	72	28	-	32	11	7	-
	above 18	94	94	6	-	2	13	3	2
Parappa-nangadi	0-5	46	48	41	11	74	4	-	-
	6-12	76	76	20	4	36	9	7	-
	13-18	62	89	8	3	21	3	5	2
	above 18	140	96	4	-	4	20	4	3
Kasba	0-5	7	-	71	29	100	-	-	-
	6-12	43	14	42	44	65	2	2	-
	13-18	62	71	13	16	13	3	8	2
	above 18	148	99	1	-	-	5	6	1

This study did not go into child-rearing practices which may also indicate other reasons for the variation in survival rates between areas as shown below.

Centre	Survival rate per 1000 births *
Enayam	8.1
Anjengo	8.0
Nattika	9.6
Prappanangadi	8.3
Kasba	9.4

* survival rate upto 5 years of age.

Nattika and Kasba show the highest survival rates with the lowest rate being in Anjengo. The reasons for this could be as follows.

1. There is less awareness of and less knowledge of, immunization in Anjengo; and

2. A large percentage of women in Anjengo go fish vending and probably do not have sufficient time to care for the children. In Enayam, despite immunization practices being better, the survival rate is lower than in Parappanangadi where only 73 per cent of the children are immunised. This would suggest again that since more women are at home in Parappanangadi they can pay more attention to the children.

It can therefore be concluded that better medical facilities alone do not help to improve health standards of women and children. Child care being the sole responsibility of women, better facilities for working women would go a long way in helping women to cope with both work and child-care. It is notable that in Anjengo and Enayam, where the infrastructure for organising women does exist, not much has been achieved in this respect.

Table-18 : Present Age of Women and Age at Marriage of Women
(Figures in percentage)

Place	Present Age	Age at Marriage			
		below 18	18-21	22-25	above 25
Enayam	19 - 25	9	82	9	-
	26 - 35	7	73	20	-
	36 - 50	41	6	47	6
	above 50	-	-	60	40
Anjengo	19 - 25	13	87	-	-
	26 - 35	53	47	-	-
	36 - 50	55	44	-	-
	above 50	100	-	-	-
Nattika	19 - 25	-	100	-	-
	26 - 35	8	59	33	-
	36 - 50	10	71	19	-
	above 50	100	-	-	-
Parappanangadi	19 - 25	100	-		
	26 - 35	82	18	-	-
	36 - 50	94	-	-	-
	above 50	100	-	-	-
Kasba	19 - 25	40	40	20	-
	26 - 35	71	29	-	-
	36 - 50	58	37	5	-
	above 50	11	67	22	-

While a much more comprehensive policy has to be evolved regarding family planning, women certainly feel they have some control now over an aspect of life that was earlier considered to be God's domain and as a result of which they came under greater obligations and pressures. Now, that the communities at large are beginning to feel that they have to control the size of their families it will help in managing the pressure on fish resources. To the extent that labour intensity declines with modernisation and industrialisation, people in the rural sectors are forced to earn a livelihood from the common property resources—in this case, the sea. It is well-known that the inshore waters are optimally, if not over-exploited as a result of the increasing fishing pressure. Hence, any desire for sustainability has to take the demographic factor into consideration.

Education

Kerala's efforts in making basic education facilities accessible to the large majority of people are well-known. Primary and even upper primary schools exist in close proximity to all fishing villages. How are these facilities used by the local population? Table 20 shows educational levels in the areas under study.

The data indicates that none of the male or female heads of households have more than primary school education. Although, all were admitted to school, it is not certain how many of them can still read and write today. The lowest level seems to be in Parappanangadi followed by Anjengo. Table 21 gives a picture of the educational level of the present generation and the reasons for them dropping out.

Table-20: Education Level of Heads of Household

Area	Sex	Standard upto which studied				
		1	2	3	4	5
Enayam	Female	12	1	17	20	-
	Male	14	3	19	9	-
Anjengo	Female	21	20	7	1	-
	Male	21	15	3	8	-
Nattika	Female	19	15	11	4	-
	Male	7	25	16	1	-
P.angadi	Female	33	15	2	-	-
	Male	18	26	2	2	-
Kasba	Female	4	26	17	2	-
	Male	2	17	17	5	-

In the present generation, 98 per cent of all children of school going age are admitted to school but even at the level of the lower primary school there are dropouts because of family circumstances. It is also established that children who have attended the Government schools for even 4 years in the coastal areas may still not know how to read and write. So, while parents consider it more important now to send their children to school—and many put in additional effort to do so—the attention the children receive at the school is extremely low. This also varies from area to area. A recent study on dropouts in the coastal area by Jessy Thomas reveals the following:

(a) Basic education has gained added importance among the younger generation of the fishing community;

(b) Education, to a limited extent, also enables the fisherfolk to be mobile and helps them to get employment outside;

(c) There is a growing problem of educated unemployed youth. The latter gradually have to find work in fishing-related activities itself;

(d) Religion has an influence on education. While Christian leaders encourage secular education, Muslim leaders do not seem very serious about it. Hindu leaders do not have any direct influence on the education of the community although educational grants by caste criteria were earlier available to the Hindu fisherfolk; and

(e) In Anjengo, even illiterate parents are interested in educating their children, but low income is a hindrance in pursuing studies. In Parappanangadi, despite better levels of income of the parents, their low level of education and their lack of interest encourages boys to go fishing. This is one of the few villages where there are illiterates amongst the younger males[2].

We may conclude from this chapter that the general infrastructure and services have improved. Some of these improvements appear to be a result of the spillover of the development efforts of the State and others a result of the determination of the people to improve their own living conditions. While these improvements have not made radical changes in the lives of the fishing people, they indicate that this community is no longer marginalised. The low age at marriage and the increasing demands for dowry are indications of increasing social pressures and growing discrimination against women. This is carried to its extreme in Kasba where the inheritance of the women is transferred to men because the State considers the man as the owner of the tools of production. Education is one area where inputs will have to be made in the future.

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2 Jessy Thomas: Socio-Economic Factors Influencing Educational Standards in a Marginalised Community, A case study on the marine fisherfolk of Kerala. 1989, CDS Library

Table - 21: Educational level of children under 16 years

Centre	Sex	Age (years)			Studying	Percentage of Dropouts						
		5	5-10	10	Joined	school	Class last studied			Reason (Code)*	Job (Code)**	
					Yes	No	LP	UP	HS***			
Enayam	Male	45	23	31	37	24	3	11	13	-	1 - 34 2 - 20 3 - 3 7 - 6	1 - 11
	Female	38	35	27	58	8	1	1	4	3	1 - 33 2 - 5 3 - 1 7 - 2	1 - 1
Anjengo	Male	37	10	44	61	15	-	7	5	2	1 - 24 2 - 12 3 - 2	1 - 2 2 - 7
	Female	22	39	39	71	15	-	2	12	-	1 - 15 2 - 10 4 - 5	-
Nattika	Male	24	29	48	86	2	-	-	2	-	1 - 12 3 - 2	1 - 2
	Female	17	29	54	93	-	-	-	-	-	1 - 7 1 - 27 2 - 3 3 - 3 7 - 2	- 1 - 3 5 - 2 1 - 29
P. angadi	Male	32	43	25	65	6	2	2	5	-	3 - 2 7 - 2	-
	Female	33	33	33	68	3	-	2	-	2	1 - 8 2 - 4	-
Kasba	Male	13	42	45	89	4	-	4	-	-	1 - 5	
	Female	8	30	62	86	5	3	5	-	-	2 - 3 7 - 5	-

* - Reason code: 1. Below 5 years 2. No interest in studies 3. Poor economy
4. Helping in household activities 5. Helping in fishing 6. Waiting to go to higher studies 7. Others.

** - Job code: 1. Helping in household fishing 2. Go to fishing as coolie 3. Home servant 4. Involved in other occupations 5. No job/ trying for a job.

*** - LP is Lower Primary, UP is Upper Primary and HS is High School.

CHAPTER III

Work Organisation And Financial Aspects

Rapid changes have been taking place in fishing practices, and the underlying purpose of the study is to document these changes and see what impact they have on the day-to-day life of the community. Fishing practices change because of various factors like the dwindling of the resources, increased competition for them and, in today's world, changing consumer preferences.

As mentioned earlier, these changes have not been uniform because of variations in the fishery in each area. The changes have also altered the stratification in the village. Drawing conclusions and making generalisations become a more complex task. The changes described here have been in the area of technology, techniques, the depth at which fishing takes place, the ownership patterns and, in some cases, the organisation of work, the sharing pattern or the method of first sale of fish. Only the traditional sector is being considered in this study.

The details of the ownership of equipment are provided in Table 22.

Respondents who fall into columns 4, 6 and 7 are owners of a complete unit, those in 4 being owners of non-motorised equipment. The proportion of households owning no equipment is high in Anjengo. In fact, except for Enayam, in the other areas the number of coolies is significant. In Anjengo, only 18 per cent of the respondents have been able to motorise their units.

It is meaningful to compare why there is a large difference in ownership of equipment between Anjengo and Enayam where the fishing techniques are very similar. In Enayam, the kat-

Table - 22: Details of Ownership
(Figures in percentages)

Place	No equipment (coolie) (1)	Craft only (2)	Gear only (3)	Craft and gear (4)	Share in motorised unit (5)	Craft gear and engine (6)	Craft gear engine and share in ring seine (7)
Enayam	16	-	-	44	2	36+2 boat (M)	-
Anjengo	48	-	2	32	-	18	-
Nattika	22	-	-	6	10	6	56
P.angadi	28	-	-	8	16	6	42
Kasba	24	-	-	-	20+8 share in boat (M).	2 ring seine; 4 boat (M).	34+8 share in boat (M).

tumaram is still a viable craft. The fishermen here also resort to migration-sometimes with their craft. This means that they can be productive with the investments made by more of them. In Anjengo, the kattumaram seems no longer to be viable and migration is not so high. Very few fishermen have dared to take the risk of investing in motorised craft here. In Enayam, the government subsidies make it easier for fishermen to motorise their kattumaram. In Anjengo, the new plywood unit works out more expensive and only those who are confident of breaking even risk going in for it.

In the ring seine sector, about 40-55 per cent had a motorised unit before taking a share in the ring seine. In areas where this is considered the main craft and gear, only 50 per cent of the fishermen have been able to afford it. (The proportion of those who have a share in the ring seine in Parappanangadi has increased since the data was collected).

With the introduction of shared ownership, Nattika and Parappanangadi seem to pursue a more equitable system although there are always some excluded from this process, calling for explanation. For example, share holdings in Nattika are more equitable, while there are still disparities in Parappanangadi.

Table - 23: Price of Fish (Kg)

(In rupees)

Place	Non-mechanised	Mechanised		
		Ring seine	Gillnet , H & L	Kollivala
Enayam	12.30	-	11.50	-
Anjengo	6.15	-	5.80	-
Nattika	10.80	3.90	8.75	-
Parappanangadi	4.90	3.40	-	6.80
Kasba	-	1.95	-	-

Table - 24: Fishing Capital Endowment (craft+gear) per unit

	Fishing capital per owner household (Rs.000)			
Place	Non-motorised + gear	Motorised vallam +gear	Motorised Plyboat + gear	Ring seine
Enayam	5.56	41.46	53.83	-
Anjengo	11.32	-	54.08	-
Nattika	-	23.04	-	383.8
Parappanangadi	-	-	-	169
Kasba	-	-	-	344.8

In Kasba, despite the introduction of the shared ownership system three years earlier, not all have been able to benefit from it. About 24 per cent of workers still do not have a share in the ring seine. Credit availability, both in terms of the individual's accumulated assets or ability to borrow is certainly one reason for this. This is borne out by the fact that fish fetches the lowest price in Kasba (Table 23). The returns to the fishermen are therefore low and the accumulation of gains for reinvestment is difficult for a large number. The total catch per unit in Kasba is also low as the initial number of fishermen is higher.

It is important to mention here that the motorisation which has taken place, has been encouraged by subsidies from the State. In fact, the cost and earnings data alone would reveal how far motorisation would have been viable without State subsidies. Besides the new costs and even debt burdens imposed on the fishermen as a result must also be kept in mind. Table 24 shows the capital endowment per household in craft and gear.

Various observations can be made from Table 24 and 25.

i) The changes in production that have taken place in the traditional sector have been influenced by the traditional values of the community, ie, with the participation of all the fishermen. The introduction of the large vallams and ring seines, with a shared ownership pattern ensures that the majority have opportunities for work and a share of the resources. This is unlike what happened with the introduction of trawl fishing and the mechanised craft a couple of decades earlier.

ii) The latter is confirmed by the study by Platteau et. al. which notes that "the investment needed to modernise fisheries (i.e. the mechanised trawl and gill netters) was of considerable magnitude and could never have been financed locally". The investments in the 70s were around 1.5 to 2 lakhs, for mechanised boats and the outside investors largely cornered the new technological artifacts. The investment by artisanal fishermen for ring seines (ranging from 3-4 lakhs during the study period) on the other hand, have been made possible by group ownership.

Table-25: Worker and Non-Worker Composition of Crew and Capital (1988)

Area	Avg.size of ownership group	Owner crew	Non fishing owner	Total investment in Rs.'000	Percentage contributed by non-fishing owner
Nattika	40	37	3	384	8 %
Parappanangadi	20	16	4	169	20 %
Kasba	36	33	3	345	8 %

iii) State subsidies have played a role in encouraging the small sector to become bigger in some, but not all, areas;

iv) Local fund mobilisation and system of shared ownership has ensured that even many of the financially weak fishermen, but who could muster up some resources, have been able to participate in the process—whereas at the same time for those who could mobilise more resources there is allowance for proportionately bigger shares.

v) Total investments in craft and gear have increased substantially. While it is true that a greater number of workers have participated in this process of change, production on the whole has not increased proportionately. This means that the increased investments have only contributed to help the workers survive in the sector. Table 25 illustrates the share of capital invested by workers and nonworkers in the new ring-seine sector.

vi) The opposite may also be true, i.e. that new debt burdens are pushed onto small fish-workers in the struggle for survival with promises of better returns.

vii) In Enayam, where motorised crafts and the traditional hook and lines and other nets are the main tools, individual ownership is high. This is the general feature south of Quilon and for some distance up the east coast. This is related to the nature of the multi-specied fishery. The people's co-operatives have not been able to help create any group ownership. All the members of the co-operative do accept its positive role in providing credit for modernisation. But the underlying principle has been more an enhancement of the productive capacity rather than managing the fishing effort and, thereby, improving returns.

These factors have a bearing on whether or not a consciousness for management can gradually be built up in the community. If the larger number of crafts are owned by worker-fishermen then they have a greater stake in the sustainability of the resource. This is unlike what probably happened as a result of mechanised trawl fishing. The early investment did not come from people who had a stake in sustaining the resource. The early windfalls thus led to investments in merchant operations and other activity. Such investors did not intend their children to be associated with the fishing occupation.

Nature of the Changes

The more detailed changes in the craft and gear over the last decade can be explained by the following tables.

The changes in craft have been very need-based and quite rapid over the last decade. There has been substantial change in both size and design of craft. In the south, new designs made of plywood have come up to cater to the motorised sector. In other areas, the plank canoes have been scaled upwards to meet the requirements of the ring-seine sector.

Table 26 shows that, in Enayam, the old craft is still viable for those who cannot afford the new craft. In Anjengo, the large majority haven't been able to afford the change, although the old craft is not viable. In Parappanangadi, the situation has changed since the data was collected.

Table-26: Changes in Craft
(Figures in percentages)

Changes	Enayam	Anjengo	Nattika	Parappanangadi	Kasba
no change	48	54	26	40	74
from kattumaram or dugout to plank	18	2	54	34	-
from kattumaram or dugout to ply	20	14	-	-	-
from share on vanchi to share on vallam	-	-	46	38	-
from individual to shared ownership	-	-	14	42	2
from owner to coolie	2	14	2	4	6
from coolie to share	-	-	1	2	-

Table-27: Changes in Gear
(Figures in percentages)

Changes	Enayam	Anjengo	Nattika	Parappanangadi	Kasba
no change	24	8	-	14	2
from cotton to nylon	58	64	84	74	76
from nylon to monofilament	4	64	12	6	4
reduced mesh sizes	4	-	56	68	74
change of net to disco/ring	4	20	56	42	74
increase in Qty/size	20	56	72	70	74
from hand made to machine made	20	66	80	68	74

Almost all have gone in for a share in the new craft. In Kasba, only the gear changed. The fishermen used the same craft.

The changes in gear are not such a recent phenomenon as nylon nets and artificial baits were introduced over three decades ago.

Whereas the changes in the material used seem to be more universal, the increase in quantity and decrease in mesh size have been more in the ring seine areas as shown in the table above.

Table 28 presents data on the use of engines. It is seen that, except for Enayam, fishermen no longer find it possible to operate without a motor. In Anjengo, those who have not gone in for a motor are no longer viable and find it difficult to survive.

Table 29 indicates that sails are still used on the small boats in Enayam and Anjengo but that their use is gradually declining in the other centres.

Table-28: Use of Engines
(Figures in percentages)

Changes	Enayam	Anjengo	Nattika	Parappanangadi	Kasba
Introduced	26	16	72	52	74
Increased HP	2	-	52	62	-

Table-29: Use of Sail
(Figures in percentages)

Changes	Enayam	Anjengo	Nattika	Parappanangadi	Kasba
stopped because of engine	18	20	72	50	74
increase size	-	24	-	-	-
started using sail again	-	-	-	-	4
rarely used	6	2	-	22	-
using as always	56	38	-	2	-
stopped despite no engine	-	-	10	8	-

Table-30: Other Changes
(Figures in percentages)

Changes	Enayam	Anjengo	Nattika	Parappanangadi	Kasba
Use of light	84	18	-	34	-
Change in baits	80	30	-	-	2
Going to greater depth	84	84	72	70	74
Migration to other areas increased	-	-	76	18	74

Table 30 above shows other changes that have been introduced in the fishery.

The pattern of change seems to be slightly different in the southern and the northern areas and this is primarily an outcome of the nature of the fishery being more multi-specied in the south than in the north. In both cases, the fishermen are forced to go to more distant and deeper fishing grounds, and extend their nets, which means that they are becoming more aggressive. In Enayam, they have begun to also use a greater variety of baits being largely hook and line fishermen.

Ownership of craft and changes in technology

In the northern areas, where the most important change in the decade has come with the ring seine operations, only Nattika and Parappanangadi have seen a drastic change in the craft as well. The large Alleppey vallams replaced the local canoes and with it also came the shared ownership pattern of Alleppey.

A form of shared ownership already existed to some extent in both Parappanangadi and Kasba. In Parappanangadi, it was based on the joint family structure in that the operational unit included all the adult males of the household. In Kasba, the operational unit was made up of 4 crafts owned by different families. This collective unit has continued in Kasba with the craft remaining the same. When the Alleppey vallam was introduced into Nattika and Parappanangadi, shared ownership of craft and gear followed, as investment needed for a unit could be around 3-6 lakhs of rupees (in 1989). Nattika went further than merely shared ownership. It went into organising small worker-owned companies with their own rules and regulations, i.e. groups of 40 persons bought the shares together and decided on a division of labour amongst themselves, each being entitled to equal returns. For instance, not all 40 shareholders are required to go out fishing. Between 30 to 35 men go out fishing but all have to be present on the shore at the time of the launching of the boat and when it returns. Those who do not go fishing have to assist with shore activity. Absence on the shore means no share of the catch that day.

While increased investment in craft and gear necessitated changes in the organisation of labour (and in Nattika even changes in work organisation), it did not lead to development of greater community management of fishing. For example, in the early 60s when the trawlers were

introduced in Kasba, after initial operation the community decided when and where the trawlers would operate as compared to the traditional nets. Thus, an understanding was achieved regarding the exploitation of the fish resource and in cases of social conflict. But no such communitarian control seems to have followed when the OBMs and the ring seines were introduced. Even in Nattika, where the community realised the need for shares while investing in large craft and gear the objective of the "companies" has been to acquire more working units.

In Parappanangadi, some units play a subsidiary role. Fishermen who could not muster resources either to invest in an engine or to have a share in the new units have retained their craft and act as carrier boats to the larger units. They are towed along by the larger units and bring home the catch as the big boat comes back with the huge net and the crew. So while the towed boats do not fish, they share in the profits—a new division of labour on the one hand and a utilisation of existing resources on the other. It must be added, however, that shares are by no means equal. Shareholders may have a full share, or a part of a share. But this pattern of share-holding in Parappanangadi has created its own problems as group discussion with several younger fishermen have revealed. While introduction of the larger crafts, especially the new Alleppey crafts, has led fishermen to adopt the pattern of shared ownership, these shares are not equal. There are some who have a 1/10 share or even a 1/5 share, but there are others who may have a 1/20 or 1/23 share. This makes for big differences when the share is divided 40:60 between capital and labour. The young group call this the coming of capitalism because now there are also non-fishing owners with big shares. This leads to what they call 'unemployment'. The bigger shareholders have the right of employing the labour they like. Many of them have chosen to employ workers from Alleppey who are used to operating the nets. The local youth feel that they have been deceived in the process. Ironically, at first the village had rejected the idea of introducing the ring seines. But it was the youth who had pushed for it thinking it would generate employment because each net needed 40 workers. But now, the youth are at the mercy of the owners, not having resources for investment.

(It must be mentioned here that the data in Parappanangadi was collected at the time when the ring seines were just beginning to appear in the area during September-October 1988. But, by 1990, there were 22 units in the village, with larger participation of the working population in the fishing operations.)

A word about the non-working owners who constitute an important aspect in share-owning is necessary, based on an examination of the labour market and credit relations. A comparison of the changes accompanying trawling and motorisation is useful. Platteau's study in Sakthikulangara showed that where the 32 feet trawl mechanised boats were introduced almost 66 per cent of the boat owners had never been regular fishermen in their lives. Of the other 34 per cent, the majority stopped active fishing within a few years. They shifted to a commercial occupation related to fishing which helped them accumulate sufficient assets to put them in a sound financial position. Platteau preferred to call this class "merchant capitalists" as they stood on the verge of being pure financiers and renters. But changes within the traditional sector have not followed this pattern. All the motorised craft in Enayam and Anjengo are owner-operated and in Nattika, Parappanangadi and Kasba, where the ring seines operate, a non-worker owner group has emerged but it is significant only in Parappanangadi where it has contributed 20 per cent of the capital.

Nevertheless, unlike in Sakthikulangara, where the incidence of tied loans decreased with the increased investments, in the case of the ring seines, the role of the *tharakans*—money lender-cum-auctioneer —is significant. This has had both a negative and positive effect on the borrowers. The positive aspect is that since, either a 5 per cent auction charge (as in Parappanangadi) or one share of the catch needs to be paid as interest and the principal returned only when the catches are good, the fishermen are willing to risk borrowing large amounts regardless of repayment. The negative aspect is that they are not free to auction their own catches. Nevertheless, in Nattika, the tharakans have been able to get the best possible prices whereas the fishermen in Parappanangadi and especially Kasba probably suffer from this dependence, in that prices are very low.

With the coming of the ring seines, the earlier gear has become defunct. Some of the families have equipment worth Rs.50,000 to 60,000 and all this is now dead investment. The traditional family fishing is now carried on individually, breaking up all the old family-based support structures. The individual borrowing makes people highly dependent on the *tharakans* and merchants who lend money. The youth say that the merchants have always been exploiting them because they provide the loans in poor fishing months and have the right to auction the fish and take a 5 per cent commission. Now, together with the addition of the 5 per cent, even greater indebtedness has resulted.

Opinion against operating ring seines at night has been expressed by even the northern fishworkers who are in favour of this gear. In Alleppey, the workers themselves have stopped the night use of ring seines since 1989. They also favour stopping the use of lights while fishing given the excessive amounts of kerosene needed, which has often to be bought on the black market, given the shortfalls in kerosene supply, and thus is a financial drain.

Besides, this modernisation is based on non-renewable resources like oil and nylon (for nets). The boats are made of wood which is also becoming a scarce resource. An all-round control of various aspects of fishery alone can prove to be a sustainable alternative.

Fish marketing

Looking at sale of the fish, it is generally agreed that the number of buyers has increased and that, except for Nattika and Parappanangadi, the new buyers are mainly women. The men who have entered the market are large merchants. There are great variations in the manner of first sale, for men and women. But, with increased cash sales women complain it becomes more difficult for them to enter into bulk purchases in the auction. In some areas, women form a group for purchasing, but a lot of organisation is needed. Not much importance is given to these aspects even where cooperatives exist, given the predominance of men. In fact, in the urge to get money back to the producer, cash sales are encouraged. Experiences in Trivandrum district however show that although the salesmen from the co-operative insist on cash purchases, the credit outstanding with the salesmen is always high and on many an occasion the credit has to be written off. In Enayam, as the salesman is paid a percentage of the cash he brings back to the society, the outstanding amounts are not all that high. In Trivandrum, the conclusion reached is that the gains to individual members are equalised by collective losses—though this figure has not been calculated. If this situation is true, it makes for an absolute disadvantage to women.

Discussions in Enayam and Anjengo highlighted certain opinions. In Enayam, the fishermen feel that each one should have the facility to credit, although they know that credit needs are on the increase. They believe that the supply of credit has to be a norm in the co-operative. In Anjengo where the old craft still has to be used, the fishermen are more sceptical. While they do feel that the new motorised ply boats bring home better catches, the risk involved in going in for those boats can be taken only by those who already have other assets. Hence, the fishermen, aware of their own limits, prefer to work only as coolies.

In Nattika, the sales are mainly undertaken by the tharakans. Earlier it was based on trust and a feudal bond. The tharakans took 5 per cent of the catch as commission and interest. Today, the old tharakans have been pushed into the background as advances required by the fishermen have increased. The younger tharakans, make use of credit taken from banks and individuals and re-lend it to fishermen, the terms being one share of the catch as interest and 5 per cent commission for the auction. Given the big risks taken, they make sure that the buyers (merchants) make down payments in cash. One tharakan is the financier-cum-auctioneer for a particular ring seine unit. Interestingly enough, as mentioned earlier in the techno-economic study, the prices for the ring seine catches are highest in Nattika which suggests that not only is it a sellers market but also that tharakans who get a share of the proceeds see that they get good prices.

In general, all the respondents agree that the prices they receive both for locally consumed varieties of fish and the export varieties has increased.

Training in Fishing

Despite the above changes in the actual fishing technology, fishing however remains very much a traditional occupation as can be seen by the early age at which they start fishing (See Table - 31).

But this does not mean that unskilled labourers from other sectors do not find a place in the fishery. Fishing still requires traditional skills but in the ring seine areas these are limited to very specific tasks in the unit and these jobs are reserved for good fishermen. However, there is also room now for strong unskilled labour, who can haul in the ring seine at great speed, a job requiring strength. Moreover, with the kind of sharing system that has evolved with collective operations and ownership, there are shares for those who do not actually go fishing. Such owners, in some areas, delegate their working rights to labour from other sectors, in search of work.

Table 32 shows how the respondents were initiated into fishing.

Those who learned fishing from relatives or as coolies are those that came from families without assets. The majority, all the same, have learned to fish from their fathers. Moreover, they learn to fish at a young age as can be seen in the earlier table.

In the age group 14-18 years, almost 50 per cent are involved in fishing while around 34 per cent are studying. A further break-up shows that 44 per cent in the ring seine sector, 43 per cent in the sector of motorised craft, 55 per cent in the non-motorised sector and 62 per cent from coolie families are involved in fishing.

Table-31: Age at Which they Started Fishing
(Figures in percentages)

Place	Present age	Age at which started fishing				
		below 10 years	10-14	15-17	18-21	22 and above
	18-21	-	-	-	-	-
	22-30	-	60	20	20	-
Enayam	31-45	-	26	52	17	4
	46-60	-	50	40	10	-
	above 60	-	-	100	-	-
	18-21	-	-	-	-	-
	22-30	-	25	75	-	-
Anjengo	31-45	-	24	72	4	-
	46-60	-	45	45	9	-
	above 60	-	75	25	-	-
	18-21	-	-	-	-	-
	22-30	-	80	20	-	-
Nattika	31-45	-	30	30	26	13
	46-60	-	37	37	21	5
	above 60	-	-	-	-	-
	18-21	-	-	-	-	-
	22-30	-	50	50	-	-
Parappa-	31-45	-	30	65	4	-
nangadi	46-60	-	38	50	13	-
	above 60	-	-	100	-	-
	18-21	-	-	-	-	-
	22-30	-	-	100	-	-
Kasba	31-45	-	11	5	84	-
	46-60	-	7	20	67	7
	above 60	-	-	-	100	-

The general trend is that fishing in the southern villages require much earlier induction into fishing as a result of the type of training required for fishing. In the northern centres, a later induction is feasible for success in fishing. Still Parappanagadi inducts youth into fishing at an earlier age because education is not a high priority in the muslim community there.

Labour mobility, individual employment rate, unemployment of labour force

In Enayam and Anjengo, at least 10 per cent of the fishermen work either as owners or as coolies but no one in the sample is bonded. According to Platteau et.al, "In traditional fishing villages, credit, labour and marketing relationships are often interlocked in a way that restricts the economic freedom of the debtors and reinforces the impact of imperfections in each market.

Table - 32: Initiation into Fishing
(Figures in percentage)

Present age	by father	by relatives	as coolie
18-21	-	100	-
22-30	70	7	23
31-45	77	10	13
46-60	79	8	13
above 60	90	10	-

However, the incidence of individual contracts encompassing the sphere of credit seems to be bound to decline in areas where growth is rapid and credit loses its character as a scarce good[3]".

Despite this, their study revealed no phenomenon of debt bondage existing on a perceptible scale in the marine fishing villages of south Kerala. Whereas credit marketing contracts exist, credit labour contracts are not significant even in the north.

To make sure that the fishing units will have enough crew in the fishing seasons the practice of advances for labour has been common in traditional fishing villages. Platteau noticed that, there was no evidence of credit-labour relationships being intermixed in the modern sector of Sakthikulangara. He advanced the hypothesis that the incidence of interlinked contracts is large in traditional fishing villages but is bound to decline and to eventually vanish when these villages are opened to modern market and technological forces. He feels that this kind of "historical law of development is congruent with the general experience, that while traditional societies take on the form of complex networks of personalised relationships, the modern societies rest on the interplay of anonymous and single interest, one-sided relationships[4]". The above need not necessarily be the reasons for the breakdown of credit-labour intermixed relationships. The mere shortage of labour may be responsible for such a credit-labour relationship. A likely reason for its breakdown would be the greater proletarianisation which takes place with modernisation, leading to a labour surplus and requiring no credit to secure it. This is clearly seen in Anjengo. Fishermen are not willing to hire anybody at random for the motorised craft. In fact, advances given to ensure a good hand, and not merely any one. In Anjengo, the motorised boat owners even want to keep all the activity within the extended family because this is a way to ensure saving as well. Thus, there exists simultaneously a surplus of underemployed and unemployed labour and a shortage of good hands for work.

While the need for labour continues to exist, the rationale for interlinked contracts in the traditional setup has disappeared. Moreover, the *thattumadi* (boat seine) operations which

3 J.Philippe Platteau, et.al, page 235

4 ibid, page 242

made such interlinkages a necessity earlier do not operate to the same extent as they did before. They have been replaced by other gear. Labour-tied loans were not independent of the type of fishing used. In fact, in most of the areas studied, only a few respondents said they had earlier taken such advances. Those owning small motorised boats are less dependent, if father and son go fishing and the larger units are collectively operated. In such cases, the chances of outside labour being inducted is more remote.

The individual employment rate, nevertheless, seems to be low. This is at once visible in any fishing village where one notices many men at home during the day. The general notion is that a fisherman is underemployed when he doesn't possess seasonal equipment. This no longer seems to be a factor as the nets that are presently used, like the trammel and ring seines, are all-purpose nets. In the southern areas, the fishermen are considered to be well-equipped when they also engage in hook and line fishing. Even taking into account bad weather for two or three months a year, for all practical purposes the fishermen should be operating for at least 9 months a year. Table 34 shows the period of time for which fishermen are actually engaged in fishing over the course of a year.

Only 30 per cent of the total sample are fishing for about 10 months or more a year which means that there is not only a high unemployment of labour but also a high unemployment

Table-34: Active Fishing Months of Units
(Figures in percentages)

Place	Ownership pattern	No.of months engaged in fishing				
		1-3	4-6	7-9	10-11	12
Enayam	Motorised	5	11	42	32	11
	Non-motorised	7	20	60	7	7
	Coolie	100	-	-	-	-
Anjengo	Motorised	-	-	43	57	-
	Non-motorised	-	-	65	35	-
	Coolie	-	13	63	19	6
Nattika	Ring seine	8	60	28	4	-
	Motorised	40	20	40	-	-
	Non-motorised	33	67	-	-	-
	Coolie	25	25	25	-	25
Parappa-nangadi	Ring seine	-	-	33	67	-
	Motorised	-	-	33	67	-
	Non-motorised	-	25	50	25	-
	Coolie	-	17	67	17	-
Kasba	Ring seine	-	6	31	63	-
	Motorised	-	-	80	20	-
	Non-motorised	-	33	67	-	-
	Coolie	-	22	56	22	-
	Total	6	20	44	27	2

Table-35: Reasons for Men not Going Fishing
(Figures in percentages)

Reason	Number of responses			
	Sometimes	Frequently	Not at all	No response
Rough sea	60	6	2	32
Illness	44	8	16	32
Problem of equipment	42	11	20	27
Drunkeness	2	2	70	26
Laziness	-	1	65	34
Illness of children	30	1	35	34

of invested capital. Although it could be that owners may hire out the equipment for use to others, this is not a very common occurrence. This implies that motorisation has not really led to an increase in the number of working days.

Women were asked the reasons for their husbands not going to sea. Their responses are shown in Table 35.

A large number of women do not respond and for a larger number the response is vague. This indicates that they either do not know or do not wish to speak about their husbands.

Indebtedness

As stated by Platteau et.al. in the late 70's, "the traditional economy of marine fishing is characterised by many market imperfections, segmentations and interlinked sets of personalised transactions. Yet, it does not bear any major resemblance to a 'feudalistic' or procapitalist world of hereditary and completely asymmetric relationships stretching over indefinite periods of time. This should of course not be taken to mean that there is no problem of domination within fishing communities nor should be taken to imply that all members of these communities have an equal bargaining power[5]".

There are two types of interlinkages in the traditional fishing villages:

(i) an interlinkage of credit and labour relations; and

(ii) an interlinkage of credit and marketing of the produce

5 *ibid*, page 232

Table-36: Reasons for Increase in Debts (Opinions)
(Figures in percentages)

Reason	Enayam	Anjengo	Nattika	Parappa-nangadi	Kasba
More expenditure than income (not able to make ends meet)	58	8	2	36	-
No regular income from fishing/ dependence on credit	46	72	98	38	82
No other source of income/skills	-	16	62	4	4
Too many dependents	-	8	-	18	-
No increase in debt	10	-	-	-	-

While Platteau's study went into these interlinkages in great detail, here an attempt has been made to look into the fishworkers own perceptions regarding their situation of indebtedness.

In South Kerala there is a saying that fishermen are born in debt, live in debt and die in debt. The study found this saying being applied to the areas south of Cochin—strangely enough in the predominantly Christian areas. But even here the fishermen have begun to refute this saying. They feel that bondage to the money-lenders does not exist to the extent it did earlier and their credit worthiness has increased. Although traditional money-lenders have practically disappeared, money lending goes on. It is uncommon or very rare to find a fishing family that has no debts, but this is true for any other sector of the economy today.

Nearly 85 per cent of the respondents reported an increase in debts for the reasons indicated on Table 36. The main reason given for the increase in indebtedness is the lack of regular income from fishing, which also implies that no efforts are made to save some of the income in the good seasons.

When we examine the actual items for which money was borrowed and the average amount of borrowing for the purchase of these items, the picture is interesting (Table 37).

Table 38 gives a consolidated picture of the previous table. It indicates the loans that have been taken for productive and non-productive purposes. We notice that loans for both productive and non-productive purposes are highest in the motorised kattumaram areas of Enayam and Anjengo. The figure is higher in Enayam because of a single house construction, and in Anjengo, the figure is also inflated because of one high dowry. Both these cases fall into the first rank categories which implies that they have more access to finances.

Table-37 : Debt picture

Reason	Enayam		Anjengo		Nattika		Parappanangadi		Kasba	
	No.of cases (%)	Average amount	No.of cases (%)	Average amount	No.of cases (%)	Average amount	No.of cases (%)	Average amount	No.of cases (%)	Average amount
PROPRODUCTIVE										
To buy engine	34	10,900	11	10,500	4	6,000	9	14,500	3	14,500
To buy old engine	-	-	-	-	1	3,500	2	8,500	-	-
To buy new craft	31	15,400	5	13,500	1	4,000	3	6,000	15	17,800
To buy old craft	-	-	-	-	-	-	1	20,000	-	-
To buy gear	10	4,000	18	13,500	4	2,800	3	15,300	5	2,800
To take share in unit	-	-	-	-	2	4,500	19	11,000	6	7,000
To extend gear	-	-	3	2,800	-	-	2	3,500	2	10,000
To repair engine	5	5,800	5	7,300	2	2,500	13	2,900	6	3,250
	80		**42**		**14**		**52**		**37**	
NON- PRODUCTIVE										
Household/comsumption	14	2,900	21	2,500	28	4,600	16	3,400	30	1,400
Construction of home	2	50,000	15	9,300	19	7,000	6	7,250	19	12,250
To pay dowry	3	22,000	11	32,700	21	16,500	6	9,500	5	5,300
To buy gold ornament	2	10,000	2	15,000	1	25,000	16	10,500	1	1,500
Others/NOC etc.	-	-	10	7,500	16	8,600	4	11,300	8	9,500
	21		**59**		**85**		**48**		**63**	

Table-38: Borrowings for Productive and Non-Productive Purposes

Place	Purpose	No.of cases(%)	Average amount
Enayam	Productive	80	11,463
	Non-productive	20	10,790
Anjengo	Productive	42	11,212
	Non-productive	58	11,131
Nattika	Productive	14	4,050
	Non-productive	86	9.069
Parappanangadi	Productive	52	9,329
	Non-productive	48	7,669
Kasba	Productive	37	10,973
	Non-productive	63	6,012

In Nattika, the debts for productive purposes are strikingly low and the number of people who have borrowed is also few. This has to do with the shared ownership of the productive assets—a system that evolved as investments in assets began to increase. In Parappanangadi, where the ring seines have been introduced in a similar manner but more recently, such debts are also lower than in other areas. This is an indication of how communities find their own ways of coping with new demands leading to more equitable participation. The higher non-productive loans in Nattika and the larger number who have taken there are for things like education, job advances etc. Kasba is the only area where the loans for productive purposes are substantially higher than loans for non-productive purposes.

In Nattika and Parappanangadi, only individual loans are recorded. The fishing units also have a 40-50 per cent collective loan that is paid back from the total catch in the share that goes to the tharakan when he makes his final reduction of the principle amount. So, here again it is those with a smaller share who will have still lower surpluses as the gross returns are reduced. Those really at the bottom of the ladder get squeezed most. Those who do not want to be left behind in the modernisation race, because they are good fishermen have no other option to survive but to be thrown into greater debt. Even if the ring seine operations as such do prove to be economically viable, the shares on the ring seines are not equally divided and, therefore, the benefits still accrue to those who control more of the shares.

Table 39 shows that the borrowings against gold ornaments in Parappanangadi are high. These constitute assets in the dowry of a woman and these ornaments can traditionally be used to help add to productive assets in the family. So, it is seen that women easily give up their jewellery, retaining mainly the silver waist band which is a sign of marriage. Looking at the data for Parappanangadi, we notice that with the exception of one woman who has acquired 2 sovereigns of gold more than she had at marriage, all the rest have lost significantly in

Table-39: Gold Loss Over the Period

Place	Gold at marriage (sovereigns) (all sample families)	Gold in hand now
Enayam	604.5	388
Anjengo	232	53
Nattika	306.5	97
Parappanangadi	365	133.5
Kasba	13	12

different measures, some being left with absolutely nothing. A similar pattern is observed in all the areas as seen in the table below.

Enayam had a tradition of giving large quantities of gold as dowry, probably because of the need to create individual assets for the new family. In Kasba, with its matrilinear system, neither gold nor a dowry were important. The woman generally had her share of fishing assets earlier. Today, dowry comes into the picture and it is only those who have married recently who account for the figure above. A general feature is that the greater part of the gold has been lost or transformed into other needs over the years. This indicates that it is indispensable for the future of new families.

Even from these simple measures, it can be inferred that the situation now is more complex than at the end of the last decade. Platteau compared the complexities of the traditional and the modern sectors, taking the mechanised boat sector of Sakthikulangara as an indication of changes in the modern sector when fishing capital endowment per household worked out roughly to Rs.68,000 for the boat owners and to Rs.4000 for the vallam owners. Today, the very nature of assets of the traditional sector has changed and some of the recommendations made earlier by Platteau to "sustain" the traditional sector have actually been implemented. But what have been the consequences?

Platteau suggested that the kattumaram sector be assisted to improve assets through more credit availability for providing better craft and nylon nets and marketing for better prices by devoting research and development efforts to modernise the traditional technologies—like motorisation. At the same time, he noticed that the relative contribution of credit to the financing of fishing craft and gear in the kattumaram areas had a marked tendency to increase and that the rate of increase was positively correlated with the size of the investment, indicating a process of impoverishment. In actual fact, whereas credit was made available for better harvesting technology, no inputs were made to improve marketing or post-harvest technologies.

There appears to be no way of improving the kattumaram sector without greater indebtedness and this is borne out in the decade under review in this study. This does not seem to be so in the vallam areas where the ring seine operations were introduced mainly because of the way work was reorganised. These ring seine operations, which necessitated a much higher investment than what mechanised boats did in Sakthikulangara when they were introduced, were finally financed from within the community.

In Sakthikulangara a large number of boats were cornered by powerful people who never went out fishing. Even local fishermen began to show a clear preference for individual ownership of boats whenever they could afford it. A demonstration effect was soon noticed. To get institutional loans at reasonably low rates of interest fixed assets had to be acquired which were capable of being pledged to the organised credit agencies. To accumulate such assets most of them took up some commercial activities linked with prawn fishing etc. Thus, "as is frequently noted in agriculture, the accumulation of productive capital was financed from the ploughing back of profits obtained in non-productive sectors of activities. The ultimate aim of most boat owners was to dispense with going out to sea. The fishing craft was no more seen as a work tool which provides the owner and his family with the means of survival as well as a guaranteed employment. It was increasingly regarded as a financial asset which yields good profits as rent incomes and the operation of which is kept distinct from its ownership[6]".

Just as the mechanised trawl boats were the response of the modernisation drive of governments to improve shrimp catches, the mechanised purse seines were the response of governments' modernisation drive to improve sardine and mackerel catches. The later was appropriated by the fishworkers through the introduction of the ring seines and they demanded that purse seines be banned right at the start. This was certainly a result of the growing consciousness of the fishworkers who realised by the 80s that no better opportunities existed for them outside fishing and they thus fought for the right to work and livelihood.

Of course, more needs to be said about the kind of technology itself. By the end of the decade if the number of ring seines is allowed to increase indiscriminately, they will prove to be as destructive to the pelagic resource as the trawl nets were to the demersal resource in the preceding decade. The management of the technology used will depend on the new consciousness that develops in the decade of the 90s, on the questions of survival.

Institutional borrowing

The study tried to look into the sources of borrowed finances and whether they had changed over the decade. A pattern seemed to be emerging in all the areas with no significant differences among the wealth ranks. Earlier, the money-lenders were the main source of finance—a monopoly source. Today they are still the single highest lending group but have fallen in importance. There was also a significant borrowing from friends and relatives earlier and this category has become less important. The merchants who came third earlier are even less important now. The old situation has been unsettled by the entry of the banks and the co-operatives while the blade companies[7] seem to play a very minor role. However, it is seen that there has been no major or radical change in the borrowing patterns although there are many more institutions to borrow from. New co-operatives and agencies like the Matsyafed have their own limitations in meeting the ever increasing needs. Banks too have formalities

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6 *ibid*, page 250

7 Blade companies are unauthorised lending agencies extracting high rates of interest (eg 30%)

and it is only those fishermen who already have assets who feel confident to borrow from the banks. So, although the loans taken from the money-lenders are at higher rates of interest (as explained earlier the tharakans take as much as one share of the catch), this source of borrowing is indispensable to the economy of the community.

Platteau who went into great depth regarding the money availability and indebtedness factors goes into details on what they called 'free loans'—which are taken either from each other or from the village shopkeepers without interest. By looking into the daily income-expenditure data, it is found that the practice of 'free loans' still exists but that the use of this credit source varies according to the kind of fishing undertaken. For instance when owners are able to advance better collaterals, the role of institutional credit is more significant. In fact, according to Platteau, while the incidence of credit was considerable in all fishing villages but the level of gross indebtedness was much higher in Sakthikulangara than in the traditional villages. Within each village was well as across the villages a positive correlation was noticed between the ownership position and the indebtedness level of the households. The size of the productive expenditure played a crucial role in determining the absolute level of the household's gross indebtedness. But this indebtedness for consumption purposes being much higher in the modernised area of Sakthikulangara than in the traditional villages, could be considered a reflection of economic advancement and not of the impoverishment of Sakthikulangara's population.

The data in this study does not reveal any such trend. Obviously, the borrowings in these traditional communities are a significant burden to the borrowers and the borrowings for consumption are by no means a reflection of their economic advancement as confirmed by Table 36. This will be further discussed in the chapter on daily income-expenditure.

The discussions with the banks and tharakans project a confused picture about the extent to which fishermen return the amounts of loan taken. The banks say the repayments are irregular but do not disclose any figures. In Enayam, the co-operative takes care of bank repayments and hence the fishermen have greater credibility. In Nattika, as the tharakans also control the sales and get a share as interest, the auction prices are high and the repayments from the corpus funds of the unit also high and well-managed too. It is in the borrowings from local money-lenders and friends that an assessment of how much of the principle amounts are actually returned, becomes difficult.

Migration

Migration to other fishing areas is a common feature in fishing although the distance and time-away from home varies from one area to another. Fishermen generally used to move to places where access to the sea was easier in the monsoon months. Among the kattumaram fishermen the tradition of moving either with or without their gear to fairly distant areas for a month or more at a time was common.

But now a days, since fish at greater depths facilitated by their motorised craft, they are able to reach the fishing grounds faster and hence are not away for long periods. But apparently, inhabitants in other areas do not welcome the migrant fishermen as they used to before and so landing at other centres has become less beneficial to them. All the same these fishermen do migrate. Table 40 which presents data on migration patterns is informative.

While there is no generalised pattern, the individual craft owners move for longer periods. Enayam has a strikingly high migration rate with the majority going very far up the west coast. This has a long tradition and has not begun only in the last decade. The fishermen explain that now they 2 or 3 very different areas are covered each year. This is facilitated by the motors but it is also an outcome of growing immigration taboos which makes it more difficult to say long in alien areas. The lowest number of migrations is recorded in Anjengo. According to the women, migration seems to have become a taboo here, because of the fact that many men engage in extra-marital relationships while away and which is not accepted in some communities in the Anjengo area. Migration in the neighbouring areas is however a regular feature.

In summary, it can be said that significant changes have taken place in the organisation of work and the mobilisation of financial resources. These have been a means for the traditional fishermen to cling to the only source of livelihood that they know. Such changes have come about spontaneously, from within the sector itself.

Table - 40 : Pattern of Migration

Place	No.who migrate (%)	Average time a year	To neighbouring district (%)	Greater distance (%)	With craft (%)	Without craft (%)
Enayam	96	6 weeks	15	85	42	58
Anjengo	16	1 month	63	38	25	75
Nattika	64	4 days	72	28	97	3
Parappa-nangadi	20	2 weeks	70	30	90	10
Kasba	66	19 days	61	39	76	24

CHAPTER IV

The Daily Economy Of The Fishing Community

The household economy in the fishing community is a complex one, given the various transactions within and outside the household, some involving cash and others not. In general, the economy rests on transactions conducted on a daily basis—buying for the day's needs, as the earnings are also dependent on the day's catches. For most part, the fishing community lives from day to day, supported by the philosophy that the *Kadalamma* (Mother Ocean) cares for her children or, as the Christians would say, 'God will provide'.

The dependence on nature for a livelihood makes people believe (i) that nature's bounties are limitless but (ii) that nature provides to satisfy need and not for greed. Therefore, one fishes for food and if on any day there is a surplus then it is to be shared, or it can be used to buy the other little luxuries that daily survival efforts cannot provide.

Fishing activity is very seasonal. Although the soil does not have to be prepared and young plants nurtured as in agriculture, certain preparations are necessary either to go fishing or to provide for a rainy day. The question of arrangements to tide over times of scarcity becomes important. Over the years, fisherfolk created informal structures that provide them with a basic minimum in a reliable manner. Therefore, while it may not be possible to walk into a fishing household and be offered cooked food, that is left over, this cannot be taken as a sign of starvation. A family member only needs to go over quickly to the store nearby and procure something to offer. This is an indication of the access to credit and generally holds true not only for the poorer fishing households but even for those who have substantial amount of assets. Anita Abraham, in 'Subsistence Credit: Survival Strategies among Traditional Fishermen' (EPW.Feb.9.1985) has analysed how this works in one of the poorer villages in Trivandrum district. She says "Subsistence credit caters exclusively to the subsistence requirements...the transactions of which involve no interest upto the limit of Rs.100..Credit givers cannot be separated from credit takers because in the system of subsistence, lending is not strictly a function of surplus because even those houses which borrow may lend the borrowed surplus". She concludes that "such subsistence credit assures (i) a minimum level of consumption to the poor, (ii) for owner households it assures a regular supply of labour and (iii) for shopkeepers it ensures continuity of business".

Subsistence has therefore a community character—a system of interdependence which is a marked feature of the traditional communities. This interdependence has kept society going. It certainly works to the advantage of a few and to the disadvantage of many because of the way in which the organization of work has been structured.

In the study of Platteau et.al. where the modern sector was also studied, it is reported that "consumption expenditure represents the major purpose for debts incurred by marine fishermen. However, the contributory share of credit in the financing of investment expenditures in fixed capital is high in all villages. Moreover, the absolute amount borrowed for basic consumption expenditure is not a monotonic function of the degree of poverty of the fishermen households. Due to the varying extent of loanable funds available in the credit market the relationship between the above two variables appears to be rather complex".

An attempt has been made to understand the complexity of the situation in this study. Ten households in each village were monitored for one month continuously in each fishing season. The data pertains only to four months in the year October 88 to June 89—the total number of households being 50. While there is an assertment of ways in which these households may be grouped for analytical purposes, they were grouped according to the major kind of fishing undertaken since the purpose of the study was to see the impact of motorisation.

The four groups are:

1. Coolie or fish vendor	- 12 households	}	24
2. Non-motorised	- 12 "		
3. Motorised	- 10 "	}	26
4. Motorised with ring seine	- 16 "		

The first three categories have some respondents from all the sample villages whereas the last covers only Nattika, Parappanangadi and Kasba. Averages may be misleading, but may be a necessity to begin with.

Table 41 presents data on income and expenditure for each of the groups.

While the average may be out of proportion because of specific individual cases, the general picture, which probably evens out over the year, is significant. On a per capita basis, the motorised craft group without the ring seine have fared the best. This is probably a realistic picture because the motorised craft, which is mainly used in the south, are individually owned and can be operated with hook and line for many more months a year. The ring seines come next and here again it is probably because of the small shares held by many owners, that the average is reduced. Moreover, it must be recalled that fish prices in the north, especially in Kasba, are quite low, the main catches being oil sardine. In the year of study, the size of the sardine was exceptionally small. Thus, the incomes of non-motorised and the coolie/fish vendor groups are similar although they are less than half the levels of the other two groups.

Table -41 : Total Income and Expenditure

	Average for 4 months		
	Income (Rs)	Amount Borrowed (Rs)	Expenditure (Rs)
Coolie/fishvendor	3,871	1,050	5,353
Non-motorised	4,254	3,234	9,390
Motorised	10,736	4,692	30,963
Ring seine	8,503	1,887	11,351

Borrowings by motorised craft owners are the highest, followed by the non-motorised group. The amounts borrowed by ring seine owners and coolie/fish vendors are similar, the ring seine being slightly higher. Again, motorised owners have borrowings of well over 50 per cent of the ring seine owners and coolie/fish vendors.

There are vast differences in the area of expenditure similar to the findings of Platteau et.al. in Sakthikulangara, where the mechanised boat owners had a much higher expenditure level than other groups. Even now this confidence exuded by the motorised groups makes them more attractive to lending agencies—hence the higher amount of loans to this group. But how many of them actually get out of their indebtedness is not known. In fact, this should be the subject for another in-depth study. The examples of individual fishermen, especially in Enayam, may be repeated, who narrated how they had gradually fallen into debt. Good fishermen who used their own accumulated savings to buy the first motor finally had to borrow the whole amount from the bank for their third motor in a span of six years—a vicious cycle indeed.

In the motorised sector, we notice that expenditure is almost three times that of income. In the non-motorised sector, it is a little more than double. With minimal borrowing, expenditure in the ring seine group is only slightly higher than income—but this group exists only at the subsistence level. So, despite the fact that large catches in the ring seines are reported, the income and expenditure data indicates that the catches accruing to each net are not an everyday phenomenon and do not amount to large individual earnings when divided according to owner-shares. This probably indicates that the kind of ownership sharing that has come about with the ring seines is more equitable compared to that of the other motorised craft.

Table- 42 : Total Earnings and Earnings from Fishing (Over one year)

Ringseine			Motorised			Non-motorised			Coolie/Fishvender		
No.	Fishing	Total income	No.	Fishing	Total income	No.	Fishing	Total income	No.	Fishing	Total income
302	37,785	84,042	103	87,243	87,243	104	21,930	26,430	141	10,782	11,682
303	11,865	16,308	107	40,848	40,848	105	18,375	18,705	142	13,485	27,435
304	6,545	16,983	109	32,331	32,331	121	15,768	20,334	217	9,210	9,441
313	27,033	39,687	125	18,678	19,158	129	4,281	4,421	228	6,999	7,269
324	5,409	9,822	201	24,378	24,528	227	3,102	3,423	233	7,809	8,109
401	39,594	45,294	225	47,295	49,068	230	7,470	7,470	236	7,473	13,548
403	16,257	34,740	306	4,818	13,488	231	6,594	7,455	317	10,881	12,129
405	30,345	30,468	316	29,460	30,072	240	7,758	7,878	406	3,195	8,316
408	58,671	70,047	318	14,742	29,136	311	1,866	3,783	514	6,444	6,459
416	43,776	45,474	515	5,184	5,346	410	6,135	11,865	521	8,223	9,123
419	9,876	9,876	502	8,445	8,880	425	32,970	33,015	549	10,917	11,292
426	16,575	17,745									
501	3,045	3,615									
513	9,675	11,232									
525	8,475	8,475									
527	5,598	6,999									
531	7,220	7,620									
Total	347,744	458,427		313,422	340,098		126,249	144,779		95,418	124,803
Avg.	20,455	26,966		28,492	30,918		11,477	13,161		8,674	11,345

Table - 43: Income/Expenditure of Families with Minimum Debt

	Sl.No.	Income (Rs)	Expenditure (Rs)	Amount borrowed (Rs)
Coolie/Vendor	142	9,145	5,369	100
Nonmechanised		-	-	-
Motorised	318	9,712	8,917	950
Ringseine	302	28,014	12,208	1,600
	303	5,436	4,518	925
	313	13,229	8,667	600
	416	15,158	14,812	4,910

The coolie/fish vendor category and the non-motorised group, which together account for about one-half of the total, seem to be in a very difficult situation. Income is significantly lower than expenditure which means that they too are unable to make ends meet. The data indicates that 50 per cent of the households face a life of great impoverishment. Of the mechanised craft owners, only 20 per cent have higher earnings than expenditure. These small surpluses are certainly consumed by their borrowings which means that they are really the target of big business which reaps the profits. In the ring seine group, because of their ingenuous new ways of work organisation, about 30 per cent have succeeded in evolving a strategy of survival.

Here, a further comment may be in place. It is true that the ring seine as a fishing technology is aggressive and over-efficient vis-a-vis the resources. There is already an awareness on this question. The fishermen of Alleppey themselves have banned the use of this net at night and they now see its danger as it catches the small sardine. So, while the technology is questionable, the working units that have evolved spontaneously are very sophisticated structures that must be nurtured and used for a positive end. For instance, if these collective work structures are accepted then management regulations will be more easily understood, accepted and implemented. In fact, these collectives can even organise the daily fishing effort as the village knows the days on which certain boats operated. This will ensure that boats are not put to sea indiscriminately. However, it will be difficult to develop regulations like these, particularly in the southern areas, where such a debate has yet to take place in the co-operatives. Moreover, the co-operatives, in order to keep the goodwill of their members, continue to indiscriminately make loans available to them without any planned strategy in mind. Unless the co-operatives provide leadership along these lines, they will add to the continued destruction of the resource.

Income from fishing and non-fishing activity needs to be examined. Data on this is presented in Table 42.

Table 42 indicates that in the motorised and non-motorised groups, almost all the income is obtained from fishing. In the coolie/fish vendor group, some portion of the income comes from other sources. It is in the ring seine sector that a fifth of the income comes from other sources. On the whole, we would therefore conclude that the ring seines have really not enhanced the real earnings of the fishermen.

The pattern of expenditure and income may be examined to see if a situation of continuous debt exists. In fact, of the 50 respondents, only 6 have an income which is greater than expenditure. Table 43 contains data for these six families.

The table is self-explanatory. A closer look at these people and the factors which have helped them, is merited.

In the coolie/fish vendor category, the head of the household, Lewis, is actually a fish vendor—a small merchant. He started off as a fisherman, could not make it and then went in for both auctioning and selling fish. He has only 2.5 cents of land. His wife Panithel is also a fish vendor and the two children do fish related coolie work. So, on the whole this is a very industrious family with no real assets.

The head of the household in the motorised category is Babu. He has his own craft, sardine net and motor. But he also has 42.5 cents of land on which he has coconuts which produce an income. His mother and sisters earn income from mat making. Of the household income of Rs.9,712, around Rs.6000 comes from activity other than fishing.

In the ring seine category, Kochukuttan (No.303) receives an income from fishing alone. He has one share on the ring seine and only 14 cents of land. His son is also a working fisherman and they can just manage.

Kunju Mohammed (No.416) has also an income from fishing alone with one share in the ring seine but with 3 working fishermen. They have just 3.5 cents of land.

Chandran (No.302) has one share on the ring seine, 75 cents of land and cows. Income from non-fishing sources is Rs.11,500 out of total earnings of Rs.28,014. This is also an industrious family but their assets are certainly a good source of income.

Kochumon (No.313) is actually a tharakan. He was once a fisherman, accumulated a little money, took a loan from the bank and then loaned it to a ring seine. He now has the right to one share and the tharakan's auctioning percentage. Moreover, he has 75 cents of land and receives an income from it as well as from his cows.

With the exception of Kunju Mohammed, who has still to repay a debt on his equipment, all these families have small debts—mostly consumption loans.

Let us look at those who are really in debt—those whose expenditure is much higher than their income. Generally speaking, almost all the income of this group is from fish related activity. The exception is the ring seine sector but here too only a small number of people obtain income from non-fishing activity. Of the 17 individuals with ring seines, half get all of their income from fishing. One individual derives more than double his income from non-fishing activity and three individuals get a small portion of their income from other sources. In the other three categories, with the exception of one person in the coolie group, all the people receive their incomes from fish related activity. This really indicates that a fishworker is essentially a fishworker and has no other source of income.

Seasonal Variations

When we examine incomes over the year, we see that they are susceptible to major fluctuations. The following tables 44 to 53 show the income in each season in each of the centres, the average monthly consumption and the expenditure on fishing equipment repair and operating costs.

The duration of data collection in the four seasons are:

Duration of Data Collection in the Four Seasons

Ist	22.01.89	to	18.0289	Jan/Feb
IInd	14.04.89	to	11.05.89	April/May
IIIrd	01.07.89	to	28.07.89	July
IVth	15.09.89	to	12.10.89	Sept/Oct

In all the areas and in all the groups there are marked variations in income which illustrate the unstable nature of the economy of the community.

The per capita monthly income is:

Centre	Per capita/month rupees
Enayam	299.57
Anjengo	171.64
Nattika	350.69
Parappanangadi	193.04
Kasba	88.44

Per capita income in Enayam, which is a motorised kattumaram area, is slightly below that in Nattika—a ring seine area. Kasba, another ring seine area, shows even a much lower income level. This indicates that returns from fishing are not related to technology per se.

We examined the pattern of consumption other than expenditures directly on fish-related activity. As the day-to-day consumption was monitored, it was hoped to find some indicators. First, it was found that the major part of the items consumed were bought with cash. This means that fisherfolk are totally dependent on the market for their requirements, except for fish. People in Nattika and Parappanangadi have coconuts from their own gardens and a few families in Nattika get some milk and a few eggs from their own cattle and birds. In about one quarter of the families, the children get a noon meal in school—part of the Government's supplementary feeding programme. In all the areas, except Nattika, there is some degree of eating in hotels among all the categories of workers. Liquor consumption seems to be minimal and many of those who drink report that the liquor is given to them by others—probably the working unit. But, there is reason to doubt the information on liquor consumption because it is generally recognised that fishermen, except in Muslim areas, consume liquor on a daily basis. Moreover, women are not told by their husbands how much is actually spent on liquor and men do not want to admit to the exact amount spent.

Firewood is the main source of fuel. Only the families in Nattika do not spend money on firewood because they get it from their own gardens. Kerosene is used for lighting and consumption is generally within limits, except in the families with ring seines, where it is quite high — indicating that some of it is used for fast cooking too.

A look at the foodstuffs consumed show whether or not the diets are balanced.

It must be stated, that the data wasn't collected particularly with the aim of finding out about nutritional levels, but the following analysis has been made from the expenditure data.

In all the centres, people mainly eat rice and fish. Their diets also include vegetables, fruits, meal, pulses, oil, milk and egg. But the consumption of these items varies according to economic status and from centre to centre.

In Enayam, the rich group consumes all the foodstuffs in a proportionate quantity except for meat. The poor group consumes lower amounts of pulses, egg and milk and no meat. The consumption of tapioca is higher among this group. So, starch is the main component of their diet.

In Anjengo, the items consumed are more or less the same in the rich and poor groups. Pulses and eggs are less frequent in the diets here. People consume tapioca in large quantities.

In Nattika, the rich group consumes all kinds of foodstuffs. But the poor group consumes only a very small quantity of meat, eggs and milk. The consumption of tapioca is lower among the poor.

Average consumption expenditure is lower in Nattika than in the other areas. The men in Nattika get one meal from the hotel as part of the common expenses on a fishing day.

In Parappanangadi, both the groups consume all foodstuffs but there are slight variations in the quantity. The rich group consume more eggs and milk, while the poor group consumes more tapioca. Here, people consume more sugar, coconut and oil compared to other centres.

In Kasba, a person in the rich group consumes a very small quantity of vegetables and pulses. Consumption of meat and egg is also very low. The poor group consumes vegetables and pulses in moderate quantities. The consumption of tapioca is very minimal. Here also, people frequent hotels and so the actual consumption may be higher.

Enayam, therefore, is probably the only place where the level of consumption is satisfactory. While it cannot be said that people in the other areas are malnourished, in Kasba certainly there is enough food only to meet subsistence needs. This could be due to the poorer access to free consumption loans in this area compared to Christian and Muslim areas. In general, people in Kasba get more than 50 per cent of their calorie intake from the consumption of one item—rice.

The data also shows that the consumption expenditure varies from season to season. This means that the quantities of food and the quality also vary correspondingly. This is a typical characteristic of communities that live at a level of subsistence. There is no basic minimum that is assured throughout the year.

Whereas the daily monitoring of income and expenditure has not helped to determine the exact nutritional intake pattern, it has indicated the pattern of consumption. The data substantiates the finding that expenditure is also generally higher than income which throws open a series of other questions: What are these perpetual sources of credit? How do those creditors who lose out manage? The earlier credit and indebtedness studies assess the extent of credit and indebtedness only, but the underlying sociological phenomena which sustain this state of affairs have not yet been unravelled.

ENAYAM

Table - 44 : Income and Consumption (In rupees)

Sl.No.	Income per Season Ist	IInd	IIIrd	IVth	Average monthly consumption
103 (M)	16,747	5,539	3,060	3,735	1,411.75
107 (M)	50	50	7,366	6,150	1,354.75
109 (M)	5,102	849	2,420	2,406	1,650.50
125 (M)	701	445	4,705	375	1,868.65
105 (NM)	2,461	-	-	3,664	1,049.27
104 (NM)	1,470	1,506	225	4,109	1,792.00
129 (NM)	393	219	335	480	1,192.75
121 (NM)	1,966	678	1,445	1,167	2,414.50
142 (Coolie)	880	770	1,130	1,715	889.98
141 (Coolie)	529	687	1,323	1,055	1,087.75

(M - Motorised, NM - Non-motorised)

ENAYAM

Table - 45 : Equipment Repair and Operating Cost

Sl.No.	Season Ist	IInd	IIIrd	IVth
103	2,341	3,244	-	430
107	3,290	800	780	-
109	1,926	45	79	210
125	-	-	760	-
105	259	-	-	190
104	386	65	-	35
129	-	-	150	95
121	485	32	35	55
142	-	-	-	190
141	-	-	-	-

ANJENGO

Table - 46 : Income and Consumption (In rupees)

Sl.No.	Income per Season Ist	IInd	IIIrd	IVth	Average monthly consumption
201 (M)	856	3,485	1,160	2,625	653.50
225 (M)	2,070	7,573	-	6,122	684.75
227 (NM)	250	280	194	310	598.25
230 (NM)	250	640	650	950	968.50
231 (NM)	548	775	450	425	985.00
240 (NM)	865	945	71	705	503.25
217 (Coolie)	497	1,630	238	705	579.50
228 (Coolie)	258	1,040	620	415	1,219.50
233 (Coolie)	30	1,385	870	318	817.50
236 (Coolie)	357	649	655	830	880.25

ANJENGO

Table - 47: Equipment Repair and Operating Cost

Sl.No.	Season Ist	IInd	IIIrd	IVth
201	1,986	3,071	520	513
225	907	1,276	-	1,838
227	20	12	11	-
230	-	-	-	-
231	-	-	-	-
240	59	47	-	65
217	-	-	-	-
228	-	-	-	-
233	-	-	-	-
236	36	-	-	-

NATTIKA

Table - 48 : Income and Consumption (In rupees)

Sl.No.	Income per Season Ist	IInd	IIIrd	IVth	Average monthly consumption
302 (Ring)	2,430	690	5,775	3,700	1,642.00
303 (Ring)	520	180	955	2,300	663.75
304 (Ring)	481	339	1,805	2,890	779.26
313 (Ring)	1,785	1,510	2,200	3,516	1,342.91
324 (Ring)	440	113	755	495	626.30
306 (M)	26	37	330	1,213	606.75
316 (M)	1,533	1,465	3,662	3,160	1,150.30
318 (M)	700	-	2,497	1,717	1,448.73
311 (NM)	116	-	506	-	669.35
317 (Coolie)	650	-	1,687	1,340	517.50

NATTIKA

Table - 49 : Equipment Repair and Operating Cost

Sl.No.	Season Ist	IInd	IIIrd	IVth
302	-	-	-	-
303	-	360	-	-
304	-	-	-	-
313	-	-	-	-
324	-	-	-	-
306	-	-	-	-
316	60	-	-	-
318	-	-	102	-
311	285	1,500	80	-
317	-	-	-	-

PARAPPANANGADI

Table - 50 : Income and Consumption (In rupees)

Sl.No.	Income per Season Ist	IInd	IIIrd	IVth	Average monthly consumption
401 (Ring)	3,828	3,410	2,530	3,430	2,267
403 (Ring)	386	1,265	1,873	1,895	1,327
405 (Ring)	3,705	3,550	500	2,360	1,633
408 (Ring)	5,852	5,875	3,730	4,100	2,173
416 (Ring)	9,550	200	2,342	2,500	1,604
419 (Ring)	1,027	425	620	1,220	1,218
426 (Ring)	430	1,580	685	2,830	1,539
410 (NM)	260	480	130	1,175	1,185
428 (NM)	2,015	5,240	1,680	2,055	1,183
406 (Coolie)	-	-	515	550	743

PARAPPANANGADI

Table - 51 : Equipment Repair and Operating Cost

Sl.No.	Season Ist	IInd	IIIrd	IVth
401	2,385	5,610	1,180	1,430
403	2,575	1,170	500	868
405	1,198	1,540	800	1,070
408	924	1,785	1,270	1,265
416	979	668	582	2,400
419	900	-	-	-
426	476	760	440	910
410	-	-	-	-
428	675	2,675	1,130	800
406	-	-	-	-

KASBA

Table - 52 : Income and Consumption (In rupees)

Sl.No.	Income per Season Ist	IInd	IIIrd	IVth	Average monthly consump
501 (Ring)	240	-	480	295	1,070
513 (Ring)	760	675	735	1,055	1,275
525 (Ring)	720	620	790	695	1,412
527 (Ring)	518	438	490	420	931
531 (Ring)	590	690	545	585	950
502 (M)	595	660	870	690	1,276
515 (M)	415	510	428	375	916
514 (Coolie)	263	280	1,090	515	943
521 (Coolie)	448	493	1,035	765	981
549 (Coolie)	615	756	1,615	653	924

KASBA

Table - 53 : Equipment Repair and Operating Cost

Sl.No.	Season Ist	IInd	IIIrd	IVth
501	215	-	400	75
513	334	334	185	50
525	235	56	205	45
527	207	201	133	-
531	188	129	375	20
502	80	78	155	10
515	-	-	-	-
514	-	-	-	-
521	-	-	-	-
549	-	-	-	-

Annexure

Table - 54 : Consumption According to Wealth Rank

	Sl. No.	Wealth Rank	Family Size	Total consumers expenditure (Rs)	Repair op. cost (Rs)	Food (Rs)	Exp/ percpita (Rs)
				3414	2341	1679	853.50
E				1541	3244	1246	385.25
N	103	2	4	1557	-	1082	389.25
A				2355	430	1640	588.75
Y				1293	-	1208	184.71
A				1230	-	1135	175.71
M	141	4	7	862	-	862	123.14
				1146	-	1146	163.71
				633	1986	424	158.25
A				748	3071	690	187.00
N	201	2	4	1265	520	722	316.25
J				1397	513	778	349.25
N				5738	-	2303	1147.60
G				1162	-	975	232.40
O	228	4	5	829	-	818	165.80
				796	-	782	159.20
N				2092	-	1611	261.50
A				3811	-	2452	476.38
T	302	1	8	1293	-	922	161.63
T				1864	-	1583	233.00
I				676	-	594	169.00
K				602	-	330	150.50
A	317	4	4	693	-	548	173.25
				614	-	598	153.50
P.				2003	1198	1468	286.14
A				4337	1540	1942	619.57
N	405	2	7	1394	800	1166	199.14
G				2150	1070	1958	307.14
A				1136	-	859	162.29
D				1643	-	794	234.71
I	406	4	7	712	-	601	101.71
				1244	-	718	177.71
				966	207	930	193.20
K				887	201	878	177.40
A	527	1	5	1106	133	1106	221.20
S				834	-	812	166.80
B				1047	-	957	209.40
A				1033	-	926	206.60
	514	4	5	1170	-	985	234.00
				967	-	905	193.40

Table - 55 : Consumer Unit and Ownership

Sl.No.	Wealth rank	Family size	Consumer unit	Ownership
103	2	4	4.14	Plank canoe - 4000 Gillnet,H&L - 7000 Mariner 8HP - 4000
141	4	7	7.6	No craft 1- Fish vending
201	2	4	4.14	Ply boat - 15000 Gillnet 2,3,1 No} Discovala, H & L}13000 Yamaha 8 HP - 6000
288	4	5	7.6	No craft Working member- 3-fishing,1-fish vending
302	1	8	9.34	Ringseine share-8000 Working member- 75 cent 3 Fishing of land
317	4	4	4.14	Fish vending 45 cent of land
405	2	7	8.34	Dugout canoe - 1000 Chalavala - 1000 Yamaha 8HP } Suzuki 9.9 HP}-13000 1/2 share Ring seine - 10000
406	4	7	6.48	No craft 2 Female- Fish drying.
527	1	5	7	Ringseine share- 20000
514	4	5	5.74	No craft 1 Male - fishing 1 Female - Fish vending

A Note on the Calorie Intake of food

This note is not included in the main study as the data was not collected with the intention of calculating the caloric intake of food. All the same the exercise of trying to compute the calorie values from the expenditure data, as the expenditure was collected itemwise has been carried out. There will certainly be inaccuracies but we may be able to trace some trends. Moreover, calculating caloric values in any nutritional study is ridden with major problems.

It has not been possible to analyse, in exact quantities, items that have been clubbed under "provisions" and "others". The latter includes snacks, coconut, etc. Those items have not entered the calorie values that were calculated which in actual fact will mean that the values are higher. Moreover, fish—which the people get free—has also not entered the calculation. Again, as much food is consumed in tea shops, this would add to the present values.

In all the centres, people mainly eat rice and fish. Their diets also include vegetables, fruits, meat, pulses, oil, milk and egg. But the consumption of these items varies according to economic status and from centre to centre.

In Enayam, the rich group consumes all the food stuff in a proportionate quantity except for meat. They get about 2320 k cal/day for each person. This, together with food not included in the calculation, equals the standard calorie requirements recommended by the nutrition expert group, ie 2400-2700 k cal/day for each person. The poor group consumes lower amounts of pulses, egg and milk and no meat. This group gets only about 1794 k cal/day for each person from their food. The consumption of tapioca is higher among this group. So, starch is the main component of their diet.

In Anjengo, the items consumed are more or less the same in the rich and poor groups. Pulses and eggs are less frequent in the diets here. People consume tapioca in large quantities. The rich group gets only about 1767 k cal/day for each person. They certainly eat more in hotels which has not entered the calculations. The poor group gets about 2134 k cal/day for each person.

In Nattika, the rich group consumes all kinds of foodstuffs. But the poor group consumes only a very small quantity of meat, eggs and milk. The consumption of tapioca is lower among the poor. Calorie intake is approximately 1760 k cal and 1761 k cal/day for each person in the rich and poor groups respectively. But it must be noted that there is a significant consumption of produce from the garden and in the category of "other" as well.

Average consumption expenditure is lower in Nattika than in the other areas. The men in Nattika get one meal from the hotel as part of the common expenses on a fishing day. So, this would indeed raise the average calorie intake figure.

In Parappanangadi, both the groups consume all foodstuffs but there are slight variations in the quantity. The rich group consumes more eggs and milk. At the same time, the poor group consumes more tapioca. Here, people consume more sugar, coconut and oil compared to other centres. The rich group gets about 2065 k cal/day and the poor group about 1357 k cal/day for each person.

Table - 56 :Level of Calorie Intake in the Early Sixties and Seventies

	Rural			Urban			Combined		
	61-62	71-72	73-74	61-62	71-72	73-74	61-62	71-72	73-74
Kerala	1631	1610	1534	1554	1658	1760	1620	1618	1578
India	2511	2168	2328	2063	2178	2003	2445	2170	2263

Source: 1961-62, Poverty, Unemployment and Development Policy, NSS, Vol III, No.1, 1978, Table 4, page 5.

In Kasba, a person in the rich group gets approximately 1385 k cal/day which is very low compared to the standard requirement. This group consumes a very small quantity of vegetables and pulses. Consumption of meat and egg is also very low. The poor group consumes vegetables and pulses in moderate quantities, which helps to raise the daily average calorie intake to a person. The consumption of tapioca is very minimal. Here also, people frequent hotels and so the actual consumption may be higher.

Enayam, therefore, is probably the only place where the level of consumption is satisfactory. We cannot say that people in the other areas are malnourished, but certainly in Kasba there is enough food only to meet subsistence needs. This could be due to the poorer access to free consumption loans in this area compared to Christian and Muslim areas. In general, people get more than 50 per cent of their calorie intake from the consumption of one item—rice.

Although the general consumption levels from this study are below required averages, findings from a study on the "Health status of Kerala" by P.G.K.Paniker and C.R.Soman (1984) may help put things into perspective.

"A study conducted by the Protein Foods Association of India in 1971 indicated that the per capita intake of energy in the state was only 1713 k cal with little difference between rural and urban areas. When the intake was examined in relation to socio-economic classes, it was observed that the poorest classes consumed about 1588 k cal/day while the richest classes consumed about 2007 k cal/day. The consumption of protein also indicated a similar order of deficiency". (page 24)

"Results of consumer expenditure survey conducted as part of the National Sample Survey (NSS) also seem to indicate serious nutritional deficiencies in the state. The average calorie intake in Kerala during 1961-62 would work out to 1620 per capita per day". (page 24)

The Table below gives a comparative idea of calorie intake in Kerala and India in general.

Soman and Paniker point out that the NSS estimates are affected by the possible under reporting of certain important items of food peculiar to Kerala such as tapioca, and coconut kernel which constitute two major sources of calories.

This note may just help as a base line for future studies. Below are some of the calculations computed:

All the values given are per 100 gms of edible portion.

Rice	345 K cal
Tapioca	157 K cal
Vegetable	72.23 K cal
Pulses	340 K cal
Fish	111.8 K cal
Meat	114 K cal
Egg	173 K cal
Provisions	282.23 K cal
Banana	116 K cal
Oil	900 K cal
Milk	67 K cal
Wheat	46 K cal
Fruits	22 K cal
Sugar	98 K cal
Coconut	44 K cal
Others	21 K cal

Table - 57 : Seasonal Variations

Village	Sl No.	Season 1 (Jan-Feb)	2 (Apr-May)	3 (July)	4 (Sep-Oct)	Average N/CU
Enayam	103	3052.09	2158.97	1503.67	2563.66	2319.60
	141	1615.97	1904.63	1505.14	2149.04	1793.70
Anjengo	201	1359.01	1470.22	2034.13	2213.46	1766.71
	228	3208.21	1881.16	1693.39	1749.60	2133.09
Nattika	302	1731.27	1768.18	1361.87	2175.16	1759.12
	317	1862.48	729.40	2208.59	2061.79	1715.57
Parappa-	405	1986.63	2088.39	1885.49	2298.39	2064.73
nangadi	406	1873.68	1396.33	854.98	1302.45	1356.86
Kasba	527	1398.03	1439.47	1411.67	1288.92	1384.52
	514	1761.46	1723.94	1774.51	1671.51	1732.28

Table - 58 : The Percentage of Calories from Rice

Centre	Sl No.	Season I	II	III	IV
Enayam	103	61.43	54.28	60.12	50.50
	141	63.95	75.33	73.51	65.54
Anjengo	201	61.00	56.93	54.04	53.44
	228	68.71	70.11	73.24	73.66
Nattika	302	67.00	57.36	58.00	48.00
	317	68.92	68.10	72.77	51.69
Parappa-	405	78.09	80.38	82.42	71.35
nangadi	406	70.40	72.87	69.63	68.93
Kasba	527	51.93	53.88	46.99	50.18
	514	53.24	49.73	56.70	49.86

Table - 59 : The Percentage of Energy from Fish Consumption

Centre	Sl No.	Season I	II	III	IV
Enayam	103	8.20	11.39	15.97	12.75
	141	4.68	3.72	3.35	2.86
Anjengo	201	11.48	9.15	6.83	18.35
	228	5.21	6.03	9.68	7.12
Nattika	302	2.30	3.00	2.83	4.60
	317	6.81	0.66	5.50	7.43
Parappa-	405	4.77	3.55	4.27	4.69
nangadi	406	7.10	7.10	7.70	9.47
Kasba	527	9.18	7.96	10.00	9.69
	514	8.89	8.89	7.41	9.20

CHAPTER V

Effect Of Change On Women In The Fishing Communities

The real impact of change has to be assessed from the point of view of the family which forms the basic social unit in society. In this study, the scope has been limited to changes in the family which have to do with the role and participation of women in the economic management and decision-making activity in the household. The purpose was to understand how women see the external changes that are taking place and how they feel their lives are affected by them.

The Sexual Division of Labour

In most traditional communities, where both men and women are engaged in the production of food, the sexual division of labour is said to be complimentary. In the traditional marine fishing communities, women are not engaged in catching fish, the exception being the collection of mussel and shrimp seed in the estuarine areas. For the most part, women have been engaged in the fabrication of nets and in the vending of fish or the exchange of it for other use values. Whereas household labour has been provided by women, or have much work on land to prepare for going to sea, which makes for a long working day for both sexes.

Over the last two decades, this complimentary division of labour has changed significantly with fishing gradually moving out of the subsistence family-based economy and being penetrated by market forces. The changes have affected the opportunities for women to earn an income.

In certain communities, namely the Muslims, because of religious taboos women were relegated to the household, and came back as wage labour, mainly in the coir sector when poverty increased. In very poor fishing areas, where women have been kept out of fish-related activity, they have been forced into wage labour under extremely exploitative conditions, as in Alleppey.

In other areas, where work within the sector was shared within the family, modifications already took place as survival with the family assets became more difficult. Women augmented the family income by net making on a piece rate basis and fish vending, i.e. buying and retailing fish, remaining self employed in the process.

With growing consciousness that children should go to school, women's household burdens also increased as there were fewer hands to help at home. But, with no proper attention or study facilities for the children, this change has not resulted in improvements. It has only resulted in dropouts who are neither good for manual labour required to keep such economies going, nor enough to compete in the open labour market.

In addition, with mechanisation, a further marginalisation of women has taken place. They have been completely removed from net-making. Problems have also arisen in fish-vending, according to a study made by the Programme for Community Organisation in 1986. Firstly, the mechanised boats bring back larger landings than individual women can carry on their heads. As a result, larger merchants—mainly men—enter the market and women gradually lose their access to the fish landing site. Secondly, the fish landed on the open beaches has

begun to decrease over the years. This means that women have had to go in search of fish, travelling long distances, facing all kinds of harassment and competition and also carrying ready cash to participate in auctions.

Women and Remunerative Work

In the study sample, there are 25 female-headed households and out of them 20 earn their living by vending fish, the others by doing other wage work, the remaining dependent on a grown-up son or brother. Of the sample, 30 per cent are fish vendors. Gone are the days when a woman's role was an extended part of the production process in that she sold the catch of her husband. The kind of sharing systems, the shortage of fish, the migration patterns etc. have all changed these practices. Whereas it may happen in certain areas that women still auction their husband's catches, women in general enter the fray as buyers and engage in retail selling. Forty two women (17%) are engaged in other remunerative work. The breakdown of the women's remunerative activity is shown in Table 60.

Table 61 examines the way in which women allocate their time between remunerative work and housework.

The table 60 shows that, except for Parappanangadi, women have been engaged in remunerative work for a fairly long time. In Enayam, Anjengo and Kasba, this has been mainly in the area of fish vending, whereas in Nattika it has been in the area of mat making. In Enayam, the majority of women sell fish in their own village market whereas in Anjengo and Kasba a large number of women spend more than 7-8 hours travelling to and from the market. The major changes in these villages have been the following: In Anjengo, the women go now to Quilon by train in order to procure fish as it is not always available on their shore. In Kasba, women earlier marketed the share of their husbands or of their own equipment—now they bid in auctions. In Anjengo, scarcity forces the women to travel further away for fish, in addition to the fact that the fish landed by the mechanised sector is cheaper than that landed by the traditional sector. So, women who really need to make a profit prefer to go to Quilon in which

Table-60: Women Engaged in Remunerative Activity
(Number of women)

Activity	Centre				
	Enayam	Anjengo	Nattika	Parappanangadi	Kasba
Fish vending	18	25	2	-	30
Mat making	-	-	30	-	-
Petty trade	1	4	-	-	2
Wage work	-	1	2	1	1

Table - 61 : Time Allocation of work activity

Place	Detail	Time spent for work (Frequency) Present				Ten Years Ago			
		2-4	5-6	7-8	8	2-4	5-6	7-8	8
Enayam	Remunerative work	36	4	4	2	4	34	5	4	2	5
	House work	12	28	8	2	-	14	26	8	2	-
Anjengo	Remunerative work	27	-	1	17	5	22	2	3	19	4
	House work	1	6	13	14	16	2	6	13	16	13
Nattika	Remunerative work	13	19	14	3	1	14	23	9	3	1
	House work	1	2	11	34	2	3	2	22	22	1
P.angadi	Remunerative work	-	1	-	-	-	-	-	-	-	-
	House work	1	2	26	18	3	1	4	24	21	-
Kasba	Remunerative work	15	1	3	28	3	15	2	4	25	4
	House work	2	7	24	27	-	21	14	21	13	-

case their time and the extra pressure placed on them in travelling is not accounted for. In Kasba, the old conditions have drastically changed. Earlier, the catches were divided in kind according to the shares and the women transferred this into cash (except for shrimp). Today, with all kinds of shares and with the men, including unmarried ones, being the shareholders, the auctions have been introduced and women are at the same time buyers and sellers. Whereas all women in these areas are aware of all the changes taking place in the market conditions, the Enayam women are the smallest investors in the trade. They handle on average between Rs.50 to Rs.200 worth of fish per day. But, the women in Anjengo and Kasba handle on a daily average very large quantities between Rs.300-500—some even more. It is, therefore, the women of Anjengo who are the most vociferous in asserting their rights as vendors in the market. Women in Kasba and Anjengo are members of their trade unions. In Kasba, the struggle is more to gain entrance in the market, whereas in Anjengo the union is to fight for other protection from harassment from male merchants and revenue officials in the market.

In certain areas, as in Nattika, the women have very little to do with fish-related activity. But they have not remained idle except in some areas like Parappanangadi. In Nattika, they have been mainly involved in mat weaving but this has also undergone change. Earlier, the screwpine leaves were available locally from garden hedges. The women wove the mats and then were free to sell them to merchants who offered the best price. Today, there is no fibre left in the surrounding areas, so the merchants supply them the fibre and take back the finished products, paying the women a wage. The women say they earn very little, as the wages have remained the same, despite the fact that general costs of living have gone up. Some of them

have organised themselves to ask a better price but with little success. In Nattika, with the gradual splitting up of the joint family, the time that women have to spend on household work is also longer, caring for the garden, perhaps for a cow or goat or some poultry.

Thus, in spite of the fact that the time spent on work has remained largely the same, the conditions of work have changed.

Contribution to the household

The contribution of women, men and children to household income is shown in Table 62. This information was supplied by the women.

The Enayam and Parappanangadi, the women indicated that the entire income of the family is provided by the men in about 60 per cent of the households—the highest percentage of any of the areas. About 7 per cent of the women provide the whole income of the family. This includes the single women headed households and those where the men are either old or unable to go fishing. Considering that women do not generally like to discredit their husbands, they would understate their own contribution, which in actual fact then would be higher in cases where they say they contribute only something to the household income. Women in

Table - 62: Contribution to Household Income
(Figures in percentages)

Place	Person	Contribution to Household Income			
		Whole	Half	Some	Nothing
Enayam	Husband	64	12	8	16
	Wife	14	16	12	58
	Children	-	4	24	72
Anjengo	Husband	34	24	28	14
	Wife	4	18	36	42
	Children	2	2	48	48
Nattika	Husband	40	48	2	10
	Wife	2	8	60	30
	Children	2	10	26	62
P.angadi	Husband	68	6	2	24
	Wife	-	2	2	96
	Children	20	6	8	66
Kasba	Husband	26	52	2	20
	Wife	14	50	6	30
	Children	2	12	12	74

Table- 63: Number of Women Borrowing Money for Household Expenses (Figures in percentages)

Place	Yes	No
Enayam	100	-
Anjengo	82	18
Nattika	18	82
Parappanangadi	8	92
Kasba	68	32

Kasba confidently speak of having a larger role also because they own the share on certain craft. In Parappanangadi, the children play a significant role because of the joint family setup. In Nattika, it appears as if the women are conscious of their contribution to the household even if much of their contribution may be through unpaid labour.

Women's role in the household is very significant when it is considered that in addition to the contribution that all women make in terms of household labour, 40 per cent of them supply the entire household income. The following table reveals women's participation, if not her direct contribution, to the home economies.

In Nattika and more so in Parappanangadi, women handle cash only to a limited extent. Hence they are less involved in raising money for household needs. But in other areas women play a major role. It is these very areas which are also more impoverished. This suggests that women play a major role in sustaining life in the areas where the development process marginalises them more and more. Moreover, considering the fact that the majority of families live on borrowed funds (See Part III), the role of women in the household economy is crucial and in some areas they play a major role. In the latter areas the number of women vending fish is greater. They have a longer working day and they struggle to borrow when their cash is in short supply. These are also the areas where women report higher consumption of liquor by men and wife beating, probably the result of the frustration of men who are weighed down by problems at work. These facts do not get recorded in normal data on poverty and the parameters in which household labour and income are assessed. In fact, these parameters are crucial in understanding the processes and impact of impoverisation. Because despite the fact that all the areas seem to have benefited from better infrastructure facilities such as roads, the quality of life at household level has decreased.

Response to Changing Conditions

As stated earlier, people feel that general infrastructural facilities in the villages have improved. However, Table 64 gives some insight with the present living conditions in the fishing community in general.

Table - 64 : Assessment of Changes in Living Conditions
(Figures in percentages)

Opinion on	Number of responses			
	Improved	Deteri-orated	Remained same	Don't know
Income from fishing	29.6	38.0	29.6	1.6
Income from abroad	62.8	2.4	10.4	23.2
Food eaten at home	65.2	0.4	32.0	1.2
Better technology in fishing	92.8	0.4	2.0	3.6
Greater participat-ion of women in social activity	62.4	0.4	31.6	4.4

Despite the fact that the value of fish has increased, the income from fishing is said to be on the decline. An improvement in the food eaten is observed—implying greater variety in diet, including vegetables and fruit. This is due to widespread public distribution of food. The situation in coastal areas is better than in inland areas where food intake and income have deteriorated. Around 30 per cent of the respondents however feel that the general situation has remained the same.

Significantly, a great number of women feel that their participation in society has improved. This appears to be a reflection of the freedom of movement, of speech and of education gained by them, though bereft of participation at any level of decision-making. At the same time they are aware of atrocities against women are on the increase. So, actually a contradiction is seen. With the breakdown of traditional controls, women seem more free but are at the same time restricted by the growing violence in modern society.

Women and decision-making

By examining the decision-making process in the home, an assessment of the woman's place in the household can be attempted. Table 65 presents the relevant data.

In Nattika and Parappanangadi, the men play a pervasive role which seems to confirm, that the lower economic power of women in these communities also means less participation in decision-making. This is particularly surprising in Nattika where women are more literate, listen to the radio and are generally better informed. But, apparently their role in suggesting things and executing decisions is minimal, though they are no doubt consulted. From this it can be inferred that men in Nattika play a different role. Perhaps, this has to do with the political exposure they have received. This may also be the underlying cause their collectivisation in fishing. In Enayam and Anjengo—the Christian areas—the participation in decision-making is significant. These are areas in which women are still very much a part of the whole

Table-65: Decision-Making in the Home
(Figures in percentages)

Place	Specific Areas	Who suggested			Was it discussed		Who executed		
		Hus	Wife	Both	Yes	No	Hus	Wife	Both
	Purchase of equip.	12	4	66	84	16	72	6	4
	Modi. of house	10	10	66	88	12	68	14	12
	Education of children	-	4	58	60	40	6	4	50
Enayam	Hospitalisation	2	14	80	84	16	6	42	46
	Consumption loans	4	14	80	86	14	12	60	24
	Gold pawning	4	16	78	86	14	14	40	42
	Purchase of equip.	44	8	38	90	-	74	4	12
	Modi. of house	2	10	86	98	-	34	12	52
	Education of children	-	4	58	60	40	6	4	50
Anjengo	Hospitalisation	2	18	78	98	-	-	32	62
	Consumption loans	26	20	56	96	2	12	22	64
	Gold pawning	4	8	84	96	2	22	8	66
	Purchase of equip.	92	8	-	54	46	92	8	-
	Modi. of house	90	6	4	98	2	92	6	2
	Education of children	92	4	4	98	2	92	4	4
Nattika	Hospitalisation	60	4	36	96	4	36	4	60
	Consumption loans	82	6	12	96	4	82	6	12
	Gold pawning	90	4	6	96	4	92	4	4
	Purchase of equip.	80	-	10	26	72	78	-	12
	Modi. of house	68	10	18	82	16	84	6	6
	Education of children	66	8	22	86	12	52	34	10
P.angadi	Hospitalisation	68	10	20	86	12	34	42	22
	Consumption loans	88	6	4	36	62	86	6	6
	Gold pawning	86	4	6	70	28	88	4	4
	Purchase of equip.	70	12	16	42	56	76	8	12
	Modi. of house	50	12	36	82	16	66	10	22
	Education of children	34	12	48	88	10	50	14	32
Kasba	Hospitalisation	16	14	68	86	12	34	42	22
	Consumption loans	26	16	56	92	6	28	18	48
	Gold pawning	38	14	46	92	6	42	16	40

fishing scenario. It can be concluded that the degree of social participation depends on the participation in the material production in society—or that aspect of production that the males consider to be 'production'. In Kasba, the role of men especially in a matrilineal society is surprising. This really points out that the changes on the economic front which have led to men becoming the owners of the production equipment, has also affected the role of women in the decision-making process in the home. This displacement of women as owners of

equipment is a trend that started in the 60's with the coming of the mechanised boats in which a number of families jointly invested. The surprising aspect is that the data was collected by a woman researcher who was easily accepted in discussions carried on by groups of men, where their women would not participate. This was because the researcher knew about fish and the fishery and wasn't one of their women.

On the level of participation it is difficult to draw general conclusions. While women do play a major role in the sustenance of the household and in some areas play a more significant role in the entire decision-making process in the home, they generally feel that the men take the lead. Nevertheless, they do accept that they have now gained freedom of mobility. In this way, they confirm the ideas that society in general has about women's marginal role in society. It needs to be seen how far these general opinions influence the thinking of women, i.e. that a 'good woman' is one who has to conform.

As there are no important social institutions where the role of women is significant it cannot be assumed that women have power informally. Even in Kasba, where they owned the tools of production, they are now being marginalised.

Problems in pursuing remunerative work

The problems faced by women in pursuing remunerative work is seen in Table 66.

The table indicates that, in Kasba, many women stay away from work due to several reasons. Despite the hard labour involved the returns are very minimal. Staying away from work because of illness may actually mean, a lack of desire to make the effort for the amount paid. This is also true of Nattika where returns from remunerative work are very low. In Anjengo, women do not stay away from work because of illness. This is not because they are more physically fit. It is because they have better chances of receiving worthwhile rewards for their labour. In Enayam and Anjengo, where the societies exist, lack of ready cash is another factor that keeps women away from work—more so in Anjengo than in Enayam.

In Enayam, Anjengo and Kasba where there are many fish vendors, over 50 per cent of the women mentioned the scarcity of raw material. Even in Kasba where there are large landings, the fish is of poor quality. The shortage of fish in Kasba despite rates being generally so low may be a surprise. This is because the bulk landings are mainly of sardines which do not receive a good price in the market and hence are sold for oil extraction. In Anjengo, the competition is high and if women want fish cheap they have to go to shores as distant as Quilon and Mangalore. This means that despite hard work put in by women for long periods of time, the surpluses generated are all drawn into the household consumption and their own chances of accumulating assets are minimal—in contrast to the situation where the accumulated assets of the men have increased ten to twenty fold. This tremendous marginalisation of women is visible all along the coast. Women have been marginalised in fish marketing because of their inability to handle larger catches landed by the mechanised sector. They have been forced to spend their physical energies for insignificant returns because of the lack of appropriate technologies to help them lighten their burden. For example, in the whole Alleppey region, where the investments in the ring seines range from Rs. 2-3 lakhs, the women of the fishing community still engage in the most primitive coir work—compared to the standards in any other part of the State. The same can be said of the women who engage in mat-making in

Table- 66 : Problems in Pursuing Remunerative Work
(Figures in percentages)

Place	Reasons	No.of persons	
		Sometimes	Frequently
Enayam	No raw material	58	32
	No ready cash	21	47
	No work	-	16
	Illness of self	58	11
	Illness of children	26	-
Anjengo	No raw material	57	3
	No ready cash	63	-
	No work	30	-
	Illness of self	13	-
	Illness of children	13	-
Nattika	No raw material	6	-
	No ready cash	17	-
	No work	6	-
	Illness of self	97	-
	Illness of children	71	9
P.angadi	No raw material	-	-
	No ready cash	-	-
	No work	100	-
	Illness of self	-	-
	Illness of children	-	-
Kasba	No raw material	94	-
	No ready cash	97	-
	No work	3	3
	Illness of self	100	-
	Illness of children	97	-

Nattika. So, while women have to take care of the subsistence needs, the physical pressure on them increases.

About the reasons for husbands' keeping away from income-generating work, some idea may be gained from Table 67.

Laziness and excessive drinking are not factors that keep the men away from work, except in a very few cases. The main reasons are rough weather, problems with equipment and illness. Whereas rough seas have always been a problem in traditional fishing, the problems with equipment as a cause are now on the increase. It is not infrequently that people complain about the loss of fishing days due to equipment, particularly problems with engines. Even in Nattika this problem exists, and is one reason why the collectives go in for the purchase of additional

Table - 67: Reasons for Men Not Going Fishing (Areawise Breakup)

Place	Reasons	Number of persons (%)	
		Sometimes	frequently
Enayam	Rough sea	60	20
	Illness of self	44	20
	Problem of equipment	42	6
	Excessive drinking	6	2
	Lazyness	-	4
	Illness of children	2	-
Anjengo	Rough sea	58	-
	Illness of self	12	4
	Problem of equipment	30	-
	Excessive drinking	8	4
	laziness	-	-
	Illness of children	4	-
Nattika	Rough sea	78	6
	Illness of self	76	16
	Problem of equipment	72	8
	Excessive drinking	-	-
	laziness	2	-
	Illness of children	74	6
P.angadi	Rough sea	30	-
	Illness of self	16	-
	Problem of equipment	32	2
	Excessive drinking	-	-
	laziness	-	-
	Illness of children	4	-
Kasba	Rough sea	72	-
	Illness of self	72	2
	Problem of equipment	36	18
	Excessive drinking	2	2
	laziness	-	2
	Illness of children	66	-

units which force the fishermen to go in for much larger asset investments. Illness of children is also found to be a major cause in Nattika. This is probably because the hospitals are far away and the women cannot go there on their own.

Consciousness as women

If women are being marginalised in the process of modernisation, it is important to examine the extent to which they are aware of this happening. More often than not it is too late when they realise that their role and place have been appropriated by men. Earlier, it was shown that the role of women in decision-making is related to their participation in the economic activity of the community. With the declaration of the decade for women and with the growing awareness on the women's question, it is interesting to assess the effects on coastal women. Table 68 presents some data on this issue.

In Enayam and Parappanangadi, women for the most part were silent on these questions. This is unusual for Enayam where women played an active part in the decision-making in the household. Could the silence indicate that they are afraid to voice an opinion different from the accepted one? This seems unlikely in the case of Enayam as the women have mobilised on other demands. It is more likely that ideas hitherto have not been put before them. The women in Parappanangadi seemed a bit freer to express themselves, although about 50 per cent of them did not respond to the questions. Majority of them are definite that the husband should not help in the kitchen and that a woman should not be beaten by her husband. Not much of an assessment of the consciousness of women is possible on the basis of these responses. Parappanangadi is totally Muslim and with the women being confined to the household and that too the kitchen. Consequently, they do not see why the man should displace them there. Then again, since they have traditionally not participated in processes in society and have no common experience to fall back on, this is a new area for them. In Nattika, only 10 per cent of the women are silent, while the others are sure than men have no right to beat women. Involving men in the kitchen and in household work however are still taboos and seen in terms of a natural division of labour. Nevertheless, the responses seem to indicate that given more support and opportunity, women may be open to playing a more active role in society. Many of them listen to the radio, a few of them read the newspapers, and most of them are exposed to political discussions in the household although they feel that this is the realm of the men. Although 14 per cent of the women in Anjengo are silent, the responses of a large group of them indicate that, on the whole, the awareness of women is fairly high. One may deduce from this that the various participatory processes in the village, especially the numerous women's groups, have certainly had an impact on the consciousness of the women.

Table 69 goes one step further in trying to understand women's consciousness about various social institutions and their impact on their lives.

Women were asked about the impact of social institutions because even if they were not participating socially, the idea was to know how far they were actually aware of what is happening around them and how various institutions affect their lives. Earlier, it was seen how the men related to the institutions around them, visiting the banks and co-operatives most frequently followed by the political parties and trade unions. For the women, the impact of the political parties is negligible, even in Nattika. In both the Christian and Muslim areas, religious institutions are considered great sources of succour, but in Enayam and Anjengo (i.e. the Christian area), the role of the social organisations are also recognised. In Enayam, beside the church and social service organisation the women also recognise the co-operative as being important for them.

Table - 68: Consciousness as Women

Place	Opinion	Number of responses (%)			
		Agree	Disagree	Don't know	No response
Enayam	Husband should help more in the house	-	4	6	90
	Husband should help in kitchen	-	4	6	90
	Should not beat wife	-	-	10	90
	Women should take more active part out side the house	4	-	6	90
	Women should be free to go out on their own	8	-	2	90
Anjengo	Husband should help more in the house	40	42	4	14
	Husband should help in kitchen	38	44	4	14
	Should not beat wife	86	-	-	14
	Women should take more active part out side the house	40	-	30	14
	Women should be free to go out on their own	66	-	20	14
Nattika	Husband should help more in the house	6	84	-	10
	Husband should help in kitchen	-	86	4	10
	Should not beat wife	86	-	4	10
	women should take more active part out side the house	24	-	66	10
	Women should be free to go out on their own	28	-	62	10
P.angadi	Husband should help more in the house	10	32	2	56
	Husband should help in kitchen	-	42	2	56
	Should not beat wife	40	-	4	56
	women should take more active part out side the house	6	2	36	44
	Women should be free to go out on their own	4	-	40	56

Table - 68: Consciousness as Women (Contd.)

Place	Opinion	Number of responses (%)			
		Agree	Disagree	Don't know	No response
	Husband should help more in the house	4	70	-	26
	Husband should help in kitchen	2	70	2	26
Kasba	Should not beat wife	74	-	-	26
	women should take more active part out side the house	70	-	4	26
	Women should be free to go out on their own	68	-	6	26

In Kasba and Nattika, it is strange that the effect of caste organisation or the temple is found to be nil. Does this mean that these communities have no real consciousness of caste? In actual fact, the Deevarasabha is quite a presence and especially in Kasba the Karayogam is the main institution through which any outside intervention is made. The absence of women on these bodies certainly accounts for their ignorance about their roles and functions.

From these and former responses, what seems to surface is that greater awareness input does not necessarily lead to greater consciousness. Practical involvement and participation of the people is necessary if a new consciousness is to be created.

In fact, the group discussions with women revealed their interest to discuss, voice their opinions and to know more. The energy and strength women seem to exhibit while in a group contradicts the apparent helplessness and lack of opinions when seen as individuals in the households.

How women handle crisis situations was a question attempted to be understood. Most of the women found it difficult to understand the question. They couldn't see anything as a real crisis except if the husband died suddenly. All other events in life seemed so normal and all other pressures so usual that they didn't think they needed any added support to face life. But in reality, women do reveal a kind of helplessness in many situations, when they repeat that it is God's will and that God will provide. This deep faith is probably what sustains them and is the reason why religion has such a strong impact on them. Mobilising women for change must necessarily take this factor into consideration. Religion is the force that has continued to sustain the day-to-day struggle of the women and cannot and should not be denied or negated in the process for change. But this does not mean that women should blindly accept ideas and roles assigned to them. Women should have the opportunity to express and make more explicit this faith that sustains them. If not, they are likely to be entrapped in roles and ideas thrust on them. These are the ways in which the male-dominated religious institutions normally use and manipulate women.

Table - 69: Impact of Social Institutions

Place	Agency	Number of responses (%) Positive	Negative	Not at all	Don't know
	Caste institution	2	8	38	52
	Political parties	2	8	36	54
	Social ser. organ.	86	6	2	6
Enayam	Co-operative	92	2	2	4
	Matsyafed	-	-	-	-
	Trade union	-	-	24	72
	Church	72	6	18	4
	Caste institution*	58	-	30	10
	Political parties	-	20	26	52
	Social ser. organ.	68	-	4	26
Anjengo	Co-operative	-	4	24	70
	Matsyafed	-	6	64	28
	Trade union	8	2	24	70
	Church	88	-	4	-
	Caste institution	-	-	18	82
	Political parties	4	-	4	92
	Social ser. organ.	12	-	6	84
Nattika	Co-operative**	66	-	18	16
	Matsyafed	80	-	6	14
	Trade union	10	-	18	72
	Temple	-	-	8	92
	Caste institution*	94	-	2	2
	Political parties	-	34	18	46
	Social ser. organ.	-	6	18	74
P.angadi	Co-operative	14	-	36	48
	Matsyafed	16	-	68	14
	Trade union	-	6	14	78
	Mosque	94	-	4	-
	Caste institution	2	-	2	94
	Political parties	-	-	-	96
	Social ser. organ.	2	-	-	96
Kasba	Co-operative	2	-	-	96
	Matsyafed	56	-	38	4
	Trade union	-	-	2	96
	Temple	4	-	36	58

* The caste institutions in Anjengo and Parappanangadi are the religious institutions.

** The co-operative referred to in Nattika is the co-operative registered earlier but now defunct for all intents and purposes.

The Past and Future

One part of the enquiry tried to focus on how the respondents perceived themselves vis-a-vis the past generation and what future they think awaited their children.

The responses of the women, when asked what they thought their children should do, is shown in Table 70.

Table - 70 : Opinions Regarding Children's Future

	No.of cases	Percentage
Continue fishing	36	14.4
Study further	193	77.2
Go to the Gulf	11	4.4
Seek other occupation	82	32.8
Learn other skills	21	8.4

It would appear that only the poorest speak about their children remaining fishing, since they see no other alternatives for them. Most of the women feel that education is the passport to a better life. This is ironical because they also see the number of educated unemployed around them. Yet, women feel that if their children are lucky enough to get any job, then a regular income is preferable. Some women are realistic enough and accept the fact that their children are at a serious disadvantage because they have no other skills. As they have to pay much to hire a mason or a carpenter, who are hard to find, they feel that such skills will help to keep their sons more gainfully employed than fishing would.

We may conclude that while women play a significant role in sustaining their families, they have suffered great pressures in pursuing their economic activity. While some of them are aware of their rights as women and workers, the majority of them continue to see the men playing the dominating role.

CHAPTER VI

Social Participation

In this part of the study, efforts have been made to understand the major influence on the fisherfolk, the factors shaping their world view and consciousness and how they view the changes that are overtaking them. The specific reason for the choice of each area may be recalled at this juncture. Socio-economic change may also be assessed in terms of changing social participation in communities. Changes brought about by the introduction of new technology and access to credit and the tools of production have also meant that original feudal relationships give way to more liberal and democratic participation. It also means that local communities, isolated from macro-events till now, are linked to the larger market processes of society. Local communities may build up their own barriers to such penetration through internal social control structures or they may be totally dislodged.

In fishing communities, as shown in the study "Culture and Social Organisation[8]" by Francois Houtart and Nalini Nayak, the predominant identity of the people is a religious one. They see themselves mainly as Hindu, Christian or Muslim and their world views are dominated by the all pervading divine presence, prompted by their work being so dependent on natural forces over which they have no control. But over the years, other forces, political and technological, have penetrated these communities. It is interesting to see how many of these communities are actually influenced by such forces.

An overview of the kinds of organisation in which men participate, would help to understand the extent of such influence.

The co-operatives in Enayam and Anjengo are federated to SIFFS. In Nattika, the co-operative referred to is the district multipurpose co-operative. In Parappanangadi, there is an old co-operative started by the government but which is defunct now. The welfare society mentioned is the Matsyafed.

The area-wise pattern that emerges from Table 71 is interesting. None of the respondents belong to religious organisations. In the south, these organisations are probably the stronghold of the women, and in other areas the youth, but not of the working fishermen.

In Enayam, the co-operative is the only forum for interaction between fishermen. In fact, from discussions with members of the co-operative their consciousness about the advantages they have received through the co-operatives in terms of better prices for fish, credit and means to modernise was evident. They also considered the co-operative a force to reckon with, in that other social problems such as family conflicts are referred to it. It was clear from the discussions that the fishermen were able to articulate their problems in the fishing sector but that their perceptions regarding the long term sustenance of the fishery were limited. Thus problems related to the labour force and those dispossessed of assets in the process of modernisation were not tackled squarely. Their response is that credit should be more accessible, though all

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8 Francois Houtart and Nalini Nayak: 'Kerala Fishermen—Culture and Social Organisation' 1988; Centre D'Analyse Sociale de la Culture, Louvain-la-Neuve, Belgium

Table-71 : Nature of Participation in Various Social Organizations
(Figures in percentages)

Place	Type of participation	Religious Organ.	Political party	Cultural Organ.	Trade Union	Co-op	Welfare society
Enayam	Participates	-	-	-	-	68	-
	member	-	-	-	-	36	-
	active member	-	-	-	-	24	-
	official position	-	-	-	-	4	-
Anjengo	Participates	-	-	-	18	44	4
	member	-	-	-	4	-	2
	active member	-	-	-	2	-	2
	official position	-	-	-	-	-	-
Nattika	Participates	-	60	6	4	82	68
	member	-	40	2	4	54	42
	active member	-	2	2	-	-	-
	official position	-	-	-	-	-	-
P.angadi	Participates	-	12	-	2	16	40
	member	-	4	-	2	16	34
	active member	-	4	-	-	-	-
	official position	-	-	-	-	-	-
Kasba	Participates	-	14	-	-	-	18
	member	-	10	-	-	-	8
	active member	-	-	-	-	-	-
	official position	-	-	-	-	-	-

agree of that there is already too much pressure on the resource and that the returns per unit are affected by this. However, with no other social forces to divide the community and with the extensive membership in the co-operative, this organisation could play a more animating role, and help the fishermen to make a deeper analysis about the impact of the changes in their sector.

In Anjengo and in the other areas other forces seem to be at play. The welfare societies set up by the government have begun to operate in the fishery areas but with very little impact. There is wider consciousness of political parties and the trade unions. Although this is not a significant observation for Kerala for the coastal areas which were generally marginal to other mainstream processes, this is a big change. In the Christian and Muslim areas, the religious institutions had the monopoly of power and ideological production. But this is gradually giving way with the penetration of secular influences.

In Nattika, the impact of the political parties is felt more strongly. In fact, the older leaders, feel that politics has ruined the social fabric of the village and especially destroyed its cohesive character. The temple council (karayogam) for example has not functioned for the last decade. Till the Congress Party which has a long tradition in the area, was the only party there was no rupture in the social institutions. Today, given the presence of communist parties, a permanent confrontation is observed with the result that no community control is possible—each person

functions as an individual unit. Strangely, it is in this context that the collectives have taken root—a secular initiative from within, to democratise the organisation of work. Simultaneously, this has resulted in an interesting development—the collectives have begun to contribute 1 per cent of their catch towards the temple fund. With this, the temple has been restored, and become a symbol of the strength of the village.

This is in stark contrast to Kasba where the temple has continued to be the unifying forum. Although, there is party activity this has not been able to disrupt the central role of the temple. The temple committee is seen by the people as playing a secular role rather than a religious function. It includes people from all classes in its gatherings. These gatherings discuss various subjects related both to the personal life of the members and the daily work and social life of the community. This all-inclusiveness of the temple committee helps to create a spirit of unity in the community, which cuts across classes. For instance, the only prawn merchant and big money lender is the president of the temple committee. He commands respect in the community and nobody will think of questioning his economic activity. The village is exposed to all kinds of influence as it is only 2 km from the town and on the main rail link. The younger generation has also started going to college and there are many graduates in the village.

Yet, the overall economy in Kasba is rather stagnant. One wonders why greater collectivisation in fish marketing to get better fish prices for instance, could not have evolved. The reason probably lies in the link-up between the social regulatory norms and the underlying economic forces in the village. Some of these factors surfaced during group discussions. The fishermen mentioned the powerful merchant. Originally from a fishing family, it was he who advanced the first loan for the trawlers. He also holds the monopoly as a shrimp agent and is the president of the karayogam. Given the predisposition to respect the status of the karayogam and its members, nobody has challenged the monopoly role of this member who, securing to be magnanimous has ensured that no individual is able to dislodge the present operation process in the village.

Despite the regulatory temple system, at the same time it is significant to note that the people of Kasba do not remember having any fishing regulations that relate to overfishing, but only those that are meant to keep the producers in working harmony. For instance, Kasba must have been an area of rich mangroves. People still remember collecting all their "wood from the sea" as they say and their legends speak of Bhadrakali arriving there through the thick forest groves. Nothing of this remains today. They also do not remember any other norms regarding the ban on the catching of sardines which was also the food for the bigger fish in Nattika. What needs to be analysed, are the numerous songs which accompany the dances of the people, as they may shed light on the other beliefs and myths that also act as regulatory systems.

It is also interesting to look at social participation in the village Parappanangadi, where an apparent feeling of equality is significant. The recently created welfare societies of the Matsyafed intended high levels of participation but only 34 per cent of the people are actual members. One would have expected a higher recruitment if the decisions in the villages were actually communitarian and given that one of the Matsyafed officers lives in the same village. Participation in the Muslim League party and in the independent union under the party are also minimal—only 12 per cent and 2 per cent respectively. This would provide further evidence to conclude that the parties have no real concern for the emancipation of these fisherfolk. This is striking given the closeness between the fishing community and the Muslim

league chief. Almost the entire community participates in the namaz (community prayer) which implies that the religious leaders have a significant influence on it. The fisherfolk are probably treated as recipients of the good will of the upper class, a conspiracy between religion and political power.

The younger generation is not blind to this fact as confirmed by the group discussions. Very significant also is the fact that three young Muslim League enthusiasts, also the leaders of the trade union, saw to it that they could join group discussion. They had sensed that our interaction with the people was oriented to general discussion and creating of awareness which they did not seem to approve of. They were keen to know the political leanings of the researchers and to underline how forward the Muslim League was both in thinking and action. When questioned about their strategy, they explained that they didn't believe in confrontation but in working through the parliamentary process. They condemned the fishworkers struggle that took place during the last decade but claimed the gains saying these were their demands long before the struggles.

Participation in Local Events

Table 72 shows the extent of participation of fishermen in local happenings. It is seen that fishermen do have time for religious festivals and the cinema but not for meetings on their own trade. One reason may be that such meetings are not many and, even if there are, they are probably meant for specific groups of people. Even the co-operatives in Enayam and Anjengo do not seem to give high priority. Participants in the co-operative in Anjengo, may make use of the marketing services, but they need not be members. While membership in the co-operatives bring many benefits, it does not necessarily provide a strong sense of identity. This may therefore limit the effectiveness of the co-operative as an agent for change.

While discussions on issues related to fishing and the sector are generally few, in all areas, the respondents who participated in group discussions during the time of the study, were keen to have more such discussions as there is very little feedback. They were all aware of the tremendous changes taking place in the sector, but could not understand them from a more macro-perspective.

The Muslims in Parappanangadi do not celebrate religious festivals like Hindus and Christians. The mosque is meant for prayer and it is the most frequented. Going to the cinema is a significantly male trait. Whereas the men are exposed to the values communicated on the celluloid screen, the women remain indoors preserving the orthodoxy of the community. In the more affluent Muslim families, or for those who have such access, the video certainly begins to shatter the traditional moral fabric and in this way the younger people in these communities, become more critical of their reality. The sole respondent who participated in a discussion on fishing in the last two months belongs to the trade union. The only other forum for such discussions is the *gramakootam* (village gathering) but this is called only when there are specific problems to be discussed. There are also the informal discussions that the elders indulge in when they meet at the village junction.

Table - 72 : Participation in Local Events

Place	Programme	No. of persons (%) Attendance once in last month	More than once in the last month
	Meeting on business issues	6	-
Enayam	Religious festival (fishing)	48	-
	Video show	-	2
	Cinema	20	18
	Meeting on business issues	8	4
Anjengo	Religious festival (fishing)	40	-
	Video show	2	-
	Cinema	16	42
	Meeting on business issues	-	-
Nattika	Religious festival (fishing)	34	60
	Video show	4	-
	Cinema	20	38
	Meeting on business issues	2	-
P.angadi	Religious festival (fishing)	2	-
	Video show	6	2
	Cinema	26	22
	Meeting on business issues	-	-
Kasba	Religious festival(fishing)	8	68
	Video show	-	-
	Cinema	34	26

Attendance at local institutions

Table 73, which shows the extent to which local institutions are frequented, provides a deeper insight into social interactions in the community.

The table indicates that for the most part people interact little with local institutions and organisations. In Enayam, even the range of persons that they interact with is not that diverse. Sixty eight per cent of the respondents still regularly interact with the religious priests on a weekly basis making it the simple largest relation. However, 30 per cent of them interact with social workers, those involved in their co-operatives. The people say that the weekly sermons do not have very much to do with their day-to-day life but it reminds them about the higher values of life towards which they must strive. Therefore, the role of the church in determining what the people should strive for and what is right or wrong is very significant. The interaction with the social institutions like the Panchayat is important from the point of view of services rendered such as the issue of certificates. With social workers, interaction is more informal and relates to issues of life. The frequent interaction with the bank is significant.

In Anjengo again, the major influence is the Church with only 8 per cent not having contact with it. It isn't clear whether this 8 per cent belong to the trade union indicating that the interests

Table - 73 : Attendance at Local Institutions

Place	Organisation or Institution	Number (%) Nil	Once a week	Once a month	Once a year	Sometimes
	Matsyafed	NA	-	-	-	-
-	Govt.bank	44	-	24	32	-
	Church	12	88	-	-	-
	Local M L A	100	-	-	-	-
Enayam	Panchayat member	70	-	2	8	12
	Village officer	68	-	2	10	20
	Trade union	100	-	-	-	-
	Merchant	74	2	-	12	12
	Social worker/NGO	28	30	20	18	4
	Matsyafed	100	-	-	-	-
	Govt.bank	86	-	10	4	-
	Church	8	92	-	-	-
	Local M L A	100	-	-	-	-
Anjengo	Panchayat member	94	4	-	-	2
	Village officer	98	2	-	-	-
	Trade union	80	8	-	-	12
	Merchant	92	-	-	-	8
	Social worker/NGO	66	10	20	-	4
	Matsyafed	60	-	-	2	38
	Govt.bank	18	-	6	4	72
	Temple	80	2	2	-	16
	Local M L A	92	-	-	4	4
Nattika	Panchayat member	76	-	4	2	18
	Village officer	88	-	2	4	6
	Trade union	92	-	-	-	8
	Merchant	96	4	-	-	-
	Social worker/NGO	92	-	-	-	8
	Matsyafed	60	-	4	32	4
	Govt.bank	46	-	36	14	4
	Mosque	12	78	2	-	8
	Local M L A	94	-	-	-	6
P.angadi	Panchayat member	88	2	-	-	10
	Village officer	96	-	-	-	4
	Trade union	90	2	-	-	8
	Merchant	36	44	-	-	20
	Social worker/NGO	100	-	-	-	-
	Matsyafed	74	-	-	-	8
	Govt.bank	34	-	-	-	48
	Temple	-	-	-	-	82
	Local M L A	80	-	-	-	2
Kasba	Panchayat member	76	-	-	-	6
	Village officer	76	-	-	-	6
	Trade union	82	-	-	-	-
	Merchant	4	-	-	-	78
	Social worker/NGO	78	-	-	-	4

of both are conflicting. Interaction with social workers is next highest and some thinking processes that have been set off in the area could be because of this interaction.

In Nattika, social interaction is very peripheral, the interaction with the bank being the highest but that too not on any regular basis. There is no single important institution or organisation, which yields influence or brings people together such as the church and the mosque in the Christian and Muslim areas respectively. But, unlike in the Christian areas, peripheral contact

with all institutions exists, which suggests that there are no particular antagonisms between groups. People just do not feel the need to relate. Therefore, no institutions have taken the place of the traditional karayogam, following its breakdown.

In Parappanangadi, the frequency of contact with the mosque is the highest. But there again it is not total—10 per cent of the respondents are not very orthodox and 12 per cent are a-religious. In such a closely knit village, where social controls are so strict and ostracism easily practised, a trend of dissent against religion seems to be growing. Contact with the mosque is followed by contact with the merchant and with the bank. So, for those who have assets, interaction with institutions is determined by their work and related needs. More than a third do not even have such contacts; the majority relate to no other local institution other than the recently created Matsyafed. Social workers or NGOs are completely absent except for the Anganawadi teachers who interact with the children and sometimes with the women. Stimulants for new ideas, for change, for mobilisation, etc. are, therefore, almost non-existent.

In Kasba, again the main institution with which people interact is the temple (82%) followed by the merchant (78%) and the bank (48%). Although these contacts do not seem to be of a very frequent nature, their sphere of influence can be gauged as well. A very small number relate to the village officer (6%) the panchayat member (6%) and the Matsyafed officer (8%) which means that all their other needs are met through the karayogam or the merchant. The question is whether such a karayogam, if influenced by more dynamic ideas, could be the vehicle for more cohesive and comprehensive development?

At this point it may be interesting to relate about the manner in which the temple premises are used in Kasba for debate and discussion. The temple becomes the nerve centre of the village. All debate takes place there, as also ratification of the decisions reached. In fact, information must go to the secretary of the village committee and, through him, the decision is taken. Advantages and disadvantages of every programme—this time it was the coming of the ecological marchers to their village—are debated, and once a decision is reached, the village is informed through loudspeakers and through word of mouth. The temple premises are used for any programme that involves all the people. For instance, a slide show. The village had no objection to a woman taking the initiative for this show. Unlike in the Christian or Muslim areas, the temple is more functional and less institutionalised and remote. Its council of priests is elected on the basis of area representation and its committee is democratically elected.

Fishworkers: a world-view and implications for social action

An attempt was made to examine the world-view of the fishworkers and to determine the underlying reasoning. For this purpose, a factor analysis was undertaken. A list of statements was presented, jumbled up, but when rearranged pointed to three distinct strains of thinking:

1) That God controls everything and poverty is one's fate
2) That the situation in the fisheries is deteriorating because of over-fishing.
3) That motorisation and the new ring seines have actually improved the lot of the fishworker.

The statements are listed below:

A1. Fish depletion is not a reality
A2. Fish depletion is a sign of God's punishment
A3. The living standard of all the fishermen has improved with the coming of motorisation
A4. Because of overfishing, fish resources are getting depleted.
A5. Poverty is our fate
A6. Motorisation is the only answer to the problems of the fishworkers.
A7. If we overfish today we will not have fish for tomorrow
A8. God blesses only the rich.
A9. The big nets (ring seine) have increased fish production
A10. The big ring seine is destructive fishing gear
A11. Wealth is the result of hard work.
A12. The use of OBMs have increased operating costs.
A13. It will be more profitable to go back to sails and oars.

This series of questions were put to both female and male respondents and the patterns that emerged are discussed below.

In Enayam, wealth is seen as the reward for hard work, but there is an awareness that costs of fishing have gone up because of the OBMs and overfishing is a problem, perhaps a reflection of the fishermen's own experience. Large catches in the ring seine areas have led a majority of them to view the ring seines as having increased production. They do not believe that poverty is their fate. On the whole, the Enayam fishermen seem to have a realistic and materialistic world-view. A deeper discussion on the problems in the sector and the solutions would be fruitful with such a group. The women in Enayam also share the view that motorisation has improved their lot and wealth as a result of hard work, and the fish resource is being over-exploited, but they also believe that poverty is ordained by God, unlike their males. On the whole, it seems that women here are passive spectators of the changes around them, despite the fact that women's mobilisation on various other issues has been quite successful in this coastal area.

In Anjengo there is strong appreciation for the OBMs and a consciousness regarding overfishing. Both men and women share the view that the deteriorating situation is ordained by God, though the value of hard work is also underlined, qualifying the fatalistic strain. Women feel that it would be profitable to go back to sails and oars. An interaction between men and women here would probably throw up some solutions for action.

In Nattika, men clearly do not have a fatalistic understanding of the situation, though the same cannot be said of the women, where an undercurrent of the feeling is seen and Fate has some place. Overfishing is seen as a punishment. Both are aware that fish resources are getting depleted because of overfishing. Ironically men do consider a return to traditional technology, while appreciating the benefits of motorisation, which has brought them dignity. But women unanimously agree that this change is the solution to all the fishermen's problems. They are however against the ring seine, which results in overfishing. Strangely, women exhibit a progressive strain tinged with an irrational hesitation.

In Parappanangadi, both men and women have the dominant view that while overfishing is a danger and the ring seine are destructive gear, motorisation has improved the lot of the fishworkers who have put in hard work to achieve these results. A small section of women however feels that despite the ring seine fish resources are not getting depleted. They favour a return to the traditional sail and oars. A less pronounced trend among the men and women is where technology is seen as being opposed to harmony with God, who controls life. In Kasba, while men and women share the view that God blesses only the rich, the women are more positive about the changes brought about by motorisation. An awareness about overfishing is noticed, like the men. But only a minority of women view the ring seine as destructive and favour a return to oars and sails. Fatalism and awareness of overfishing dominate the men's views, with only a minority considering motorisation the only solution since resource depletion is not a reality.

In conclusion, it can be said that various social influences are at play in some areas of the coast although the major influences in all areas, except Nattika, is that of religion. These influences are little help in the fisherfolk being able to analyse the reasons for their growing day-to-day problems in fishing. The majority of them are aware that motorisation has improved their lives but also realise that there is excessive pressure on the resource. It is possible that the fisherfolk who have benefitted least from the changes prefer to go back to the old labour-intensive technologies, to solve their problems.

It appears that confusion and a sense of insecurity is prevalent about the present situation. This could provide fertile ground for discussion and for evolving a new perspective with the participation of the people.