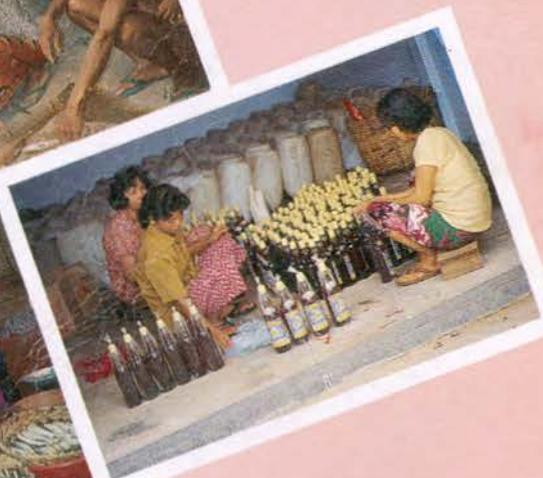
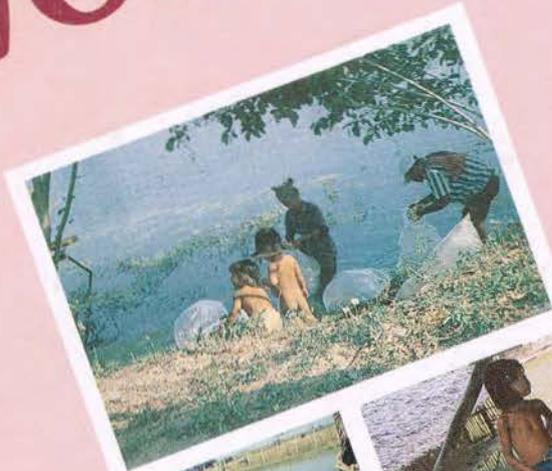
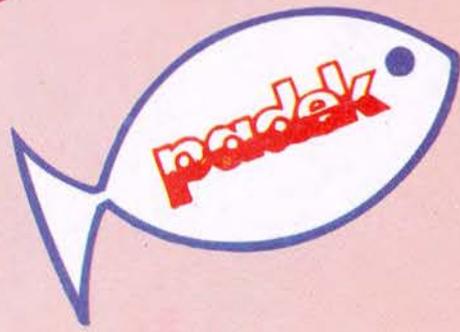


WOMEN



IN CAMBODIAN FISHERIES



NATIONAL WORKSHOP
on
WOMEN IN CAMBODIAN FISHERIES
7-9th November, 1994

Compiled by

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Proceedings of the
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on
WOMEN IN CAMBODIAN FISHERIES

Bati Fisheries Station, Prey Veng Province, Cambodia

This report contains some of the papers presented in the National workshop on Women in Cambodian Fisheries, in draft form.

Photo credits: Cover page - Padek and Mr. T.S. Tana
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CIDSE
MCC

INAGURAL ADDRESS

MICHIEL PEYRA

Director of Padek, Phnom Penh

Excellencies, distinguished guests, ladies and gentlemen, good-morning and welcome to you all.

I am very happy and honoured to be with you on this important occasion of inaugurating the first national workshop on women in cambodian fisheries. Although this workshop was initially planned to be organised in october, due to a number of constraints, it had to be postponed to this month. Let me start by apologizing for any inconvenience that this may have caused to you.

Cambodia is a very special country in many respects. It is certainly unique in having a relatively large women population, with women accounting for 60 to 65 percent of all adult inhabitants. We all know that, as a result of cambodia's turbulent history, the traditional roles of men, especially in the agricultural sector, have often by necessity been taken over

by women. Thirty to thirty-five percent of all households are at present being headed by women, and it is a well known fact that women contribute very importantly to cambodia's agricultural gross domestic product. Agriculture, which accounts for over 45 percent of the total GDP, will continue to dominate the cambodian economy, and within the agricultural sector fisheries is seen to play an ever increasing role.

We are here today to analyze in detail the contribution of women to the fisheries sector. My presentation would focus on low-cost aquaculture technology, a field in which padek has over the past years gained good experience.

In the context of this analysis, two assumptions are of great importance. The first of these assumptions is that the significance of fisheries, and especially of low-cost technology

aquaculture, is as yet underrated as an economic activity in small scale farming. The typical cambodian farm is one or two hectares in size, produces rice and sometimes vegetables, and is one on which farmers catch or raise fish for daily family consumption. Fish provides a primary source of protein in the diet, and therefore fishing or fish production are vital economic activities for many, if not all the rural families. I have been told that 70 percent of all animal protein consumed in cambodia is provided by fish.

The second assumption is that the contribution of women aquacultural activities is also heavily underestimated. The effort of women, despite an often theoretical recognition of their socioeconomic equality to men, usually goes unrecognized by society. In the coming days I hope that the importance of women to the survival and flourishing of small scale aquaculture incambodia would be highlighted. Since 1986, Padek has been taking an active interest in the fisheries sector, by rendering support to different activities. For padek, the start of our involvement in this sector has initially been a small project with a focus on capture fisheries. This small project mainly tried to assist fishermen by providing them with netting materials and with technical

equipment to undertake fishing activities in natural waters. However, with the recognition of fish in the diet of the Cambodian people, especially in view of the fast growing human population and a decline in the availability of natural resources, padek's activities in this sector slowly shifted to aquaculture as a means to create greater food security for the subsistence farmers and the poor people of this country.

In 1991, a program on fish culture in the Prey Veng and Svay Rieng provinces was initiated. The program was based on need assessment study results, in which farmers played a key role in determining their requirements. It quickly became obvious, however, that this program would not prosper without adequate technical support To cover this need, a fish seed production and research center, was established in Bati during 1993.

While pond fish culture is still in its infancy, Bati fisheries station has, succeeded in training and coaching a first batch of successful aquaculture farmers in this part of the country.

Personally, I have been much inspired by a "fish farmers meet" which we organized at this station last june. A number of farmers

participated in this event, among whom also a number of women. From the discussions and the exchange of experience, it was very obvious that women were often the key players in aquaculture. Though this was a bit of a surprise to me (but what do I know about aquaculture!), to the staff of this station it was only a confirmation of the results of a survey which they had carried out in order to investigate the impact of women on fish farming/fish raising. Women indeed appear to be largely responsible for the day to day operation of many of the fish ponds; fertilisation and feeding, which, are not basically labour intensive/stressful activities, and can be taken up next to the daily household chores by women. Often also, it happens that men are away from the house for long hours and hence only the women can provide the regularity and discipline required for day to day pond management. On the other hand, the return on investment in aquaculture, provided that adequate care is exercised from the beginning to the end of the culture period, is high. It is often higher than any other on-farm activities in which women traditionally participate. And then we have of course the nutritional value and the positive impact of fish on family health.

I am informed that the fresh water fish production in Cambodia is at present just a little more than 50% of the production obtained up to the late 1960. The decline in the production after 1970 has been largely attributed to the massive destruction of wetland forests, which have been feeding and breeding grounds for many species. If the per capita availability of fish prior to the war was about 20-25 kg per year, it has now shrunk to a mere 13 kg per capita per year. Cambodia's population is growing by 2.5 to 3% per annum. Fish and rice remain the common diet of the Cambodian people. As a result, there is a large and growing gap between the supply of fresh water fish and the actual needs of the population.

It is likely that, given the decline in the production of fish from natural water resources, aquaculture will expand rapidly in this country. Aquaculture, and especially pond culture which in Cambodia is only of recent origin, is certainly not the only solution. We may not exaggerate the importance of aquaculture, which presently contributes about 7.6% of the total of Cambodia's fish production. Restocking of open waters will also have to be given attention, cage culture techniques will have to be developed and refined and the

problems in the coastal fisheries sector have to be addressed.

However, pond culture is certainly showing rising trend over the last decade, and will increase further as its importance for the average small scale farming family was recognised. We all can contribute to that, if all of you who are gathered here today and who are concerned in the developmental efforts will join together and plan an effective approach, the average small scale farmer would be benefited. Above all, there is a need to consider the needs of women in relation to aquaculture in all aspects, ranging from technology development to workload assessment, and from training to dissemination of know-how.

In the processing and marketing sector, it is clearly the women who play an important role in carrying out almost all the activities. While men take active part in harvesting the natural resource, it is the women who often do the processing, and who take care to avoid the wastage and to produce a valuable consumable product.

It is in view of these important contributions of women in the aquatic resource management, Padek has taken the lead for the

organisation of this meeting. The main purpose of this workshop is to create a forum to discuss a number of issues related to the contribution of women in the fisheries sector. A large number of agencies are now entering into this sector, and, I'm happy to project, also government is also planning more and more activities in aquaculture. While all these are good signs, we need to streamline the thinking of all concerned on how to secure productive lines in aquaculture development. I believe that the present workshop will be contributing to that end.

If, during these days, we succeed in discussing various issues related to women in fisheries, not only the technological aspects but also the social and economic issues which are more relevant in making a technology accepted or rejected, the workshop will be successful. Based on the output of this workshop, suggestions may be formulated, not only to safeguard the interest of women in fisheries sector, but maybe also to serve as guidelines for the development of policies of the government and other organisations.

I am pleased to see the participation of such a large number of agencies, international organisations and the representatives from the

royal government. It should be remembered that this workshop is only a beginning and largely aims to develop a frame work for undertaking more detailed investigations on the role of women in the fisheries sector. If all of you feel at the end of this three day meeting that it would be opportune to hold another workshop in the coming year to discuss more in detail on the role of women in fisheries sector, padek will be most willing to join hands with other agencies in the organisation of such a meeting.

There is one special welcome that I would like to extend. I am glad that Dr.Revathi Balakrishnan, an authority on the women issues in fisheries sector, has travelled all the way from USA to deliver the Key note address on social and economic issues related to women in fisheries. She has accepted our invitation and fitted in her busy schedule, even with our last minute request. With the extensive knowledge you have in this area, it should be possible for the participants to develop a good frame work for more in depth research in this important area.

Bati fisheries station is a small place. Many inconveniences might occur. I appeal to all of you to excuse the organisers for any such

inconveniences and to participate actively in the meeting.

Thank you for bearing with me.

I wish you all good luck, pleasant stay and fruitful meeting.

SUMMARY REPORT

M.C. NANDEESHA

Padek, Phnom Penh, Cambodia



With a large section of the Cambodian adult population being women (about 60%) and nearly 30-35% of the families being headed by them, greater responsibilities in terms of creating food and economic security for the family lie in their hands. Though it is widely acknowledged that women's participation in different agricultural activities contributes significantly to food production in the country, there are paucity of efforts to understand their problems. Hence, programmes designed to address the problems of women in agricultural sector including fisheries have not been effective.

Like in agriculture, women contribute significantly to almost all activities in the fisheries sector too. Unfortunately, the contribution of women in the fisheries sector is always underestimated. Often, when fisheries issues are discussed and developmental programmes are formulated, it is always assumed that most activities are being carried out by men.

In an effort to provide a forum to address the issues related to the participation and contribution of women in the fisheries sector in Cambodia, a national workshop on Women in Cambodian Fisheries was organized from 7-9th

November, 1994 by PADEK in collaboration with the Prey Veng Province. The workshop aimed to generate awareness among the public, policy makers and policy implementers about the invaluable contribution made by women to different fisheries activities in the country. In addition, the workshop aimed to gather information on the problems faced by women and examine the prospects for their increased participation in the fisheries sector.

The workshop was intended initially to be a planning workshop to promote in depth studies to understand the role and contribution of women.

However, owing to a large number of participants and to a number of contributions received for presentation, the workshop was subsequently aimed towards understanding both the status and contribution of women on the one hand, and the development of guidelines for further studies based on the presentations made in the workshop on the other. The areas covered in the workshop included:

- (1) Women in Aquaculture
- (2) Women in Capture Fisheries
- (3) Women in Fish processing
- (4) Women in Fish marketing
- (5) Women in Fisheries Development, Research and Education.

The workshop was attended by over 160 participants from all over the country and was well represented by all the concerned Ministries. The workshop was inaugurated by H.E. Tep Nannary, the Governor of Prey Veng Province. The occasion was graced by H.E. May Sam Oeun, Undersecretary of State for Agriculture, Forestry and Fisheries, Ms. Hiam Rum, Undersecretary of State for Women Affairs, and Mr. Michiel Peyra, Director of PADEK, as well as a number of other distinguished guests from various organizations. Dr. M.C. Nandeesh, in his welcome address, informed the group that the workshop was convened with the objective of gathering information on the contributions made by women to the fisheries sector and the problems encountered by them. Through this process it is not only aimed to increase peoples' awareness of the invaluable contribution of women to the fisheries sector, but also to influence the policy makers of the Royal Government to develop appropriate programmes to solve the problems and meet the needs of women.

All three representatives of the Royal Government indicated that it would be pleased to consider the recommendations of the workshop to improve the status of women in the fisheries sector. The highlights of the three speakers can be summarised by the following points. Women in Cambodia have been traditionally involved in processing and marketing. However, it was mentioned that their contribution to the aquaculture sector was not yet understood clearly. Women not only assist in carrying out various

activities, but they are also responsible for household maintenance and bearing children. In reality, women carry out large part of the fisheries activities and are responsible for a greater part of the family maintenance. The fisheries sector was one of the best examples wherein it was traditionally perceived that most jobs were done by men, although this contradicted existing practices. The representatives of the Royal Government appreciated PADEK for this unique initiative and urged the participants to discuss the issue vigorously and come out with recommendations to enable it to initiate appropriate action to improve the situation of women in the fisheries sector. Mr. Michiel Peyra explained how and why PADEK took initiative in fisheries and in particular, the organisation of the present workshop. Fisheries is an important activity in Cambodia and fish is a basic element in peoples diet. Development programmes related to the fisheries sector will not be successful unless they are gender sensitive. As fisheries development is receiving a new thrust in the country, Mr. Peyra informed the group that PADEK wants to increase the awareness of the people and the policy makers to the needs and the contributions of women in the fisheries sector, and through these efforts avoid gender blind programmes in fisheries.

A number of presentations made by various other speakers highlighted the contribution of women in different sectors of fisheries in Cambodia. Following these presentations, group discussions were held on each of the following

topics, women in aquaculture, women in capture fisheries, women in fish processing, women in fish marketing and women in fisheries research and development and education. A summary of these group discussions is presented here. Wherever appropriate and necessary, results presented by various authors have also been used.

WOMEN IN AQUACULTURE

In Cambodia, aquaculture is practiced in different intensities and using different systems. Prevalent systems could be broadly classified as pond fish culture and cage culture. Though cage culture originated in this country, pond fish culture is new. In pond fish culture, intensive culture of catfish (*Pangasids*) and small scale fish culture involving different species is practiced. The latter type is becoming very prevalent and it is gaining increasing popularity throughout the country. The contribution of women to different activities varies in different type of aquaculture systems. (In cage culture, a large number of activities like cage construction, seed collection, feeding fish, daily monitoring of cage/fish, and so on, are carried out either solely by women or in collaboration with men depending on the intensity of operation.) In pond fish culture of cat fish, feeding is done usually by women, while men assist in cooking.

(In the case of small scale aquaculture practiced in some areas of the country, women have been found to be largely responsible for carrying out most of the activities. Research

studies conducted by various organisations in their project areas have clearly identified the contribution of women as the key to success in this new activity. Many of the activities related to small scale aquaculture could be carried out by women independently with little or no assistance from men.)

However, the Government and the developmental agencies have not understood, the contribution of women to aquaculture. It was unanimously agreed that the contribution of women to various aquaculture activities, particularly when it is carried out at family scale, outweighs the contribution of men. This contribution is on top of the normal activity of taking care of the family and children. Hence, (it is necessary to upgrade the knowledge of women in fisheries in order to achieve rapid progress in small scale aquaculture. Since the literacy rate of women is very low, and they do not have enough time to attend training, it is essential to design effective methods, taking into consideration the literacy rates, to deliver the message to farmers doorsteps. Apart from using female extension agents, other extension methods were suggested for investigation.)

Though the information presented in the workshop clearly indicated the contribution of women to aquaculture, the studies did not identify the access and control of the resources, or the status of women following the introduction of these new activities. Hence, it was suggested that information should be generated through detailed

studies of the above issues. This would help to better understand the position of women in the family. It would be interesting to know whether the new activities only added additional burdens or whether it has helped change the position of women in the family.

The participants appreciated the contributions and felt that in view of small scale aquaculture becoming a part of established farming systems, further detailed studies would help in laying a proper, gender sensitive, foundation for the future development of this specific activity.

WOMEN IN CAPTURE FISHERIES

In Cambodia, fishing methods for catching almost all varieties of fish are well developed. Based on the size of the fishing gear used, there are broadly three different types of fishing methods, namely, industrial scale fishing, medium scale fishing and family scale fishing. In all the three types of fishing, women contribute significantly to various activities either directly or indirectly. In large and medium scale fishing, they are heavily involved in fixing bamboo frames, net repairs, grading of fish by size and species, and so on. In family scale fishing, women are often involved in carrying out many of the activities related to fishing by themselves or in cooperation with other family members. Preparation of fishing material and carrying out fishing activities is often done as a necessity to meet the family fish requirement.

In the group discussions, most concern was expressed about the decline of fish from the natural environment as a result of destructive fishing practices. These destructive practices include fishing with electricity, the use of fine mesh size nets for fishing, the use of poisons and the use of explosives. In all these cases, fishes of all size groups of different species are killed resulting in the decline of production of several species. These destructive fishing methods are reaching an alarming level, resulting in food security problems for the poor people who depend on the natural waters for fish. Owing to the widespread use of pesticides in paddy cultivation a most dangerous situation is now emerging. It is likely that if the trend to increase paddy production through unsustainable means is continued and the usage of pesticides is increased, there would probably soon be no more fish in the paddy field. It should be remembered that nearly 20-30% of the country's fresh water production probably comes from fishing in and around paddy fields.

In addition to the above problems, the destruction of flooded forests which are known to be feeding and breeding grounds for a variety of species of fish is also reported to have caused the decline in fish production.

The group pointed out that most of these destructive activities are carried out by men. However, it is not only necessary to educate men, but women also should be educated on the negative effects of the above type of activities.

Women would probably be able to play an important role in controlling such destructive activities at the family level. Moreover, the group identified aquaculture as an activity which could help in avoiding such destructive activities by ensuring adequate production of fish at the family level to meet the family fish needs. It was also suggested to improve the processing techniques as it would help in year long preservation of fish and, thereby ensuring an adequate supply of fish throughout the year.

It was requested to make an in depth analysis of the fisheries situation in Cambodia and develop effective means for the better management of the aquatic resources. In the management process, women should be involved in all activities at all stages. The design of aquatic resource management strategies which are gender sensitive are also necessary. With the reported decline in the capture fisheries production, such strategies are essential to arrest further decline.

WOMEN IN FISH PROCESSING

Cambodia is well known for preserving fish using various traditional fish processing methods. Different methods of fish preservation have come into existence because most fish land in the country within just 2-3 months and unless these fish are processed and preserved for year long consumption, there would not be any fish available during the dry season. Necessity has resulted in the invention and adoption of several indigenous techniques for fish processing and

preservation. Common methods of fish preservation are fermented fish products (prahok, pahork), smoked fish, salted and dried fish, fish sauce and so on. In all these activities, women are the major force and contribute in some cases to more than 90% of the activities. Nearly 30% of the fish harvest is utilized for preparation of various products. The major concern of the discussion group were the difficulties faced by women in the processing itself and also the availability of adequate finances at reasonable interest rates. As the women's knowledge of hygiene is limited, and as they are usually unaware of the harmful effects of various insecticides and pesticides, there have been instances of poor quality production causing health hazards to consumers. In the preparation of fermented fish products, as well as fish sauce, poor hygiene can attract worms and insects. To prevent insects, there have been cases of using insecticides around the product.

The group felt that hygiene education should be carried out to avoid health problems as the country is already limited in human resources. Secondly, efforts should be made to organize financial assistance to the women's groups. Most importantly, improvements to traditional processing and preservation methods should be carried out through research and through providing the people with alternate technologies. The need to improve the country's communication systems was also strongly felt since the existence of such a system could help the bulk harvest of fish in one place be moved to other fish deficit

areas. Presently, a significant proportion of the catch is wasted as there are no effective means to preserve such huge harvests and there are no easy ways to transport fish from one place to another.

In order to understand and quantify the contribution of women to this important activity, it was suggested that an intensive study be carried out by the organizations involved in fisheries development in this country. However, it was made clear that processing is an activity dominated by women and that the skills required are more user friendly among women than men.

WOMEN IN FISH MARKETING

As in almost all developing countries throughout the world, fish marketing is also an activity being carried out largely by women in Cambodia. As stated already, Cambodia has a variety of fish products and hence marketing involves sales of both fresh fish and processed fishery products. A considerable proportion of the retail trade are women and marketing activities are usually concentrated around provincial towns.

The poor marketing infrastructure and highly fluctuating currency values have been causing an enormous amount of problems for women. High inflation had a direct effect on marketing and income.

The group expressed serious concern about inflation and urged the Government to do all it could to keep inflation rates stable. The Government was requested to improve the market

areas for fish and fishery products and provide loan assistance to women on easy terms, since most of the women who are involved in fish marketing are poor and are carrying out small scale activities.

WOMEN IN FISHERIES EDUCATION, RESEARCH & DEVELOPMENT

Though Cambodia is a society dominated women, the involvement of women in education, research and developmental activities is far below their representation in the population. Even in the fisheries sector this situation holds true. A perusal of both the National Fisheries Department and the Provincial Fisheries Department indicates that only 23% and 13% respectively, of employees are women. Most of these employees are also not adequately educated and hence they work as low level cadre. While there is no emphasis on women in the recruitment process, often it is assumed that women would not be able to carry out the field activities and men are chosen for a variety of such field jobs. Also, the percentage of women graduating from both the Prek Leap Agricultural College and Royal Agricultural University is low.

In Prek Leap, out of 197 vocational graduates, only 18% were women, although in the agent course which is just a one year programme, the percentage of women formed 25% of the 63 people who have completed so far. In the Royal Agricultural University, out of 137 graduates completing courses since 1984, only 19% were women. Most of these educated women are employed with the central fisheries department or

in the provinces adjoining Phnom Penh. A number of reasons were identified as the causes for such a concentration of a technical pool in one place and a request was made to disperse the minimum technical pool available to different provinces to reap maximum benefit.

There are no women involved at the moment in the fisheries education sector. Similarly, no women are actively engaged in the newly developing research field either. Most of the available women work in development. The number of women is far below requirement although at this stage the knowledge gained by them at graduation level being poor, they are not in a position to meet the needs of the farming community. Hence, it was urged that available women should be given priority in training, both within and outside the country. It was requested that special emphasis is made to attract as many women as possible for courses and to provide all assistance to train them and utilize their services for fisheries development in the country. However, such a developmental plan requires several policy adjustments. It was requested that such a policy review be made immediately bearing in mind the country's need for development.

Conclusion

The workshop was considered a good beginning in addressing an important issue which would help in developing gender sensitive programmes and hasten the developmental process in the fisheries sector. In contrast to the

common assumption of the people that most fisheries activities are being carried out by men, women contribute significantly more than men in carrying out many of the activities. Hence, on this basis, it was urged to develop gender balanced programmes to better help women in the fisheries sector.

Though in the workshop, a number of issues ranging from social to technical aspects were discussed, it was felt that more in-depth studies would be useful to quantify the contribution of women in various spheres of fisheries activities. It was suggested that such studies should determine whether women have due access to the resources generated largely owing to their contribution. A number of guidelines were provided for further study based on the presentations made and discussions held. It was recommended to avoid too much emphasis on just data collection. Much of the situation of women could be better understood through informal discussions and observations of the specific situation in different areas.

Following were the major points that emerged from the workshop.

- (1) Women contribute significantly to many of the fisheries activities in Cambodia. The level of contribution and the extent of involvement is almost the same or in some cases even higher than that of men. However, thus far, no effort has been made to understand their contribution and

the constraints faced by them. Hence, PADEK's initiative in organising this workshop for gathering information about the role of women in the fisheries sector was considered as an appropriate step. It was recommended that the information gathered was to be used to build public awareness about the role of women in the Cambodian fisheries sector and influence policy makers to develop such programmes which would benefit women.

(2) Five major areas namely, aquaculture, capture fisheries, fish processing, fish marketing and fisheries research and education were examined in detail in the workshop to assess the involvement of women and examine the contributions made and constraints faced by them. In all these sectors, excepting in fisheries research and education, women were found to contribute significantly to different activities. In small scale aquaculture, fish processing and marketing, most of the activities were found to be carried out by women. However, there are no programmes to assist them either financially or technically to enhance their knowledge, which could help them to contribute more effectively.

(3) It was recommended that attempts should be made to solve both the social and

technical problems faced by women and urged that as a preamble to that end, all the programmes designed by various agencies should be gender sensitive. Since Cambodian fisheries sector has several social and technical issues all of which requiring priority attention, it was recommended that the burning issues should be addressed as highest priority. One such important issue identified was the poor knowledge of women about technical aspects of fisheries. It was recommended that various strategies be adopted to enhance the knowledge of women including the use of women extension agents. Also, at the same time, it was suggested that research be intensified to generate quality, local information which could be used for educational activities besides solving location specific problems.

(4) Lack of financial support (credit) was identified as another major constraint being faced by women undertaking economic activities in fisheries. It was suggested that ways be explored to provide financial support to women with soft loans through the existing GO and NGO structures. Research was suggested in to this area to understand needs and the means to provide such support in an appropriate way. It was recommended that the issue of access to the resources created/generated through

the efforts of women be investigated, as well as looking at the status of women in the family.

organisations involved in fisheries sector have agreed to conduct research in their area of operation prior to such a meeting.

(5) As the number of women entering fisheries courses was small, it was suggested that schemes should be developed to attract women to existing fisheries courses. Also, it was felt that in order to have nationwide fisheries development, it was proposed that seats at academic institutions related to fisheries should be reserved for women from various provinces. Presently, most women graduated from the fisheries institutes are either from Phnom Penh or adjoining provinces.

In his closing remarks, Mr. Michiel Peyra assured the assembly that PADEK would pursue further studies on this issue and provide information to the Government to enable them to develop gender balanced action programmes in the fisheries sector. He also promised to continue PADEK's efforts in awareness building campaigns and generation of quality scientific information on the contribution of women to fisheries and constraints experienced by them in this sector including the organisation of another workshop / seminar on Women in Cambodian Fisheries during 1995-96.

(6) It was suggested that efforts should be continued to understand the contribution of women to the fisheries sector and the constraints faced by them. Such studies would help generate information which could not only be used to develop effective strategies to solve their problems, but also to educate all sections of the population on the role and necessity of women in the fisheries sector.

(7) The participants unanimously decided to meet again during 1995-96 and discuss in more detail the role of women in the Cambodian Fisheries sector based on the scientific data gathered. All the

WOMEN IN CAMBODIAN FISHERIES SECTOR

TOUCH SEANG TANA

Department of Fisheries, Phnom Penh

Abstract

Women are an important work force in the Cambodian fisheries sector. They are actively involved in fish processing, marketing, capture fisheries and aquaculture. In this paper an effort has been made to summarize the information on the role of women in different sectors. Information has been gathered through both personal interviews as well as discussion with key persons in each sector. The results indicated that women involved in subsistence fishery, working as labor are more illiterate. These women also are poor and do not possess basic minimum needs required for the maintenance of the family. However, these women were found to be able to make decisions on many of the issues. Better educated women /married women had less influence in decision making. Highly educated women were not found in the fishery sector. Educated women were rarely found in the small scale fisheries sector. In contrast, in large scale operations of capture fisheries, aquaculture and marketing better educated women could be seen.

Introduction

Based on the Cambodian Fisheries Statistics of 1992, there were 18,196 fishing families with a population of 80,005, in which 52,566 labor force was involved in capture fisheries of both inland and marine sectors. About 4,147 families with 17,480 population, in which 12,512 labor force were involved in fish processing. While in aquaculture there were only 3,500 families with 13,624 family members in

which 8,544 labor force were involved in the farming activity. There was no information available on the number of people involved in the area of fish marketing. It is important to note here that this information has been gathered from licensed fishermen only and others have not been included.

Women labor involvement is not significant in large scale capture fisheries

and large scale aquaculture activities (shrimp farms in the coastal area). Most women seen in these areas are involved in cooking activity. However, women are active in fish processing and marketing activities. Further, they are active in all the areas of small scale fishery operations.

Methodology

In order to obtain some preliminary information in the areas wherein women are involved, three steps were adopted. In the first step, review of the selected area was done to understand the existing local conditions. In the second step, interviews were held with key informants and in the third step, information was collected from women involved in the activity through discussion.

Description of the study areas and summary of the results

Women in large scale capture fisheries - Chralay fishing lot

Location: Commune Kompong Chhnang, Roleab Phaeat district about 18 Km from Kompong Chhnang Town.

Geographical feature: Two rivers: Cham Chi river and Phlong river flow through the area

Technology used for catching fish: Fishing barrage, Drag net.

Hired labor: 35 Permanent labour in which five are women; 60 temporary labour in which 22 are women.

2 Women in small scale aquaculture, a case study in rural Svay Rieng province

Location: Southeastern part of the country

Area: 2,966 Km² with 200,000ha arable land

Population: 433,000 in 1992 and in which 224,000 are female

Ethnicity: 97-98% are Khmer and rest are ethnic Vietnamese and Chinese.

Socio-economics status: >90% of the population are engaged in agriculture

Agricultural situation : Agriculture is mainly rainfed

Main food of population : Rice and fish

Fisheries status: Flood plain and Rice field fisheries; wild fish depletion; aquaculture is new to the area and its contribution is still negligible.

General status of women: Large number of women are involved in the activity.

3 Women in subsistence inshore capture fisheries, a case study of Islamic fishing Community of village #4, Dong Tong commune, Dong Tong district, Koh Kong province.

Location: South of Koh Kong town and at eastern side of Dong Tong river

Household family number: 1160 families in which 70% are engaged in capture fisheries

Ethnicity : 65% are Cham and the rest are Khmer

Status of fisheries: 700 motorized fishing boats (of 5-10 HP) and 200 non-mechanized boats involved in inshore capture fisheries and collection of oyster and snail for shrimp feed.

Fishing technique: Gill nets, crab trapping, beach purse seine.

General status of the community: Poor

Average income of fishermen and gatherers: 10,000-30,000Riels/fishing day; 3,000-10,000Riels/gathering day.

Women status : Most married women are House wives except some young married women without children assist their husband in near shore fishing; widow families (about 7% of the household in the community) are engaged in fish collection (60% of them) and rest are involved in fish marketing

4 Women in small scale marine capture fisheries, Peam Krasob fishing commune, Mondol Seima district, Koh Kong province.

Location: about 10 Km to the east of Koh Kong town at the margin of the wetland mangrove forest of the national wildlife sanctuary.

Household family number: 76 households which are distributed in two villages.

Population: 398 in which 190 are women

Ethnicity: 90% are Khmer and rest are Cham, Thai and Chinese.

Socio-economics status: 90% of household are engaged in fisheries and rest are engaged in mangrove charcoal production and in small grocery shop in the commune.

Fisheries status: 5 trawlers (30-42 HP), 60 gillnetters (5-10 HP), 20 non-mechanized boats which generally operate not far from the shore.

Living condition: 3% rich, 50% fair and rest are poor.

Women status: 80% are house wives and rest are involved in inshore fisheries with their husband and some work at charcoal kilns.

5 Women in coastal aquaculture- a case study of shrimp farming in Koh Kong province

Number of licensed shrimp farm: 79 registered farms among which 30 farms have already commenced operation and another eight farms are under construction.

Areas licensed: 800 ha of which about 300ha are already under operation.

Intensification of culture: Intensive (stocking density 80-100pcs/sq.meter)

Labor: About 800 workers (for operation of farms) in which about 100 are women who are mainly involved in cooking.

Wages for labor: 300,000 riels/month for Thai technical labor, 200,000 riels/month for

Khmer technical labor, 100,000 riels/month for ordinary Khmer and Thai labour staff, 50,000 riels/month for women (cook). Meal is commonly provided on-farm to all workers.

Output: Varied from 3 to 7 tons/ha/rainy season crop during 1994 (about 80% of harvested pond had financial loss).

Problems encountered during the last crop: Freshwater impact from Dong Tong river and heavy rain, shrimp death due to diseases, pollution due to heavy feeding, low salinity, application of environmentally unfriendly technologies.

6 Women in fish processing - a case study of fresh fish collector and steamed fish processor at Tomnup Rolork commune, Kompong som city.

Owner: Mr Siek Heng

Established: 1983

Production capacity: 300 tons of steamed fish/year and 200 tons of fresh marine fish & shrimp/year

Inputs: 500 tons of scad and mackerel species for steamed unit (40% weight loss after steaming) and 50 tons of fresh shrimp, 150 tons of seabass/ grouper/snapper/tuna/ marine catfish/mullet etc..Fresh scad and mackerel price varied from 400-1300riels/Kg depend its availability. The other commodities price is steadily fluctuated due to many factors.

Labor for steamed fish unit: 8 permanent staff including 2 women and another 2 temporary staff

Labor for fresh fish gathering unit: 5 permanent staff including 1 women and 5 temporary staff including 3 women.

Raw materials suppliers: contracted 12 seine netters of 42-130 HP (for scad and mackerel) and other local fishing boats (for fresh fish and shrimp).

Distribution: Steamed mackerel used for distribution in the country while fresh fish and shrimp use to export to Thailand.

Whole sale price of steamed fish varied from 2,200-2,300 riels/kg.

Results and discussion:

Women in fishing lot assist men in many ways. More particularly they are involved in making bamboo mats, repair of nets, assist in sorting of the harvested fish, processing fish and cooking food for the fishing lot members. In families surveyed, all the women were living in poor condition. In the small scale aquaculture sector, women were active participants in many of the activities: pond digging, seed collection, stocking, fertilization, feeding, harvesting and processing/marketing of harvested fish etc. In pre-stocking preparation, men were more active, while in post stocking operation women were found to be active. Particularly in the area of fertilization and feeding, they played an important role in maintaining the

activity. However, here again women were found to be living in poor condition.

Women in the coastal areas wherein fishing was observed to be carried out for subsistence living by the community largely consisting of Chams, women were found to be largely responsible for household activities. However, in some families with no children, house wives were found to help husband in fishing activities. Here again, living condition of women was poor and majority of the women were illiterate. In the marine fishing sector, women were not involved, but in near shore fishing activity, women were found to assist men in the fishing activities. In the coastal aquaculture sector, though women involvement was seen, it was largely restricted to cooking in the farm and feeding. Living condition of women in this area was better since they could earn better wages from these commercial farms. In the marine fish processing sector, the living condition of the women was poor.

Some of the information obtained from the above areas are summarized in Table 7. Among the 42 women interviewed, 66.5% were married and rest were widows. Even those who were literate, did not possess higher education. The living condition of most of the families was poor.

In order to understand the role of women in decision making process, few

questions were asked to women (Table 8). Four groups of women were made: Group 1: Widow with children; Group 2: Widow without children; Group 3: Married women without children; and Group 4: Married women with children. Widows being the family heads, they had good power to decide on most issues. However, those with children, had to consult grown up children on certain matters and hence the power to decide on some of the issues were not entirely with women. In those cases wherein women were married (with/without children), decision making power was greatly reduced. It appears that in these cases, it was the men who still played a major role in making final decision on many issues. Women also expressed the difficulty in meeting the family expenses with the earnings made. In all such cases, women had to increase their working hour and in some cases they also had to make the children undertake the work at the cost of their schooling.

Conclusion

Women play a major role in almost all spheres of fisheries activities either directly or indirectly. If they are not involved directly in the activity, they are mainly engaged in taking care of the household responsibilities. In capture fisheries, they are an important part of the shore based activities, in processing and fish culture, they are the key components of many activities. In

coastal fisheries sector, they are again active more in the shore based activities. In all cases illiteracy is acting as the major hindrance factor for the women to gain required social status. Hence, programmes should be designed to educate women and all efforts should be made to change the attitude

of men towards women. This change in attitude can be brought only through long term programmes which not only address the problems of women, but enlighten the population on the contribution made by women as a mother at home and as a co-worker in the field.

Table 1 Women data collected from 7 interviews of the 6 fishery components:

Status	Widow with children	Widow without children	Married with children	Married without children
Age:		1	1	6
< 25 years				
25-40 years	7	2	15	
> 40 years	3		7	
Education:	9	1	12	1
Illiterate				
Primary School	1	2	9	3
Secondary School			2	2
Above high School				
Living Condition:				1
Good			5	
Better		2	1	3
Poor	10	1	17	2

Table 2 Women role in household management and decision-making

Parameter	Group 1	Group 2	Group 3	Group 4
Head of family	10	1		
House wife			5	
Family financial management	10	3	18	4
Decision for expense :				
For purchase of Food				
powerless		2	5	2
fair		1	12	3
powerful	10		6	1
For purchase of Cloth:				
powerless			15	3
fair		2	4	2
powerful	10	1	4	1
For purchase of household Assets:				
powerless		1	17	2
fair		1		2
powerful	10	1	6	2
For prestige				
powerless		2	17	4
fair		1	1	1
powerful			5	1
For entertainment				
powerless			15	2
fair		3	2	4
powerful	7		6	
For family business:				
powerless			5	1
fair		2	13	4
powerful	10	1	5	1