

100·SUB001



"Urakaraka" in Tamana



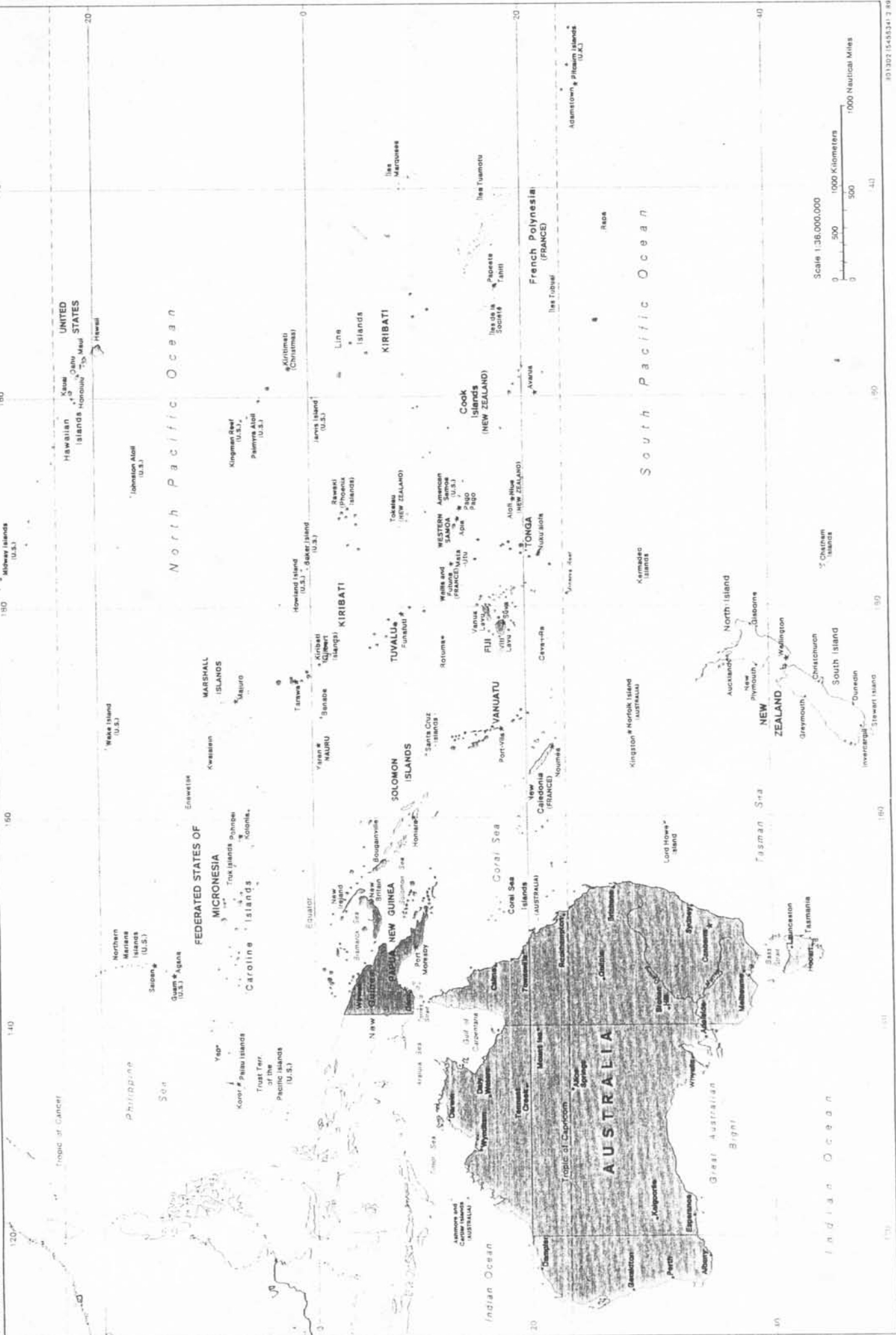
Accn: 3036

MFN: 3477



தமிழ்நாடு அரசு திரைப்பட ஆய்வு மையம்

# Oceania



Scale 1:36,000,000  
0 500 1000 Kilometers  
0 500 1000 Nautical Miles

801302 (5-65) 2 89

179

180

190

199

190

140

120

130

140

150

160

170

UNITED STATES  
HAWAIIAN ISLANDS  
Kauai  
Oahu  
Honolulu  
Molokai  
Maui

North Pacific Ocean

South Pacific Ocean

Indian Ocean

Tropic of Carriacou

Tropic of Capricorn

Equator

FEDERATED STATES OF MICRONESIA

MICRONESIA

Caroline Islands

Truk Islands

Mariana Islands

Marshall Islands

Kiribati

Tuvalu

Vanuatu

Fiji

Tonga

French Polynesia

Kiribati

Tuvalu

Vanuatu

Fiji

Tonga

French Polynesia

Kiribati

Tuvalu

Vanuatu

Fiji

Tonga

French Polynesia

Kiribati

Tuvalu

Vanuatu

Fiji

Tonga

French Polynesia

Kiribati

Tuvalu

Vanuatu

Fiji

Tonga

French Polynesia

## ABSTRACT

Despite rapid change, fishing remains central to life in Kiribati, the Pacific nation of atolls. Data from this study indicated that 85% of the more than 1200 households surveyed undertake some kind of fishing. The data also suggests that 77% of the women surveyed do some kind of fishing. However, women's knowledge and practices in fishing economies such as Kiribati remain largely unexplored. In Kiribati, men in *te wa*, the small outrigger canoe, have dominated the legendary productive and expressive elements of traditional artisanal fishing. In recent years, the subsistence fishery in Kiribati has been overshadowed by the foreign dominated fishery based on the tuna capture. The commonality in both scenarios is that women are absent as it is believed that "women don't fish". There are many complex issues embedded in the perception that "women don't fish" which this study attempts to understand.

Against this background, I locate women's contribution to the fishing economy in a broad social, economic and cultural context. Based on data collected on seven atolls, I explore women's work in fishing, processing fish, seaweed cultivation for the export market and distribution which includes marketing as well as the traditional exchange of *te kaunono*. I conclude that women's marine work, which is interwoven with cash and subsistence strategies, is central to life in Kiribati. This study challenges the assumption that there is a definitive split between the cash and subsistence sectors, an assumption which often relegates women to the subsistence and men to the cash sector.

I argue that the use of western analytical constructions have "hardened" the division between the reef and ocean; male and female fishing as well as cash and subsistence in Kiribati. Rather than a rigid division, I suggest that there is a continuum between them. Such a perception is profoundly different from the usual accounts which invariably focus on men's ocean fishing. The central importance of the reef and lagoon as well as women's contribution to the inshore fishery and everyday life in Kiribati was underlined.

## ABSTRACT

Design and change fishing remains central to life in Kiribati, the Pacific region of which data from this study indicated that 85% of the more than 1200 households surveyed undertake some form of fishing. The data also suggests that 77% of the women surveyed do some kind of fishing. However, women's knowledge and practices in fishing economies such as Kiribati remain largely unexplored. In this study, the author explores the role of fishing in the lives of the legendary producers and expressive elements of traditional Kiribati fishing. In recent years, the subsistence fishery in Kiribati has been overshadowed by the

## ACKNOWLEDGEMENTS

Mr. Tikai, Chief Fisheries Officer, Kiribati; Fisheries Officers; Fisheries Assistants and all of the Fisheries Staff made it possible for me to undertake this study and I am deeply grateful for the opportunity. The Fisheries Division was instrumental in the large scale collection of data from households on seven islands. Their generous assistance in ensuring my participation and the incorporation of a questionnaire on women's fishing in the artisanal fisheries surveys is greatly appreciated.

For their generous help and encouragement, I would like to thank among many others, Nei-Beta Tewareka, Director of the University of the South Pacific (USP) Programme in Kiribati; Temakei Tebano, Atoll Research Programme, USP, Kiribati; Professor Claire Slatter; University of South Pacific, Fiji; Dr. Lynn Bennett, World Bank, Washington; Tony Williamson of Memorial University, Newfoundland, Canada; and Professors Margaret Rodman and Penny Van Esterik, Department of Social Anthropology, York University, Canada.

I would also like to acknowledge the Canadian Bureau of International Education for their patient administration of the Canadian Scholarship for Canadians, which provided funding for this study. While acknowledging the assistance received from a great number of people, I remain responsible for any inaccuracies in this research.

Nei Temawa Taniera, her family with whom I lived, and Nei Tooti Tekinai who were both fisheries officers when this study was done offered unlimited support and direction to me. My sister Marian's visit to Kiribati made all the difference in the world to me. Finally, to all of the many people in South Tarawa and the islands of Marakei, Makin, Kuria, Abaiang, Nikunau and Tamana, who kindly answered my questions about women's fishing, I remain grateful.

## TABLE OF CONTENTS

Abstract	i
Acknowledgments	ii
Table of contents	iii
List of tables, graphs and photographs	vi
Map of Oceania	vii
Map of Gilbert Islands Group	viii
<b>1. Introduction to Women's Fishing</b>	
Introduction	1
Setting the scene	4
Context of this research	6
The research Process	9
Collecting data	10
Accounting for differences	13
Limitations of data collection	14
The presentation of the findings	18
<b>2. Theoretical Underpinnings, Emerging Issues and the Symbolic Element in Women's Fishing</b>	
Gender: A theoretical signpost	21
Gender differences in fishing	24
"Women don't fish": examining representations	28
Patterns of cash and subsistence	31
The fragile atoll environment	34
Development: examining the concept	36
Women and development	39
Some symbolic & expressive dimensions of women's fishing	41
Legends, myths, taboos and rituals	42
Trolling for Mary: A land performance	45
Peril and protection	46
Conclusion	50
<b>3. The Context of Women's Fishing: Household, Village and National</b>	
Introduction	51

TABLE OF CONTENTS

The national context	51
Migration and employment	53
Social organization at household and village levels	55
Cash and subsistence strategies	59
The nature of women's work	64
Women's work as care-givers	66
Gender relations	68
Mutuality in the division of labour	70
Conclusion	71
<b>4. The Structure of Fisheries in Kiribati</b>	
Introduction	73
Changes in fishing practices and conservation practices	74
The importance of fishing in Kiribati	77
Fisheries zones and artisanal and commercial sectors	79
The artisanal fishery	80
The technology of artisanal fisheries	83
Fishing gear and fishing methods	84
Hand collecting and reef gleaning	88
Engendering shellfish collection	93
Conclusion	94
<b>5. Women's Fishing</b>	
Introduction	96
A review of research on women's fishing in Kiribati	97
Women's knowledge of fishing	99
Women's subsistence fishing	100
Household fishing configurations	102
Reef gleaning	105
Spearing annelids	109
Urakaraka	110
<i>Kibe</i> - night fishing	111
<i>Te roa roa</i> : fishing with rod and line	116
Small weirs: fish traps	116
<i>Te Karoun</i> : net fishing in the lagoon and on the reef	118
Women's fishing from canoes	119
Other fishing activities	123
Frequency and duration of women's fishing trips	124

Quantity of fish collected	128
Conclusion	128

### 6. Surplus Fish and Seaweed Export Production

Introduction	130
Buying and selling fish	132
Women's marketing of fish	135
Income earned from selling fish	138
Processing of surplus fish	143
Sharing the surplus: The <i>te kaunono</i> exchange	147
Seaweed Production: women's work in the export economy	151
Cultivating seaweed	152
Conclusion	154

7. Conclusion	155
---------------	-----

8. Bibliography	162
-----------------	-----

9. Glossary of fish terms	171
---------------------------	-----

10. Appendices	175
----------------	-----

LIST OF TABLES

LIST OF GRAPHS

LIST OF PHOTOGRAPHS

1	175	1 Fishing households by island
2	176	2 Number of men who fish
3	101	3 Number of women who fish
4	108	4 Households where women sell fish
5	131	5 Location of fish and other marine foods
6	102	6 Households which buy fish
7	134	7 Proportion of fish buying
8	137	8 Households selling fish
9	142	9 Management of the earnings from fish sales
10	177	10 Women demonstrating net fishing gear
11	49	11 Women and children collecting seaweed
12	97-98	12 Woman and daughter collecting land crabs
13	113-115	13 Woman demonstrating waka
14	127	14 Woman net drying
15	148	15 Woman drying fish
16	150	16 Woman bringing fish to the village



## LIST OF TABLES

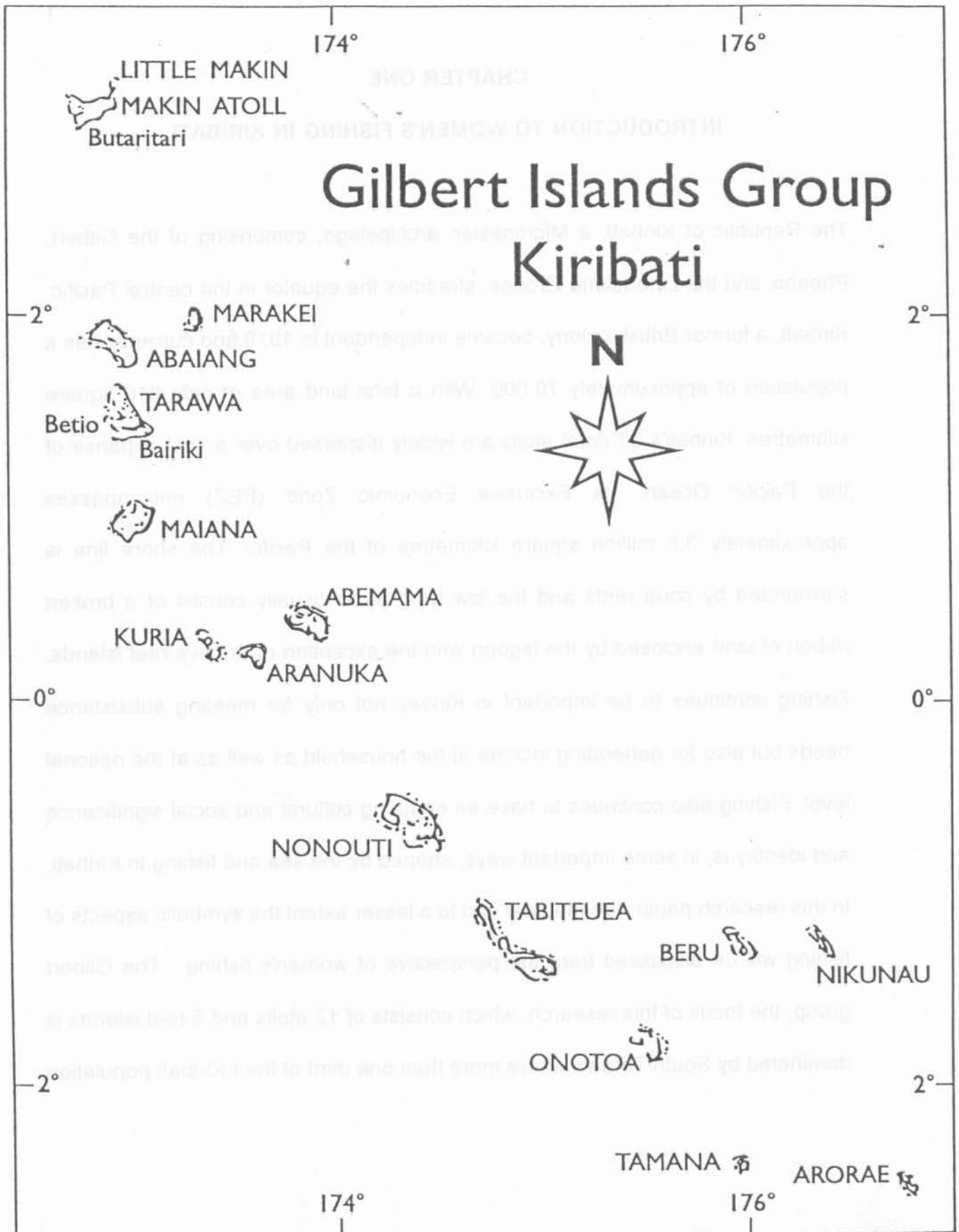
1. Households surveyed by island	12
2. Household size surveyed by island	66
3. Catch landed by area	82
4. Summary of fishing methods	86
5. Proportion of the catch landed by two methods	87
6. Number of hours women allocate to weekly fishing	125
7. Households which buy fish	133
8. Households which sell fish	135
9. Percentage earning less than \$10.00 weekly from fishing	138
10. Percentage deriving their main source of cash from fishing	140
11. Management of earnings from sale of fish	141
12. Households processing fish	145
13. Households participating in <i>Te Kaunono</i> exchange	148

## LIST OF GRAPHS

1. Fishing households by island	3
2. Number of men who fish	78
3. Number of women who fish	101
4. Households where women shellfish	106
5. Utilization of fish and other marine foods	131
6. Households which buy fish	132
7. Frequency of fish buying	134
8. Households selling fish	137
9. Management of the earnings from fish sales	142

## LIST OF PHOTOGRAPHS

1. Woman demonstrating her fishing gear	17
2. Women and children collecting shellfish	49
3. Woman and daughter collecting land crabs	91-92
4. Woman demonstrating <i>waibo</i>	112-115
5. Woman reef gleaning	127
6. Woman drying fish	146
7. Woman bringing fish to her neighbours	150



CHAPTER ONE

INTRODUCTION TO WOMEN'S FISHING IN KIRIBATI

The Republic of Kiribati, a Micronesian archipelago, comprising of the Gilbert, Phoenix and the Line Island Groups, straddles the equator in the central Pacific. Kiribati, a former British colony, became independent in 1979 and currently has a population of approximately 70,000. With a total land area of only 810 square kilometres, Kiribati's 33 coral atolls are widely dispersed over a vast expanse of the Pacific Ocean. Its Exclusive Economic Zone (EEZ) encompasses approximately 3.5 million square kilometres of the Pacific. The shore line is surrounded by coral reefs and the low lying atolls usually consist of a broken ribbon of land enclosed by the lagoon with the exception of the five reef islands. Fishing continues to be important in Kiribati not only for meeting subsistence needs but also for generating income at the household as well as at the national level. Fishing also continues to have an enduring cultural and social significance and identity is, in some important ways, shaped by the sea and fishing in Kiribati. In this research paper, the material and to a lesser extent the symbolic aspects of fishing will be discussed from the perspective of women's fishing. The Gilbert group, the focus of this research, which consists of 12 atolls and 5 reef islands is dominated by South Tarawa where more than one third of the I-Kiribati population

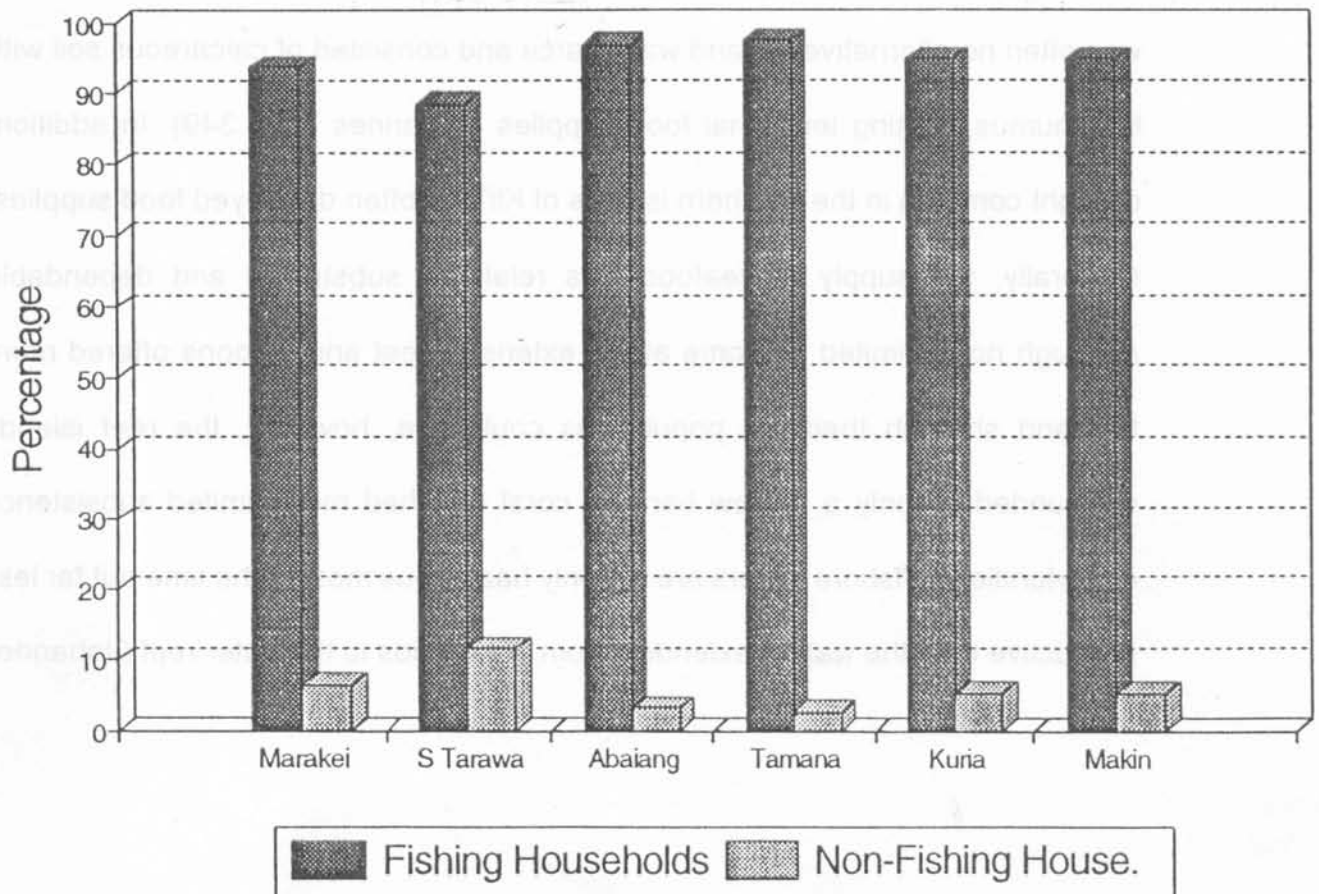
lives on a land mass of only 16 square kilometres.

The atolls of Kiribati afford "one of the most limited resource bases for human existence in the Pacific" (Geddes et al. 1982). Certainly one of the most striking features of Kiribati, at first sight, is its ecological vulnerability consisting as it does of small strips of land stranded in the midst of the vast Pacific ocean. That sense of vulnerability is heightened by growing concern regarding environmental degradation, depleted or heavily exploited marine resources, the effects of climatic change and sea-level rises as well as the challenge posed by a rapidly growing population.

Tenacity and audacity have marked the I-Kiribati's efforts in shaping a distinctive way of life on the fragile atolls. Traditionally, I-Kiribati like other inhabitants of Oceania, have obtained the bulk of their protein from the sea. There was often no alternative as land was scarce and consisted of calcareous soil with little humus, limiting terrestrial food supplies (Johannes 1978:349). In addition, drought common in the southern islands of Kiribati often destroyed food supplies. Generally, the supply of seafood was relatively substantial and dependable although not unlimited. In some atolls, extensive reef and lagoons offered more fish and shellfish than the populations could use, however, the reef islands surrounded by only a narrow band of coral reef had more limited subsistence opportunities. Offshore waters are not only hazardous most of the time but far less productive than the waters extending from the islands to the outer reef (Johannes

1978:150). The open sea is an area of changing wind and ocean currents. The sea around the Island of Tamana, for example, plunges to about 1800 meters just 300 meters off-shore. In the past, the fear of being swept away from the tiny land masses made those fishing watchful and wary. It limited the distance travelled from the island and the range of weather conditions in which they would put out to sea for fishing expeditions (Lawrence 1983:3). These factors have also contributed to the enduring importance of the inshore fishery in Kiribati. The following graph illustrates the continuing importance of fishing in the more than 1250 households on seven islands surveyed for this study in 1991-92.

**GRAPH 1.1**  
**FISHING HOUSEHOLDS BY ISLAND 1991-92**



## SETTING THE SCENE

At low tide in Kiribati, women and children fan out along the flats in the lagoon and on the reefs to collect a variety of shellfish and other invertebrate. These activities are an important subsistence strategy for some families. The familiar sight of reef gleaning activities has largely defined women's fishing as prosaic and marginal in the context of men's more daring deep-sea fishing. In Kiribati, men have braved the vast Pacific in their *te wa*, the small outrigger canoe, fortified with their carefully guarded knowledge, skills and magic. Men's deep sea fishing has dominated the productive and expressive aspects of legendary traditional artisanal fishing. Accounts of men's deep-sea fishing are, indeed, compelling in Kiribati. When I visited Tamana, a small reef island in the south, a respected and skilled fisherman vividly described how he captures the migratory tuna or the marauding shark single-handedly in his *te wa* off the small island. He, like other fishermen, must often face ten-foot high waves crossing the reef to the ocean fishing grounds. In such fishing events there is danger, skill and excitement all of which are lacking in the more quotidian reef gleaning in which women are largely involved. Representations of deep-sea fishing replete with descriptions of male prowess, danger and magic frequently form the basis of the cultural definition of the "exotic other" in fishing societies such as Kiribati. Such representations usually exclude women's role in their marine economies.

There has, therefore, been little attempt to understand the cultural context or

theoretical import of women's fishing roles. Women's knowledge of fishing and fishing practices in fishing economies such as Kiribati, have, with some notable exceptions, remained largely unexplored. Weiner (1992) has underlined the need for closer "attention to women's production even when they are seemingly ephemeral and valueless" (Weiner 1992:X). This perspective is critical in the context of women's shell fishing and reef-gleaning which have been neglected world wide (Moss 1993). The androcentric preoccupations prevalent in representations of fishing societies fail to capture the complexity of women's work or gender constructions in relation to work. In the Pacific context, Ralston (1991) has noted "the persistent refusal of some island and foreign analysis to take the work of women seriously" (Ralston 1991:173). Representations and images of fishing which have been dominated by deep-sea fishing inform the prevailing perception that fishing is a male occupation. This view also reflects the western bias of seeing fishing as hunting or as "an aggressive capture enterprise, or in other words hunting" (Nadel-Klein & Davis 1988:30). Since the next assumption is that males are to hunting as females are to gathering, fishing is seen a priori as a male endeavour" (Ibid). As a result, female productive activities as well as their roles in the social relations of production and in the reproduction of culture have often been overlooked and marginalized.

Because women do not generally fish in the ocean from boats and rarely have access to cultural and productive fishing resources such as magic, boats and

gear and because they are confined to the more prosaic realm of the reef, the image that "women don't fish" persists. The situation is rendered more complex as women's fishing is located in the subsistence based inshore fishery which has been increasingly sidelined in the wake of development. The subsistence-based inshore fishery has been overshadowed by attempts to capitalize and commercialize the fisheries and by the foreign dominated "bonito" or tuna fishery in the EEZ. It is against this background that this research paper will attempt to understand women's contribution to fishing in Kiribati.

#### THE CONTEXT OF THIS RESEARCH

From a social or cultural analytical viewpoint women's fishing in Kiribati is about far more than women's contribution to protein consumption. Women's fishing in Kiribati, it will be argued, must be understood in a broad social, economic and cultural context. Such an perspective suggests that merely quantifying women's catch does not convey the way in which women's fishing related work encompasses the material, expressive and symbolic domains of marine world in Kiribati. Firth (1975) has argued that landed fish cannot be translated into subsistence, nor does social or commodity value accrue without additional labour to process and distribute them (Ifeka 1986:3). Since it is in these activities that women play an important role, the concept of the fishery used here will be extended beyond the work of capture. A definition of fisheries as capture is



incomplete, in both subsistence and cash generating fishing (Ibid).

Women's fishing must be understood in the context of the organization and the priorities at household, village and at national levels. In this study, the continuing importance of the subsistence and the inshore fishery will be demonstrated by examining the structure of the fisheries sector. The limitations of the dichotomies of reef/ocean; cash/subsistence and male/female fishing which have been most frequently used to think about fisheries will be a key theme in this paper. An analysis of these Western analytical constructs will foreground the issues of representation and I shall argue that such constructs have "hardened" the division between the reef and ocean; the cash and subsistence sectors and women and men's fishing in Kiribati.

Since little is known about women's fishing, it will be important to recognize that conceptualizing women and their work also involves what is not said about them (Tiffany:1984:3). Such omissions raise interesting questions about gender and the construction of knowledge which cannot be fully pursued here but does, nonetheless, lend an urgency for further study. Earlier accounts of fishing, permeated by the mystique of the hunt associated with ocean fishing, made only passing references to women's fishing. More recent discussions of fishing have been largely dominated by "development" which again primarily focuses on deep-sea fishing and its commercialization.

People in fishing communities have unique sets of technological and social

problems as their prey tend to be elusive and invisible. Uncertainty is part of every fishing event and, therefore, capture techniques must often be highly specialized, requiring special skills and equipment as well as a measure of cooperation. The uncertainty of fishing yields also necessitates reliance upon a wide variety of species which in turn requires flexibility in subsistence fishing strategies (Nadel-Klein & Davis 1988:5). The fishing catch is highly perishable and this renders post harvest activities an important and frequently overlooked aspect of fishing. While fishing economies may have unique problems, it cannot be assumed that fishing societies are the same or even similar. However, such an assumption is frequently made. Acheson, for example, in a comprehensive anthropological review of fishing, has stated that "fishing poses similar problems the world over" (Acheson 1981:275). It has also been noted that there is a "widespread tendency to stress the homogeneity of fishing peoples with respect to gender, to assume that women's roles in fisheries the world over have been the same" (Nadel-Klein, Davis 1988:6). Highlighting the need for specificity, Nadel-Klein and Davis have argued that in order to understand fishing economies, "the adaptive challenges of fishing must be placed within the specific contexts of history, political economy and gender ideology" (Ibid). The interplay of production and prestige systems generates many permutations (Ibid). All too often the social and cultural aspects of fishing are neglected and yet it is an analysis of these dimensions which may provide a deeper understanding of a specific fishing economy. This research

attempts to provide an analyses of some of these "permutations" generated in the fishing economy of Kiribati and to underscore the need for specificity in understanding a fishing society. Undoubtedly additional research on women's fishing is needed in the Pacific.

In this research, women's subsistence fishing, their work in seaweed production for the export market as well as their work in the post harvest processing and distribution of fish which includes marketing as well as facilitating the traditional exchange of *te kaunono* will be discussed. This analysis of women's fishing focuses on three key areas, which I shall refer to as **subsistence, surplus and seaweed**. The myriad of tasks associated with catching, processing and distributing fish for subsistence, social and economic purposes have material and/or symbolic dimensions which require greater understanding. It also became evident in this study that through an analysis of women's fishing it is possible to explore the ways in which cash and subsistence strategies are woven together in daily life at the household and village levels.

#### THE RESEARCH PROCESS

This study is based on research undertaken in Kiribati in 1991-92 for a period of approximately eight months. This research was, in many ways, an attempt to respond to gaps in knowledge about women's fishing and this study has been informed by some important work on women's fishing (Lal and Slatter 1982,

Schoeffel 1984,1992, Ifeka 1986, Chapman 1987, Nadel-Klein & Davis 1988). It had been noted that previous accounts of fishing failed to document the diversity of women's fishing techniques, the fishing related work undertaken by women and the amount of fish extracted by women which has often been underestimated or undervalued (Nadel-Klein & Davis 1988). One of the goals of this study was to specifically document women's fishing - What fishing related work are women doing? What species are they handling? During the course of this research it became clear, however, that women's fishing is multifaceted in both its social, cultural and economic dimensions and that the emphasis on quantified data could not facilitate a full understanding of the importance of women's fishing. Thus, other research methods became more important than anticipated at the outset of the research. In addition to survey data collection undertaken in collaboration with the Division of Fisheries, archival research most importantly, qualitative research methods were also used. Seven atolls and reef islands in northern, central and southern Kiribati were visited and data was collected on six islands.

#### COLLECTING DATA

The staff of the Fisheries Division of Kiribati have been collecting baseline data on the artisanal fisheries of every island in Kiribati. (Please refer to Annexure One). These artisanal surveys consist of household interviews undertaken on a randomly selected house to house basis. The data collected concerns the structure

of the island fisheries, gear ownership, and the degree of subsistence and commercial exploitation of marine resources (Mees 1988:84). The fisheries survey, to its credit, has also included data on shellfish collecting activities although none of the data was sex specific. A questionnaire specifically on women's fishing was developed for this study and the Division of Fisheries included it in several of their artisanal fishing surveys. (Please refer to Annexure Two). I also took part in the Department of Fisheries house-to-house survey on Nikunau although no questionnaire was fielded the survey permitted an opportunity to draft the questionnaire on women's fishing. Some information was also collected on the marketing of fish in South Tarawa. (Please refer to Annexure Three).

During this study more than 1250 households throughout the Gilbert Group of reef islands and atolls were visited and asked specifically about women's fishing activities. I worked with fisheries staff to collect the data on Abaiang, Marakei and South Tarawa. I collected the data on the three small reef islands of Makin, Kuria and Tamana separately as no fisheries surveys were planned on those reef islands. On the reef Islands I accompanied a researcher from the Atoll Research Programme of the University of the South Pacific, who was conducting a study on traditional fishing methods. Participation in the Fisheries Department's ongoing surveys was an extraordinary opportunity to visit a large number of households and villages throughout Kiribati. It also provided me with an understanding of fisheries extension activities and fishery related concerns at both the governmental

and village levels. The survey also gave me an overview of fishing at household, village and national levels. The number of households surveyed varied from island to island as the population varied. The details of the surveys are given below.

**TABLE:1.1**  
**HOUSEHOLDS SURVEYED BY ISLAND**  
**1991-92**

HOUSEHOLDS SURVEYED BY ISLAND				
Island	Population	Number of Households	Number Surveyed	% Surveyed
Marakei	2863	443	334	75%
S. Tarawa	25,380	3297	331	10%
Abaiang	5233	743	252	34%
Tamana	1358	263	121	46%
Kuria	990	187	115	61%
Makin	1762	295	114	39%

Atolls which have large, rich and sheltered lagoons such as Butaritari, Abemama, and Maiana were not included in this study. Thus, in this way the study is certainly not representative, for if those islands had been included women's role in fishing would have appeared larger than it does in this study. The three reef islands analyzed here, Tamana, Kuria and Makin do not have lagoons and therefore, greater emphasis is placed on deep-sea fishing (Mees et al 1988:iv). However, it was important to include reef islands in this study as women's fishing

would, I anticipated, differ significantly from islands with lagoons. Studying the reef islands underlined a key finding of this study, that is, even where women's role was expected to be insignificant, women did indeed, contribute to fishing in important ways.

#### ACCOUNTING FOR DIFFERENCES

While Kiribati is seemingly homogenous there are important differences among atolls and vast differences between the stratified, predominantly Catholic north and the more equalitarian predominantly Protestant south. In addition to cultural differences, there are important ecological differences. In general, the northern islands have more abundant rainfall and rich lagoons while the southern reef islands are prone to devastating droughts. However, there are also important differences among the reef islands which are illustrated by briefly looking at the Islands of Makin and Tamana. Makin, a reef island in the north, has compared to Tamana, adequate rain and a relatively rich supply of food resources, is predominantly Catholic. There has been a history of stratification in Makin and until 1963 it was ruled by chiefs. The chief and his kinsmen who constituted an aristocracy were entitled to food produced on estates by commoners (Lambert 1975:212). In contrast, Tamana, the southern reef island, is subject to droughts which, in the past, have decimated its population. Tamana is almost completely Protestant, staunchly equalitarian and seemingly disdainful of the more stratified

north. Such cultural and ecological differences affect women's work in their respective islands. This brief discussion again underscores the importance of specificity in discussing women's fishing in Kiribati or in any other country.

#### LIMITATIONS OF DATA COLLECTION

During the course of the survey it became clear that an understanding of the cultural, ecological, economic and social basis of women's fishing could not be adequately derived from quantitative methods. It became apparent that women's fishing is inextricably linked to social and cultural processes beyond the narrow concerns of marine use and it is important to understand what fishing means to people and to understand how these meanings extend beyond fishing (Hviding 1988:15). Descending upon households and inquiring what they did last week in terms of fishing cannot possibly capture its local meanings and cultural complexities. In fact, understanding can be limited by an emphasis on statistical measurements which invariably are also reminders that local terminologies may "stand askew to social scientific concepts, questioning our assumptions and referring to native schemes of meaning which we may ignore at our peril" (Ong 1987:58). With reference to this study on fishing, for example, the I-Kiribati temporal and spatial aspects of fishing, needed to be considered more carefully than this study permitted.

While the scarcity of quantitative data available on women's fishing is often



noted (Nadel-Klein & Davis 1988, Chapman 1987, Schoeffel 1984), the difficulty of obtaining such data needs to be highlighted. Despite my efforts to collect data from a large number of households in tandem with the Fisheries Division, the results were not always conclusive with regard to the quantities and types of marine resources collected or fished. As Ong has noted the anxious researcher is akin to "the navigator bent upon imposing a "scientific" grid on fluid waters and therefore statistical tables should be read with some caution as quantitative data are sometimes "misleading approximations of social situations in flux" (Ong 1987:58). Ong has further argued that such data at best "distort and reconstitute, by the very act of measuring, the very fleeting reality they hope to arrest" (Ibid).

Inconsistencies in the data indicate the inherent difficulty in collecting quantified data and may be due to a variety of factors including the weather, the interest level of the surveyor, the events of the previous weeks, whether or not there was an unrecorded village event which precluded fishing etc. To illustrate, on the island of Marakei, I hadn't realized that the land crab was such an important food source and had not mentioned its collection in the questionnaire. Consequently an important activity, largely undertaken by women, wasn't systematically recorded. Getting information about women's fishing through direct questioning is a risky business. Questions about women's fishing most frequently registered surprise as such inquires were seldom, if ever, made, particularly on the Outer Islands. It became clear that if women are not specifically asked about their

fishing their contribution doesn't get included in the findings. I remember one vivid experience during the house to house survey in Marakei. We had stopped, during a light rain shower, at a house of a young married couple. The woman was preoccupied with some chore or other so we began asking her husband about the household's fishing activities. The man responded that he fished regularly with his net. However, when I asked his wife if she fished she proceeded to describe how she regularly went net fishing with her husband. Her husband hadn't mentioned her. This pattern was repeated many times on many islands. Specific questions about women's fishing must be asked directly of women in order to ascertain their involvement. There are research methods which are more conducive to including women's work and voices. Cole (1991), for example, has demonstrated the value of a life-histories approach in a study of women's work and lives in a Portuguese Coastal community entitled Women of Praia. The changing nature of the political economy, gender relations, women's work and the structure of the household in a fishing economy are conveyed through life histories. Cole explains the value of this method as follows:

Life histories both allow and require us to hear women themselves interpret their experiences and construct identities...women's interpretation and subjective expression of those experiences may not be easily accommodated by - may, indeed, contradict - macro or general theories that seek to explain gender relations and women's roles in society. (Cole 1991:41)

It is, therefore, important to explore research methods which may be more inclusive of women's experience.



Woman demonstrates her fishing gear.

## THE PRESENTATION OF THE RESEARCH FINDINGS

While this research project was concerned with women's fishing, the details of the findings on women's fishing and fishing related work are not specifically presented until chapters five and six of this report. The first several chapters are essential, I shall argue, in order to locate women's fishing in a larger theoretical and socio-economic context. In chapter two the theoretical underpinnings of this study, the emerging issues and the symbolic and expressive dimensions of women's fishing are discussed. I shall follow Moore's (1988) contention that the problem of understanding women is not just one of empirical research but is more fundamentally one of representation at the theoretical and analytical levels. In her view, simply adding women doesn't solve the problem of women's analytical "invisibility" (Moore 1988:2). While this study focuses on women's fishing, the relational aspects of gender is an important theme. Gender differences in fishing are outlined and at the same time, I shall argue that gender differences are also "hardened" or made more rigid by the use of Western analytical constructs which perpetuate the representation that "Women don't fish". It was found that women's work is largely in the subsistence sector, however, it is important to note that women are also involved in cash generation. In this study I have attempted to avoid the tendency to "feminize" the subsistence sector which sets up a dichotomy between the subsistence and commercial sector and an equation between women and subsistence and men and cash (Moore 1988:76). In addition

to their work in subsistence, this study highlights women's work in the domestic cash sector through the marketing of fish and their involvement in the export sector of seaweed production. The concept of development is also examined at some length for it has many direct and indirect effects on life in Kiribati as does the state of the environment which is also briefly discussed.

In chapter three the key aspects of social organization at household and village levels are presented. The household, while difficult to define, is nonetheless, important to examine for it organizes a large part of women's domestic and reproductive labour. The national context will be briefly presented by a brief analyses of the economy, migration, and employment all of which have an impact on the lives of I-Kiribati women. The complex ways in which the subsistence and cash generating strategies are interwoven in daily life will also be explored. A discussion of women's work sets the stage for an understanding of women's fishing within the domestic economy, in social production and in the reproduction of culture.

It is important to locate women's fishing within the overall structure of the fisheries in order to highlight the crucial importance of the inshore fishery. In chapter four the structure of fisheries in Kiribati will be discussed. It is demonstrated that while images of ocean fishing predominate, the inshore area of the reef and the lagoon is the most important domestic source of fish. An analysis of fisheries data suggests that the ocean only accounts for 35-40% of the catch

landed in the Gilbert group of islands. This underlines the importance of the inshore fishery and draws attention to women's often unacknowledged fishing in the inshore. An analysis of the technology used in fishing also reveals that motorized fishing is still not widely used outside of South Tarawa and that hand collecting as well as reef and lagoon fishing are still very important. A discussion of some of the changes introduced in fishing practices during colonialism, points to the need to understand how external forces impinge on local practices. This theme is relevant to the discussion in light of current development strategies. In chapter five women's fishing and women's knowledge of fishing will be examined. A brief description of some household configurations are detailed to convey the diversity of household fishing activities. The fishing described includes reef gleaning for shellfish, octopus and eels; spearing annelids (marine worms); collecting land crabs; night fishing; fishing with rod and line; pole and line; fish traps; net fishing in the lagoon and the reef; bait fishing and finally women's fishing from boats. In addition, findings regarding the frequency and the duration of women's fishing trips as well as the quantity of the fish harvested are discussed. In chapter six the handling of the catch and the post-harvest processing, sale and distribution of surplus fish are discussed. Women's important role in selling fish for the domestic market in Kiribati and their participation in food exchanges are also examined. Finally, seaweed production and women's work in the cultivation of this export marine product are also discussed.

## CHAPTER TWO

### THEORETICAL UNDERPINNINGS, EMERGING ISSUES AND THE SYMBOLIC AND EXPRESSIVE ASPECTS OF WOMEN'S FISHING

#### GENDER: A THEORETICAL SIGNPOST

In a volume on women in fishing economies entitled, To Work Or To Weep, Nadel-Klein and Davis (1988), have dismantled the persistent notion of the passivity of women in fishing societies. Women must, they argue, be viewed as dynamic and creative actors in both the symbolic and material realms of fishing economies.

Some important work has been undertaken in the Pacific which highlights women as significant actors in the social system. In Annette Weiner's work on the Trobriand Islands, she suggests that:

Whether women are publicly valued or privately secluded, whether they control politics, a range of economic commodities, or merely magic spells, they function within that society not as objects but as individuals with some measure of control. (Weiner 1976:228)

It is also important to regard gender as a conceptual device used everywhere but in different ways (Nadel-Klein & Davis 1988). However, many accounts of women's role and status in "Third World" societies often lack a critical understanding of "gender as cultural constructions and increasingly self-defined, in particular historical situations" (Ong 1987:4). Gender is most frequently studied either as a symbolic construction or as a social relation which draws on analysis of the material conditions shaping gender. The perspective taken determines the types

of explanation given of gender (Moore 1988). In her study of women's fisheries work, Cole (1991) argues that the split between materialist and symbolic approaches is problematic for it does not reflect the actual experience of women for whom the symbolic and the material worlds are both important. Cole advocates an integrated approach to studying women in fishing economies which does not create an artificial separation between the different spheres of women's lives (Cole 1991: xiv). Ralston (1991) also points out that the Pacific literature on women tends to reproduce the theoretical split, focusing on either the symbolic nature of women's lives or on the materialist or sociological aspects (Ralston 1991:170).

Moore explains that:

Cultural ideas about gender do not directly reflect the social and economic position of women and men although it is true that they originate within the context of these conditions. This is because gender stereotypes are developed and used in the strategies which individuals of both sexes employ to advance their interest in various social contexts. (Moore 1991:37)

At the same time, Moore adds, that the power of gender strategies is not just in the mind, for gender strategies have a material reality, which helps to reinforce the social and economic conditions within which they are developed and employed (Moore 1991:38). Changes at the theoretical level and an examination of the categories and concepts used to represent women and gender are needed.

In Marilyn Strathern's work on the Hagen region of Papua New Guinea (1980, 1984), gender constructs are linked to concepts of self, personhood and autonomy.



She recognized that in some societies, gender may not be the primary organizing code of sexual difference but rather an idiom for social difference such as prestige ranking. This insight extended gender constructions beyond the male/female; nature/culture and public/private dichotomies which pervaded earlier feminist analysis. Due to the prevalence of these western constructs, domestic work which is most often undertaken by women was presented as inferior to men's more public and culturally valued work. Frequently, conceptualizations of women and their work are tied to the natural processes of reproduction and child care and confined to a domain set apart from the wider society, where women are liable to be conceptualized as less than full persons (Strathern 1984:27). This perspective sheds light on how women's fishing activities along the shore and in shallow waters are most often seen as extensions of the domestic realm. Women's productive activities are considered part of nature or the domestic domain, in contrast to the cultural and public realms where men and their fishing are located.

Strathern's (1981) work also highlighted the notion that women's status is not an unitary construct in theoretical terms, nor is it necessarily internally consistent in any particular setting. This perspective underlines the difficulty in understanding let alone capturing the complexity, the contradictions and the ambiguity of daily life in any particular household in any particular village on any particular atoll. There are important differences among women in Kiribati. For example, in Kiribati a process of social differentiation is occurring as access to education and formal

employment opportunities are unevenly distributed. In South Tarawa, there are a large number of formally employed women who never collect shellfish! It is, therefore, important to recognize such differences among women and to locate women's fishing within an broader analysis of the socio-economic changes occurring in Kiribati.

### GENDER DIFFERENCES IN FISHING

Deep-sea fishing was and continues to be a prestigious and distinctively masculine activity in almost all Micronesian societies. Fishing skills, shrouded in secrecy, were often learned with other exclusively male skills of canoe building, navigation and the fabrication of fishing gear (Schoeffel 1992:3). Schoeffel has argued that while women's fishing is important to subsistence in all Pacific fishing communities, it is not perceived as "real fishing". Women rarely own the means of production, such as canoes, nets etc. (1984:163). Men's fishing relies on greater access to resources such as canoes, gear and magic in the artisanal fishery and to capital in the commercial fishery sector. Both small-scale artisanal and commercial fisheries are permeated by ideas of male identity and masculinity. Schoeffel summarized the differences between male and female fishing in the Pacific as follows:

It can be generalized that in the Pacific Islands men's fishing is concerned with canoes and boats and often expensive equipment, has high status and is associated with cultural values about masculinity. It

is oriented to either sport and recreation or the commercial and "formal" export sector. Women's fishing uses little if any modern technology, has low status and is associated with subsistence, domestic production and small-scale produce marketing in the so-called "informal" sector. (Schoeffel 1992:5)

While there are important differences in male and female fishing, representations of ocean fishing have also served to widen differences between male and female fishing. Currently, the most overwhelming difference in fishing is the widening gulf between subsistence and commercial fisheries in the Pacific. Access to capital is deepening the schism between subsistence and commercial fishing as well as between men and women's fishing.

Firth has argued, based on his work in Tikopia, that the technical complexity, personal skill, status involvement and ritual procedures tend to be more intensive in men's pelagic fishing. According to Firth, writing in the context of Tikopia but with relevance for Kiribati, "men arrogated to themselves all the occupations in fishing which might bring large prizes - if also they might bring risk of injury and loss of life" (Firth 1984:1155). In his view, shark fishing with a hook and noose and hand lining for large fish at depths of 200 meters all involve considerable skill (Firth 1984 1155). Firth pointed out that the skill demanded of a man in catching flying fish or shark is much more than that demanded of a women in reef work with her scoop net (Ibid). It is, however, important to understand how women's and men's fishing fit together. What is the relationship between them and the significance of their two types of fishing?

While, traditionally, women are involved in many types of fishing in the cultures of the Pacific Islands, the extent to which women fish varies greatly from island to island (Matthews 1991). Matthews, however, generalized that most women tend to fish in shallow waters close to shore, without the use of canoes and implements other than baskets and sticks. In a 1982 study, Lal and Slatter found that women in Fiji are actively involved both in fishing and in the marketing of marine and freshwater fish and non-fish products. Their study suggested that women's fishing activities are most often distinct and separate from those of men and that women's knowledge of and role in fishing is significant and traditionally based (Lal & Slatter 1982:4). Chapman (1987) has also argued that there are important differences in men and women's subsistence fishing. In her view, the spatial, temporal, productive and religious aspects of their fishing differ (Chapman 1987:267).

Schoeffel believes that in the Pacific the contribution of women's fishing to the daily diet is at least as significant as that of men (1984:160). Similarly, Chapman (1987) has focused on the highly regular nature of women's fishing, which she argues, makes women more reliable and therefore, more effective than men in supplying protein for subsistence (Chapman 1987:267). While it is important to reposition the value of women's fishing, efforts to do so are frequently rooted in the context of the problematic dichotomy of male\female fishing as well as cash\subsistence fishing. While many authors correctly highlight the regular nature of

and the underestimated quantity of women's fishing relative to men's fishing, it is more important to highlight the complexity of women's fishing and the relationship between men and women's fishing activities. This is necessary to avoid the feminization of the subsistence fishery which does not accurately convey the pattern of inshore fishing in Kiribati.

In any consideration of the social and economic contexts of women's work and gender differences, the sexual division of labour and the organization of gender relations within the family and the household emerge as two key themes (Moore 1988:42). Pollnac (1984) in an extensive review of fishing societies concluded that societies with "a moderate or high emphasis on fishing have a wide variability with respect to assignment of tasks to one sex or the other" (Pollnac 1984:7). His analyses suggests that the division of labour in fishing societies is not always rigid. While the division of labour is important in analyzing gendered fishing roles, it must be recognized that:

The division of labour is not simply a dual gender construct, but encompasses the attention and effort that both women and men give to production and to those cosmologies that disguise the unresolvable tensions, problems and paradoxes that make up social life. (Weiner 1992:4)

Weiner's perspective underlines the importance of the symbolic as well as the material dimensions of the division of labour.

## "WOMEN DON'T FISH": EXAMINING REPRESENTATIONS

There are many complex issues embedded in the perception that "women don't fish" and the resultant marginalization of women's productive work in fishing. While this paper cannot explore all of these issues, it is important to underline the complexity of women's fishing and some of the implications embedded in the prevalent representations that "women don't fish". Leacock has argued that hunting is overemphasized because researchers who are products of industrial and urban cultures, regard hunting as a romantic and exciting adventure (cited in O'Brien 1984:70). This observation is relevant to descriptions of deep-sea fishing for it highlights the failure of researchers to be reflexive about the way in which their Western values have shaped their perceptions. Failure to do so results in a perpetuation of the role of researchers as observers of the "exotic other". Weiner has noted that "ethnographic interpretations are subtly framed by theoretical premises which are rooted in Western history that legitimate the assumptions the ethnographer takes into the field" (Weiner 1992:X). Thus, in attempting to understand women's fishing related work in Kiribati the issue of representation and reflexivity - the ideological, social and personal dynamics of the research process powerfully emerges (Tiffany 1984:1).

Matthews identified several ways in which an understanding of women's fishing in the Pacific Islands has been obscured. According to her, studies on fishing tend to focus on the often highly ritualized, dangerous pursuits of ocean-

living fish which are primarily male-dominated activities. She also points out that studies have often overlooked gender roles in fishing through the use of general terms such as "fishermen" and the emphasis placed on documenting techniques and implements rather than the social processes. In addition, researchers were often men and thus, overlooked women's contribution to fishing (Matthews 1991:1). The approach to and content of maritime research has also obscured women's fishing related work. Acheson (1981) has noted that anthropologists interested in maritime anthropology have focused on modern fisheries, shipboard life and prehistoric marine adaption. There have been, consequently, few shore based studies of fishing communities but, as Acheson noted, there has been a great deal of "anthropological work devoted to describing the normative and structural arrangements fishermen in various fishing cultures have developed to reduce uncertainty and spread risks" (Acheson 1981:286). Such accounts invariably fail to mention women's essential role in affording protection from the perilous marine environment through their work in reef gleaning and fish processing. The way in which maritime anthropology bypasses female contributions to marine life is evident in a volume entitled Maritime Adaptations (1973) which makes no mention of women or their contribution to marine adaptations.

Grafting Western concepts of work onto Kiribati society and narrowing the definition of fishing have also been identified as obstacles to understanding the value of women's material and expressive roles in fishing. Nadel-Klein and Davis

(1988) have argued that women's roles are often seen to be divorced from direct participation in the fishery. They also argue that the expressive and household roles of women in fishing economies are themselves regarded as passive and hence, of little import and of even less theoretical significance. Both of these misconceptions, they argue, stem directly from the androcentric and capitalist bias in the definition of what constitutes work (Nadel-Klein & Davis 1988:7). Work in western culture is often assumed to be an activity that extracts resources from the environment. Activities concerning the unpaid allocation, preparation and distribution of these resources, as well as those concerning the care of human beings are not seen as forms of work (Nadel-Klein and Davis 1988:7). As argued, women's productive fishing activities on the reef and in the lagoon have been perceived as an extension of the domestic realm and have, therefore, been overlooked as productive work. Such assumptions are evident in Acheson's statement that in most fishing societies in the world, there is a strong sexual division of labour wherein "the men fish while the women mind the household" (Acheson 1981:297). While mentioning that women do fish in some places, Acheson invariably discusses women's fishing under the rubric of family life.

Ifeka (1986) who investigated women's fishing in Kiribati, disputes the assumption that only men fish or that if "perchance women do fish their catch makes an insignificant contribution to household consumption" (Ifeka 1986:4). In her view, the artisanal fishery which refers to the labour intensive small-scale



production is exploited for a variety of purposes which encompasses subsistence, social and cash purposes. A wider definition of artisanal fisheries that accords with actual work practices in catching, processing and distributing fish in many inshore fisheries is crucial. This broader conception facilitates an understanding of women's, as well as men's work in the myriad tasks associated with catching, processing and distributing fish for subsistence, social and economic purposes (Ifeka 1986:4).

#### PATTERNS OF CASH AND SUBSISTENCE

The devaluation of women's work is paralleled by and related to the devaluation of the subsistence sector, where many of women's productive activities are located. However, Moore (1988) has cautioned against setting up a dichotomy between women and subsistence and men and the cash sector. In her view, it may encourage a stereotyped view of the position of women, gender and work in developing economies. The dichotomies of women/men and subsistence/cash mirrors other conceptual dualisms used to define gender differences, such as the domestic/public and nature/culture distinctions which may obscure more than elucidate these issues (Moore 1988:76). In equating women with subsistence production there is a danger of replicating the notion of women's work as concerned with sustenance and the feeding of the family while men's work is seen as somehow associated with the market and the outside/non-domestic world

(Moore 1988:77).

Subsistence fishing remains very important in Kiribati. According to the data collected for this study, 95.5% of the households surveyed reported that they fished to meet at least a portion of their subsistence needs and many also fished to augment their incomes. The survey also found that 77% of the households reported that women undertake some kind of fishing activity. Women's continuing involvement in all areas of the subsistence economy, including fisheries, is crucial for it often means that "households have the capacity to expand labour in one kind of production while maintaining inputs in other sectors" (Ifeka 1986:4). This permits household members the flexibility needed to undertake a number of activities to meet their cash and subsistence needs.

The relationship between cash and subsistence is often inadequately understood. During the course of this study, I found that most households straddle both domains and invariably subsistence strategies are augmented with some cash income. Fishing economies such as Kiribati are "multi-occupational" and as Pollnac (1984) has pointed out, there are many productive activities, in addition to harvesting fish, which must take place in fishing communities. The most obvious of these include activities associated with fishing, such as processing, marketing and distribution as well as vessel and gear manufacturing and maintenance (Pollnac 1984:1). In many small scale fisheries, ancillary productive activities, such as copra production in Kiribati, form part of a productive system which sustains

fishing households. The "multi-occupational" strategy which combines occupations is the most common approach used by fishing households to adapt to the uncertainty which pervades each fishing expedition as well as the fishing economy. However, the cultural and emotional significance of fishing invariably overshadows that of other productive activities (Acheson 1981:291).

A discussion of women's fishing in Kiribati raises the schism between the subsistence and the cash economy introduced during colonialism. This schism defines the local and global encounter which is now shaped in important ways by development agencies in the Pacific. The subsistence sector has historically been left out of development planning in the Pacific Island Nations. Despite the failure of the many donor sponsored commercial fishing projects and in spite of the centrality of the subsistence fishery in providing some measure of household food security and self-reliance, the subsistence sector is often neglected. Schoeffel has argued "There has been a longstanding assumption that subsistence will somehow continue to sustain the majority of the population in the face of population growth, pressure on land and resource depletion" (Schoeffel 1992:5).

This study found that not only was the value of female subsistence activities downplayed but male subsistence activities are often unsupported. Fishermen on every Outer Island I visited, complained that their fishing was impeded by lack of access to the most basic equipment for artisanal fishing such as monolines and hooks. Fishermen in the southern islands also believe that the uncontrolled

activities of foreign fishing vessels licensed by the government to fish offshore, are jeopardizing their own subsistence fishing. Whether or not such perceptions are true, they are powerful. However, the government is committed to such agreements to generate national income and to upgrade Kiribati's "least developed status."

### THE FRAGILE ATOLL ENVIRONMENT

Underlining the notion of the ecological vulnerability of Kiribati is the growing recognition in the Pacific of the immediate and long term implications of depleted resources, toxic wastes, nuclear testing, climatic change and sea-level rise. Within Kiribati, there are specific problems such as water pollution, limited fresh water supply, coastal erosion and ciguatera fish poisoning. The need for protection of endangered species and the degradation of aquatic habitat are also of concern (Government of Kiribati 1993:68). The current rapid rate of population growth which will be discussed below also poses new environmental problems.

The environmental degradation of the lagoon on the island of Marakei suggests the complex environmental situation resulting from externally induced changes. The lagoon has been of central importance for both subsistence and cash generation, however, severe environmental problems have arisen as a result of the construction of a causeway in the mid 1980s. Formerly, the lagoon had two passages to the sea which were critical in flushing out wastes and providing

nutrients from the ocean. The blockage of one of these passages has caused severe damage to the lagoon evident in the disappearance of several important species of fin fish, diminishing shellfish resources, a rising incidence of water related gastrointestinal diseases and a high incidence of ciguatera fish poisoning. In one village I visited on the Island of Marakei, three deaths due to diarrheal disease had occurred the week preceding my visit. The deaths of the two children and an elderly person appeared to be linked to the increasing pollution of the enclosed lagoon. Ciguatera fish poisoning, causing severe and potentially fatal illnesses is a severe problem on Marakei as well as other some other islands. The poisoning is believed to be linked to damage of the coral reefs (Tebano 1992).

There is also growing concern that the heavily utilized lagoon fisheries in many atolls are being overfished particularly, in South Tarawa. As noted the Marakei lagoon fisheries is problematic and the Abaiang lagoon fisheries is more heavily exploited than most others and has limited room for expansion (Mees, Yeeting & Taniera 1988:28). Apprehension about environmental degradation and the depletion of marine resources is evident in the more vulnerable reef islands in Kiribati and is frequently expressed in concern over the decreasing numbers of fish. At meetings I attended at *mwaneabas* on several islands, the community leaders stated that the fish catches were decreasing and they attributed the decrease to over fishing by foreign fleets and the introduction of new methods of fishing. Some of the conservation methods still practiced will be discussed in

chapter four. Environmental degradation results from a number of complex factors but it is clear that it has an adverse impact on the lives of the I-Kiribati, increasing the vulnerability of their lives on the fragile atolls.

#### DEVELOPMENT: EXAMINING THE CONCEPT

From a "development" point of view, Kiribati is described as a predominantly rural and subsistence-based economy and classified as a "least developed country." Its geographic isolation, the narrow resource base, the small domestic market and its vulnerability to destabilizing external forces such as the fluctuating prices of its exports, present formidable constraints to economic development (Government of Kiribati 1992). Independence in Kiribati in 1979 coincided with the cessation of phosphate extraction which had been its economic mainstay. Currently, the value and the output of the two major exports, copra and fish fluctuate with changes in the world market and weather conditions (Government of Kiribati 1992).

The development of a commercial fisheries is considered to be of paramount importance in Kiribati. With its limited land resources and its vast EEZ, the ocean fishery is seen as the main source of national income to meet the increasing and changing needs of its growing population. Kiribati is heavily aid dependent and consequently, its development programs are in large measure, shaped and funded by aid agencies. Increasingly, there is a strong export thrust in most development

plans. Development is "officially defined as being about economic growth which means export orientation" (Schoeffel 1992:5). The ramifications of this approach to development is raising concern throughout the Pacific and this approach needs greater critical analysis (Keesing 1992). As the above example from Marakei suggests, changes wrought by development programs may not always be beneficial. Tebano (1992) has pointed to the adverse environmental impact of reef blasting and causeway construction which have contributed to ciguatera fish poisoning and coastal erosion.

Development is often linked to, or equated with, modernization - the transformation of traditional societies into modern ones. But, in fact, there are many different perceptions of what development entails. Warren and Bourque (1991) suggested that it is important to examine the unilinear narratives of change implied by "development", "westernization, and progress". The authors argue that development is an example of the transition narrative that evokes a range of problematic associations, from evolutionary (i.e. transformation of "primitive" to "developed"); to psychological (i.e. the individual's growth from "infancy" to adulthood); to Western-focused definitions of progress (the movement from "traditional to modern") and finally, to the uncritical tendency to blame the victims of political and economic marginalization for their poverty (Warren and Bourque 1991:279). However, modernization theory, which still informs most development strategies assumes an unidirectional evolutionary account of social change where

cultural differences are viewed as obstacles and the impact of the wider social and historical processes are omitted (Hobart 1993:5-7).

While the notion of development appears to offer the universal solution to underdevelopment it is important to recognize that: •

development achieves a sense of naturalness and inevitability because of its original biological meaning - the orderly growth and elaboration of an organism in the course of its genesis. (Evernden 1993:150)

From this perspective, simple economic activity when linked to development turns into a natural and evolutionary process. The metaphor of development, thus, suggests that the real destiny of nature is to be found in its economic utilization and the assumption that all economic uses are a step forward toward this goal (Sachs cited in Evernden 1993:150). This restrictive view of nature, currently being challenged by environmentalists (Harries-Jones 1994, Evernden, 1992,1993), also appears to be a far cry from local views of nature.

Development has also been conceptualized as a mode of representation that is not only powerful as a knowledge system but also effective in creating a certain type of consciousness and styles of intervention regarding the Third World (Escobar 1991). Ferguson argued that development institutions generate their own form of discourse which simultaneously constructs a particular country or people as a particular kind of object. A structure of knowledge is then created around that object and development interventions are organized on the basis of this structure of knowledge (Ferguson 1990:XV). Development, according to Ferguson,



"translates social and political problems into neutral technical solutions" (Ferguson 1990:275). The way in which the development discourse operates is evident in the frequent portrayal of Kiribati in aid documents and development programs as a subsistence based society untouched and removed from capitalism. This notion and the accompanying idea that Kiribati must be modernized then shapes subsequent development interventions which are aimed to transform the economy and the country from its subsistence base to a dynamic capitalist economy. Such a perspective obscures the fact that Kiribati, like many other countries has a long colonial history and an uneven but growing entanglement with the cash economy. It is important to recognize the ways in which international development ideologies enforce "westernization" under the guise of "progress". Therefore, there is a need for:

a more subtle comprehensive understanding of change, one that does not exclusively rely on economic indicators and Western pragmatism as yardsticks with which to measure transformation, one that continually questions the language of analysis. (Warren and Bourque 1991:304)

## WOMEN AND DEVELOPMENT

While an emphasis on women and development has been useful in highlighting the condition of women it is not without significant problems. Cole argues that:

in the women-and-development framework, external conditions and causes of change are emphasized; the roles of rural women in the new international division of labor are analyzed; and women are portrayed as

victims of forces beyond their control. Only in rare instances do we hear the voices of women themselves. (Cole 1991:41-43)

Efforts to "integrate women into development" may also be considered somewhat ironic, for women have always been caught in the currents of change. Women forge their own understanding of change and respond "as people with multiple identities, affiliations and concerns" (Warren and Bourque 1991:279).

Development ideologies and practices also frequently converge with local patriarchal structures making it difficult for women to participate or to have their participation recognized. It has been argued that the development of the modern fisheries sector has been very "macho" because it has taken on a combination of Western and Pacific Islands cultural and gender associations" (Schoeffel 1992:4). Lal and Slatter (1982) in their extensive study of women and fisheries in Fiji described the way in which development approaches intersect with local cultural and gender configurations often resulting in women's exclusion from development plans and programs. According to Lal and Slatter, the increased promotion of commercial fin fishing in Fiji through the introduction of new technology and techniques have tended to focus on the established and invariably male channels of communication. This is relevant to the Kiribati context, where communication flows through the *unimane* (elderly male leaders) in the village centre called the *mwaneaba* where women have not traditionally had a voice. Communication also flows through the island councils which are generally dominated by men. Such

village leaders most often decide on the type and degree of involvement in new fisheries endeavours or new entrepreneurial activities such as seaweed production without the consideration of women. In Lal and Slatter's words:

Women are, therefore, excluded in the first instance of discussion and planning and in the later decision-making. Village development programmes are also usually planned to be executed by men with women providing supporting services. Fourthly, women's role has come to be at least ideologically, localized in the home where domestic duties have been made their primary responsibilities, despite the fact that they have extended their production for consumption activities in order to bring in income. (Lal and Slatter 1982: 130-131)

Women's exclusion from the development process in fisheries is evident in the fact that development plans and projects have, thus far, rarely increased women's access to productive resources such as access to boats, fishing gear, technology or to the extension services of government fisheries division. Similarly, development plans for the traditional fishing grounds of women - the inshore area-lagoons, reefs, tidal pools have never included women in planning mariculture projects (Schoeffel 1984:156). Development, as mentioned above, is driven by an emphasis on the commercial and export sector and an implicit but nonetheless, powerful devaluation of women's work and the inshore fisheries. Such choices and the resultant development scenarios require some serious rethinking.

#### SOME SYMBOLIC AND EXPRESSIVE DIMENSIONS OF WOMEN'S FISHING

While this research was initially concerned solely with the material or

sociological dimensions of women's fishing, the importance of the symbolic and expressive dimension of women's fishing emerged during the course of this study. Indeed, in any discussion, the symbolic and expressive elements should not be arbitrarily separated from the sociological aspects of women's fishing. Ideological and symbolic systems mediate women's status and the value placed on female-labour in fishing societies and thus, are important to understand. While it is crucial to understand that gender constructions and cultural meanings attached to them cannot be understood without reference to historical, political and economic discourses, "at the same time the experience of culture cannot be reduced to these or related to them in a simple way" (Kondo 1990:301). Thus, while acknowledging the importance of the specific context of Kiribati's political economy, women's work and place within that marine society, it is also important to recognize that are other factors which shape cultural experience and gender constructions. These may make little sense within a purely economic framework (Ram 1991:XV).

#### LEGENDS, MYTHS, TABOOS AND RITUALS

In Kiribati the ocean and fishing are a salient feature of legends and myths (Teiwaki 1988:35). Fishing is also characterized by rituals and social norms which both "sanctify and safeguard the male role" (Firth 1984:1168) and which have often separated women from the man's world of the ocean. Much of the a "male-female

role alignment in fishing economies rests upon convention which is frequently backed up by ritual sanctions about the treatment of boats and fishing gear by either sex" (Firth 1984: 1168). Ritual sanctions, as Firth has pointed out, "can be interpreted as both sanctifying and safeguarding the male role". Such ritual practices raise important questions about the formation and consequence of gender ideologies. For example, the prevalent perception that women have the ability to pollute in fishing societies has been regarded as an important ideological aspect of power (Nadel-Klein and Davis 1988:50). The quasi ritual nature of fishing often shows in a concern with purity and pollution. Fishermen enter a different realm when they are fishing and have to be re-incorporated into the community when they return. Entry and exit between these two spheres is sometimes accompanied by rituals (Acheson 1981:288). Women often appear to be negative, rather than positive symbols and in many fishing cultures women are popularly regarded as bringers of bad luck" (Nadel-Klein 1988:46). Firth notes that fishermen:

have tended to associate men positively with ritual performances to promote success in fishing and women negatively with ritual observances of avoidance of major items of fishing equipment. (Firth 1984:1159)

In many societies, women or certain groups of women are proscribed from having contact with boats or boat construction. In others, fishermen are not supposed to have contact with women when they are engaged in fishing magic or preparing for fishing trips (Acheson 1981:289). A wide range of restrictions traditionally attended

fishing in Kiribati. Luomala (1984) and Turbott (1950) reported that a common custom followed for flying fish as well as for other fishing is that a husband would not sleep with his wife the day or the night before setting out to catch flying fish. If he did, it was thought that the fishing would not be successful (Turbott 1950:362, Luomala 1984:120). Engaging in sexual activity is considered particularly inauspicious when magic is used for ocean fishing. In Kiribati, women who are menstruating could not be around boats and gear and only women past child bearing age should make the baskets used for reef fishing. Taboos regarding the consumption of fish during pregnancy and lactation were also common (Grimble 1952).

However, not all of the symbolism related to fishing is directly concerned with prohibitions or taboos, for example Luomala found that:

The motif of a woman nurturing a pet male fish, sometimes an eel, in a container until the supernatural man-fish becomes a threat to the life of herself and others or becomes her lover, is widespread in the Pacific. (Luomala 1980:541)

Some myths in Kiribati also portray women as possessing fishing knowledge. A myth from Tabiteuea describes how knowledge was passed from a woman spiritual ancestor to a fisherman. This knowledge consisted of techniques for catching a certain kind of fish as well as where to best catch them. The discovery of some fishing methods have also been credited to ancestral women (Matthews 1991:5). Luomala recounts how catching *te ibo*, a marine worm, began in Tabiteuea,

### Kiribati:

One day she (Nei Me'ti) watched the behavior of a *kewe*, a bristle-thighed curlew (*Numenius Tahitiensis*), a migratory wader with a long curved bill and repeatedly thrust its bill into the reef mud; she also saw remnants of its food. With a stick cut from a coconut-midrib stave, she imitated the action of the curlew's beak, and stabbed and stabbed the reef until she felt her stick catch something. She then removed its excrement because dirt is the food of this fish. In this way the "ibo," the narrator concludes, became a food of the people, and Nei Me'ki's method, that of the curlew, is still followed. (Luomala 1980:538)

Malinowski (1918), suggested that human beings cope with the irreducible risk of ocean fishing through ritual and magic. The use of magic is also common in the lagoons of Kiribati and still used in a variety of fishing practices. While little is known about women's use of magic in fishing there are some indications that it may have been used. There is some sketchy evidence such as a story about a woman who knew the magic necessary for calling dolphins in Northern Kiribati (Taniera:1993 personal communication).

### TROLLING FOR MARY: A LAND PERFORMANCE

The way in which the material and symbolic dimensions are related to gender and fishing is illustrated vividly by a common event among Catholics in Kiribati called *kasekia te Maria* which literally means "trolling for Mary". In "trolling for Mary", a statue of Mary, the Virgin Mother who is a central to Catholicism, is ceremoniously paraded throughout the community to a house where it is installed for several days. The statue of Mary, then, becomes the locus of women's

devotions and activities. I wondered what this was about. In Kiribati men have had access to ritual, magic and capital while women have played a much less visible and less prestigious role and are, even at times, negatively associated with deep-sea fishing. Have Catholic women created a cultural domain parallel to the male domain through the supernatural by linking fishing and religious motifs? Were women appropriating the symbolic capital, usually associated with male activities and establishing links with the supernatural via the church? "Trolling for Mary" has a contemporary urgency for it is also an important forum for finding men lost at sea. Now that women offer less protection at a material level due to changes such as capitalization of fisheries, is the expressive realm becoming more important? Clearly there are more questions than answers. The performance of "Trolling for Mary" - encompasses in a way that I can only partially glimpse, the changing nature of gender and cultural ideologies as played out in the arena of everyday life. As such it requires greater understanding. While I attempted to glean information about the women's fishing it became evident that although Catholic women didn't often troll on the sea, they did undertake trolling on the land through

*Kesekia te Maria.*

#### PERIL AND PROTECTION

The sea is dangerous and unpredictable and "marine adaptations are one of the most extreme achieved by man" (Acheson 1981:277) presenting "an



environment of high risk and uncertainty" (Ibid). Firth has also highlighted this aspect of fishing stating that: "The uncertainty of fishing is great, the yield precarious, the risk considerable" (Firth 1984:1147). The sea has offered subsistence and ensured survival to the I-Kiribati but at the same time it is dangerous and these themes of peril and protection are interwoven in life in Kiribati. In Southern Kiribati, the westerly winds can blow on an intermittent basis for up to five months. The visibility of land at sea is also problematic as the atolls are small and flat. The atolls of the Gilbert group are all very flat, rarely rising only five meters above sea level, and the small land masses range from thirty-seven square kilometres to five square kilometres (Mees, Yeeting and Taniera 1988:1). In Kiribati bad weather and the prevalent westerly winds have ensured that reef gleaning and the myriad of shore and lagoon fishing activities have been important. The processing of fish and other foods such as pandanus fruit undertaken by women have also been important in offering protection from the perils of fishing on the open sea.

While risk, uncertainty and danger have always been part of life at sea, in Kiribati the sense of danger is accentuated by the scarcity and the fragile state of its land resources. Therefore, while a high value is attached to the skills and knowledge of ocean fishing, the value attached to reef gleaning activities even with the advent of cash and the greater availability of imported food cannot be underestimated. I was struck by the caution with which the fishermen using

traditional canoes approached deep-sea fishing. Generally, they did not take risks and go out on days when the weather was rough. In the past, they had the option to stay on shore because women's subsistence strategies of reef gleaning and food processing protected them from the peril of the sea.

Increasing capitalization of the fisheries and the commercialization of the artisanal fisheries have meant that more risks are taken and men are increasingly lost at sea. The use of motor boats and engines is more widespread and subsequently there are more mechanical failures and petrol shortages. The knowledge of traditional navigational skills is also declining and all of these changes contribute to the rising number of men lost at sea. McCoy (1991) in a report on "Safety at Sea in Pacific Island Artisanal Fisheries," concluded that Kiribati loses the greatest number of people to sea disasters in the Pacific in any given year. Tarawa based skiffs fish daily in the major fishing grounds which are located between South Tarawa and Maiana atoll to the south. At that location Tarawa is just visible on the horizon (Ibid 18-19). According to this report, the main causes for the distress at sea were: outboard engine failure, overloading on inter-island travel, running out of fuel after chasing skipjack tuna schools and rain squalls which occasionally obscure the islands. McCoy wrote that "In South Tarawa it seems that almost everyone knows or is related to someone who has survived a long period at sea" (McCoy 1991:36). My experience in Kiribati confirms this observation.



Women and their children often collect shellfish together.

## CONCLUSION

Understanding women in a marine society requires not only empirical data but a rethinking of the categories used to analyze and represent women's work. The dichotomies frequently used to understand fishing such as male/female, reef/ocean and subsistence/cash, miss out on the rather ambiguous nature of the relationship between those categories and the nexus between the material and symbolic realms in fishing economies. The brief foray into the symbolic and expressive dimensions of women's fishing suggests that an understanding of these dimensions are important in grasping the social, economic and cultural significance of women's fishing. Shellfish collecting and foraging on the reef are largely seen as women's work. While such activities are not apparently associated with prestige or mystique, a high premium has been placed on these strategies for they have played an important role in ensuring survival. These activities continue to have an enduring subsistence value. Development, it was argued, is by no means a straight forward subject. An ongoing analyses and critique of development strategies and ideologies so often informed by out moded modernization theories remain urgent.

## CHAPTER THREE

### THE CONTEXT OF WOMEN'S FISHING AT NATIONAL, VILLAGE, AND HOUSEHOLD LEVELS

#### INTRODUCTION

A central premise of this research is that women's fishing must be located in a broad social, economic and cultural context. In this chapter this theme will be pursued by discussing key aspects of social organization at household and village levels. The national context will be briefly sketched by briefly examining the economy, migration, and employment, all of which have a powerful effect on household and village life and the lives of women. The complex ways in which the subsistence and cash generating strategies are interwoven in daily life will also be explored by examining women's multiple work roles. This discussion will set the stage for an understanding of the importance of women's fishing within the domestic economy, as well as in social production and in the reproduction of culture.

#### THE NATIONAL CONTEXT

Since independence Kiribati has been trying to secure a niche in the world

economy. However, that place has been shaped by colonialism and the country's peripheral place in the world economy. Ralston argues that:

Few would deny that on a societal level Pacific Islanders have lost out to the political and economic powers of metropolitan countries. The impact of world economic and political systems cannot be ignored, but that impact varied and in any particular context was not inevitable or predictable. The historical, cultural, and gender specificities of each case study must be analyzed if Pacific women's and men's lives are to be understood. (Ralston 1992: 172)

Colonial contact had drawn Kiribati into the world system through a process of resource extraction. Initially, Kiribati was a source of phosphate for sheep farmers in Australia and New Zealand. Kiribati has, however, a Revenue Equalization Reserve Fund of an estimated A\$200 million which was won as a settlement for phosphate extraction. With phosphate deposits exhausted and the allocation of a vast EEZ, tuna fish has become the country's most valuable international commodity. The government now sells fishing licenses to the Distant Waters Fishing Nations (DWFNs). Income generated by licensing the foreign fishing vessels under access agreements with Japan, Korea, and USA rose from \$2 million in the mid eighties to \$12.1 Million or by 52% in 1991 (Government of Kiribati 1992:89-90). Kiribati, like many of the Pacific Nations sees fisheries development as crucial, given their vast EEZ, their limited land resources and growing population. Expenditure and aid allocation are also high in fisheries development. Kiribati is highly dependent on external aid, in the form of grants and concessionary loans although it had by 1986 reduced its reliance on British budgetary aid (EIU 1992:98). However, in 1990, loans totalled US\$ 16.3 million

or US\$ 243 per capita and at this level, it is one of the highest in the region, if not the world. Recently, external aid has been equal to around 40 per cent of GDP and has accounted for around 95% of the gross investment in Kiribati (Fairbairn 1992:9). Development agencies, as mentioned, play a major role in shaping the development of the country. The government in its planning documents places an emphasis on self reliance, particularly in the Outer Islands in order to curb migration to the already over crowded South Tarawa. However, many of the Outer Islands population are dependent on copra income which has been declining while the cost of living has been rising. The per capita income of I-Kiribati has dropped from A\$600 per year to less than A\$400 since independence (Teiwaki 1994:175-76). This may contribute to greater pressure on the inshore fishery through a renewed reliance on subsistence marine activities.

#### MIGRATION AND EMPLOYMENT

Migration to South Tarawa from the Outer Islands in Kiribati and overseas male labour migration are common features of life in Kiribati. During colonialism, I-Kiribati were displaced and relocated to various areas of the Pacific, including Fiji and Solomon Islands and thus, migration is not new. Temporary cyclic migration whereby men go off for periods or years to work on foreign ships or in the phosphate mines (formerly in Banaba and now in Nauru) has long been prevalent. Migration is highly significant in both social and economic terms as the workers send remittances home and eventually return themselves with substantial remittances. Temporary migration and cyclic migration fits in with the pattern of

intermittent production characteristic of many island economies. Male migration strategies also represent the positioning of Kiribati as a source of labour in the historically important areas of sailing and resource extraction. The migration or urban drift to South Tarawa is not a random unstructured one-way flow, but is, in large measure, the outcome of purposeful decisions, in a structured process linking households in the Outer Islands with Tarawa, with some benefits channelled back with marked effect. Links with kin on Outer Islands are retained and remittances, assistance and information are provided to rural relatives (Kirk 1990:4). Similarly, Outer Islanders support their urban kin through remittances of food such as salt fish.

The increasing concentration of population in South Tarawa reflects and results from the concentration of economic opportunities there which encourages migration for employment and education. It has been suggested that "The main dichotomy in economic life in the Outer Islands is between those with near kin in permanent employment and the substantial regular remittance incomes that implies, and those without" (Geddes 1982:82). The public service of Kiribati which accounts for 70% of formal employment is concentrated on South Tarawa, primarily in the Bairiki area and in the most populous area of Betio (EIU 1992:98). Most recent estimates of I-Kiribati overseas employment indicate that it comprises 10% of formal employment (Fairbairn 1992:6). As noted, formal employment dominated as it is by South Tarawa is creating the basis for a new level of social differentiation within Kiribati - those with a salary and those without.



## SOCIAL ORGANIZATION AT HOUSEHOLD AND VILLAGE LEVELS

In the past, the *mwaneaba*, which is the traditional community meeting place, was the centre of political and social activities in each village. The council of 'old men' or the *unimane*, the traditional community leaders oversaw village life in the *mwaneaba*. In the past, the *mwaneaba* was presided over by the keepers of the gods and contained relics of sacred ancestors" (Maude 1963:11). Maude described the *mwaneaba* as the place where all discussions concerning peace or war or any of the other innumerable concerns affecting people were held. The *mwaneaba* was also:

the law court where offenders against the customary norms were tried, and disputes heard and arbitrated and the centre for the many ceremonies and feast of a formal character, as well as the more dignified community recreations and dances. (Ibid)

Despite changes, life in Kiribati still revolves around the village *mwaneaba* and the family. The family or *te utu*, is the basic kin group in Kiribati and the term, according to Lawrence, is used in at least two separate senses. In one sense it denotes all people who can demonstrate descent from a common ancestor and through it share rights to land. In a wider sense *te utu* refers to all those regarded as kin through blood or adoption by one individual and thus, "genealogical distance becomes a basis for distinguishing degrees of relatedness" (Lawrence 1983:27-28). Relatedness implies a code of conduct, responsibility and common interest in land and in a host of other concerns which impinge on the well being of the family. Family, land and village life are intertwined and this was evident in the *mwaneaba* where each kin group associated with a land area (*kainga*) was allocated a

particular sitting place (*boti*) in the *mwaneaba* and, by extension, was known by it. A place in the *mwaneaba* allocated certain rights and obligations to the kin group and towards other major kin groups (Lawrence 1991:30). In the *mwaneaba* men exercised power while women appeared to occupy a peripheral place in the village meeting house.

The management of labour, income, and resources is bound up with household organization and the sexual division of labour (Moore 1988:58). The household, in general refers "to the basic unit of society involved in production, reproduction, consumption and socialization" (Moore 1988:54). While often difficult to define, the household does organize a large part of women's domestic and reproductive labour. As a result both the composition and the organization of households have a direct impact on women's lives and in particular, on their ability to gain access to resources. However, the control and allocation of resources within the household are a complex process which always has to be seen in relation to a web of rights and obligations.

It has also been increasingly recognized that extra-household relations are important and women often use kin and non-kinship links to gain access to resources outside the household (Moore 1988:61). This is evident in the practice of food exchanges and other practices such as *te bubuti*. The growing number of female headed households also indicates the changing nature of households in Kiribati and suggests that extra-household relations are becoming increasingly important.

The customary practice of *te bubuti* refers to a request usually by kin for assistance in either cash or kind which generally cannot be refused, links families and communities in Kiribati. At the day to day level the custom of *te bubuti* ensures reciprocal exchanges of fish, other foods, tobacco, cash and capital goods between households. However, repeated requests may indicate dependency and as such, a measure of shame may be attached to it. While it has been suggested that this custom stifles entrepreneurial development, it is important to recognize that *te bubuti* provides a system of reciprocal aid and an effective means of sharing capital items not uniformly available within the community (Geddes et al 1982:85). During this study the practice of *te bubuti* was evident in the sharing of fishing gear such as nets and canoes in many villages. The exchange of fish *te kaunono*, which is largely presided over by women, is another important means of redistribution at household and village levels. It is, as Johannes has pointed out, "difficult to convey the fundamental importance of this custom to Westerners whose basic assumptions about the distributions of goods and services are rooted in a cash economy" (Johannes 1978:356).

The continuing importance of the social practice of *te bubuti* is evident in the remittances which are currently provided to families by formally employed family members. The impact of remittances on the household economy in Kiribati is very significant. According to the census of 1985, many households were in receipt of cash remittances; over 30% received cash remittances from seaman and workers in Nauru, and 14% from other sources. In addition, 24% of all households received

non-cash remittances such as food (Census 1985). According to Lawrence, in Tamana 45% of the average sample household's income came from remittances and untraced sources of cash (Lawrence 1983:233).

Changes occurring in Kiribati, particularly in South Tarawa, such as the growing dependency on cash, are no doubt changing traditional patterns of consumption and possibly weakening social ties. In the pre-colonial period, the I-Kiribati subsisted on fish, pandanus fruit, bread fruit, coconuts and - the water lens permitting - giant taro (*cyrtosperma*) known as *babai* grown in flooded pits (Grimble 1952, Catala 1957). Titles to coconut palm trees, *babai* pits, fish traps on the windward side of the reef to stretches of the lagoon and reef shore were often inherited cognatically through either parent and their relatives and distributed among sibling sets (Geddes et al 1982, Lundsgaarde 1974:5) However, the destruction of the system of sea tenure (discussed in the next chapter) and the growth of the cash economy have changed these traditional patterns. In the late 1960s, McCready et al., had noted that in the Betio area of South Tarawa:

Where subsistence foods are difficult to get, as on Betio, one finds they are being sold. Fish, *babai* and sour toddy are being sold on Betio with the result that some families are experiencing real poverty.... In situations particularly with itinerants from outer islands the welfare aspects of *bubuti* may be breaking down....because supplementation by subsistence foods is assumed, poverty is difficult to identify and relieve. (McCready and Broadman 1968:40)

An I-Kiribati observer, Ueantabo Neemia, described the marked changes in the eating habits which, in many ways, reflect the larger social and economic changes occurring in the country. Dr. Neemia noted that:

Now people are depending very much on imported foodstuffs: tinned fish, tinned meat and rice are the prestigious foods and very little of the traditional foods is eaten. If the ship is delayed the shops run out of sugar etc. people suffer. (Neemia cited in Bindman 1992:12)

Despite the growing dependency on food imports, fishing is still very important and fish consumption remains high. In Kiribati, as we have seen, the catch per person per day is equivalent to 1.3 kg (Mees, Yeeting and Taniera 1988:17). However, estimates suggest a marked difference exists between South Tarawa and the Outer Islands. Fish consumption is considerably lower in South Tarawa at 320 grams per day in contrast to the estimated average consumption of 565 grams per capita per day on the Outer Islands (Zann 1983:84).

Despite the socio-economic changes occurring in Kiribati this study found that the extended family and the *mwaneaba*, continue to be institutions of enduring importance in the lives of I-Kiribati and that subsistence fishing and fish consumption remain important. The practice of *te bubuti* in its more traditional form as well as in its more recent manifestation of remittances was also found to be of continuing importance in creating and maintaining the social bonds essential in the day to day life on the fragile atolls.

#### CASH AND SUBSISTENCE STRATEGIES

The idea that households pursue multi-occupational strategies which weave cash and subsistence together and the continuing importance of social obligations has also been discussed. Rodman (1993) has noted that in Vanuatu, people have avoided full incorporation into the capitalist mode of production while at the same

time participating in capitalist markets. This point is relevant in Kiribati where I-Kiribati participate in the world market as fishermen, copra producers, migrant laborers while at the same time avoiding full-scale dependency on cash for a variety of reasons. I-Kiribati have like many of their Pacific neighbours, maintained an "exit option", withdrawing from market production to ensure their security through subsistence production (Lockwood 1993:100). A Division of Fisheries report has noted that the lack of a well established cash economy in Kiribati means that local fishermen only fished commercially when there was an immediate need for cash such as school fees, church donations, air fare to the Outer Islands and acquiring capital goods. The Fisheries report refers to the fate of various private exporting companies which have been established and failed in the past, which the report states, is due to economic and social reasons, rather than due to a shortage of marine resources (Mees, Yeeting and Taniera 1988:3). Clearly the relationship between the cash and subsistence sectors is complex and needs to be better understood.

According to Lawrence's study in Tamana, subsistence activities accounted for at least 50% of total time allocated to labour by the fully active age groups (Lawrence 1983:86). The continuing high proportion of the population engaged in village work, as indicated by the 1990 census, further underscores the importance of the subsistence sector. Copra has been the mainstay of the household's cash economy since colonialism and it continues to be the most important export commodity in Kiribati. Most I-Kiribati have remained intermittent copra producers,

following a well documented Pacific "targeting pattern" of making copra to achieve specific consumption goals. Coconuts, offer one option among other more traditional ones for South Pacific islanders to ensure their self-reliance (Rodman 1993:175). Coconuts provide a ready source of cash that supplements the social security islanders obtain through customary exchanges and kinship networks such as *te bubuti* and *te kaunono* in Kiribati. Rodman argued that "Only by maintaining access to their means of production and reproduction - in other words, by maintaining a variety of potential sources of income, food and social support, can rural islanders ensure continued self-reliance" (Rodman 1993:181). While she was writing in the context of Vanuatu, her assertion is relevant to Kiribati. Some measure of self-reliance is critical since, as Johannes has pointed out, Pacific Islanders are at the end of a long and expensive supply line - not only for manufactured goods, but also, increasingly, for much of their food (Johannes 1978:361). Over the past few years, however, there has been a drastic drop in the copra price in Kiribati, which as mentioned, is the mainstay of low-income earners in the Outer Islands. The drop in the world market price forced the Copra Society to reduce its copra price from 35 cents per kilo to 29 cents. This combined with a rising cost of living has meant that income, as noted, has dropped (Teiwaki 1994:175-76).

Lawrence found that cash income on Tamana was used primarily for tax payments (6%), church donations (5%) and the remainder for store expenditures for staples (Lawrence 1982:228). Household items such as kerosene, salt, soap,

and increasingly items such as coffee, tea, sugar, flour, rice, tinned fish and meat are now often considered staples. These items are essential for households in South Tarawa and of varying degrees of importance in the Outer Islands where subsistence foods such as fish, breadfruit and *babai* are more readily available. Capital goods such as engines in Tarawa are increasingly sought after. Meeting the costs of education is very important in Kiribati and fundraising is often done in groups to meet the secondary education annual costs of approximately A\$600 and the primary schools fees of \$A50. Lawrence has argued that the cash economy is in no way an alternative to the subsistence economy. In his view, it plays a minor complementary role. Cash income is a complement to subsistence income and apart from institutional charges such as taxes and school fees which have to be met each year, most households are free to move in and out of the cash economy in response to local conditions. However, there is, he observed, a tendency to try to maintain a particular level of cash use and to organize cash-earning activities to achieve this level (Lawrence 1982:234).

Church activities are extremely important at household and village levels in Kiribati and as Hviding (1988), has argued in his work elsewhere in the Pacific churches promote the cash economy in various ways. The churches often build on the local cultural practices by promoting communal and cooperative work (Hviding 1988:21). Both women and men undertake cash generating activities to support their churches. In Kiribati, women may, for example, work together on thatching when a group of houses need re-thatching in order to raise funds for the church.



Churches also have motorized boats and in some cases several boats and men take turns in fishing on the church boats. The catch is then sold to the community in order to cover costs, raise money for the church and to ensure that the villagers have regular access to fresh fish. Such cash raising schemes have important ramifications in promoting the cash economy and have an impact on women's fishing. The church supported group fishing reduces the importance of women's fishing and at the same time the need for cash is increased in order to purchase fish, even though the fish is sold cheaply. At the same time the rotation of labour in communal fishing also frees labour for increased copra production for cash generation.

In the many households I visited a variety of subsistence and cash generating strategies were undertaken and the scenario often changed from day to day. Such multiple occupational strategies are evident in many households where one will see some kind of fishing being undertaken; fish being sold; fish being given away and copra drying. There may also be some household involvement in a village or church fund-raising activity. Or in some households, perhaps, a male member of the household is working overseas or a male or female member is working in a government job in South Tarawa. This would certainly be an optimal household scenario, although many households, as noted, do not have access to formal employment opportunities. Generally the "multi-occupational" approach to both subsistence and cash generating activities, have allowed households to maintain a measure of self reliance and flexibility regarding the extent of their participation

in the market. Women's work in the subsistence sector and their strategies to maintain social networks are essential in maintaining such options. Ifeka commenting on the importance of women's fishing related work in Kiribati writes that:

Largely through women's customary role in fishing with nets in reefs and lagoons, as well as in processing and in distributing fresh and dried fish, households are empowered to contribute the following productive activities: to social production which strengthens the fabric of community life and thus reproduces the social means of existence, to subsistence production which satisfies the material means of existence, and to economic production which secures the cash with which to expand the market-oriented production. (Ifeka 1986:4)

Ifeka's analysis underlines the way in which women play a vital role in weaving together the strands of the subsistence and cash sectors in Kiribati.

#### THE NATURE OF WOMEN'S WORK

Based on extensive fieldwork in Kiribati, a team of researchers (Geddes et al 1979:78, Lawrence 1982) concluded that women's work patterns are structured differently from men's. The research found that women generally have a larger number of ongoing tasks which must be completed over a longer span of time. In contrast, men have fewer tasks of longer duration, such as ocean fishing, which may often produce more erratic yields. In Kiribati females are responsible for most domestic work and girls are introduced to work more gradually and at a earlier age than boys. Young girls begin sweeping, cleaning, drawing water and feeding pigs at a very early age and frequently accompany their mothers to the reef or lagoon for collecting shellfish. By assisting older women, girls learn weaving, cooking and

fishing (Lawrence 1982). Chapman (1987) has noted that male and female fishing differs significantly with respect to time as women's fishing is conducted more regularly. Shellfish, the major component of women's reef gleaning have been relatively abundant and predictable and can, therefore, be regularly collected. This study confirms the above findings that women are regular and predictable suppliers of shellfish and that they often do two or more things at once. For example, I found that in Abaiang women collect shellfish in the lagoon after working on their seaweed lines. Or women fish with a gillnet in the lagoon and collect shellfish. Or sell fish and dry copra in addition, to their ongoing domestic responsibilities. This pattern is illustrated by a woman I met in Barepuka village in a Tamanan Island household. She reported working three hours a week in making copra, making a mat in a day and spending three hours a week in *babai* (taro) cultivation. In addition, she collected shellfish, fished with the rod and line on the reef about twice a week for about three hours. This woman also made bread with a group of women in the village to raise funds for the church. While her husband had two canoes and regularly fished, her fishing allowed her husband to engage in other subsistence and cash generating activities for the household and the village. Lawrence found that women in Tamana spend considerably more time in cash-earning activities than men (Lawrence 1983:86). Women raise money for their households as well as for churches through such activities as handicraft production, thatch-making, bread-making, rolling cigarettes as well as from the sale of salted and fresh fish. Women, in addition, to their fishing and domestic tasks of

care-giving, cooking and cleaning, are involved in drying copra, weaving mats, and growing *babai*.

#### WOMEN'S WORK AS CARE-GIVERS

While household composition is somewhat fluid given the internal migration between South Tarawa and the Outer Islands, this survey found that on average 45% of the households had seven or more people. In South Tarawa the average size of households is ten persons (UNICEF 1991). The data below reflects the household size on the islands surveyed for this study.

**Table 3.1**  
**Household Size on Islands Surveyed, 1991-1992**

Island	Number of House holds	Size of households			
		1-3	4-6	7-9	10+
Tamana	121	19%	55%	20%	5%
Makin	114	14%	43%	34%	8%
Kuria	115	17%	47%	34.5%	10%
Marakei	334	13%	47%	25%	10%
Abaiang	252	13%	36%	35%	14%
S. Tarawa	331	3%	27%	22%	32%

{The percentages given are based on the number of households surveyed which is also given above.}

The population growth rate, at 2.4%, is rapid and its skewed distribution challenges the delicate ecology of the atolls and affects women in many direct and

indirect ways. Population growth combined with migration has meant that the population of South Tarawa has grown from 1,671 inhabitants in 1947 to 25,000 in 1990 (Kirk 1990:3). At its present rate of growth the Kiribati population will double in approximately 30 years (Hill 1991:74). South Tarawa has many of the problems associated with urbanization and overcrowding. In the past, the paucity of terrestrial resources, the small size of the islands, their infertility and periodic droughts have been major factors limiting human populations in the past (Zann 1983:85). There were also socio-cultural practices which served to control the population such as late marriages in males and postpartum separation of the wife and husband (Hill et al 1991:73). Improved hygiene and medical services as well as access to food during droughts have all contributed to lowering mortality and increasing the population. While mortality rates have decreased, life expectancy at 50.5 years for males and 55.5 years for women, is still very low, particularly when compared to western standards. The Infant mortality rate (IMR) of 65 per 1000 live births remains high and there are significant differences along church lines. Catholics have a life expectancy of 51 years compared to 57 years for protestants while the IMR is much higher among catholics (UNICEF 1991:18). In Kiribati, almost half of the population is under 15 years of age. With the growing population and high child dependency ratio, child bearing and child care responsibilities are an important part of women's lives in Kiribati households. This is, particularly, true of Catholic women who have a high fertility rate due, in large

part, to the Catholic Church's opposition to artificial family planning methods. Women's work as care-givers is also very time consuming in Kiribati as morbidity and mortality rates are high. Malnutrition and vitamin A deficiency pose serious health problems for some children in Kiribati (UNICEF 1991). The health and well being of some I-Kiribati, particularly children, are deeply affected by the poor water supply and environmental degradation. The resultant high rates of illness significantly impinge upon women's work and time in Kiribati.

#### GENDER RELATIONS

A decade before independence, in a report to the Resident Commissioner entitled "Some Impressions of Social Change in the Gilbert and Ellice Islands," McCreary and Boardman (1968) noted that the "changes surrounding marriage and the relationship between the sexes are more important in their long term implications than any others we identified in the colony" (McCreary & Boardman 1968:105). In the past, marriage was and is still sometimes arranged by the parents largely on the basis of land holdings which were frequently given as dowry. Increasingly, however, an educated young woman with a job has become as desirable as a woman with land (Hill et al. 1991:72). Churches have generally disapproved of arranged marriages and this may have contributed to the decline of this practice. Increasingly, young people are choosing their own partners. McCreary noted that with larger families and a growing cash element in marriage

celebrations, it is becoming increasingly difficult for parents to marry their children in public without being shamed, and the de facto marriage, legitimated later by a civil court, may become a common pattern (McCreary & Boardman 1968:112).

Women and single girls are experiencing a greater freedom of movement: not only are they receiving education but they are found working away from home in the cash economy. However, in Kiribati formal employment is dominated by males - 72% of the total formal employment is male while females account for a larger proportion of the village work force (Fairbairn 1992:6). The increasing opportunities for women's formal employment are nonetheless, generating changes in gender identity. Changing gender relations are also evident in the growing number of female headed households. In Lawrence's study of Tamana (1983) he found that 37% of the households were headed by women. Such households consisted of women and children only or were augmented by other members of her kin group. Separation, divorce and absence of husbands in off-island employment explain many of the households headed by women. In the past the expected behaviour of a woman on the breakup of her marriage was that she would return to her parent's household with the children. Similarly, when a man is recruited for employment overseas and does not take his family with him, his wife is expected to live with his kin where her fidelity is assured (Lawrence 1938:51). However, these days some women choose to maintain their own households in the absence of husbands.

## MUTUALITY IN THE DIVISION OF LABOUR?

Just as it is generally believed that "women don't fish" there is a common perception that "men don't collect shellfish" with the exception of old men and boys. This perception suggests how western constructs have hardened the division between reef and sea and cash and subsistence, male and female fishing in Kiribati. Reef gleaning is invariably depicted as only women's work and most often depicted as demeaning work for men (Zann 1982). Undoubtedly, ocean fishing is considered more prestigious but, I also met men who collected shellfish. On the Island of Tamana, a reef island which has frequent high winds and where the fishermen are widely regarded to be among the best, I asked fishermen about reef gleaning. Did they ever do this kind of work or was it strictly for women and children? The reply was almost always the same: "We have to live, we have to eat..." indicating that reef gleaning was occasionally necessary. I came away from such encounters with a feeling that the divisions in fishing were not as clear cut as western representations suggest. Women and men often work together and many fishing activities were frequently undertaken together on the reef or in the lagoon. Women and men cultivate seaweed together in Abaiang and they, as well, often work together on other activities such as collecting coconuts, making copra, clearing lands and tending *babai* (taro). According to Schoeffel, the division of labour between men and women is often a practical and mutually supportive



arrangement (Schoeffel 1984:156). Ifeka also argues that the interdependent labour of women and men in the local fishing economy is the key to self-reliant development, "as the work of both sexes contributes to household reproduction while also providing some spare capacity for extending subsistence into cash-oriented activities" (Ifeka 1986:11). Firth, in another context, noted: "The intricate and sensitive manner in which the role of women in the fishing economy interlocked with that of men" (Firth 1984:1165).

However, development planning seldom recognizes the nature of this mutuality and where, for example, fisheries activities have been planned, women are not included (Schoeffel 1984:156). Modernization and development programs designed to improve the technological capacity of local fisheries or the management of scarce resources often may have a unrecognized effect on the division of labour and the cultural significance of work (Nadel-Klein 1988:31). It is very important to include women in planning development activities for household labour has to be reallocated to respond to new cash generating opportunities. The need for reallocation of labour is evident in seaweed production which demands continuous cultivation and harvesting. It is also essential to examine the role of Western analytical concepts in fueling a narrative of fishing which devalues women's fishing and fishing related work. This narrative is prevalent in the development discourse which often continues to sideline women's productive role in fisheries. In highlighting this important aspect of mutuality in fishing households,

I am not suggesting that complementarity defines gender relations or the division of labour in Kiribati but rather that there appears to be a greater fluidity and ambiguity encompassing gender relations than most accounts suggest.

## CONCLUSION

It has been argued that it is important to place women's fishing within a broad framework of national, village and household life. Households are multi-occupational and there are few households where a single economic activity predominates. Women, it is argued, have a central role in the varied subsistence and cash generating strategies required to meet the needs of the household. While fishing is one of the many strategies, it is the most important in defining cultural identity. The analysis of women's work suggests how women's fishing fits into the domestic economy in Kiribati where, despite rapid change, the social as well as the economic production of fish remains important. It is now essential to locate women's fishing within the overall structure of the fisheries within Kiribati.

## CHAPTER FOUR

### THE STRUCTURE OF FISHERIES IN KIRIBATI

#### INTRODUCTION

An examination of the structure of the fisheries highlights the crucial importance of the inshore fishery in Kiribati. The inshore fisheries usually encompasses a number of ecosystems including mangroves, mangrove flats and estuaries, rivers, lagoons, hyper-saline pools, patch reefs, atoll reef formations, sea grass beds and outer reef slopes (Kunatuba 1986:1). Fishing activities taking place within these ecosystems include traditional onshore or subsistence fishing, small-scale commercial artisanal fishing and aquaculture. While images of ocean fishing often overshadow the inshore fisheries, the inshore area continues to be the most important domestic source of fish accounting for approximately 60-65% of the catch landed in Kiribati. The continuing importance of the subsistence sector in the inshore area is further illuminated by an examination of the technology used in fishing. Because women's fishing is concentrated in the subsistence inshore fishery of the reef and lagoon this analysis also serves to underscore the importance of their often unrecorded and unrecognized contribution to fishing in Kiribati. In addition to highlighting the enduring importance of the inshore fishery, another theme introduced here is one of change in the fisheries. Fishing and particularly, traditional fisheries management have changed with colonialism and the advent

of the cash economy.

## CHANGES IN FISHING PRACTICES AND CONSERVATION PRACTICES

While the small-scale artisanal fisheries in Kiribati is still dominated by the use of the *te wa* or the traditional canoe and the use of very basic fishing gear, this fishery should not be regarded as static or unchanging. Fishing practices in Kiribati have been subjected to a number of profound changes introduced by colonialism and capitalism. While it is outside the scope of this paper to discuss these changes in depth, it is nonetheless, useful to identify several key changes which have important ramifications on the current state of the fisheries. The traditional management of fisheries is important to understand given the growing concern about the depletion of marine resources in Kiribati. While it is possible that marine resources were at times over-exploited and yields declined in the past, there has been a deep-rooted conservation ethic which emerged from existence on the tenuous atolls. According to Zann:

The conservation ethic remains very strong among today's atoll peoples and the wide range of conservation practices still in use indicates that their ancestors actively attempted to manage marine resources and had extensive knowledge of fish, fishing knowledge and the sea. (Zann 1983:85)

Fishing was regulated by various restrictions, social beliefs and taboos to ensure a high sustainable yield from the atoll's resources. Many of the restrictions placed on fishing were related to religious or cultural beliefs (Johannes 1978:351).

Weather, distance and gear limitations were probably also important in lowering fishing pressure (Zann 1983:85). Concern about the finite nature of fish stocks and the need to protect them is powerfully expressed in the southern islands and translated into rigid strictures regarding fishing methods. For example, in Tamana neither engines or sails are permitted in fishing expeditions. In Nikunau, as well as Tamana there are bans on specific methods of fishing, for example, gillnetting, trolling and fishing at night with pressurized lamps. There are also conservation by-laws in other areas. For example, people living on Christmas Island in the Line Islands group observe a by-law which dictates the size and the stage at which a lobster can be harvested. There was also a by-law enacted by the North Tarawa Island Council in an effort to protect the gold spot herring (*herklotischthys quadrimaculatus*) from the tuna fishing vessels. The fishermen claimed that the seining method used by the tuna boats depletes the resource dramatically as compared to cast nets which only take a minute portion of the school. However, it appears that the by-law has been scrapped by the Government of Kiribati to ensure that the tuna boats have a nearby and inexpensive source of bait (Tebano 1992:4).

While little is recorded, it is evident that in the past, sea tenure was essential in limiting access to certain over-fished species (Zann 1983:85). According to Johannes, the most widespread and important single marine conservation measure employed in Oceania was reef and lagoon tenure. He writes

that:

The system was simple. The right to fish in a particular area was controlled by a clan, chief or family, who regulated the exploitation of their own marine resources. Fishing rights were maintained from the beach to the seaward edge of the outer reefs. (Johannes 1978:351)

There are, according to Johannes (1978) three interrelated causes for the breakdown of the traditional conservation systems. These include the introduction of money economies; the breakdown of traditional authority and the laws and practices imposed by colonial powers (Johannes 1978:356). As a result, reef and lagoon tenure systems have been destroyed (Johannes 1978:358). In Johannes' view:

As long as capitalist economies dominate Pacific island commerce and marine tenure laws are weak or nonexistent, the traditional island conservation ethic will continue to erode. Conservation through education and admonition alone cannot work under the competitive conditions that exist on the fishing grounds. (Johannes 1978:361)

In addition, to changes in the sea tenure another important change concerning gear occurred during the colonial era. At the turn of the century, Alexander (1901) in an expedition to study fishing methods in the South Pacific, found that while fishing continued to be essentially subsistence based, fishing methods were being significantly changed by the traders (Alexander 1901:743). According to Alexander, the people of this group (Gilberts) have "always been credited with being the best fishermen and using the greatest variety of fishing

apparatus of any natives in the South Seas" (Alexander 1901:803). However, Alexander was struck by the paucity of fishing gears in the atolls he visited which he explained in this way:

We were informed that the scarcity of native fishing apparatus among these people is due largely to traders, there being many stationed in the various parts of the atoll, who discourage native manufacture and lead the people to either forget how or not care to make any article which may be substituted at the store by something inferior in quality but sold for a high price. (Alexander 1901:802)

While still inadequately researched there has been, it appears, a trend toward increased exploitation of marine resources with an accompanying decrease of traditional methods and a weakening of conservation efforts. While conservation methods are still effectively deployed in some parts of Kiribati, practices such as the sea tenure system ended with the advent of cash and colonialism.

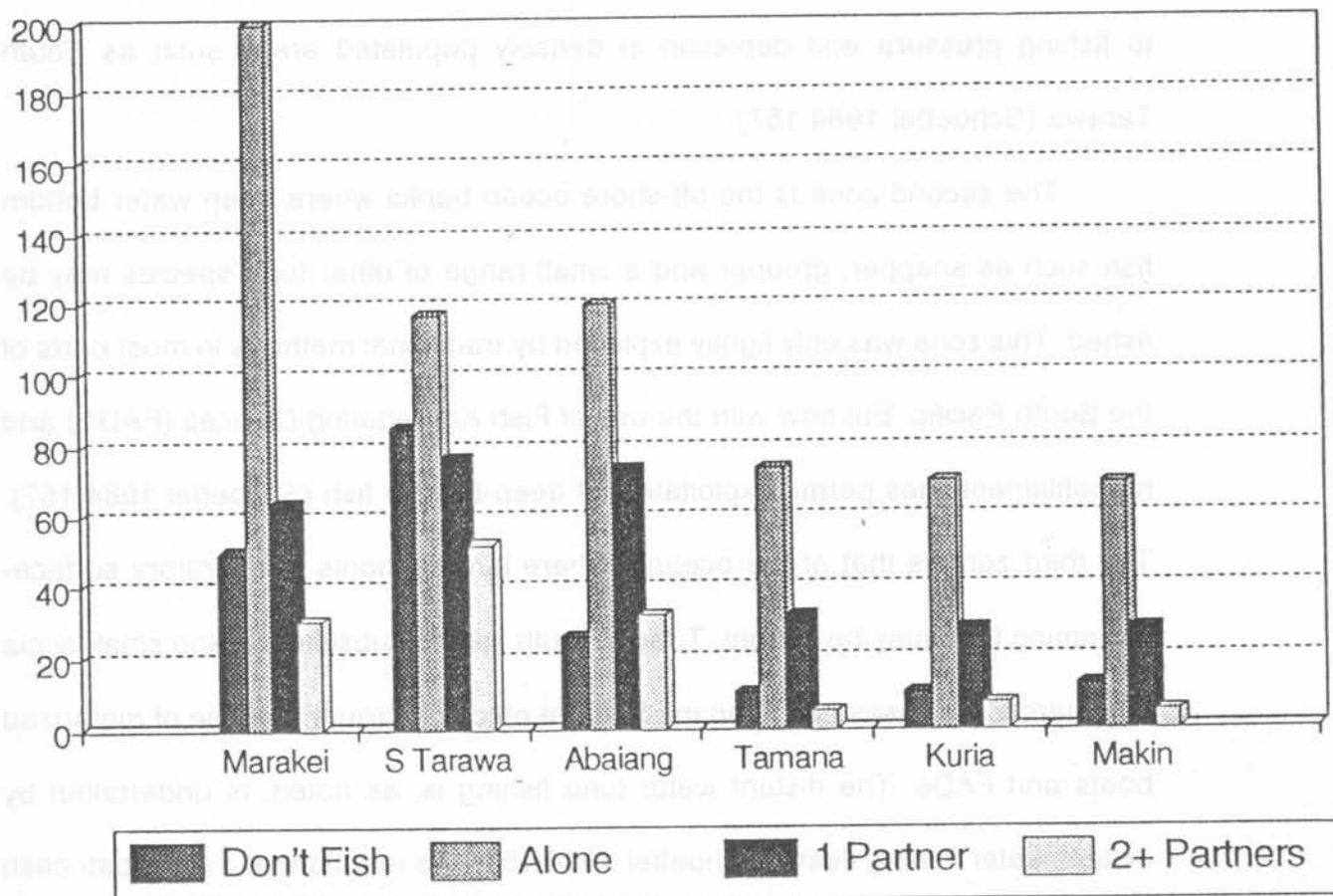
#### THE IMPORTANCE OF FISHING IN KIRIBATI

Most I-Kiribati households are engaged in some form of fishing activity as data from this survey suggests. In the Outer Islands, according to the 1985 census at least 80% and commonly around 90% of the households go fishing. In contrast, about two thirds of the households in South Tarawa are reported to engage in fishing activities (Census 1985:5). The term 'fishing' covers a wide spectrum of activities, from collecting shellfish or gleaning from reef flats and lagoons, to reef and lagoon fishing with various kinds of traps, spears, spearguns, nets and lines, with or without the use of a canoe or boat (Kirk 1990:5). In addition to being a

major world food commodity of considerable value, tuna, both skipjack and yellow fin (*te ingimea*) as well as flying fish (*te onauti*) are preferred staples, particularly in reef islands where their capture has prestige. Marine resources vary from island to island, for example - the absence of lagoons clearly constrains the range of fishing opportunities available to the reef islands. The availability of canoes, boats and engines and other gear as well as proximity to markets determine the catch landed. The graph below indicates the number of men who fish in the households surveyed and also suggests that fishing alone is most common.

**GRAPH 4.1**

**NUMBER OF MEN WHO FISH 1991-92**





## FISHERIES ZONES & ARTISANAL AND COMMERCIAL SECTORS

There are three basic fisheries zones in the Pacific region which support three distinct fisheries. The first is the inshore zone which supplies most of the subsistence requirements to a greater or lesser degree for most coastal island communities, as well as surplus catches which are sold or exchanged in local markets. The inshore zone is the most varied in resources, yielding hundreds of species of fish, mollusca and crustaceans which are fished a variety of many catching methods. It is also the least commercialized zone owing to the difficulty of obtaining large catches of a single species, and this zone is the most subject to fishing pressure and depletion in densely populated areas such as South Tarawa (Schoeffel 1984:157).

The second zone is the off-shore ocean banks where deep-water bottom fish such as snapper, grouper and a small range of other food species may be fished. This zone was only lightly exploited by traditional methods in most parts of the South Pacific. But now with the use of Fish Aggregating Devices (FADS) and monofilament lines permit exploitation of deep-bottom fish (Schoeffel 1984:157). The third zone is that of the oceans, where large schools of migratory surface-swimming tuna may be caught. Tuna for both fishing subsistence and small-scale commercial purposes has been made more efficient through the use of motorized boats and FADs. The distant water tuna fishing is, as noted, is undertaken by distant water fishing fleets (Schoeffel 1984:157). As mentioned, the Kiribati cash economy is based upon and will be increasingly dependent on marine resources and income derived from the sale of licensing fees, from exporting tuna and other

marine products such as seaweed.

The Division of Fisheries divides the fisheries sector into industrial or commercialized and the artisanal fisheries. The commercialized export sector is comprised chiefly of Te Mautari Ltd, established in 1981, a tuna fishing company which had expanded into the marketing of reef fish. The Marine Exports Division based on Christmas Island exports marine products to Honolulu and the Temaiku Fish Farm exports milkfish (*chanos chanos*) mostly to Nauru and the Marshall Islands (Mees, Yeeting and Taniera 1988:3). The artisanal fisheries is divided by Fisheries into a commercial sector and a subsistence sector. The commercial sector of the artisanal fishery is comprised of full-time fishermen for whom fishing is their main source of income. The part-time commercial sector, on the other hand, includes those fishermen who fish regularly for their own consumption and also sell fish when there is a surplus. Fishing is not, however, their main source of income. According to the Division of Fisheries, most fishermen do not fish specifically to generate income and therefore are semi-commercial rather than fully commercial fishermen (Mees, Yeeting, Taniera 1988:3).

There are also traditional indigenous zoning systems in Kiribati. For example, the people of Tamana have identified the beach zone; the reef flats; the reef edge; the 'verandah' or eye lid the reef overhang or the deep ocean (Lawrence 1983:96).

#### THE ARTISANAL FISHERY

Catala (1952) observed that it is usually imagined that the I-Kiribati fish on

the high seas where tuna fishing is done several miles offshore. Both tuna and flying fish capture requires great qualities of seamanship and fishing skills. But according to Catala, "These spectacular fishing operations are not everywhere a daily occupation" (Catala 1952:134). He goes on to say that "the fish supply of most Gilbertese populations is found more frequently in the immediate vicinity of the land and on the shallows than far offshore" (Ibid). This observation is especially true of atolls with rich lagoon which are "the most commonly frequented fishing grounds. It is also where the maximum subsistence can be found with a minimum effort" (ibid).

The most recent census (1990) in Kiribati confirms Catala's observation of more than 30 years ago. According to the census: 67% of the total households fish on the lagoon flats; 60% fish the lagoon sea; 65% on the ocean flat (reef) while 40% undertake deep-sea fishing (Census 1990). The Division of Fisheries's data also supports these findings. According to their data, the greatest fishing effort is directed at lagoon fisheries (5434 trips per week); reef (3263 trips per week); ocean (2962 trips per week) and collecting activities (1616 trips per week) (Mees, Yeeting, Taniera 1988:iv). In Kiribati households frequently fish in several or all of these areas. The total catch for the Outer Islands is estimated at 393 tons per week, of which 317 and 76 tons were landed on lagoon and reef islands respectively. The table below is derived from the Division of Fisheries data and summarizes the catch landed by fishing area in the artisanal fisheries sector.

TABLE 4.1  
THE CATCH LANDED BY AREA  
ARTISANAL FISHERIES (PERCENTAGE)

1991-92

Area	All data <sup>*</sup>	Reef <sup>**</sup>	Lagoon <sup>***</sup>	S. Tarawa
Ocean	35.39	69.3	24.0	31.63
Reef	21.81	28.9	19.4	6.92
Lagoon	35.5	0	47.35	50.59
Collecting	7.29	1.79	9.13	10.87

Source: Mees Yeeting, Taniera 1988:49

<sup>\*</sup> Refers to all islands in the Gilbert Group;

<sup>\*\*</sup> Reef Islands;

<sup>\*\*\*</sup> Lagoon Islands

{The data is derived from the percentage catch landed in the week prior to the survey}.

It is evident from the above data that ocean fishing is more prevalent in the reef islands, in contrast to the islands which depend on their lagoons for almost 50% of their catch. While ocean fishing is more prevalent in the reef islands, reef fishing still has an important role due to its reliability. Lawrence has observed in the reef island of Tamana, that generally inshore methods tended to have higher success rates and returned more fish per expedition and per hour although the fish were smaller and less valued (Lawrence 1982:107). Collecting in the lagoons and reefs accounts for approximately 10% of the catch landed in those atolls with lagoons including South Tarawa. The data from the survey on women's fishing also reports

a high level of collecting and reef activity.

## THE TECHNOLOGY OF ARTISANAL FISHERIES

### Canoes and Boats

According to the 1990 Census, 58% of households in Kiribati do not own a canoe. The large number of fishing households without canoes means that lagoon and reef fishing with a various hand methods as well as hand collecting are of crucial importance. Ownership of one or more canoes varies from 66% in Tamana to 23% in South Tarawa. Outer Island fishermen are better equipped for fishing as boat ownership is higher on the rural islands than in South Tarawa. However, fishing gear is not always or easily available in the Outer Islands. According to the 1985 census the type of boat owned in the Outer Islands tends to be the traditional canoe. There were 4,581 canoes and only a total of 310 skiffs or boats and 360 outboard motors (Mees et al 1988). The skiffs or boats fitted with outboard motors (72%) were, not surprisingly, mainly based in Tarawa. Access to such boats ranged from 1 on the northern reef island of Makin to 325 in Tarawa (Mees 1984:3-4). In just five years the number of outboard motors has rapidly increased. The most recent census (1990) recorded the existence of nearly 950 outboard engines, of which well over 600 were located in South Tarawa. Outboard motors are not only used on skiffs, but also on traditional canoes which are mechanized with small 5 or 8 HP engines (Census 1990:6).

Skiffs or boats fitted with outboard motors generate far larger catches than the traditional outrigger canoe. Marriott (1984) estimated that a household landed on average between 44-85 kg of fish during an average week. However, with an outboard motor which allows access to fishing grounds off the reef, and with the use of larger nets rather than traditional hooks and lines, yields more than doubled rising to 90-120 kg of fish per week (Marriott 1984:6-12). Tebano has also noted the great discrepancy in catch size between modern and traditional fishing methods, suggesting "that the former can treble and even quadruple the latter" (Tebano 1992:4).

#### FISHING GEAR AND FISHING METHODS

In Kiribati, approximately 33% of the households own nets - 9% of these households own 2 or more nets. Net ownership varied widely from 10% of households in Makin to 31% of households in South Tarawa. Net ownership was highest in Abiang (37%) and Kuria (32.5%). Ownership varies widely from island to island in 1984 there were a total of 16 in Tamana, in contrast to 866 in Abemama and 536 in North Tarawa (Mees, Taniera and Yeeting 1988:5). The small nylon gillnets, which are maintenance free, are increasingly used in household fishing as the use of canoes declines. In South Tarawa, which has the largest population due to ongoing migration from the Outer Islands, nets are commonly used in the lagoon.

Handlines were by far the most common type of gear used at 46%; trolling lines were the second most widely used with 16% of the households surveyed using them. In the lagoon islands, nets (43%); lines (37%) and hand-collecting (13%) methods are the most common means used to catch fish. While on reef islands 83% of the catch landed is caught by line-fishing methods, 9% by nets and 8% by harpoons. In South Tarawa, data (1987) showed that a larger proportion of the catch was landed by line fishing methods (46%) rather than by net fishing methods (38.5%). Hand collecting was also important (15%) (Mees, Yeeting and Taniera 1988:20). The South Tarawa methods differ from the typical lagoon islands and reflect the larger catches landed by the commercial sector which tends to target scombroids and oceanic fish (Mees, Yeeting and Taniera 1988:20). The data also indicates that there are considerable variations in the methods used between reef and lagoon Islands. The importance of hand collecting and nets is shown in those atolls with lagoon (Onotoa, Tabiteuea.N, Nonouti, Abemama, Abaiang, Marakei, North Tarawa, South Tarawa), and the use of lines in the reef islands (Makin, Kuria, Tamana). The importance of hand collecting and nets is shown in those atolls with lagoon (Onotoa, Tabiteuea.N, Nonouti, Abemama, Abaiang, Marakei, North Tarawa, South Tarawa), and the use of lines in the reef islands (Makin, Kuria, Tamana). The data below provides a summary of fishing methods in Kiribati which allows a comparison of the methods used on reef and lagoon islands as well as in South Tarawa.

SUMMARY OF FISHING METHODS IN KIRIBATI (PERCENTAGES)				
Method	All*	Reef	Lagoon	S. Tarawa**
Hand lines	8.39	23.76	17.20	23.48
Deep-drop lines	6.46	26.17	2.08	5.16
Dropstone lines	1.12	6.14	0	0
Pole and line	1.69	9.23	0.02	8.91
Pole and lure	-			
Rod and line	2.21	5.50	1.47	0
Trolling	15.83	11.91	16.70	8.34
Set gill nets	11.04	1.83	13.08	14.05
Encircle nets	20.36	4.01	24.00	9.56
Drift gill nets	2.63	0	3.22	12.72
Cast net	0.30	1.09	0.12	1.37
Scoop net	2.61	2.33	2.67	0.76
Traps	0.27	0.33		
Harpoons	5.60	7.60	5.15	.22
Collecting (hand)	10.72	0.41	13.01	15.43
Collecting (diving)	0.20	0.25	.01	0
Miscellaneous	0.57	0	.69	0

\* refers to all of the Gilbert Group Islands

\*\* refers to reef islands

\*\*\* refers to the lagoon islands

Source : Mees, Yeeting and Taniera 1988:52

{The data is collected by the Division of Fisheries between 1983-88 and takes account of the catch, method and day}.



The data also indicates that the Outer Islands fisheries must be differentiated from the South Tarawa artisanal fishery which has a much larger commercial sector. The table below shows data on hand collecting and the use of encircle nets.

SUMMARY OF THE PROPORTION OF THE CATCH LANDED BY TWO METHODS		
Island/Year	Hand-collecting	Encircle nets
Onotoa (1988)	7%	5%
Tab. N. (1986)	8%	36%
Nonouti (1986)	8%	28.5%
Abemama (1986)	23%	20%
N. Tarawa (1987)	26%	31%
Abaiang (1988)	38%	20%
Marakei (1986)	3%	15%
S. Tarawa (1987)	15%	10%
Tamana (1984)	0	0
Kuria (1983)	0	0
Makin (1984)	0	7%

Source :Mees, Yeeting and Taniera 1988:52

(The table is extracted from data collected by the Division of Fisheries between 1983-88. This data is based on one trip per method and its catch.)

Net fishing is important to note as it is frequently undertaken by women together or women and men often fish together. This is not well documented nor is the use of borrowed nets.

## HAND COLLECTING AND REEF GLEANING

In addition, to a commercial sector in South Tarawa there is also, as pointed out, a large subsistence fishery on South Tarawa comprised of those who are employed but fish to meet their subsistence needs as well as those households which truly subsist on their fish catches (Mees, Yeeting and Taniera 1988:30). There is no estimate of the size of this latter group but it is believed to be relatively large and less well equipped than the equivalent group on the Outer Islands (Mees, Yeeting and Taniera 1988:29). The existence of the large number of households which depend on subsistence fishing is indicated by the above data showing that South Tarawa has the largest landings of collected species at 15%. Some Outer Islands also have relatively large collected catches, but the equivalent proportion of the catch tends to be higher in South Tarawa. Previous studies also indicate the existence of a subsistence sector in South Tarawa which depends on collecting activities. According to one report lagoon bivalves (mainly *anadara maculosa*, *garrarium tumidum* and *asaphis violascens*) have become staples in urban South Tarawa with landings exceeding that of all fin-fish combined (Zann 1983:92). Out of an estimated annual catch (1982) of 6000 metric tons in South Tarawa, collected species accounted for over 1000 metric tons of shellfish (Marriott n.d.:7). Marriott has noted that shellfish contributes up to 21% of the total catch in South

Tarawa and suggested that 11% of households in South Tarawa are almost completely dependent on shellfish (ibid). According to Marriott, these households may all be headed by women (Marriott n.d.: 7). In addition to shellfish, there are also other sources of gleaned seafood such as marine worms and octopus which are mainly caught by women and which are not included in fisheries statistics (Schoeffel 1984:16).

In those Outer Islands which have large rich lagoons, shellfish accounted for a significant proportion of the total recorded catch. In 1986 the artisanal survey data indicated that on the islands of Abemama, Maiana, and North Tarawa, all of which have large lagoons, approximately a quarter or more of the catch landed was comprised of shellfish. The estimated percentages were as follows: Abemama 23%; Maiana 31% and North Tarawa 27%). In a 1988 survey shellfish accounted for 38% of the total catch in Abaiang; and a 1987 survey indicated more than 14% of the species caught were shellfish in South Tarawa (Mees, Yeeting, Taniera 1988:51). In the reef islands of Kuria, Tamana and Makin, shellfish accounted for a very small portion of the catch. However, data from this study on women's fishing indicate a higher level of reef gleaning in those islands than suggested by the above data. The figures are probably higher because women were asked directly about their fishing activities.

Shellfish, serves many subsistence purposes from staple to occasional nutritional supplement and it provides an important food source for people especially in times of inclement weather. This study found that some women only collect shellfish in bad weather. However, as pointed out, for those households that have no or little access to gear, canoes and little or no access to wage labour, shellfish are an important resource. In South Tarawa, where an estimated 77% of the households don't have canoes shellfish consumption is higher than the outer islands. Further research is needed on subsistence fishing and collecting activities and the household food security they provide particularly in South Tarawa. Moss has pointed out that the dietary and economic importance of shellfish have been unexamined or downplayed, perhaps because shellfish is viewed as universally low-priority resources.

Another factor may be the relative lack of ethnographic attention given to shellfish compared to the "more dramatic, technologically complex, and male-dominated activities of fishing" (Moss 1993:631). At the same time the lack of ethnographic data on shellfish may be partly responsible for the view that shellfish are an inconsequential resource.



Woman with daughter in Makin is collecting land crabs.



## ENGENDERING SHELLFISH COLLECTION

In most areas of the world, shellfishing is considered to be primarily women's work and Moss argues that there appears to be a stereotype that women's economic labour was "auxiliary to that of men. For it is always assumed that the men were presumably off hunting or fishing in the canoe while women collected shellfish. Moss argued that association of women with shellfish accounts, in part, for the devaluation of shellfish in ethnohistorical and ethnographic accounts (Moss 1993:632).

Given the importance of shellfish in Kiribati greater attention is required to understand its social and economic value, women's association with the shellfish, its wider cultural meaning as well as its subsistence value. Moss (1993) takes an archeological and ethnohistorical approach to understanding shellfish and while studying a Tlingit site in North American, her approach to is extremely pertinent to this study. Moss looks beyond the strict economic evaluations to consider data on the social and symbolic roles of shellfish expressed in dietary rules and oral traditions. In Moss's view, "The ambiguous role of shellfish make sense only when the broader social meaning of shellfish to the Tlingit is considered together with ecological factors" (Moss 1993:632). Seasonal patterns of shellfish exploitation, reflect both ecological conditions and different degrees of

economic reliance on the resource (Moss 1993:634). According to Moss, social categories determined by gender and rank can result in differential resource use, and variability in subsistence within a society. More comprehensive evaluations of the relationship between the full range of food categories may yield additional insights into the connection between ideology and ecology. For example, Moss suggests that the study of the spatial distribution of different shellfish taxa can be analyzed together with more direct indicators of social inequality (Moss 1993:646). While more research is required it is clear that although shellfish is often regarded as a low priority resource, it plays a crucial role in providing food security in an unknown number of households in Kiribati.

## CONCLUSION

The data in this chapter indicates the continuing importance of the inshore fishery. Its importance is overshadowed by deep-sea fishing which dominates representations of fishing in Kiribati. An examination of artisanal fishing methods, gear and catches underscores the importance of the inshore and subsistence fishery and the contribution of women's fishing in the reef and the lagoons. In South Tarawa which has a large commercial fishing sector and higher levels of formal employment, shellfish collecting continues to be an important strategy to ensure food security in some



households. The rapid population growth, migration to South Tarawa, the high cost of living and declining income probably all contribute to the enduring importance of the reef and lagoon resources. Shellfish, it is argued, has been too often regarded as a low priority resource when, in fact, it plays a crucial role in food security. Changes in the fisheries related to gear and sea tenure which have had important ramifications for the management of the inshore fishery were also outlined.

### CONCLUSION

The data in the chapter indicate the continuing importance of the inshore fishery. Its importance is overshadowed by deep sea fishing which shows a rapid rate of expansion. An examination of essential fishing methods, gear and culture underscores the importance of the inshore and subsistence fishery and the contribution of women fishing in the reef and the lagoon. In South Tarawa which has a large commercial fishing sector and higher levels of formal employment, shellfish collecting continues to be an important strategy to ensure food security in some

## CHAPTER FIVE

## WOMEN'S FISHING

## THE CRAB SONG

*Taratara butin Ten Tabenarere*  
*Ngke e buti ni kaea ngaona baan*  
*te ngea, te tongo, te nikabubuti*  
*Bwa e na uotia n nikiria*  
*Inanon bwangana te bwangauea*  
*E otinako i matani bwangana*  
*n teboka borana imwain butina*  
*Inanon te namo i tanimainiku ee*  
*Tara ngarena te noo ma ana ni mwamwaie*  
*Ngke e bwe iaon tari e rarikiriki n rarairaki*  
*Ngke e kee ni kee kee kee kee i moa*

Observe closely how the crab glides gracefully  
 towards his habitat  
 made from the leaves from the mangroves  
 And carries them into his noble habitat  
 Now appearing in front of his home  
 and washing his shell before he continues  
 swimming in the lagoon.  
 Watch carefully spectators how he dances gracefully  
 swiftly turning sideways and glancing backwards  
 as he navigates through the waters  
 shrieking forever more.

## INTRODUCTION

The above song accompanies the very popular traditional crab dance, which is performed by women in Kiribati. The performance celebrates the crab and its home in the mangrove. It is a beautiful dance wherein the dancing women in unison with

communal singing simulate the movement of the crab. It is not surprising that women perform such a dance or that the I-Kiribati sing about crabs given the importance of shellfish collecting in their harsh atoll environment. The importance of fishing, particularly, inshore fishing in the reefs and the lagoons as well as the continuing importance of shellfish has already been discussed. In this chapter women's fishing will be discussed in some detail. Women's fishing, although largely confined to shallow water is more varied than the usual accounts of their shellfish collecting would suggest.

#### A REVIEW OF RESEARCH ON WOMEN'S FISHING IN KIRIBATI

Early accounts of fishing in Kiribati made passing reference to women's fishing in Kiribati. While these accounts tend to mention the ubiquitous shell fishing there were also some references to more varied fishing methods including several references to women's fishing from canoes (Alexander 1901:801, Banner and Randall 1952). In several early accounts, the family or clan nature of many household fishing techniques and expeditions as well as communal fishing efforts are described (Luomala 1980:55, Turbott 1950:360, Catala 1952:142). Catala described the collective fishing efforts in Abaiang for catching the *te acari* using large nets handled by as many as 300 men and women (Catala 1952:143). In Onotoa, Gerd (1989) described communal fishing trips which encircled fish. While there are still cooperative fishing efforts, particularly in church fishing groups, there

appears to be a shift in emphasis from group-oriented fishing efforts such as fish drives to individually-oriented techniques. Hviding (1988) has described the changes occurring in Solomon Islands where one can with the aid of a speargun or an outboard motor, now go diving and trolling and return with a good catch, some of which may be sold through the informal marketing system (Hviding 1988:49). Similar changes have also occurred in Kiribati.

The most detailed accounts of women's fishing come from Katherine Luomala in her 1948 research conducted in Tabiteuea, a southern island. She describes a number of fishing practices, customs and beliefs related to fishing (Luomala 1980:553). More recently, as noted, Schoeffel (1984, 1992) Chapman (1987) and Ifeka (1986), have argued that I-Kiribati women make a crucial contribution to subsistence fishing. Ifeka has also claimed that women contribute to commercial fishing in the atoll fishing economy (Ifeka 1986:3). She noted that in the atolls of Butaritari and Abemama which have large lagoons, women play a larger part in fishing deeper waters (Ifeka 1986:10). According to Kirk, reef gleaning is mainly the work of women and children, reef and lagoon fishing is carried out by men, women or children, singly or in groups, although the use of boats and other major items of equipment tends to be restricted to men (Kirk 1990:5). Some accounts such as that of Leon Zann (1983) tend to be dismissive of women's fishing. Similarly Lawrence (1982) wrote in Tamana that "For the most of the time the reef flat is relatively deserted. It is largely the preserve of women

without fisherman husbands, old men and children" (Lawrence 1983:98). He found that women rarely fish and when they do it is with nets or rod and line on the reef (Lawrence 1983:76). Lawrence reported that there is little inshore fishing except where there is no canoe, the canoe needs repair or the man is doing something else instead of fishing (Lawrence 1983:109). However, data from the Division of Fisheries (Mees:1984) as well as this study suggest that while reef fishing and collecting are, less important than in the atolls with lagoons, they are still important activities for both men and women in Tamana. Mees (1984) in a survey on artisanal fishing in Tamana, found that while 91% of the households ocean fish, 71% of fishing households also reported collecting or fishing on the reef (Mees 1984:5).

#### WOMEN'S KNOWLEDGE OF FISHING

Women's knowledge of marine resources is often overlooked and this is another important aspect of the underestimation of women's fishing (Matthews 1991). Much has been written about the ethnobiological knowledge of fishermen and that knowledge has proven to be extensive (Johannes:1981, Zann:1984). Undoubtedly women have a similar knowledge of the biology and ecology of the marine resources they collect or they would not be so adept at finding food on the reefs (Matthews 1991:4). Johannes has observed that while reef gleaning is a widespread subsistence activity in the tropical Pacific, it has received very little attention and efforts are needed to assess women's knowledge of the biology of

gleaned species (Johannes 1981:3).

Fishing is informed by a knowledge of fish behaviour, the moon, the tide and seasons. There is a complex knowledge of the seasonal variations in the occurrence and availability of crustaceans and mollusca and knowledge of the timing and locations of aggregations of mollusca are important factors. For example, the reef flat claims many more people's attention at *oratakkoroa*, - low-water spring tide when the reef flat is exposed for longer periods of time. Large numbers of people fish and collect shellfish in the pools and crevices exposed on the reef using rods, nooses, knives and fish poisons (Lawrence 1983:103). In this study on the Island of Tamana 80% of the women interviewed identified seasonality as an important factor in their fishing activities. It is not surprising that a high level of awareness about seasonality was registered in Tamana where conservation is still part of daily life. I also found that during the house to house survey on artisanal fishing women were knowledgeable of the fisheries operation at household and village levels. Women were sometimes the main respondents in the Fisheries Division survey and they could invariably answer questions about fishing in the absence of their husbands.

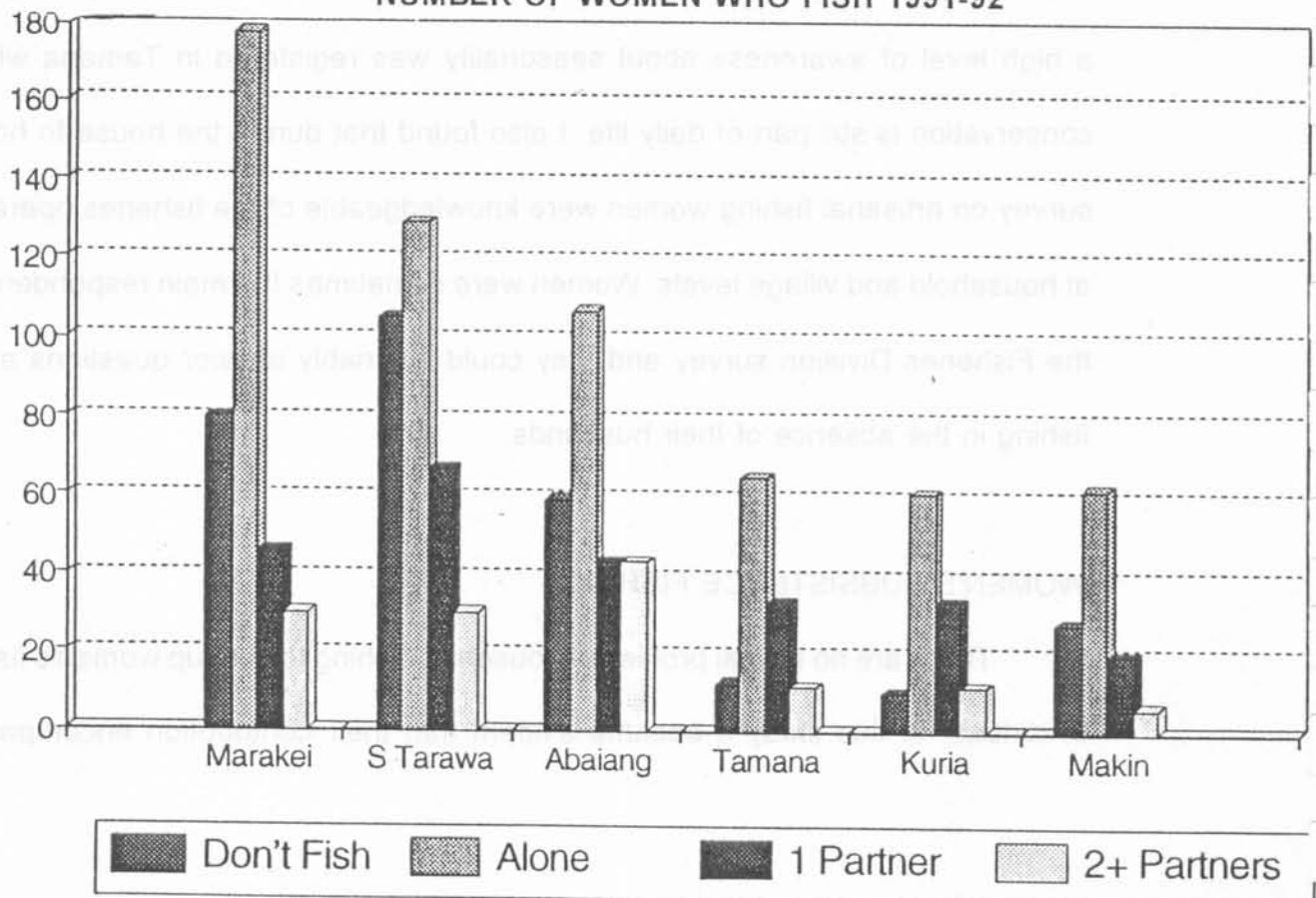
#### WOMEN'S SUBSISTENCE FISHING

There are no typical profiles of household fishing to sum up women's fishing in Kiribati. In this study it became evident that their contribution encompasses

activities in the areas of subsistence, handling the domestic surplus and seaweed production and that their fishing spans both the material and expressive dimensions of fishing. This is suggested by some of the brief descriptions of household fishing patterns given below which I encountered during this study. Women's fishing in Kiribati is most often undertaken to meet the immediate subsistence needs of the family. As noted 77% of the households interviewed reported that women do some kind of fishing. The graph below illustrates the number of women interviewed for this study who reported that they fish.

GRAPH 5.1

## NUMBER OF WOMEN WHO FISH 1991-92



Collecting shellfish is the most widely reported fishing activity but women's fishing methods are more varied. In addition to shell fish collecting, I saw women fishing in family owned fishtraps in Marakei; night fishing with torches (*kibe*); collecting annelids (seaworms) in Tarawa; fishing with the rod and line; collecting bait fish and fishing with nets and reef gleaning (*urakaraka*). I also met several women who regularly fished from canoes (*te wa*) or in their family owned skiff. The graph indicates that like men, most women fish alone although, quite a significant number also fish with partners. The descriptions given below reflect the diversity of fishing strategies in households throughout Kiribati which is difficult to capture in quantified studies. The women of the households described below often refers to the wife, mother-in-law, and/or daughters. A glossary of Latin\English\Kiribati fish names is available at the end of the document to help decipher the fish terms given below.

#### SOME HOUSEHOLD FISHING CONFIGURATIONS

The Bawou household in Meang village on the northern island of Makin consists of 6 people. The woman of the household usually spends 12 hours a week fishing. In the past week she made 3 trips to the reef and caught 15 *te mon*, *te m'anai* (about 5 kilos). She also regularly collects the following shellfish: *te m'anai* (land crabs), *te nikatona*, *te nimatanin* and *te koi-koi*. Her husband has two canoes, a large one of 4-5 meters and a smaller one of 3-5 meters. He uses the sail and paddle to fish and over the past week in two fishing trips of about 4 hours duration caught 15 *te onauti* (flying fish). This family



doesn't sell fish, they meet their own subsistence needs as well as meet their social obligations by providing fish to relatives and neighbours.

In a household in Buariki village on the island of Kuria, the woman fished with her husband in the past week and caught more than 20 reef fish with a gillnet. They caught the following fish: *te koinawa*, *te okaoka*, *te ninimai*, *te rereba*, and *te tewe*. In addition, a night fishing trip to the reef which lasted between 2-3 hours yielded *te okaoka*, *te kuaau*, *te koinawa* and *te mawa*. The woman also regularly collects the following shellfish: *koi-koi*, *kasura*, *nikatona*, *nimatanin*, *kasura*. This family doesn't have a canoe but they do own a net and a fishing rod. The family doesn't sell fish but they do meet their own subsistence as well as social obligations.

In the village of Meang in Makin in the female headed Ueantabo household, a mother and daughter regularly fish together. They collect the following shellfish: *te koikoi*, *te nimatanin*, *te nikatona*, and *te m'anai*. In the past week, they made two trips of two hours duration for shellfish. On each trip, approximately 50 *te m'anai* were collected. The woman also collects eels (*te ribono*) with a knife. They also handlined in the enclosed bay and caught *te tilapia*. In three trips of 2 hours they collected 20-30 *te tilapia*. *Tilapia* is only eaten when there is no other fish available. The women also buy fish once or twice a week.

In a household of twelve persons in Temaiku village, on the reef side of South Tarawa, two girls collect eels from under the rocks twice a week for household consumption. Their father has a canoe and fishes regularly. Their mother sells her husband's fish at home two or three times a week making up to A\$65.00 a week.

In the urbanized Baaed area of South Tarawa, the Tebuea household has a canoe as well as a skiff with an outboard engine for fishing. The woman collects bait fish with a gillnet for her husband's commercial fishing. She also collected shellfish in the past week, getting one 20 kilo rice bag full of shellfish (*te nouo*). The woman sells the fish caught by her husband at the fish market.

In Bikenibeu, South Tarawa, a family of 10 members have no canoe, gear or net. The men, as well as the women and children collect

shellfish several times a week and get a rice sack full of shellfish (*te bun*) in about one and a half hours.

In the village of Tebanga, in Abaiang, women in the Tebane household handline and night fish (*kibe*). On one fishing trip to the lagoon in the past week, the woman while handlining with her husband caught eight *te ikanibong*, three *te āua*, 14 *te okaoka*.

Another woman I met on the island of Marakei fishes with net and the pole and line. In the past week she went fishing with the pole and line five times. She got 12 *te okaoka* (3.2 kg) and 13 other fish totaling (3.3kg). She also sells the fish and salts the excess fish.

In Tekaraktan village in Marakei, in one household I visited the woman night fishes with a pole and line. The household has a canoe and the woman regularly sells the fish which her husband catches. The woman told me that she often fishes on the reef even if her husband is fishing. She went pole and line fishing at night twice in the past week and caught five reef fish including two *te okaoka*. In this household the flying fish (*te onauti*) which her husband catches are sold while the reef fish are consumed at home.

In South Tarawa in the Teakin household, I met a woman who regularly went out on the family's skiff handlining with her husband. They usually caught 20-30 kgs of reef fish including, *te ikamibong*, *te rou*, *te kuan*, and *te bawe*. In this household the shellfish collecting was done by their son.

In another household in Betio, South Tarawa the family skiff is out of order and the woman fishes with a gillnet in the lagoon with her husband. In the past week in one trip of less than a hour, 30 "silver biddie" had been caught. The women had also collected one and one-half rice bag of shellfish (*te bun and te nouo*) which weighs about ten kilos. Women also fish with the gillnet. In the past week the two women caught ten fish.

In the village of Talon, on the island of Kuria a daughter and her father fished together regularly. Their household did not have a canoe but they did have a fishing rod, scoop net, handlines, and eel traps. In the past week, she had undertaken two collecting trips of one-hour duration and had collected approximately 40-50 *te nikatona*

and 70 *te kasura*. In another fishing trip with the rod and line the woman caught 20 *te bae* and *te kuan*. She also went gillnetting with her father and they caught 1/2 rice bag (approximately 10 kilos) of *te okaoka* and *te ninimai*.

Another woman I met from Narauea village, Kuria, would go collecting as many as six times a week for a hour. On each trip she collected half a rice bag of *te nikatonia*. She also fishes with her husband with a net which they borrow; or use the rod and line at least once or twice a week to fish on the reef where she caught *te kuianrereba* or papuan trevally. Her husband owned a large fishing canoe for ocean fishing. The woman also sold her husband's tuna and flying fish.

Within the past week in another household in the village of Noraueu a woman made a trip with her husband to the reef as well as a trip collecting a half rice bag of shellfish, *te nikatona*. She also sold her husband's fish - he had a small canoe. Her reef fishing activities included night fishing (*kibe*), rod and line fishing and net fishing with her husband. Her husband's ocean fishing trips lasted between 5-6 hours while their reef fishing trips were of 2-3 hours duration. In addition, to handlines for tuna fishing, other fishing gear available in the household included a scoopnet, a spear and an octopus hook.

#### REEF GLEANING

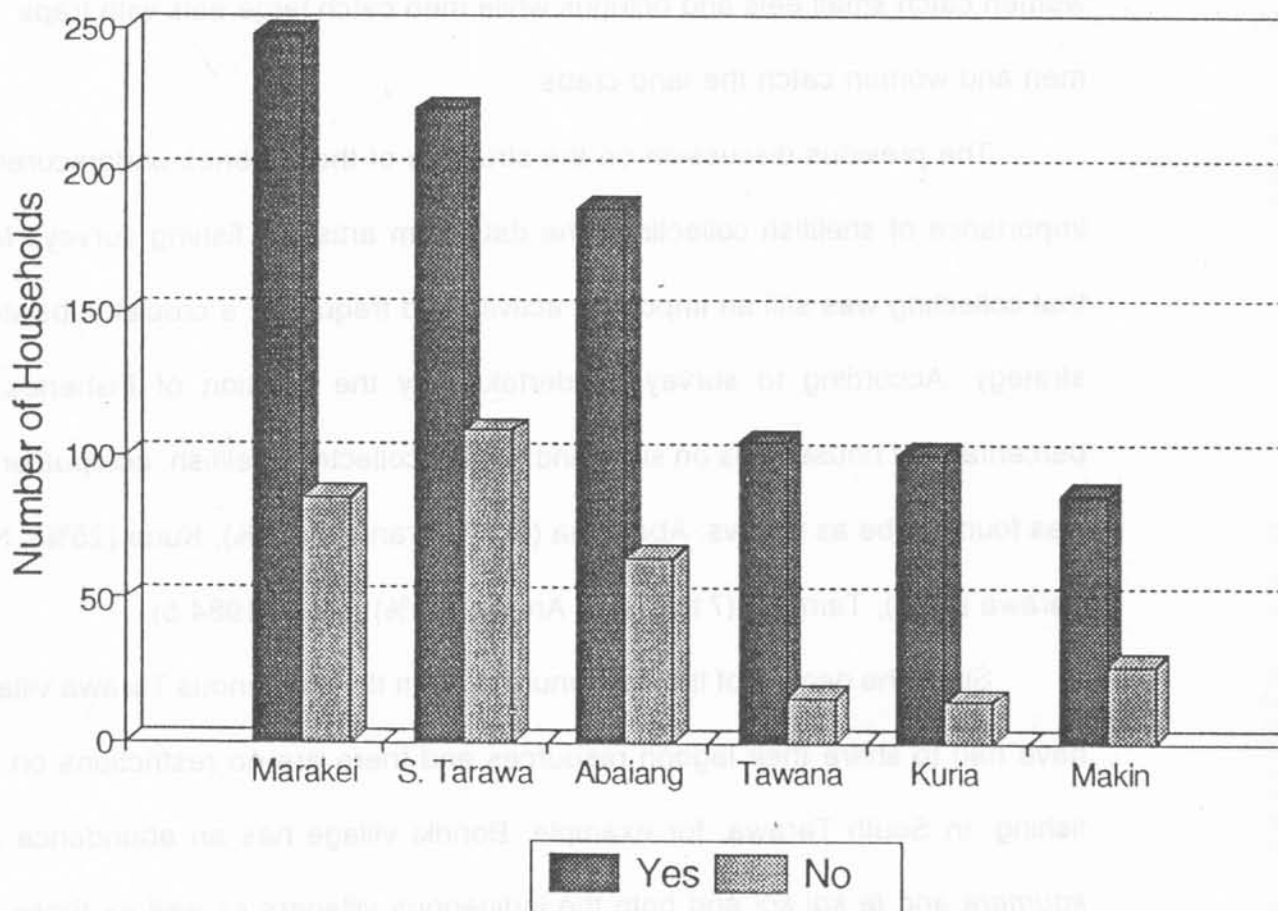
Reef gleaning activities include shellfish collecting, a variety of other invertebrate, small eels, octopus as well as small fish stranded in tidal pools or lurking under rocks on the reef flat or lagoons during low tides (Johannes 1981:1981). Luomala noted that *kaia* is a general term for daytime groping in the sand with the hands, feet or sharp stick for hiding fish, crustaceans and whatever else can be found on the leeward side *kai katura* specifies the method (*kai*) and the catch (*katura*) a small bivalve (Luomala 1980:554). The graph below illustrates

the women who shellfish in the households surveyed for this study.

GRAPH 5.2

HOUSEHOLDS WHERE WOMEN SHELLFISH

1991-92



In South Tarawa women are extremely active in reef gleaning for various kinds of shell fish, eels and octopus. Large quantities of shellfish are harvested daily and provide protein for the rapidly growing population of South Tarawa. Some women

also gather shellfish to sell at the market. Men, boys and children were also found to be undertaking reef gleaning activities. There is a division of labour in shellfish collecting - for example, men usually dive for *te were* and *te nimatanin*. Similarly, women catch small eels and octopus while men catch large eels with traps. Both men and women catch the land crabs.

The previous discussion on the structure of the fisheries underscored the importance of shellfish collecting. The data from artisanal fishing surveys found that collecting was still an important activity and frequently a crucial subsistence strategy. According to surveys undertaken by the Division of Fisheries, the percentage of households on six islands which collected shellfish, octopus or eels was found to be as follows: Abemana (66%); Aranuka (51%); Kuria (25%); North Tarawa (35%); Tamana (71%); and Arorae (52%) (Mees 1984:5).

Since the decline of the sea tenure system the indigenous Tarawa villagers have had to share their lagoon resources and there are no restrictions on shell fishing. In South Tarawa, for example, Bonriki village has an abundance of *te koumara* and *te koi koi* and both the indigenous villagers as well as those from outside the village collect the shellfish at low tide. Shell fishing takes place on the lagoon side and in South Tarawa; *te Koumara*, *te koi koi*, and *te bun* are among the most popular shellfish found in the Lagoon. The villages of Bikenibeu, Eita, Banraeraba and Teoraereke in South Tarawa have an abundance of *te nouo* and *te bun* which draws people from villages much further away - such as Betio and

Bairiki who come to collect their free share of the shellfish (Teiwaki 1988:12). The South Tarawa lagoon is already overfished and depletion of fishery resources is becoming a serious problem (Teiwaki 1988:13). For example, *te bun* (*Anadara Maculosa*) is one shellfish which has been over-exploited (Tebano 1992:2). Women will have a crucial role to play in any plan to conserve shellfish or the inshore fishery stocks. Any conservation efforts must expand fishing and non-fishing opportunities for subsistence and cash generation, particularly in South Tarawa. The following section briefly describes the 'shell fishing' and reef gleaning.

### **Octopus and Land Crabs**

Fishing for octopus is an important reef gleaning activity. Octopus, *te kiika* (octopus *polppus marmoratus*) are valued as both food and bait. Small octopus are caught principally by women with an octopus hook or stick in holes of the lagoon and reef at low tide. A person looks for a likely hole; pokes the hooked wire into it; pulls out the octopus; twists its head to kill it and then store it in an open-topped basket (Luomala 1980).

### **Land Crabs**

On Marakei women as well as other family members regularly collect land crabs (*te m'anai*) and it appeared to be a regular and important part of the food supply. A person may go alone or in a group to get land crabs; both men and women collect land crabs. Land crabs were also frequently collected in Makin. In

a Makin household, I visited, an estimated 18 kilos - approximately 60 land crabs were collected in two different trips of two hours duration over a period of the week I visited there. Land crabs were an important part of the diet in this household.

#### SPEARING ANNELIDS (*IBO*)

*Waibo* or spearing *te ibo*, a seaworm, is an activity undertaken primarily by women. However men, women, and children collect them in places such as Tabiteuea when *te ibo* are unusually plentiful. Luomala also found that men collected *ibo* on the Island of Onotoa with the sharpened root of a young pandanus tree. Luomala's impression was that *kara* or old women, collect these seaworms more often than others in order to add to their food supply and it is also a past time within their strength (Luomala 1980:537). However, in South Tarawa I saw a variety of people collecting *te ibo*. Luomala described the way in which these annelids are collected:

The *ibo* which can be collected year round betrays its presence at low tide by a raised edge around a hole, called eye (*mata*) in the sand. On finding this edge, a woman pokes her stick *te kai ni web* - the stick for puncturing *ibo*-either one cut from a coconut-leaf midriff or even a pinnule midriff- into the sand until it pierces something soft. After digging out the stick and marine worm with her hands, she swings the annelid around with a snap to empty out its sand, dirt and intestines before putting the remaining muscular coating into her open-topped basket hanging from her shoulder. The cleaned annelid is eaten raw, boiled, baked, roasted or sundried raw. (Luomala 1980:538)

These marine worms do not occur everywhere but in this study they were present on the islets of Ribon and Nuataea and they are regularly collected in the lagoon flats between South and North Tarawa. They also occur in abundance on the Island of Nououti as well as in Tabiteuea. In some areas visited, it was reported that *te ibo* are no longer available. In Buota, a village in North Tarawa, families regularly collected *te ibo*. This village is adjacent to South Tarawa markets where the marine worms can be sold. In one household in Buota, for example, Maria, a woman I knew, who was the mother of eight small children, regularly collected *te ibo*. Her family consumed these and she also sold them in the market. Her husband didn't have a canoe but fished on the reef with a rod and line.

#### URAKARAKA.

*Urakaraka* is the term used for reef gleaning in the southern reef islands and it was an important survival mechanism for atoll communities with access to few land resources. It is a common means of providing fish when the weather is inclement or the canoe broken and it is widely used in female headed households. This activity is also undertaken when the household engages in other non-fishing activities. *Urakaraka* is undertaken during the day at low tide - women with baskets go to the reefs and look for small fish trapped under rocks and stranded by the low tide. The very small reef fish are often collectively called *te urakaraka*.

Gerd described the way in which *urakaraka* was conducted on the island of Onotoa in the early sixties as follows:



During the ebb tide women work on the eastern reef by placing their skirts in a semicircle around a large stone, under which they suspect may be small fish. They close the gap with another stone and lift the first rock in the hope of catching *te kuau*, *te ntarema*, rockcod or *te koinawa* (Gerd 1986:11).

During my visit to Nikunau, some women were collecting fish caught under the rocks at low tide as fish were in short supply due to rough weather.

#### KIBE - NIGHT FISHING

Night fishing (*kibe*) with torches or pressure lamps at low tide especially on the reefs, is a major fishing activity which women regularly undertake with their husbands. Men and women fish with scoopnets, baskets, knives and other gear wherever the water is only about two feet deep in order to catch anything edible. In Tabiteuea, Luomala found that this type of night fishing is done either when there is no moon at low tide or at the start of the low tide" (Luomala 1980:534). As Luomala explained *kibe* is "frequently a family affair: both young and old, male and female, search for delicacies and major dietary supplies. Husbands and wives go together, some time with older children or relatives to help" (Ibid). In Kuria during *kibe* fishing people told me that they often catch *te koinawa* and *te tewe*. Night fishing may also yield fish such as *te taa*.



"Waibo" in Tarawa. This woman from North Tarawa demonstrates how the marine worms are speared in the lagoon.



## FISHING WITH ROD AND LINE \POLE AND LINE

Catala described the common practice of fishing onshore with a rod and line or pole or line in this way:

Standing on the reef edge with the tide coming in, men and women, fishing alone catch hawkish (*refeiatu*). Each person has a little basket fastened to themselves and uses a long flexible pole and a hook baited with shellfish and a fine line sometimes weighted with a piece of coral which the action of the incoming tide keeps from sagging. (Catala 1957:124-125)

Such fishing takes place both at day and at night. Luomala reported that at night men, women and children with or without moonlight use a rod and line to catch squirrel fish. They also hook *te barere*, *te mon* as well as various other fish (Luomala 1980:542-549). In *roa-ninima*, women catch *ninima* fish (silver biddy) with a small steel hook on the rod and line. *Roa roa* can also be undertaken without a hook. Hook and line methods using a pole and line fishing are still frequently carried out using shorter bamboo rods, light tackle and baited hooks. In the lagoon some of the fish caught with the pole and line: *te okaoka*, *te rereba* and *te bawe* which are caught both in the reef and the lagoon.

## WEIRS: FISH TRAPS

Fish traps (*te ma*), made from piles of coral limestone are laid out in many places along the lagoon shore or in the passages near reefs, are a common sight

throughout Kiribati. Gerd (1980:15) described the fish trap which consists of stones piled high to a height of about one meter laid out in wide arcs with corridors of various lengths and of ever decreasing width finally culminating in a dead end. The fish swimming in on the high tide become entrapped there as the opening is sealed off by those fishing. The entire family works together to capture the fish. *Te aua* (mullet) are frequently caught in this way. Fish traps are commonly found in South Tarawa, Kuria, Abaiang and Marakei.

Traditionally, as discussed earlier, reefs were clan or family owned and women were often active in maintaining the weir as well as using the trap. On the Island of Marakei, during a trip there in July 1991, I visited a family who still regularly fished the trap to meet their subsistence needs. In Narauea village, one family I met fishes in the trap using both a scoopnet and gillnet. There are eleven people in this household and they don't own a canoe. Consequently, the family depends on the fish trap for their subsistence needs. In Marakei in the village of Narauea in a household of ten people, I also met a woman, Kaimarewe, who regularly fished in her family owned fish trap. In the past week the family had made six trips and caught the following fish: *te maebo* (15), *te taa* (65), *te buni* (20), *te kekerikaki* (10). The women in the household also regularly collect shellfish (*te nimatanin*). There is no canoe in this household and they sell and salt fish in the main village of Rawananui. In another village, Temotu in Marakei only men fished in the fish traps indicating that the division of labour in fishing varies

significantly among households on any given island.

#### TE KAROUN - NET FISHING IN THE LAGOON & ON THE REEF

According to data from the Division of Fisheries, half of the estimated annual catch in South Tarawa in 1982 was landed in the lagoon. Women fishing with encircling nets catch smaller fish in the lagoons and such catches comprise a significant though often unreported proportion of the total lagoon catch (Marriott n.d.7). While nets are very commonly used in South Tarawa and Outer Islands such as Abaiang and Abemana, they are, as discussed earlier still not widely owned or used in all of the Outer Islands. While only 33% of households own nets, they are often borrowed and shared and this greatly extends the use of nets.

Women often fish together with nets in Kiribati. For example, in the Tebane household in Buariki village, Kuria, the women of the household fish together regularly with nets. The wife and mother-in-law or sister-in-law fish for about four hours a week as well as collect shellfish. The woman also fishes with her husband with a net. In the same village (Buariki Village) a woman and her husband fished together with a borrowed net and in the past week they caught 10 *te bawe* and *te rereba*. The women in the household also regularly collect shellfish such as *te koi-koi*, *te kasura*, and *te nimatanin*.

Women, I met in households in Betio, South Tarawa, in addition to regular shellfish collecting, fish with their family own or borrowed gillnet two or three times

a week in the lagoon, catching *te nimimai* (silver biddy) or trevally. In one household I visited the women had caught between 30-50 fish on each trip as well as collected one and a half bag of shellfish, *te nouo* in the past week. In this household, the woman's husband is a seaman which means that he spends up to twelve to eighteen months on German merchant marine ships. The women of the household, using nets continue to supply fish for household consumption when he is working overseas.

In another Betio household, the women fish in both the lagoon and reef with a net. The two women catch *te nimimai* and *te okaoka* in the lagoon and *te ikanibong* in the reef as well as occasionally, snappers. The women usually catch between 10-15 fish while gillnetting and they also collect shellfish such as *te nouo* on the same fishing trip. There is no canoe in this household of six members and thus, they depend on net fishing to meet a large part, if not all of their subsistence needs. In another Betio household of twelve people, four women regularly gillnet and during the previous week of this survey they had caught three kgs of *te nimimai*. They also collect shellfish, *te koi-koi* as well *te nouo*. Net fishing is important, particularly in South Tarawa and accounts for a significant portion of the fish landed for daily use. Sharing of nets through out Kiribati extends this activity.

#### WOMEN'S FISHING FROM CANOES AND BOATS

As mentioned earlier accounts of fishing in Kiribati have recorded women

fishing from canoes with family members. However, in Kiribati there is a perception that women don't fish on the open sea. Tabitetuans informed Luomala that "Deep-sea fishing is man's work, because women will cry at the sight of waves after the reef" (Luomala 1984:1204). Schoeffel has suggested that it is not so much that women are not allowed to go fishing on boats but rather they are not encouraged to do so and therefore, generally do not acquire the skills required for deep-sea fishing (cited in Ifeka 1986). Gerd (1989) conducting field work on the islands of Nonouti, Onotoa and Tabiteuea in 1963-64, found that, generally, women do not accompany men canoe fishing and it is interesting to consider Gerd's explanation. He explained that "According to the sexual division of labour the women undertake the easier methods used on the shore of the lagoon or on the reef" (Gerd 1989:11). Gerd described how a "couple will go off to the eastern reef during the ebb tide where the man will fish in the breakers while the women will search for small fish in the reef pools" (Gerd 1989:11). Such joint fishing expeditions, according to Gerd, allow the necessary supervision of wives. In Gerd's words, "According to ancient tradition men are unhappy about allowing their wives to go a long distance by themselves" (Gerd 1989:11). This account offers some explanation of the way in which women's fishing was confined to areas close to home or restricted to the company of family members. However, Gerd's ready acceptance of this description reveals his own bias about the nature of women's work and gender relations.



In Kiribati, some women have always dared to cross the reef. During the course of the house to house survey I talked to a number of women who regularly fish from canoes or boats on the open sea. All of them lived on South Tarawa where there is greater latitude for breaking with conventions regarding fishing, than on the smaller and more "conservative" Outer Islands and where male relatives may not be available. One woman whom I met in South Tarawa had a family of small children and she started fishing when her husband stopped supporting the family. She took over the canoe and fished very successfully and was admired for her skill and tenacity. Another woman, in Betio, South Tarawa fishes regularly as a crew member in the family's successful commercial fishing operation. She is married with two children and regularly fishes with men in the household on their skiff. In this household of sixteen people, the other women sell the fish and collect octopus (*te kiika*) and shellfish (*te koumara*). The woman's father-in-law, told me that he fully supported her fishing. He explained to me that his daughter-in-law was skilled and simply loved fishing. The woman's husband "didn't mind" her fishing and this seemed to be an important factor. Several other women whom I met in South Tarawa as well as women in Marakei also regularly went out fishing with their husbands in the household's small commercial operations.

The absence of a husband and/or the consent of a woman's husband as well as the women's interest and the opportunity to learn how to fish are important factors in women's participation in fishing on the open sea. Women's fishing from

boats in Betio may also reflect the changing composition of household labour in South Tarawa and the shortage of male household labour. There may not always be one or two male relatives in the more "urbanized household" available for fishing. In Kiribati, there is a strong tendency to fish with family or extended family members which may render woman's participation a more attractive option. Women's ocean fishing may also reflect an easing of past conventions, norms and mores which have effectively barred women from ocean fishing. Firth attempted to explain women's growing participation in ocean fishing in Tikopia where women were formerly banned from fishing on boats. In his view, Tikopian women began to go deep-sea fishing, when it was no longer highly valued as a male activity.

Firth wrote that:

For many Tikopians sea fishing is no longer of the same cardinal importance, in the context of various forms of wage employment. But as the economic and social horizon of Tikopia men has widened, both the benevolence and the threat posed by participation of women in the fishing system have tended to recede. So on the one hand women may come to be admitted on more equal terms into the practices of fishing. (Firth 1984:1160)

While there are socio-economic changes occurring which affect gendered fishing roles, it is difficult to weigh the relevance of Firth's comment in the context of Kiribati for undoubtedly deep sea fishing still has a high value in Kiribati.

I frequently asked fishermen why women couldn't fish in boats - the answer was usually the same - "it's not done" or "it's too dangerous". On further prodding it was frequently explained that a woman's ocean fishing would bring shame on the

man for it would be seen (by others) that he was not doing his work. And yet when I visited Tamana, the most renowned fishermen on the island told me that when he went to Nauru years ago to work in the phosphate quarries for several years, his wife took over the fishing for the household. During that time, his wife did all of the reef fishing for their family of small children. While the changing nature of gender relations and fishing patterns Kiribati are complex and lie beyond the scope of this paper it is important to note that gender configurations are being reworked in Kiribati. It is in this context that the symbolic and expressive domains were briefly analyzed in relation to women's marine related work. Cole has argued that there is a strong relationship between women's work and the social construction of gender. The work which women do is related to the gender images that are operative in societies, and that as women's work changes, so do gender ideologies (Cole 1991: xiv). This study found that while women's ocean fishing may still be rare, women do fish from boats given the opportunity, the necessity or the inclination to do so.

#### OTHER FISHING ACTIVITIES

During my visit to the Island of Nikunau, women caught very small fish in the nearby fish ponds with a scoop net made of mosquito netting. These tiny fish were also salted for further use. This type of pond fishing was done only in times of scarcity of ocean or reef fish. Formerly the fresh water ponds in Nikunau had

a large and carefully maintained supply of milk fish (*chanos chanos*). However, a voracious fish species, tilapia, was introduced by the Agricultural Department some years ago and this fish has decimated the milk fish. In the past, the reef islanders depended on these ponds to supplement their fish supply and the ponds, an important focal point of community life, were attended and harvested with special rites. Tilapia, externally introduced has destroyed an important village resource and women's work in harvesting small fish in the ponds is an attempt to provide a very poor alternative in the periods of rough weather.

Other fishing methods which must be mentioned briefly include women's regular gathering of edible algae on the island of Beru. In Tamana, fish poisoning was occasionally undertaken by women using poison derived from tobacco and sea cucumbers (*holothurians*). The poison is put in pools of water where reef fish hide (Taniera, Personal Communication, 1992). Women also catch bait fish for their husbands' deep-sea or bottom fishing.

#### FREQUENCY AND DURATION OF WOMEN'S FISHING TRIPS

The frequency of fishing is determined by a complex set of factors including tides and moon phases, proximity to markets, the demand for fish, the eating habits of the people and protein needs (Commonwealth secretariat 1989:14). Data on women's time allocation to fishing is given below.

**TABLE 5.1**  
**NUMBER OF HOURS WOMEN ALLOCATE 1991-92**  
**TO WEEKLY FISHING ACTIVITIES**

Island	Number of women	1-3 hours	4-6 hours	7-9 hours	10+ hrs.
Tamana	104	56.7%	33.6%	4.8%	4.8%
Makin	74	83.7%	12%	1.35%	2.7%
Kuria	103	85.4%	12.62%	1.9%	0
Marakei	171	52%	19.2%	14%	14.6%
Abaiang	88	73.86%	18.18%	2.27%	5.6%
Tarawa	199	71.8%	22.1%	2.5%	3.5%

(Based on percentage of women who reported fishing.)

This study on women's fishing found that the duration of women's collecting trips ranged between 1-2 hours. However, the duration varied according to the island surveyed and specific household needs. Bolton who studied shellfish harvesting in Tarawa (1982) noted that the frequency varied from village to village. Bolton found that shellfish harvesting primarily depends on the availability of the shellfish, the more abundant it is, the easier it is to collect and hence, the more frequently it is collected. Bolton found that the majority of people collecting shellfish spent three hours on the lagoon over the low tide period. Her study also suggested that the larger the number of people from the household involved in collecting - the more shellfish is

collected rather than a shorter time spent to collect a defined volume (Bolton 1982:20). According to Mees (1984), the average duration of various fishing trips was as follows: ocean - 6.9 hours; reef - 3.6 hours; and collecting trips usually lasted over 4 hours. The average duration of fishing trips was about 5 hours. These studies reported a longer duration of fishing trips than the data from this study. Half of the islands surveyed in this study were reef islands, where collecting is less important than it is in the atolls with lagoons; this could account for the difference in the duration of collecting trips. However, as pointed out, activities like *urakaraka* and collecting *te nimatanin* were important activities in these reef islands. The frequency and duration of fishing trips reported in the data from this and Mees' study are recorded for the previous week's activities and as such offer only "an arrested moment" or a snapshot of daily household activities. This study found the frequency of fishing trips and shellfish collecting is affected by a number of factors including weather conditions; the availability of ocean fish or reef fish; the availability of canoes and gear; access to cash and the households' allocation of labour. This can vary significantly among households and islands. In South Tarawa, some families collect shellfish on a daily basis. I met many women who went out to the lagoon daily for less than a hour with a basin to fill it with shellfish *te noua* which are easily collected or *te bun* which are abundant in some areas at low tide.



"Urakaraka" in Tamana

### QUANTITY OF SHELLFISH COLLECTED

Most women in this study collected five (5) Kilos or less on each trip. However, in South Tarawa 35% of the women surveyed collected more than five (5) kilos. In South Tarawa the larger quantities collected are consistent with the high dependency on shellfish as already discussed. It also suggests that households are larger and that longer distances are travelled to areas of abundant shellfish and these factors may result in the collection of larger quantities. In South Tarawa it was a frequent occurrence to find people travelling by bus with large sacks of shellfish. Such fishing expeditions were often comprised of women, older children and/or men.

### CONCLUSION

While women's fishing activities are usually defined in terms of their reef gleaning activities which tend to be devalued, this study suggests that women's fishing is considerably more varied. Their fishing is an important part of the subsistence and cash generating strategies at household levels. For example, women's catch is often used to feed their families allowing sale of the husband's more desirable catch of tuna and flying fish. While women, often with family members, undertake a variety of inshore fishing methods, there appears to be a gradual shrinking of the number techniques



used in fishing. By outlining some of the varied fishing configurations that I encountered at household level and by locating women's subsistence fishing in a broader socio-economic and cultural context, the strategic importance of women's fishing is better understood. It is now important to turn to women's work in the marketing and distribution of surplus fish and their work in seaweed production.

## CONCLUSION

When women's fishing activities are usually confined to parts of their local cleaning activities which tend to be developed, the study suggests that women's fishing is considerably more varied. Their fishing is an important part of the subsistence and cash generating strategies of households in the region. For example, women's catch is often used to feed their families and to sell to the husband's more desirable catch of tuna and flying fish. While women often with family members undertake a variety of tasks relating to the marketing and distribution of their catch, the study also suggests that these activities are a crucial part of the household's income-generating strategies.

## CHAPTER SIX

## SURPLUS FISH AND SEAWEED EXPORT PRODUCTION

## INTRODUCTION

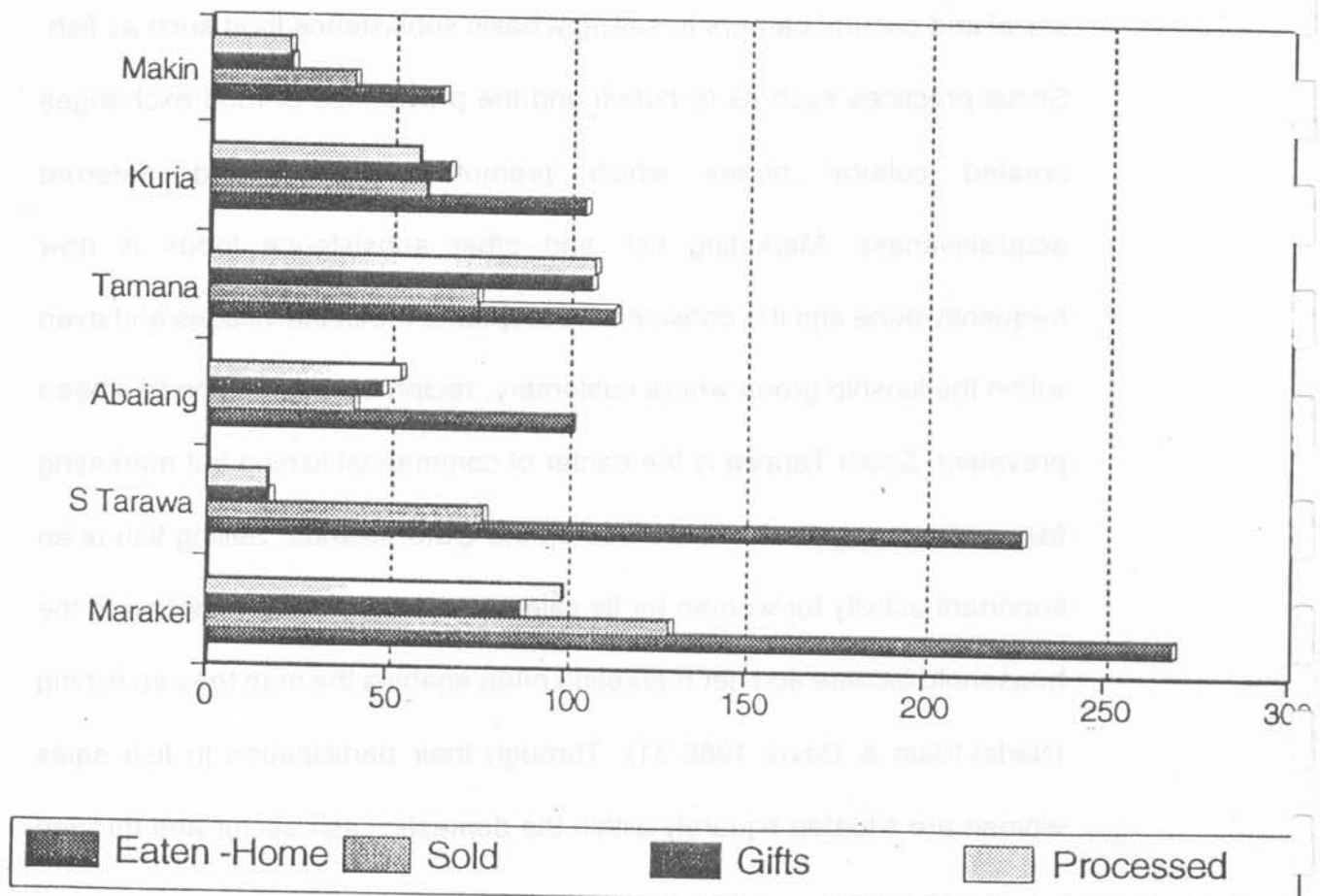
Women, in addition to catching fish, play a key role in the distribution of surplus fish through marketing, participation in food exchanges and processing fish. They are also involved in seaweed production for the export market in several islands. In earlier times there was little or no trade in fish as most households were largely self sufficient and there were also social and cultural barriers to selling a basic subsistence food such as fish. Social practices such as *te bubuti* and the prevalence of food exchanges created cultural norms which promoted sharing and deterred acquisitiveness. Marketing fish and other subsistence foods is now frequently done and it is considered acceptable within the villages and even within the kinship group where customary, reciprocal distribution has been prevalent. South Tarawa is the center of commercial fishing but marketing fish is also a regular feature of life on the Outer Islands. Selling fish is an important activity for women for its sale represents their contribution to the household income and her marketing often enables the man to keep fishing (Nadel-Klein & Davis 1988:31). Through their participation in fish sales women are situated squarely within the domestic cash sector and through

their management of the exchange of fish are pivotal in maintaining social ties. The graph below indicates some of the ways in which fish and other edible sea products are utilized in Kiribati. The various patterns of utilization will be discussed in detail in this chapter.

GRAPH 6.1

UTILIZATION OF FISH AND OTHER MARINE

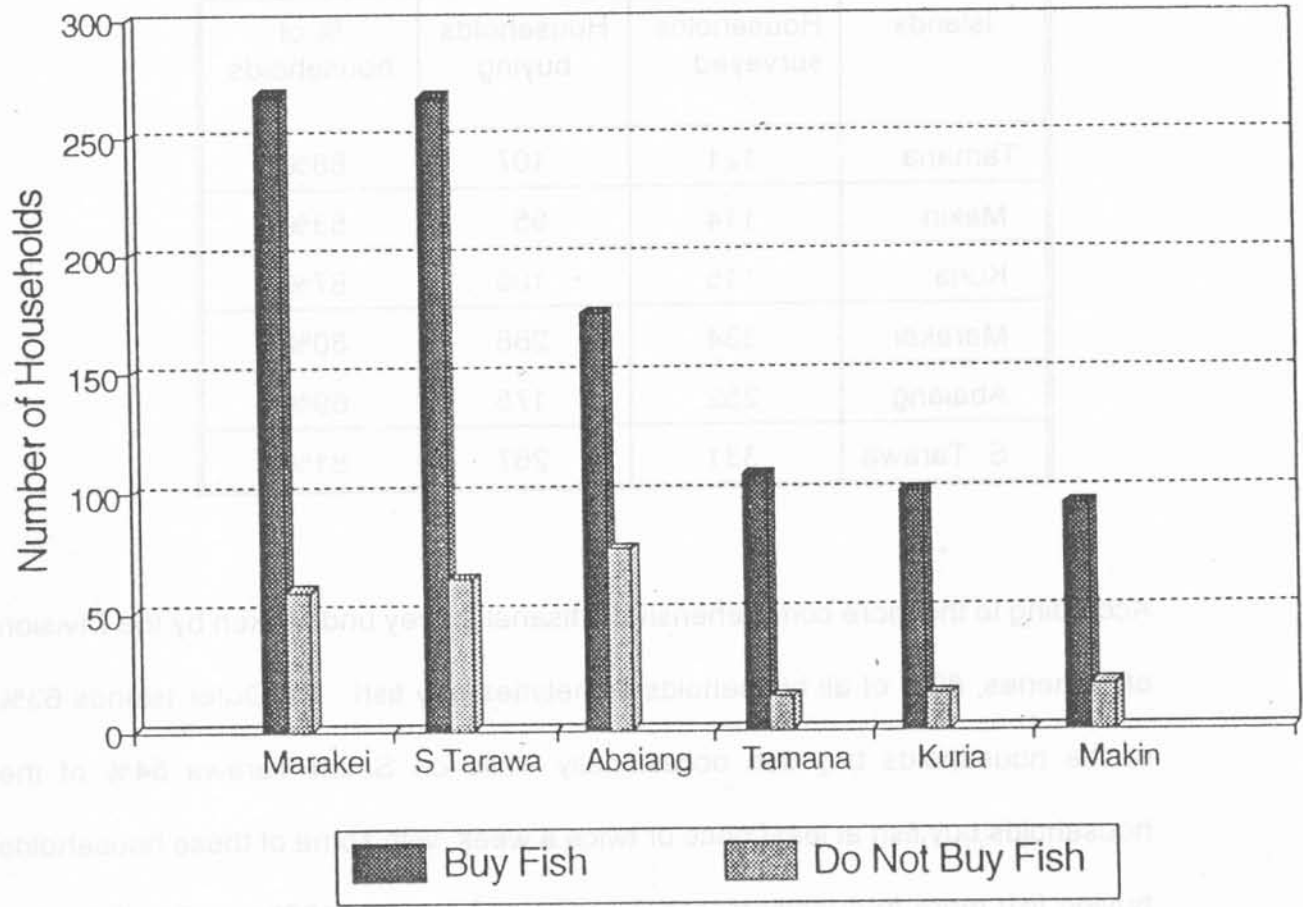
FOODS 1991-92



### BUYING AND SELLING FISH

It is indeed interesting that so many people buy and sell fish, particularly in the Outer Islands as many, if not most, of those households fish. The graph below indicates the households surveyed for this study who purchase fish.

GRAPH 6.2  
HOUSEHOLDS WHICH BUY FISH 1991-92



Geddes has suggested that such "inter-household trade functions to redistribute existing income rather than to generate substantial quantities of

new income" (Geddes 1982:74). He also noticed that on most islands the level of inter-household trade rose with steadier access to cash, for example, after a copra price rise (Ibid).

The survey data below indicates that in both the Outer Islands and South Tarawa over 80% or more of the households surveyed for this study buy fish.

**TABLE 6.1**  
**HOUSEHOLDS WHICH BUY FISH**  
**1991-92**

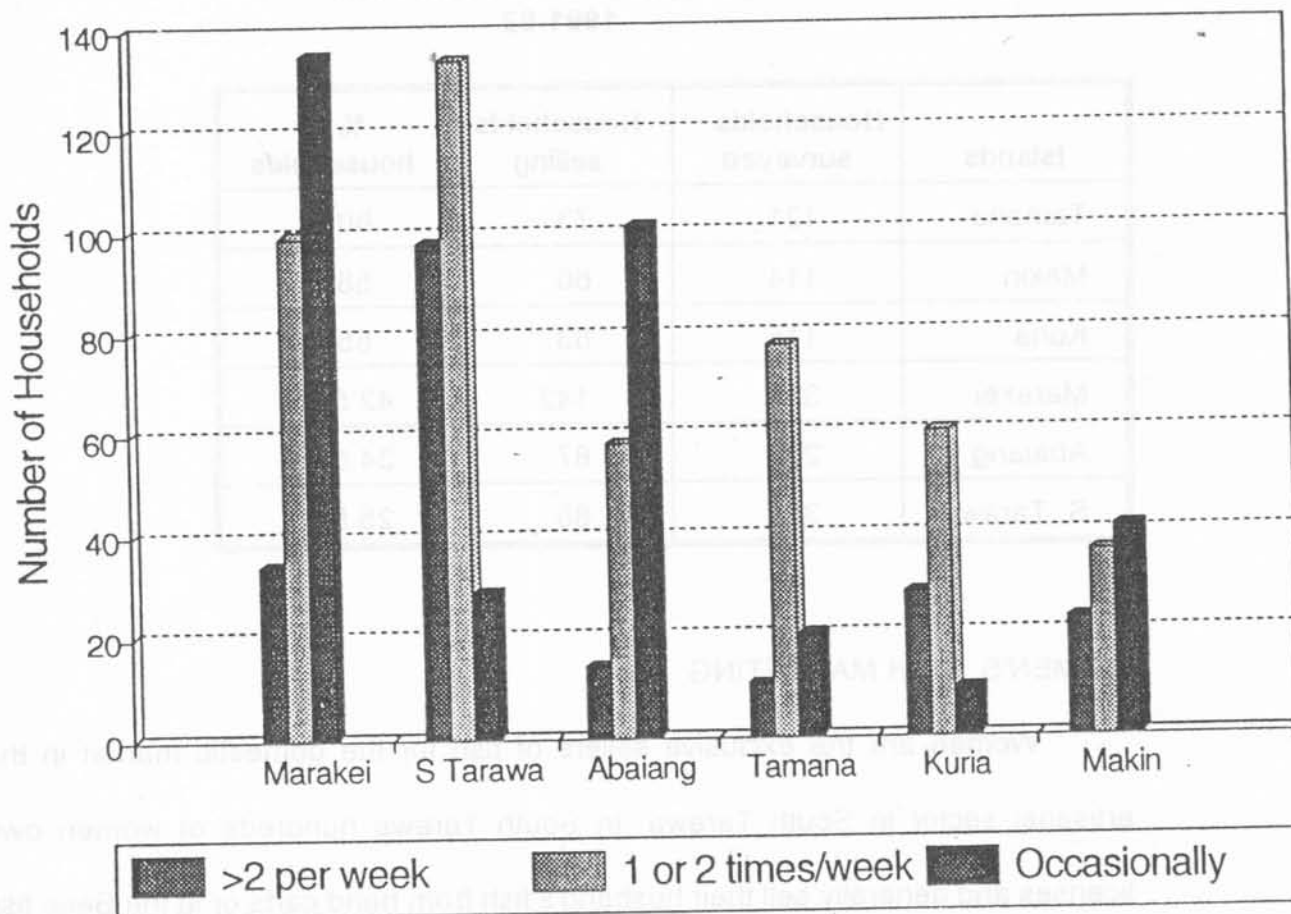
Islands	Households surveyed	Households buying	% of households
Tamana	121	107	88%
Makin	114	95	83%
Kuria	115	100	87%
Marakei	334	268	80%
Abaiang	252	175	69%
S. Tarawa	331	267	81%

According to the more comprehensive artisanal survey undertaken by the Division of Fisheries, 80% of all households sometimes buy fish. On Outer Islands 63% of the households buy fish occasionally while on South Tarawa 54% of the households buy fish at least once or twice a week, with some of these households buying fish more frequently (Mees, Yeeting and Taniera 1988:vi). The following graph indicates the frequency of fish buying in households surveyed for this study.

GRAPH 6.3

## FREQUENCY OF FISH BUYING

1991-92



On average 46% of households in the Outer Islands sold fish while 23% of the households surveyed in South Tarawa sold fish. South Tarawa, the center of commercial fishing, is comprised of fewer households selling more fish. In Abaiang only 34.5% of the households interviewed sold fish and this may indicate that

fishing is now competing with seaweed production as an income earning activity.

**TABLE 6.2**  
**HOUSEHOLDS SELLING FISH**  
**1991-92**

Islands	Households surveyed	Households selling	% of households
Tamana	121	73	60%
Makin	114	66	58%
Kuria	115	63	55%
Marakei	334	142	42.5%
Abaiang	252	87	34.5%
S. Tarawa	331	85	25.5%

#### WOMEN'S FISH MARKETING

Women are the exclusive sellers of fish for the domestic market in the artisanal sector in South Tarawa. In South Tarawa hundreds of women own licenses and generally sell their husband's fish from hand carts or in the Betio fish market (Schoeffel 1984:165). This method of selling is popular with I-Kiribati women because it gives them a share in household income. The main retail market for fish in South Tarawa is comprised of one fish market operated by the Town Council in Betio. The fish market is supplied with running water and up to 20 women can sell fish there. The women, sell gutted fish from iced, insulated boxes and the prices of all species is fixed by the Island Council, with the

agreement of the fishermen. An additional market tax of two cents/lb is charged. In 1990, the price rose from 45 cents lb to 55 cents/ lb (Kirk 1990:6). In other areas of South Tarawa women sell fish by the roadside or from their houses. The fish are sold whole, neither iced nor gutted.

In South Tarawa, some additional detailed information was collected for this study from women who sell fish. Most of the 16 fish vendors interviewed sold their husband's fish. The households had borrowed money - between A\$4000-6000 to set up their household's commercial fishing and marketing business. Most of the families interviewed had borrowed from the Development Bank of Kiribati while several had borrowed from their churches. The loans facilitated the women's purchase of handcarts and coolers. The women get ice from Te Mautari Fishing Company or from the Milk Fish Farm in Temaiku. Some of the women interviewed borrowed equipment or paid a small fee for renting it from another household.

The time spent by the women selling fish varied greatly depending on the size and nature of the catch and how frequently their husbands fished. The sixteen women interviewed spent between 7-45 hours a week selling fish. Similarly their earnings varied from \$80-700 per week. The vendors mostly sold tuna, but flying fish, shark and a variety of reef and lagoon fish were also sold. The latter include: silver biddy, bonefish, trevally, emperor, oily fish. The preferred market species are tuna (skipjack and yellow fin), bone fish, lumpback, red snapper, spangled emperor and flying fish (Kirk 1990:6). The women interviewed in Betio, the most densely

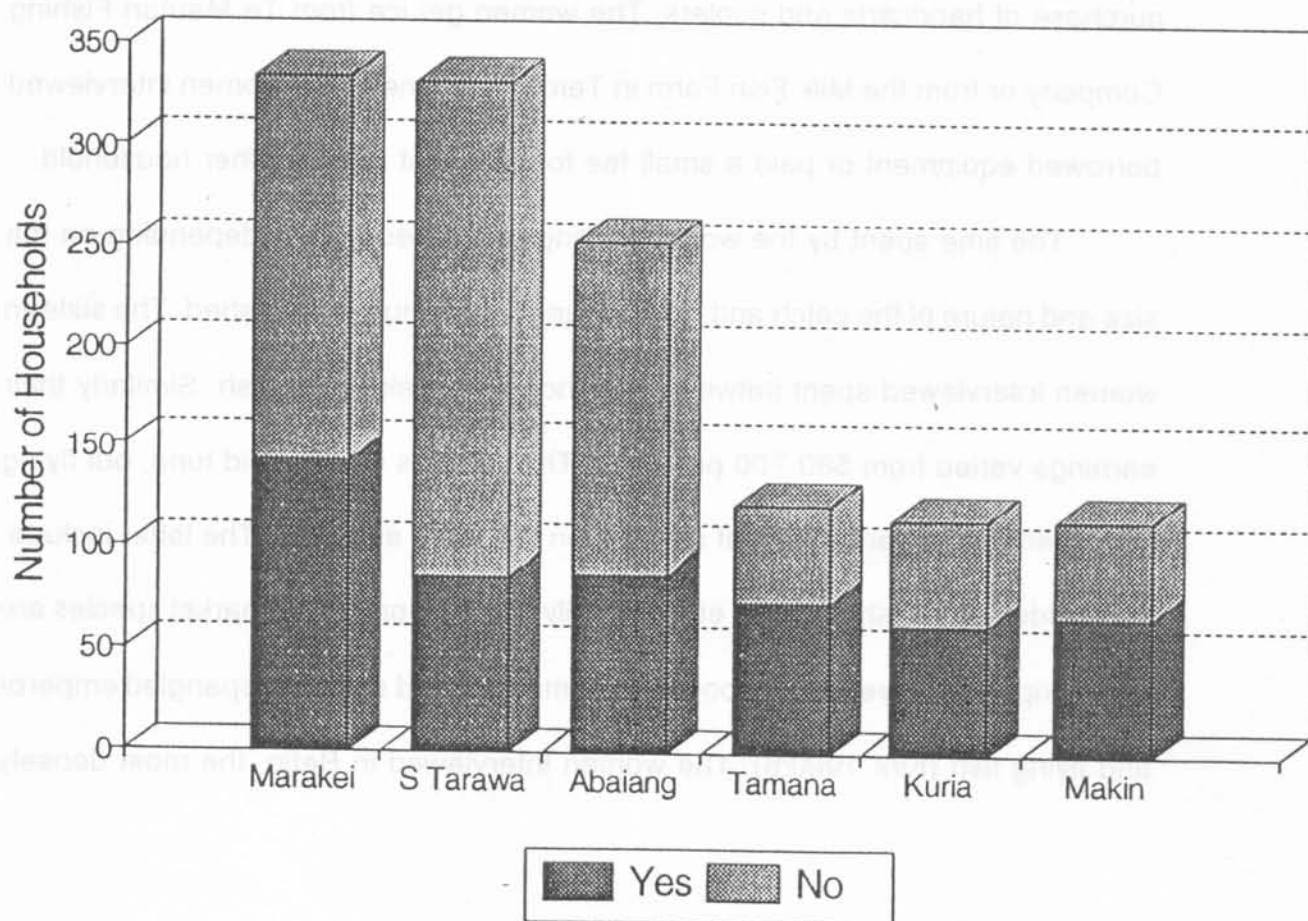


populated area of South Tarawa, said that their biggest problem was that there was not enough fish and they couldn't meet the demand. While in other areas of South Tarawa such as Bariki and Bikenibeu several women found that they had to occasionally lower their prices to clear fish. Loan repayment, petrol costs and household expenditures were covered by the earnings. The graph which follows is derived from this study and illustrates household involvement in the sale of fish.

GRAPH 6.4

## HOUSEHOLDS SELLING FISH

1991-1992



In the reef islands of Tamana, Kuria and Makin 58% of the households surveyed for the study sold fish. In Tamana fish was sold exclusively from the village marketing center - people didn't sell fish from their houses. This, perhaps, indicates the strength of earlier strictures against commercializing fishing. In Makin fish is sold exclusively from the seller's house while in Kuria fish is sold primarily from their house. In Marakei 39% of those interviewed sold fish - mostly from their houses.

#### INCOME EARNED FROM SELLING FISH

Data collected for this study found that reported income from selling fish was considerably lower than income reported in earlier studies.

**TABLE 6.3**  
**PERCENTAGE OF HOUSEHOLDS EARNING LESS THAN**  
**A\$10.00 WEEKLY FROM FISHING (1991-1992)**

Islands	Households surveyed	Households earning less than A\$10	% of households
Tamana	121	112	92.5%
Makin	114	82	72%
Kuria	115	69	60%
Marakei	334	268	80%
Abaiang	252	202	80%
S. Tarawa	331	266	80%

{Based on earnings derived from the fishing undertaken the week preceding the survey.}

In contrast to the above data, survey data in 1984 reported mean incomes from fishing were approximately \$A25 a week per household (Marriott 1984:12-18 and Mees:1984:5-7) or A\$1200 a year. In 1985 it was reported that South Tarawa households could earn A\$500 to A\$1800 a year from part-time fishing. However, these figures were skewed by a few large commercial fishing operations engaged in full time commercial fishing which could gross A\$25-50,000 a year (Ifeka 1986:8).

The data collected in this research indicates that most households reported that they made less than A\$10 per week from fishing. The significant difference between the two sets of data may be explained, in part, by recent government efforts to collect taxes more systematically. Such efforts may have affected responses to questions concerning income. In Abaiang seaweed sales would, as mentioned, overshadow the importance of fish sales while in South Tarawa employment opportunities may outweigh the importance of fish sales in many households. The lower figures may also reflect reports that income has been dropping in Kiribati over the past fifteen years. The data below indicates the percentage of households which derive their main source of cash from fishing.

**TABLE 6.4**  
**PERCENTAGE OF HOUSEHOLDS WHICH DERIVE**  
**THEIR MAIN SOURCE OF CASH FROM FISHING**

1991-92

Islands	Households surveyed	Households/ cash	% of households
Tamana	121	2	1.5%
Makin	114	34	30.0%
Kuria	115	38	33.0%
Marakei	334	42	12.5%
Abaiang	252	28	11.0%
S. Tarawa	331	40	12.0%

{Based on earnings derived from the fishing undertaken the week preceding the survey.}

There is some variation in those households surveyed which derive their main source of income from fishing. With the exception of Makin and Kuria, such income appears inconsequential in most households. Again it is important to note that this data cannot be considered representative. It does, however, indicate that fishing while important, is just one of several strategies that households pursue in order to meet subsistence and cash needs. In this study an effort was also made to determine who manages the earnings from the sale of fish. The variation among

the islands shows that there is no single domestic configuration regarding management of the earnings. In Tamana, for example, there would appear to be a greater degree of mutuality with the husband and wife handling money together in 40% of the households. In Kuria and in Abaiang women manage earnings more often than in the other islands surveyed.

TABLE 6.5  
MANAGEMENT OF EARNINGS FROM SALE OF FISH  
1991-92

Island	Household responses*	Husband	Wife	Others	Boat Owner	H/W**
Tamana	74	33.8%	24.3%	1.35%	0	40.5%
Makin	66	31.8%	56.0%	4.5%	0	7.5%
Kuria	59	23.7%	66.10%	0	0	10.16%
Marakei	54	24.0%	55.5%	1.85%	7.4%	11.1%
Abaiang	164	22.0%	73.7%	0.6%	0	3.6%
S. Tarawa	53	22.6%	28.3%	5.6%	33.9%	9.4%

\* This column indicates the number of households responses

\*\* Husband and wife

The variation in the data reflects the difficulty in generalizing about gender relations in fishing households. However, in at least four of the six islands

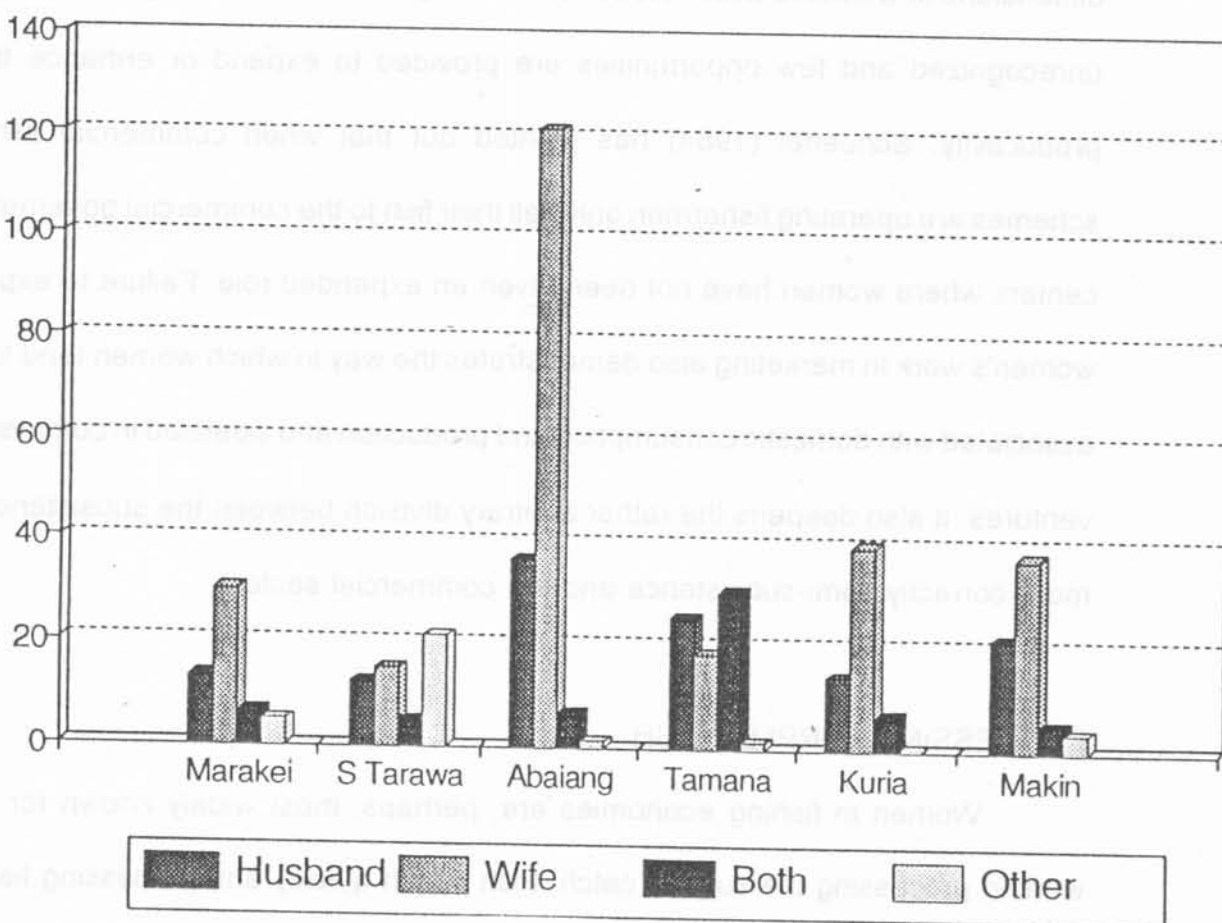
surveyed women managed the earnings in 55-73% of the households surveyed.

The management of the earnings is also depicted in the graph which follows.

GRAPH 6.5

MANAGEMENT OF THE EARNINGS FROM FISH SALES

1991-92



The sale of fish in the Outer Islands serves to redistribute income and facilitate the circulation of cash and a flexibility in household labour allocation.

Women's work is an essential part of such household strategies to extend cash earning opportunities. In many of the villages I visited a family would buy fish in order to spend a day cutting copra. Allowing a flexibility in household labour allocation and maximizing subsistence strategies at household levels are crucial dimensions of women's work. However, women's work in marketing fish is largely unrecognized and few opportunities are provided to expand or enhance their productivity. Schöeffel (1984) has pointed out that when commercial fishing schemes are operating fishermen only sell their fish to the commercial government centers where women have not been given an expanded role. Failure to expand women's work in marketing also demonstrates the way in which women tend to be associated with domestic consumption and production and sidelined in commercial ventures. It also deepens the rather arbitrary division between the subsistence or more correctly semi-subsistence and the commercial sectors.

#### PROCESSING SURPLUS FISH

Women in fishing economies are, perhaps, most widely known for their work in processing the surplus catch. Fish perish quickly and processing fish for future use or sale is an important part of the household economy (Ifeka 1986:11). Women usually play some role in processing fish for future use or sale. Women have developed traditional techniques for preserving fish so that it can be stored for use when fresh fish is not available. In Kiribati, women usually salt and sun-dry

the surplus catches as well as shellfish, seaworms and octopus which they catch (Schoeffel 1984:166). Processing flying fish, *te onauti*, which are seasonal is particularly important. They are fished in abundance between April and September in the northern and central islands and from October to March in the southern group of islands.

Turbott (1950) reported that it was customary on some northern islands for half of an evening's catch of flying fish to be sun dried and salted for future use. The salted fish were consumed at home, given to poorer relations, sent to children at school or sold (Turbott 1950:359). Fish is still salted on the Outer Islands for all of these purposes. Salted fish from the Outer Islands is also sold in South Tarawa through kin networks, or through informal cooperatives known as *mronron* which are often church based (Kirk 1990:70). Fish processing is also part of social production as women dry prized delicacies for events in the *mwaneba* (Ifeka 1986:11).

Salting and sun drying are the usual methods for preserving fish, as no ice or refrigeration are available on the Outer Islands and the scarcity of firewood often precludes smoking fish. However, fish such as *te aua* are caught by women in Butaritari, smoked over a low smoldering flame and then sundried for 3-5 days (Ifeka 1986:13). Fish is also preserved in a very salty brine and kept in a container for several weeks. The usual process for salting large fish such as tuna is as follows: the fish head is removed; the fish is then gutted, washed and split and



incisions are made - one inside and one outside. The fish is salted by rubbing the two halves together, the fish is put in a basket to allow better penetration of the salt and it is then sun dried on lines or bushes or logs where the air circulation at the skin surface has the effect of providing heat by convection and removing water (Ifeka 1986:12, Catala 1950:148). When the fish is dried it is hard and dense and can, if well preserved, be edible from 2-24 months (Ibid). In households I visited on the reef island of Nikunau, I was told that salt fish is most often kept for up to six months and that it has been the most important source of food during the 3-5 month period of westerly winds. The data from this study given below indicates the extent to which households still process fish in this way.

**TABLE 6.6**  
**HOUSEHOLDS PROCESSING FISH**  
**(1991-92)**

Islands	Households surveyed	Households processing	% of households
Tamana	121	108	89.0%
Makin	114	22	19.0%
Kuria	115	58	50.5%
Marakei	334	99	30.0%
Abaiang	252	54	21.0%
S. Tarawa	331	17	5.0%



Woman dries fish for future use or sale.

The data indicates that the amount of processing still undertaken differs varies. The reef island of Tamana had the highest percentage of households preserving fish while South Tarawa had the lowest rate. In South Tarawa there is a much broader scope for buying and selling fresh fish year round. The lower level of processing in islands which have lagoons such as Abaiang and South Tarawa reflects their reliance on shellfish and other seafood resources which are readily available there. In Marakei the abundance of land crabs may not necessitate as much processing. Processing was and continues to be especially important on small reef islands such as Tamana. There fish processing has been essential for survival because of the lack of land on which to grow crops, the periodic droughts which decimate food supplies and the frequent rough weather which prevents fishing.

#### SHARING THE SURPLUS : *TE KAUNONO* EXCHANGE

It has been argued throughout this paper that women's fishing in the reefs and lagoons, as well as their work in processing and marketing renders their work crucial for the domestic economy. Women make an essential contribution to social production and the reproduction of culture by participating, for example, in local food exchanges such as *te kaunono*. Data derived from this survey again indicates a wide range of variation in the practice of *te kaunono*. It has also been argued

that women make an essential contribution to social production and the reproduction of culture by participating in food exchanges. More than half of the reef island households still regularly participate in such exchanges as the table below indicates.

**TABLE 6.7**  
**HOUSEHOLDS SURVEYED**  
**PARTICIPATING IN THE *TE KAUNONO* EXCHANGE**  
**1991-1992**

Islands	Households surveyed	Households participating	% of households
Tamana	121	107	88.0%
Makin	114	23	20.0%
Kuria	115	67	58.0%
Marakei	334	88	26.0%
Abaiang	252	49	19.0%
S. Tarawa	331	18	5.4%

The exchange is most often done on a reciprocal basis among kin and neighbours.

The exchange has significance in facilitating and maintaining kinship and social networks which have long been important in the fragile atoll environment. The variations among the islands may also be explained, in part, by the same reasons

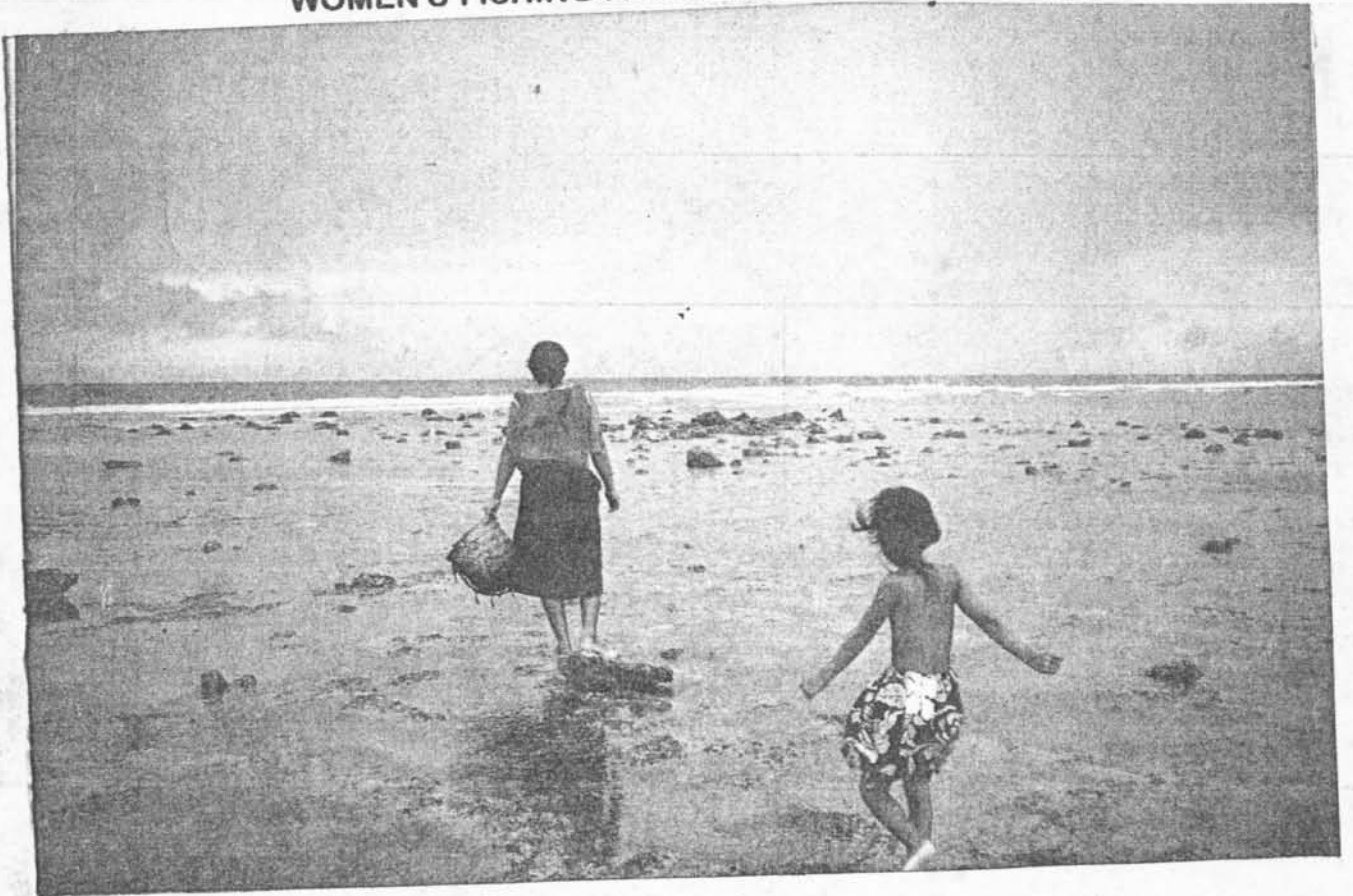
given for the variations in processing given above - such as the relative abundance of shellfish in the lagoon islands. The practice may well be declining with the deepening of the cash economy and the increasing availability of and reliance on imported food. In South Tarawa only a small percentage of the households surveyed reported participation. This suggests that fewer fish are available for social purposes and as such may be seen as a decline in meeting customary obligations in the more "urbanized" areas. However, the transfer of cash to family members is more common and it has already been argued that the prevalence of such remittances may well represent a new form of redistribution among kin groups and neighbours. The cash provided by working family members is often used to purchase fish or tinned food.

The exchange has a long standing significance in facilitating and maintaining kinship and social networks which have long been important in the fragile atoll environment. According to Teiwaki (1988) in Kiribati there is a customary obligation on the part of children to give food to their parents as a token of support and respect for the elderly people. If the grandparents are alive, the grandchildren and their parents have an obligation to provide fish to them after each fishing expedition. These customary gestures continue to be important in Kiribati culture because "an offspring who has no such inclinations can be excluded from a share of the family land" (Teiwaki 1988:9).



**SUBSISTENCE, SURPLUS AND SEAWEED:**

**WOMEN'S FISHING AND MARINE WORK IN KIRIBATI**



**M. JEAN MITCHELL**

December, 1994

## SEAWEED PRODUCTION: WOMEN'S WORK IN THE EXPORT ECONOMY

The Island of Abaiang has been the center of a successful experiment in seaweed (*eucheuma*) cultivation for export. *Eucheuma* seaweed is cultivated to extract carrageenan which is used in food processing. The sheltered lagoons in Kiribati are suitable for *eucheuma* production for it "grows well in areas where the seawater is recently oceanic in origin and circulated or agitated through tidal or wind driven motions, where wave action is non-destructive" (Hviding 1988:104). *Eucheuma* is potentially an important export commodity, however, seaweed, like all such export commodities is prone to world price fluctuations and destruction due to weather. This was demonstrated in late 1991 and early 1992 when fierce "westerly winds" virtually destroyed the entire seaweed production in Abaiang and the producers had to begin cultivation again. During my last visit to Abaiang in 1992, production on the main island was still low after the devastating storm.

The project started in 1985 in the village of Koinawa in Abaiang and in 1989 cultivation started in other villages. Abaiang produced 70% of the total production of approximately 700 metric tons of seaweed in 1991. On Abaiang, thirteen out of the sixteen villages grow seaweed. The villages of Tebanga, Tabontebike and Ribona cannot grow seaweed because of the strong current which adversely affects the cultivation in their adjacent lagoons. The largest sea



weed producing villages are Nustava, Borotiam, Koinawa and Nuotaea. The latter is an islet of Abaiang and it has the most productive seaweed cultivation and many of the 65 households have as many as 3 farms. Based on the Abaiang experience a national export company is now set up and seaweed will be grown for export on all the islands in the Gilbert group which have lagoons. All members of the household - men, women and children assist in the household's seaweed production. Women are very active in all phases of the seaweed production, including the planting, harvesting, drying and selling of seaweed. The survey data on women's fishing revealed that 80% of the households surveyed on the island of Abaiang cultivated seaweed. In 89% of these households women worked in seaweed production. Women often work between 4-6 hours a day undertaking the required work which can only be done during low tide in the lagoons.

#### CULTIVATING SEAWEED

There are a number of steps involved in seaweed production and male and female labour are utilized at different stages. *Eucheuma* seaweed is grown in about 1.3 meters of water on lines pegged in the sand. It is harvested every 10 weeks, after which it is dried in the sun and baled (Schoeffel 1984). Seaweed cultivation includes the following steps. Preparation: Men go to the bush and cut sticks and place them in the lagoon with the use of a crowbar. The monolines are stretched between the lines and the women prepare the ties for the seedlings by

using string obtained from pulling rice bags apart. Planting: The next step is getting the seedlings and tying them on the lines. Each line of about 4-6 meters usually has 30 small plants. This is generally done by women and they usually plant 10 lines a day. Maintenance: The growth depends on how good the lagoon area is; if the weather has been conducive to growth and if the seaweed has been clear of fungal growths or fish predators. A productive seaweed farm requires daily and patient work. Harvesting: The harvest take place about every 2-3 months and both women and men harvest the seaweed. Cutting the plants for harvest necessitates a new round of planting - attaching the seedling to the lines. Drying: The next step involves drying which is usually done by women. Three to five days of good weather are required for drying. Drying is the most important step for ensuring that the quality of the seaweed is good. The seaweed is usually dried on the ground around houses and then stored for fortnightly collecting. Selling: The seaweed is sold at warehouses by both women and men. Previously there was an irregular marketing system but a new purchasing system is managed by Ms. Teneaba who works for the Atoll Seaweed Company. The buying price in 1992 was \$.33 a kilo.

The new source of cash is spent on the usual subsistence and cash needs as well as social and village obligations including church, family, school fees and village projects such as youth groups. The Island Council also has a bank for savings and loans for islanders. The success of the seaweed project and the prospects of cash have attracted wide participation in this export venture. However,

dependence on seaweed production could lead to food insecurity if household fishing is neglected for seaweed like all export cash crops. is subject to adverse weather conditions and fluctuating international prices.

The introduction of seaweed cultivation followed the conventional pattern of cash crop introduction. The information and techniques were provided to men by men (fisheries officers) and then later disseminated to women. Women, as this study indicates are playing an important role in seaweed production and as noted above a woman is managing the work of the Atoll Export Company in Abaiang.

#### CONCLUSION

The trade in fish both redistributes existing income and facilitates flexibility in household labour allocation. Allowing flexibility in household labour allocation and maximizing subsistence and cash generation strategies at household levels are crucial dimensions of women's work. Women's work in marketing fish is often unrecognized and few opportunities are provided to expand or enhance their productivity. Seaweed production, initiated with government assistance, represents I-Kiribati women's participation in the export economy. The social relations of fishing are often managed by women who play a key role in the distribution of surplus fish through exchange or gifts. Processing and preserving fish have been and continue to be important strategies which have constituted the protection from the perilous sea offered by women.

## CHAPTER SEVEN

### CONCLUSION

Despite rapid change, fishing remains central to life in Kiribati. The data from this study suggests that more than 85% of the Kiribati households undertake some kind of fishing. This research located women's fishing in Kiribati in a broad social, economic, ecological and cultural context, arguing that the material as well as the symbolic and expressive dimensions of fishing must be understood. Through an analysis of fisheries production in Kiribati, the central importance of the reef and the lagoon or more generally the inshore fishery was underlined. This analysis served to underscore a key argument in this paper - that the ocean and ocean fishing are often "over-represented" thereby undermining the value of inshore fishing and women's contribution to inshore fishing production. While efforts intensify to develop and to commercialize the fisheries, a significant number of Kiribati remain dependent on collecting shellfish in order to meet at least part of their subsistence needs. The inshore fishery which remains crucial for subsistence and cash generation is heavily utilized in some areas, particularly South Tarawa. This pressure on the inshore may well intensify due to a number of complex factors. Such factors discussed in this research study include: the stagnation in real income; the rapid population growth; the continuing migration to South Tarawa; the erosion of traditional resource management strategies; and the increasing numbers of households (40%) which do not own canoes or gear which results in the

frequent sharing of nets and other gear for inshore fishing. Given this context the role subsistence fishing and particularly shellfish in ensuring household food security should not be underestimated. However, shellfish as a marine resource has been undervalued in most parts of the world and women's association with its harvest has contributed to or compounded that devaluation. Given the pressure on marine resources in the inshore fishing sector, there is a urgent need to address the problems associated with its use. Strategies to conserve inshore marine resources must recognize women's key work in this area as well as the complex ways in which I-Kiribati people regard and utilize the inshore.

I have attempted to show the way in which the key themes of subsistence and cash; the reef and ocean; peril and protection are interwoven in the lives of men and women in Kiribati. The household cash earning and subsistence strategies and the division of labour within fishing societies such as Kiribati, it has been suggested, are more complex than descriptions of men's work alone convey. It is, therefore, important to analyze the contributions made by women in fishing economies. This study underlined the diversity of household subsistence and cash generation strategies. There are, it was argued, many such configurations and the importance of women's marine related work varied from household to household and from island to island. Households have employed a multi-occupational strategy to address the uncertainty so characteristic of fishing economies. Women's marine work is essential in reducing risks and offering protection from the peril of the sea

and its uncertain yield.

Women's main fishing related activities in Kiribati were summarized by three categories - subsistence, seaweed and surplus. The study found that women do indeed, significantly and regularly contribute to meeting the needs of the household through varied reef gleaning activities and their lagoon and reef fishing. Women's fishing methods included *urakaraka*, a type of reef gleaning practices in the southern islands of Arorae and Tamana; collecting *te m'antai* (land crabs) in the northern islands of Makin and Butaritari; collecting more than a dozen species of shellfish; digging for seaworms; capturing octopus and small eels; fishing with gillnets in the lagoons; collecting bait fish; using the rod and line on the reef and night fishing (*kibe*). Women, then, are central to and irretrievably linked to subsistence life in Kiribati. At the same time, it was argued that women play an important role in the cash sector through the marketing of fish and seaweed production. Women have become very active in the export production of seaweed, although they have not been given any specific training. Women have also been engaged in selling fish in the domestic economy however, that role has not been expanded at the commercial government centres. This study has argued against assumptions about the definitive split between the cash and subsistence which tends to relegate women to the subsistence and men to the cash sector and to reinforce the treatment of women as a homogenous unit.

Women's control of marine resources, it was argued, is often exercised on

land for women handle the fish surplus at household level. When the fish are landed, it is often women who decide on who gets what; how much is sold; what is eaten; what is given away and to whom. The sale of fish, particularly in the Outer Islands facilitates the circulation of cash and a flexibility in household labour allocation. Women's work significantly extends household subsistence and or cash earning opportunities. In many of the villages I visited a family would buy fish or the women and children would collect shellfish in order to have most of the day available for cutting and "making" copra. Allowing flexibility in household labour allocation and maximizing subsistence strategies at household levels are crucial dimensions of women's work. This research has also found that despite changes in the villages in the Outer Islands as well as in the more urbanized South Tarawa people continue to be "interlocked through a multiplicity of social ties" (Ifeka 1987:3). While fish is widely bought and sold, many households fish to meet their own subsistence needs as well as to meet their social obligations by giving fish to relatives and neighbours. The social practices of *te bubuti* and *te kaunono*, are still powerful in forging and maintaining the ties that bind in Kiribati. It became apparent to me that women's varied marine related work is essential in the social relations of production and the reproduction of culture. Evident, for example, in daily local events such as the *te kaunono* exchange.

There are, it was suggested, many complex issues embedded in the perception that "women don't fish". The interface between subsistence and gender

ideology in fishing economies emerges as a powerful prism to examine some complex systemic relationships between work, gender, power and prestige (Nadel-Klein and Davis 1988). It is in such areas of social analysis that the connections between the symbolic or cultural aspects of social life and the social and economic conditions under which life is lived can be most clearly recognized and investigated (Moore 1988:41). It is in this context that the symbolic and expressive domains were briefly analyzed. It has been argued that the global strategies employed by I-Kiribati such as migrant male labour and selling foreign fishing licenses, represent the historic positioning of Kiribati as a source of labour and resource extraction. The impact of these global strategies powerfully shape the way gender and domestic configurations work and are being reworked in Kiribati. From this viewpoint what women and men come to mean to each other in the domestic as well as in the public domains, and how they perceive the household, are key aspects of their cultural history which need to be examined (Ong 1987:7). Understanding the nexus of the local and global encounter in newly independent nations such as Kiribati remains important. In study noted the ways in which global strategies such as migrant labour and the erosion of traditional conservation strategies precipitated by colonialism and the cash economy continue to shape day to day life.

It was suggested that the use of western constructs have "hardened" the division between the reef and ocean; male and female fishing and cash and



subsistence in Kiribati. This paper has attempted to show that rather than a rigid division, there is a continuum between the reef and ocean, male and female fishing and cash and subsistence. Such a perception is profoundly different from the usual accounts which invariably focus on men's ocean fishing. It has been observed, for example, that women and men often fish together on the reef in order to meet their subsistence and cash needs. The dichotomies noted above which are imposed externally miss out on the ambiguous and complex nature of everyday life and its manifestations in the material and symbolic realms of fishing. At the moment, it is extremely important to examine the role of such western constructs in fueling a narrative present in the current development discourse which often continues to sideline women's productive role in fisheries. So much of development is still informed by outmoded modernization theory that cultural differences and practices are persistently seen as obstacles to development.

Many research methods and the use of unexamined western concepts preclude, from the outset, the inclusion of women's productive work or women's voice in the research findings. All too frequently the complex social and cultural dimensions of fishing are neglected. Research which focuses on the collection of quantified data cannot grasp the important insight that cultural knowledge can be represented only through "action, enactment or performance" (Fabian 1990). The complex and changing nature of women's fishing in Kiribati is difficult to capture and to convey but nonetheless, is integral to understanding that fishing culture and

economy. In writing up this research I was attempting to grapple with the analytical invisibility as well as the empirical gaps in our knowledge of women's fishing. Understanding the categories used to describe women's work is, in the end, as important as knowing exactly how much fish was caught in a particular household last week. Certainly there is a need for more research on the social and cultural dimensions of fishing.

This research paper, then, is an exploratory and incomplete effort to understand women's fishing in Kiribati. It was argued that women's productivity and the social and cultural dimensions of their fishing related work have frequently been inadequately analyzed in both the symbolic and material realms of fishing. Because the sea is so ubiquitous - because it occupies so much space in Kiribati, there are few if any women who are not affected by the sea. The ocean looms large in the lives of women in Kiribati - whether it is in her daily subsistence activities on the reef or the lagoon; in her processing of fish to ensure safety and subsistence; in her selling of fish to acquire some cash; in her growing of sea weed, one of the country's fledgling export strategies or her husband's, or in her brother's or her father's long absence at sea in the German Merchant Marine. Women's fishing and their daily activities which are enmeshed in gender constructions and a changing political economy in the fragile atolls of Kiribati demand a central place in any analysis of fishing.

## BIBLIOGRAPHY

- Acheson, James, M.  
(1981) "Anthropology of Fishing." Annual Review of Anthropology 10:  
275-316.
- Alexander, A.B.  
(1901) "Notes on the Boats, Apparatus and Fishing Methods Employed by  
the Natives of the South Sea Islands and Results of Fishing Trials" from  
The Albatross. United States Fish Commission.
- Bindman, Dan  
(1992) "The Way They Are." Islands Business Pacific. Suva, Fiji.
- Bolton, Lesley  
(1982) "Shellfish Harvesting in Tarawa Atoll Lagoon, Kiribati." Atoll  
research Unit, Tarawa, Kiribati unpublished manuscript.
- Casteel, Richard W., and Quimby, George I.  
(1975) Maritime Adaptations in the Pacific. Paris: Mouton Publishers .
- Catala, R.  
(1957) "Report on the Gilbert Islands: Some Aspects of Human Ecology."  
Atoll Research Bulletin No.59 1-87.
- Chapman, Margaret D.  
(1987) "Women's Fishing in Oceania." Human Ecology 15 (3) 267-287.
- Cole, Sally  
(1991) Women of the Praia. Princeton: Princeton University Press.
- Commonwealth Secretariat  
(1990) "Role of women in Small-scale Fisheries in the South Fisheries."  
Report of a Consultation held at the University of the South Pacific, Tonga.
- di Leonardo, Micaela  
(1991) "Introduction: Gender, Culture, and Political Economy" in Gender  
at the Crossroads of Knowledge. Edited by di Leonardo. Berkeley:  
University of California Press.

- Escobar, Arturo  
(1991) "Anthropology and the Development Encounter: The Making and Marketing of Development Anthropology." *American Ethnologist* 18(4).
- Evernden, Neil  
(1993) *The Natural Alien Humankind and Environment*. Toronto: University of Toronto Press. (second reprint).
- Evernden, Neil  
(1992) *The Social Creation of Nature*. Baltimore: The John Hopkins University Press.
- Etienne, M., and Leacock, Eleanor. Eds.  
(1980) *Women and Colonization*. New York: Praeger.
- Fabian, Johannes  
(1990) *Power and Performance: Ethnographic Explorations through Proverbial Wisdom and Theater in Shaba, Zaire*. Madison: The University of Wisconsin Press.
- Fairbairn, Te'O Ian  
(1992) *The Kiribati Economy: Development Options and Prospects for Economic Growth*. Canberra: Australian International Development Assistance Bureau.
- Ferguson, James  
(1990) *The Anti-Politics Machine: "Development", De-politicization, and Bureaucratic Power in Lesotho*. Cambridge: Cambridge University Press.
- Firth, Raymond  
(1975) *Malay Fisherman: Their Peasant Economy*. New York: Norton.
- Firth, Raymond  
(1984) "Roles of Women and Men in a Sea Fishing Economy: Tikopia Compared with Kelantan" in *The Fishing Culture of The World Studies in Ethnology, Cultural Ecology and Folklore*. Edited by Bela Gunda. Budapest: Akademiai Kiado.
- Geddes, W.H., et al.  
(1982) *Atoll Economy: Social Change in Kiribati and Tuvalu*. Canberra: The Australian National University Press.

Government of Kiribati

Census of Population (1978) Ministry of Home Affairs, Bairiki, Tarawa.

Census of Population (1985) 1985 Population Census. Preliminary Results Bulletin No. 2/55. Statistics Office, Ministry of Finance, Bairiki, Tarawa.

Census of Population (draft) (1990) Ministry of Home Affairs, Bairiki, Tarawa.

(1992) Draft Planning Document, Department of Home Affairs, Tarawa.

Grimble, Arthur Francis

(1952) A Pattern of Islands. London: John Murray.

Grimble, Arthur Francis

(1989) Tungaru Traditions: Writings on the Atoll Culture of the Gilbert Islands. Edited by H.E. Maude, Honolulu: University of Hawaii Press.

Harries-Jones, Peter

(1994) A Recursive Vision: Ecological Understanding and Gregory Bateson. Toronto: University of Toronto Press.

Hobart, Mark

(1993) An Anthropological Critique of Development. London: Routledge.

Hviding, Edvard

(1988) "Marine tenure and Resource Development in Marovo Lagoon, Solomon Islands." Report presented to South Pacific Forum Fisheries Agency, Honiara, Solomon Islands.

Ifeka, Caroline

(1986) "Why Women Count: Prospects for Self-Reliant Fisheries Development in the South Pacific compared to the Indian Ocean." Unpublished Manuscript.

Johannes, R.E.

(1978) "Traditional Marine Conservation Methods in Oceania and Their Demise." Annual Review of Ecological Systems.

Johannes, R.E.

(1981) Words of the Lagoon. Berkeley: University of California Press.

Keesing, Roger

(1992) "A Tin with the Meat Taken Out: A Bleak View of Unsustainable Development in the Pacific." A paper prepared for CASA annual meeting held at York University.

Kirk, M.C.

(1990) "Report on a Visit to the Outer Islands Commercial Fisheries Trials." Kiribati. Natural Resources Institute, Chatham, England. Unpublished report.

Koch, Gerd

(1986) The Material Culture of Kiribati. Suva: Institute of Pacific Studies, University of the South Pacific.

Lal, P., and Slatter, C.

(1982) "The Integration of Women in Fisheries Development in Fiji." Fisheries Division, Ministry of Agriculture and Fisheries, Fiji, and the University of the South Pacific, Suva.

Lambert, Bernd

(1975) "Makin and the Outside World" in Pacific Atoll Populations. Edited by Vern Carroll. Association for Social Anthropology in Oceania. Monograph number 3. Honolulu: The University Press of Hawaii.

Lawrence, Roger

(1983) Atoll Economy: Social Change in Kiribati and Tuvalu and Tamana. Canberra: The Australian National University Development.

Lockman, Victoria; Harding, Thomas; and Wallace, Ben

(1993) Contemporary Pacific Societies. Englewood Cliffs: Prentice Hall.

Lundsgaarde, Henry Peder

(1966) "Cultural Adaption in the Southern Gilbert Islands." Manuscript published by the Department of Anthropology, University of Oregon, Eugene, Oregon.

Luomala, Katherine

(1984) "Sharks and Shark Fishing in the Culture of Gilberts, Micronesia." Bela Gunda, editor, The Fishing Culture of the World Studies in Ethnology, Cultural Ecology and Folklore. Volume 11 1203-1250.

- (1980) "Some fishing Customs and beliefs in Tabiteuea (Gilbert Islands)." *Micronesia Anthropos* 75 523-558.
- Malinowski, B.  
(1918) "Fishing and Fishing Magic in the Trobriand Islands." *Man* 18(53) 87-92.
- Marriott, S.  
n.d. "The South Tarawa Artisanal Fishery". Tarawa: Fisheries Division.
- Marriott, S.P.  
(1981) "The South Tawara Artisanal Fishery". Tarawa: Fisheries Division of ministry of Natural Resource Development.
- Marriott, S.P.  
(1984) "Rural Fisheries in Kiribati (Framol Surveys of Abemama, Kuria and North Tarawa)". Tarawa: Fisheries Division of ministry of Natural Resource Development
- Matthews, Elizabeth  
(1991) "Women and Fishing in Traditional Pacific Island Cultures." South Pacific Commission/Fisheries, Information Paper Number 14. Presented at the twenty-third Regional Technical Meeting on Fisheries, Noumea, New Caledonia, 5-9 August 1991.
- Maude, H.E.  
(1980) *The Gilbertese Maneaba*. Suva: The Institute of Pacific Studies, Kiribati extension Centre, University of the South Pacific.
- McCay, Bonnie J.  
(1993) "Fisherwomen, Fisheries Policy, and Maritime Anthropology." *Reviews in Anthropology* 22 77-89.
- McCoy, Mike A.  
(1991) "Survey of Safety at Sea Issues in Pacific Island Artisanal Fisheries." FAO/UNDP Regional Fishery Support Programme, Suva Fiji.
- McCreary, J.R., and Boardman, D.W.  
(1968) "Some Impressions of Social Change in the Gilbert and Ellice Islands." A report to the Resident Commissioner, Department of Social Science, Victoria University of Wellington.

- Mees, C.C.  
(1984) "The Fisheries of Tamana and Arorae." Tarawa: Government of Kiribati.
- Mees, C.C.  
(1985a) "The Fisheries of Butaritari Island." Tarawa: Government of Kiribati, Fisheries Division, Ministry of Natural Resource Development.
- Mees, C.C.  
(1985c) "The Fisheries of Marakei Island." Tarawa: Government of Kiribati, Fisheries Division, Ministry of Natural Resource Development.
- Mees, C.C., and Yeeting, B.M.  
(1985) "Fisheries Data Collection on South Tarawa. A 4-month summary of Data for the months of Sept-Dec 1985", Tarawa: Fisheries Division, Ministry of Natural Resource Development, Kiribati.
- Mees, C.C.; Yeeting, B.M.; and Taniera, T.  
(1988) "Small Scale Fisheries in the Gilbert Group of the Republic of Kiribati." Tarawa: Fisheries Division, Ministry of Natural Resource Development, Kiribati.
- Moore, Henrietta  
(1988) *Feminism and Anthropology*. Oxford: Polity Press.
- Moss, Madonna  
(1993) "Shellfish, Gender, and Status on the Northwest Coast: Reconciling Archeological, Ethnographic, and Ethnohistorical Records of the Tlingit." *American Anthropologists* 95 (3) 631-652.
- Nadel-Klein, Jane, and Davis, Dona Lee, editors  
(1988) *To Work and To Weep. Women in Fishing Economies*. St. John's: Institute of Social and Economic Research, Memorial University, Newfoundland.
- O'Brien, Denise  
(1984) "Women Never Hunt: The Portrayal of Women in Melanesian Ethnography" in *Rethinking women's Roles: Perspectives from the Pacific*. Denise O'Brien and Sharon W. Tiffany, editors. Berkeley: University of California Press.



- Ong, Aihwa  
(1987) *Spirits of Resistance and Capitalist Discipline: Factory Women in Malaysia*. Albany: State University. New York Press.
- Ortner, S.  
(1974) "Is Female to Male as Nature is to Culture?" in M. Rosaldo and L.Lamphere (eds) *Woman, Culture and Society*. Stanford: Stanford University Press.
- Pollnac, Richard B.  
(1984) "The Division of Labour by Sex in Fishing Societies." Anthropology Working Paper, Number 44. International Center for Marine Resource Development, University of Rhode Island.
- Ralston, Caroline  
(1992) "The Study of Women in the Pacific" in *Contemporary Pacific* 2 (1) 162-165.
- Ram, Kalpana  
(1991) *Mukkuvar Women. Gender, Hegemony and Capitalist Transformation in a South Indian Fishing Village*. Sydney: Allen & Unwin.
- Randall, J.E.  
(1955) "Fishes of the Gilbert Islands" *Atoll Research Bulletin* Number 7.
- Rodman, Margaret  
(1989) *Deep Water. Development and Change in Pacific Village Fisheries*. Boulder: Westview Press.  
  
(1993) "Keeping Options Open: Copra and Fish in Rural Vanuatu." Victoria Lockman, et al., editors. *Contemporary Pacific Societies*. Englewood Cliffs: Prentice Hall.
- Schoeffel, Penelope  
(1983) Report on Fisheries in Kiribati. (Unpublished).  
  
(1984) "Women in the Fisheries of the South Pacific" in *Women in Development in the South Pacific*. Edited by H. Hughes. Canberra: Development Studies Centre.

(1992) "Women in Fisheries in the Pacific Islands: A Retrospective Analysis." Unpublished.

Schweitzer de Grys, Mary

(1988) "Does Absence Make the Heart Grow Fonder Or Only the Influence Stronger?" To work and To Weep. Women in Fishing Economies. Nadel-Klein and D.Davis, editors (1988) St.John's Institute of Social and Economic Research, Memorial University, Newfoundland.

Slatter, Claire

(1992) "Women in Fisheries in the Pacific: Reappraising the Problem and Exploring Prospects for a Future NGO Initiative". A discussion paper for the Cuso Meeting August 27-28 1992, Suva, Fiji.

Strathern, Marilyn

(1981) "Culture in a Netbag: The Manufacture of a Subdiscipline in Anthropology." *Man* 16(4), 665-688.

Strathern, Marilyn

(1984) "Domesticity and the Denigration of Women". in *Rethinking Women's Roles: Perspectives from the Pacific*. Denise O'Brien and Sharon W. Tiffany, editors. Berkeley: University of California Press.

Tebano, Temakei

(1985) "Atoll Environment in Kiribati." Atoll Research Unit, University of the South Pacific, Kiribati.

(1991) "Is it Development or Destruction? The Impact of Physical Innovations on Atoll Environment: Biological and Ecological Implications." Atoll Research Programme, University of the South Pacific, Tarawa, Kiribati.

(1992) "Marine Resource Management in Kiribati." Atoll Research Programme, University of the South Pacific, Tarawa, Kiribati.

Teiwaki, Roniti

(1988) *Management of Marine Resources in Kiribati*. University of the South Pacific: Suva.

(1994) "Kiribati Political Reviews." *The Contemporary Pacific* 6 (1).

Tiffany, Sharon W.

(1984) "Introduction: Feminist Perceptions on Anthropology." Rethinking Women's Roles: Perspectives from the Pacific. Denise O'Brien and Sharon W. Tiffany, editors, Berkeley: University of California Press.

Turbott, I.G.

(1950) "Fishing for Flying Fish in the Gilbert and Ellice Islands." Journal of the Polynesian Society 59 (4), 349-367.

Warren Kay B., and Bourque, Susan C.

(1991) "Women, Technology, and International Development Ideologies: Analyzing Feminist Voices" in Gender at the Crossroads of Knowledge. Edited by di Leonardo. Berkeley: University of California Press.

Weiner, Annette

(1992) Inalienable Possessions. Berkeley: University of California Press.

Weiner, Annette

(1976) Women of Value, Men of Renown. Austin: University of Texas Press.

Yeeting, B.M.

(1985) "Fisheries Data Collection on South Tarawa." Tarawa: Fisheries Division, Ministry of Natural Resource Development, Kiribati.

Young, Kate, editor

(1988) Women And Economic Development. Paris: Berg/Unesco.

Zann, Leon

(1983) "Traditional Management and Conservation of Fisheries in Kiribati and Tuvalu Atolls" in Traditional Marine Resource Management in the Pacific Basin: An Anthology. K.Ruddle and R.E. Johannes, editors, UNESCO/ROSTSEA: Jakarta.

UNICEF

(1991) Draft Situational Analysis of Women and Children in Kiribati. UNICEF: Suva.

## Glossary of Fish Names

## Kiribati - Latin - English

Amori	<i>Gerres argyreus</i>	Pacific silver-biddy
Anaa	<i>Rhynchorhamphus goorgi</i>	Long-bailed garfish
Anaororo	<i>Euleptorhamphus viridis</i>	Long-finned g a r f i s h
Anoi	<i>Sphyrna lowini</i>	Hammerhead shark
Aonga	<i>Caranx lugubris</i>	Black trevally
Atiburu	<i>Euthynnus affinis</i>	Mackerel tuna
Ati	<i>Katsuwomis pelamis</i>	Skipjack tuna
Atunaomata	<i>Aetobatus narinari</i>	Spotted eagle-ray
Aua	Mugilidae (adult)	Mullet
Auan	<i>Spratelloides delicatulus</i>	Blue-backed sprat
Awai	<i>Aprion virescens</i>	Green jobfish
Awatai	<i>Chanos chanos</i> (adult)	Milkfish
Baara	<i>Acanthocybium solandri</i>	W a h o o , Jack-mackerel
Babu	<i>Carcharhinus dussumieri</i>	White-cheeked Whaler shark
Babutababa	<i>Aprionodon brevipinna</i>	Short-finned shark
Baibai	<i>Bothus panthius</i>	Leopard flounder
Baiburoburo	<i>Carcharhinus spallanzani</i>	Black-tipped shark
Baiura	<i>Thunnus albacares</i>	Yellowfin Tuna
Bakoa	<i>Ginglymostoma ferrugineum</i>	Tawny shark
Bakoa	<i>Triacnodon obesun</i>	White-tipped dog-shark
Baneawa	<i>Chanos chanos</i> (juveniles)	Milkfish
Baiainiua	<i>Sphyrna barracuda</i>	Barracuda
Baotaburimai	<i>Lutjanus semicinctus</i>	Half-banded sea-perch
Barebu	<i>Caranx sexfaciatus</i>	Great trevally
Barii	<i>Decapterus pinnulatus</i>	Mackerel soad
"	<i>Solar crumenophthalmus</i>	Purse-eyed sead
Baru	<i>Epenephelus flavocaeruleus</i>	Purple rock-cod
Baua	<i>Valamugil seheli</i>	Blue-spot mullet
Bauamaran	<i>Liza macrolepis</i> (juvenile)	Trochel's mullet
Bauataba	<i>Liza vaigiensis</i> (juvenile)	Diamond-scale mullet
Bawe	<i>Lutjanus vaigiensis</i>	Red-margin sea-perch
Baweina	<i>L. monstigma</i>	One-spot sea-perch
	<i>L. rufolineatus</i>	Rufous sea-perch

"	<i>L. russelli</i>	Moses perch
Beru	<i>Labroides dimidiatus</i>	Bridled beauty
Biti	<i>Paracirrhites forsteri</i>	Freckled hawkfish
Boingo	<i>Lutjanus coatesi</i>	Kelp sea-perch, Red bass
Bokaboka	<i>Naso unicornis</i>	Long-snouted unicorn-fish
Buari	<i>Gymnosarda nuda</i>	Dog-tooth tuna
Bubu	<i>Rhinocanthus aculeatus</i>	White-barred triggerfish
Bubutakataka	<i>Balistapus undulatus</i>	Vermiculated triggerfish
Bukitakeiau	<i>Plectropoma maculatum</i>	Coral-cod, leopard-cod
Buni	<i>Arothron immaculatus</i>	Narrow-lined toad- fish
"	<i>A. hispidus</i>	Broad-barred toad- fish
"	<i>A. aerostatus</i>	Diagonal-banded toad-fish
Bureinawa	<i>Holocentrus violaceus</i>	Violet squirrelfish
Ibaba	<i>Anisochaetodon auriga</i>	Threadfin coral fish
"	<i>Platax orbiculatus</i>	Narrow-banded batfish
Ibabanrotuma	<i>Heniochus acuminatus</i>	Pennant coral fish
Ikabauea	<i>Callosphyraena toxoema</i>	Forger's sea-pike
Ikamatoa	<i>Lethrinella miniata</i> (juvenile)	Long-nosed emperor
Ikanarina	<i>Trachinotus bailloni</i>	Black-spotted swallowtail
Ikanibeka	<i>Ruvettus pretiosus</i>	Castor-oil fish
Ikanibong	<i>Lutjanus gibbus</i>	Paddle-tail
Ikari	<i>Albula neoguinaica vulpes</i>	Bonefish, Ladyfish
Imnai	<i>Siganus rostratus</i>	Rabbit-faced spinefoot
Imone	<i>Myriothys maculosus</i>	Spotted snake-eel
Inai	<i>Callyodon ghobban</i> (adult)	Blue-barred orange parratfish
Ingimea		Yellowfin turo
Ingo	<i>Lutjanus argentimaculatus</i>	Mangrove jack
Kabubu	<i>Pyporhamphus laticeps</i>	Garfish
Kairoro	<i>Gymnothorax flavimarginatus</i>	Leopard moray
Kamaa	<i>Elegatis bipinnulatus</i>	Rainbow runner
Kekerikaki	<i>Fistularia petimba</i>	Smooth flutemouth
Kiari	<i>Gymnolutes lecluse</i>	Brown-lined vrasse

Kimokimo	<i>Grammatorcynus bicarinatus</i>	Salmon-mackerel
Koinawa	<i>Acanthurus triostegus</i>	Convict surgeonfish
Kona	<i>Carangoides laticaudis</i>	Blue trevally
Kuau	<i>Epinephelus merra</i>	Honeycomb rock-cod
Kuaubani	<i>E. fuscoguttatus</i>	Flower-cod, carpet-cod
Kuianrereba	<i>Caranx sansun</i>	Papuan trevally
Maebo	<i>Upeneus argo</i>	Bar-tailed goatfish
Maii	<i>Himantura</i> sp.	Stingray
Mako	<i>Acanthurus xanthopterus</i>	Ring-tail surgeonfish
Maeko	<i>Lethrinus reticulatus</i>	Reticulated emperor
Matabareka	<i>Carrangoides malabaricus</i>	Malabar trevally
Matakore	<i>Monotax granoculis</i>	Large-eyed sea-bream
Mawa	<i>Parupeneus barberinus</i>	Dash-and-dot goatfish
"	<i>P. cyclostomus</i>	Bright-sadled goatfish
Montaibakoa	<i>Priacanthus hamrur</i>	Lunar-tailed bullseye
Morikoi	<i>Lethrinus nebulosus</i>	Sangled emperor
Nari	<i>Chorinemus tolooparah</i>	Queenfish
Neia	<i>Gnathodentex aurolineatus</i>	Gold-lined sea-bream
Nimako	<i>Cephalopholis urodelis</i>	Flag-tailed rock-cod
Nimanamg	<i>C. argus</i>	Peacock rock-cod
Nimaninaba	<i>Muraenesox cinereus</i>	Arabian pike-eel
Ninimai	<i>Gerres argyreus</i> (juvenile)	Pacific silver-biddy
Nou	<i>Synanceichthys verrucosus</i>	Reef stonefish
Ntarema	Gobiidae sp.	Goby
"	<i>Amblygobius albimaculatus</i>	White-spotted goby
Nuonuo	<i>Pseudobalistes fuscus</i>	Brown trigger fish
Okaoka	<i>Lethrinus obsoletus</i>	Orange-striped emperor
Onauti	<i>Cypselurus suttoni</i>	Flying fish
"	<i>Cypselurus</i> sp.	Flying fish
Ouru	<i>Callyodon ghorban</i> (adult)	Blue-barred orange parrot-fish
Rakuriri	<i>Istiophorus orientalis</i>	Pacific sailfish
Raubara	<i>Tylosurus crocodilus</i>	Choram long-tom
Ree	<i>Gnathanodon speciosus</i>	Golden trevally

Rekereke	Cephalopholis cyanostigma	Blue-spotted rock-cod
Rereba	Caranx melampygus	Bluefin trevally
Rerekoti	Allanetta cvalaua	Hardyhead
"	Pranesus pinguis	Broad-banded hardy-head
Riba	Acanthurus gahhm	Clack-barred surgeonfish
Rokea	Galeocerda cuvieri	Tiger shark
Rou	Lethrinella miniata (adult)	Long-nosed emperor
Roubaneawa	L. variegatus	Variegated emperor
Taa	Holosentrus spinifer	Spiny squirrelfish
Takabe	Lutjanus kasmira	Yellow-and-blue sea-perch
"	Lutjanus janthinuropterus	Yellow-streaked sea-perch
"	L. Lineolatus	Gold-striped sea-perob
Tarabuti	Dussumieria aouta	Sharp-nosed sprat
"	D. hasselti	Van Hasselt's sprat
Tarabuti	Herklotaichthys punctatus	Gold-spot herring
Taritari	Echeneis naucrates	Slender suckerfish
Tau	Stronglura incise	Large-scaled long-tom
Tauema	Runula amblyrhynchus	Blunt-nosed blenny
Tawa	Chanos chanos (larvae)	Milkfish
Tawatawa	Euthynnus affinis	Mackerel Tuna
Tewe	Mulloidichthys auriflamma	Gold-banded goatfish
Tibetibe	Carangoides chrysophrys	Long-nosed trevally
Toaua	Lacteria cornuta	Long-horned cowfish
Uningabo	Synodus variegatus	Lizard fish
Urua	Caranx ignobilis	Great trevally

#### Shellfish

Te Katura	(Pitar Agrinonoma Japonica), mesodesma striata- small bivalves
Te koikoi	(Asphis Dichtoma) a clam asaphis deflorata bivalve
Te Koumara	(Circle pectinata linne)
Te Koi Koi	(Tellen scobinata Linne)
Te bun	(Andara Maculosa)
Te nouo	(Strombus luhuanus)
Te Wii au	
Te Koi-koi-n-anti	
Te Nimatanin	(Turbo setosus gmel)
Te m'anai	(Geocaroides)





Q10. Does the household own a boat or canoe which it uses for fishing?

YES	NO
-----	----

Q11. If yes to Q10 then what is/are the type(s) of boat(s)

Type=Canoe, Fisheries design Canoe Skiff (Aluminium or wood) Other	1. Type	2. Length (metres)	3. Sail/ paddle or engine	4. Engine H.P.
- C	1.			
- F	2.			
- S	3.			
- O	4.			

Q12. How much fuel (litres) did you use in the last 7 days:

(NB 1 gallon = 3.5 litres) Ocean (tuna fishing) \_\_\_\_\_  
Other \_\_\_\_\_

Q13. What fishing gear have you?

(nets - types, numbers of, length and mesh size; lines - numbers of trolling lines, hand lines and breaking strain: traps and other named gear).

Gear Type	Gear Type
1. _____	4. _____
2. _____	5. _____
3. _____	6. _____

Q14. How much do you spend in a month on the repair and maintenance of your boat, gear, engine, in dollars?

1. Engine	2. Nets	3. Hooks	4. Lines	5. Boat	6. Other (name)

Q15. Does anyone in the household have a seaweed farm?

YES	NO
-----	----

Q16. If yes - how many lines do you have?

--

- how much money did you make last month from the seaweed?

--

Q17. Does the household own an insulated fish box?

YES	NO
-----	----

Q18. Number of people who regularly live in household

--

Q19. a) Do you ever buy fish?

YES	NO
-----	----

b) If Yes, How often: more than once/twice a week?

	(a)
--	-----

once or twice a week?

	(b)
--	-----

occasionally?

	(c)
--	-----

## SURVEY ON WOMEN / FISHERIES IN KIRIBATI

Island \_\_\_\_\_ Village \_\_\_\_\_ Household: \_\_\_\_\_

1. Does anyone fish or collect in the Household? Yes  No   
Number of men  Women/ girls 

2. Do any women / girls in the household do any of the following:

 Collect shellfish ( te bun, te koumara, te nouo, koi-koi, kasura, nikatōna, nimatanin, te were ) Collect Te ibo Collect octopus Collect Eels Fish with Net (gillnet or other net ) Reef fishing ( please specify ) \_\_\_\_\_ Night Fishing ( please specify ) \_\_\_\_\_ Ocean Fishing ( please specify ) \_\_\_\_\_ Any other fishing activities ( please specify ) \_\_\_\_\_

3. In the past 7 days... did any women or girl fish or collect? \* ( please specify species )

# women #Trips #Hrs Catch Quantity

 Shellfish \_\_\_\_\_ Lagoon/ Reef Fish \_\_\_\_\_ Ocean Fish \_\_\_\_\_ Others (please specify) \_\_\_\_\_

( Te ibo, etc ) \_\_\_\_\_

4. How many hours in a " Typical Week " is devoted to fishing related activities ?

\_\_\_\_\_ hrs Is there seasonal variation? Yes  No 5. Are the fish or sea products  eaten at home Sold Given to relatives Etc. Dried, salted or processed Other ( pls specify ) \_\_\_\_\_

6. Do any women or girls in this house sell fish ?

No  Yes  How often? \_\_\_\_\_ Where? \_\_\_\_\_7. Whose fish does she sell?  Husband/Father/Son/Brother Private/Commercial  church group Her own?  Other (pls specify) \_\_\_\_\_8. Do any women/girls work in seaweed Farming? Yes  No Number  How many hours a week \_\_\_\_\_

9. Who manages the earnings from seaweed / fishing sales ?

Husband  wife  other (please specify) \_\_\_\_\_

10. How many people in the household ?

Adults  Children Under five years  Five-14 years 

## FISH MARKETING

NAME \_\_\_\_\_ VILLAGE \_\_\_\_\_

1A. How many times a week do you sell fish? \_\_\_\_\_

B. HOW MANY HOURS A WEEK DO YOU SPEND SELLING FISH? \_\_\_\_\_

2. Whose fish do you sell? Father \_\_\_\_\_  
 Husband \_\_\_\_\_  
 Brother \_\_\_\_\_  
 Church \_\_\_\_\_  
 Other \_\_\_\_\_

3. WHERE DO YOU SELL FISH? HOUSE \_\_\_\_\_  
 MARKET \_\_\_\_\_  
 STORE \_\_\_\_\_  
 ROAD \_\_\_\_\_

4. WHO MANAGES THE EARNINGS ? FATHER \ IN-LAW \_\_\_\_\_  
 HUSBAND \_\_\_\_\_  
 BROTHER \_\_\_\_\_  
 WOMAN \_\_\_\_\_  
 OTHER \_\_\_\_\_

5. WHAT DO YOU SPEND THE MONEY ON? \_\_\_\_\_

5. HOW DO YOU TRANSPORT THE FISH FOR? \_\_\_\_\_

6. WHAT TYPE OF EQUIPMENT IS NEEDED? 1. \_\_\_\_\_  
 2. \_\_\_\_\_

7. WHAT DOES IT COST TO SET-UP? \_\_\_\_\_

8. WHERE DO YOU GET THE MONEY TO SET UP THE SELLING? \_\_\_\_\_

9. WHERE DO YOU GET CREDIT FROM ? \_\_\_\_\_

10. DO YOU USE ICE TO SELL FISH? YES \_\_\_\_\_ NO \_\_\_\_\_

11. WHERE DO YOU GET IT? \_\_\_\_\_  
 WHERE MUCH DOES IT COST? \_\_\_\_\_

12. WHAT KIND OF FISH DO YOU USUALLY SELL? \_\_\_\_\_

13. IS THERE A SEASONAL FACTOR IN SELLING? YES \_\_\_\_\_ NO \_\_\_\_\_

14. DO YOU KEEP RECORDS? \_\_\_\_\_

15. WHAT ARE THE MAIN PROBLEMS ? \_\_\_\_\_

ICSF  
 FOR DIGITIZATION  
 DATE: 05/11/2018