



Mangroves for the Future
INVESTING IN COASTAL ECOSYSTEMS

GENDER ANALYSIS

Coastal Villages of Keti Bundar Taluka, District Thatta, Sindh



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Acronyms

ADB	Asian Development Bank
BPfA	Beijing Platform for Action
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CMP	Community Mobilization Program
CSO	Civil Society Organization
FGDs	Focus Group Discussions
GAD	Gender and Development
IDB	Islamic Development Bank
IUCN	International Union for Conservation of Nature
KIIs	Key Informant Interviews
MDC	Management and Development Center
MFF	Mangroves For the Future
NCSW	National Commission on the Status of Women
NGO	Non-Government Organization
PFFF	Pakistan Fisher Folk Forum
SEAFDEC	Southeast Asian Fisheries Development Center
SEI	Stockholm Environment Institute
TCCR	Trust for Conservation of Coastal Resources
TORs	Terms of Reference
WDD	Women's Development Department
WWF	World Wide Fund



1 Introduction

1.1 Background of the Research

MFF, SEAFDEC and SEI are all Sida-funded programmes with a shared interest in improving gender integration and mainstreaming in their respective programmes, and have agreed to collaborate through a regional study. This will provide a significant opportunity to pull together much needed information about the roles of men and women and gender inequalities in coastal resource management, local employment opportunities, and about women’s engagement in environmental decision making in particular. The three partners will use the results of the study to meet their common objectives and commitments in relation to integrating gender in environment and sustainable development both at the local and policy level.

The MFF/SEAFDEC regional study proposes to explore gender patterns in coastal and marine resources management to improve understanding about the state of women and men in environmental decision making and the structural challenges preventing equitable opportunities for men and women in relation to the coastal, marine and fisheries sectors. The study will cover 12 countries (South East Asia group – Cambodia, Myanmar, Vietnam, Thailand, Indonesia, Malaysia, and Philippines; South Asia group – India, Pakistan, Bangladesh, Maldives, and Sri Lanka) i.e. four MFF/SEAFDEC shared countries, two SEAFDEC countries and six MFF countries, exploring the national policy conditions that support gender equality in environment and natural resource management, as well as exploring local realities and norms influencing men’s and women’s engagement in community and local decision making regarding environment and natural resource management.

This study was designed to conduct a broad gender analysis of the area, looking into the existing gender issues and structures,

livelihoods, and opportunities for improvement mechanisms, and women's involvement in the existing governance of natural resources in Keti Bundar and Kharo Chan, in District Thatta in Sindh, including gender specific roles related to the fisheries sector. The output will be a detailed report with gender disaggregated information on the roles of men and women in livelihoods, gender gaps, and potential opportunities for mainstreaming the role of women in natural resource management planning.

1.2 Background on the Site

1.2.1 Thatta District

Thatta District is in southern Sindh. Locally known as 'Laar', it shares its borders with districts Tando Muhammad Khan, Karachi, Sujawal and Hyderabad. The district covers an area of 8,570 square kilometers and includes *talukas* Ghorabari, Thatta, Keti Bundar and Mirpur Sakro.¹ Thatta District is a low-lying area at the tail end of the River Indus, and it faces constant water shortages, partially because of excessive upstream withdrawals, which threatens agriculture and livelihoods. The lack of fresh water to recharge the ground water aquifers and sea intrusion has led to rising salt content in the soil, which has risen to the surface, killing vegetation, making the land unfit for cultivation or growing natural grasses. This has led to destruction of agricultural land, a drastic reduction in yield per acre of various crops, and what were once grazing grounds have become uncultivable wastelands. Sea intrusion combined with rising sea levels has led to flooding and erosion of coastal areas, affecting fishermen. Thatta is also vulnerable to other natural disasters such as cyclones and droughts. It is among the poorest districts in Pakistan, especially its coastal areas².

Keti Bundar

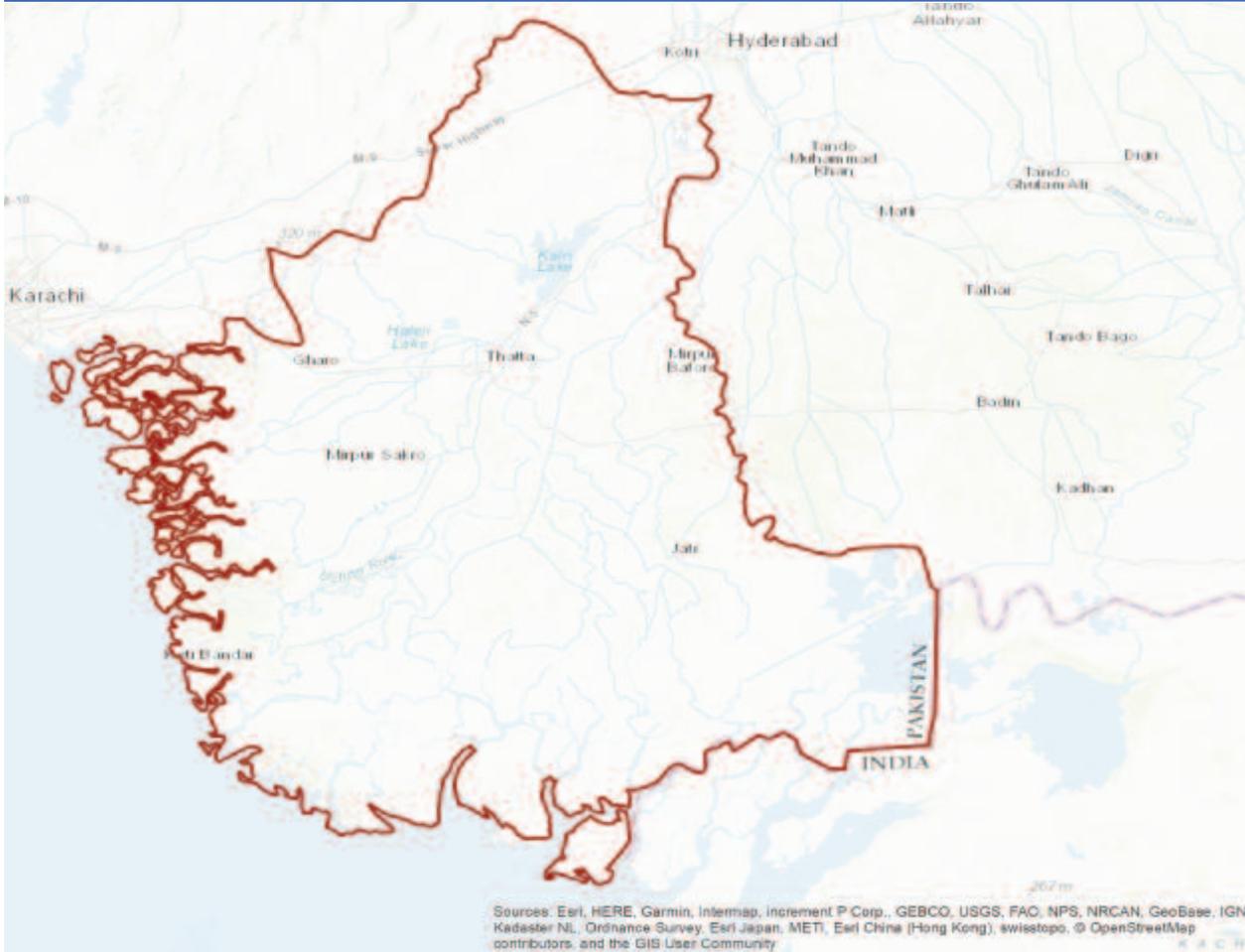
Keti Bundar is a fishing port along the Arabian Sea in Thatta District, located about 200 km South East of Karachi. It is a *taluka* of District Thatta in the province of Sindh. The *taluka* has four major creeks Chann, Hajamro, Khobar and Kangri and 42 *dehs*. The geographical area of Keti Bundar *taluka* is 721 sq. km. Keti Bundar is a historical town and former port city situated on the bank of the Hajamaro distributary of the River Indus.³ Secondary sources⁴ reveal that Keti Bunder had a mixture of livelihoods. The Jatt tribe were camel keeping people who grazed their camels in the delta scrublands; the Dablas were farmers, whose livelihood was based on agriculture; the Mohanas were coastal fishermen, and the Memons and Shidi were merchants and traders working inland. In the 19th Century, Keti Bunder was a prosperous region, with many sources of income. Fishing, agriculture, and trade were among the main occupations. Natural resources were also abundant, and the British Gazetteer of 1876 ranked Keti Bundar as the second most important port in India after Karachi.

In the 20 century, with the construction of the Sukkur Barrage in 1932 followed by two more barrages i.e. Kotri Barrage in 1955 and Guddu Barrage in 1962, there was a reduction in fresh water flow of the River Indus downstream into the Indus Delta. This led to a change and diversion of livelihoods from crop and livestock farming towards the fishing sector, and forced the agricultural communities to shift their livelihoods to fisheries. The decrease in water availability and increase in salinity was a source of pressure on all the diverse livelihoods, which eventually resulted in their gradual decline and loss of livelihoods.

Currently, the situation in Keti Bunder is very different from the past.⁵ Livelihoods are

1. The Socio-Economic Impact of Floods in District Thatta: A Gendered Analysis, Research Report No. 8, Social Policy and Development Center, 2012.
2. Gender and Social Vulnerability to Climate Change: A Study of Disaster Prone Areas in Sindh, Social Policy and Development Centre, 2015.
3. Resilience Assessment MFF Programme Priority Sites in Pakistan. Nasir Ali Panwhar, Ghulam Qadir Shah and Badarunissa Tunio, Mangroves for the Future Pakistan 2015.
4. Ibid
5. Ibid.

Map 1: Thatta District



threatened due to environmental degradation, increasing poverty, poor socio-economic conditions, and a high level of illiteracy, which has led to a poor community, with few natural and economic resources. Kharo Chan has also been affected by climate change in the coastal areas of Pakistan, and has lost most of its agriculture, grazing pastures, livestock, biodiversity and the overall vegetative cover (trees and shrubs). As a result of this decreased agricultural activity, local communities have been forced to depend on the remaining trees and wild-shrubs for domestic fuel energy. There is extensive degradation of mangrove forests as a result of commercial logging and cutting for fuel purposes as well as for fodder for animals.⁶

1.2.2 An Overview of Gender Aspects in Keti Bundar

Overview of Gender Aspects in Thatta District

Keti Bundar is similar to other rural areas of Sindh in terms of gender and the social status of women. Women have restricted mobility and access to information, resources, education and economic activities. According to a study in Kharo Chan,⁷ women's roles and responsibilities were defined as household activities, collecting water for domestic and animal use, looking after livestock, collecting fuel wood, doing embroidery, stitching, and making mats in their free time, and in some cases women grow vegetables, and in

6. Gender Dimensions of Climate Change. Climate Change, Energy, and Women. A Case Study of a Coastal Community in Sindh, Shirkat Gah 2014.

7. Gender Dimensions of Climate Change. Climate Change, Energy, and Women. A Case Study of a Coastal Community in Sindh, Shirkat Gah 2014.

the cropping season women harvest wheat and rice.⁸

Therefore, women's primary contribution is to household activities. Women also do embroidery work at home, but due to lack of market access and restricted mobility, they are not able to use their handicrafts to contribute to the family income in any substantial way. Although some women do earn a meager amount from their embroidery by selling it among the community it is not a regular source of livelihood.

According to an earlier MFF/ IUCN study with a focus on Keti Bundar, the educational status among the villagers of Keti Bundar is very low. Female illiteracy is high, almost 97%, and the male-female illiteracy ratio is about 0.82.

A number of diseases are prevalent in Keti Bundar and the creek villages. Eye and skin disease are common among women, children and elderly people due to the use of unsafe drinking water. The women also face gynecological problems, particularly during pregnancies.

Despite new infrastructure and connectivity such as road and mobile phones, the social services including schools and hospitals are still inadequate, and remain inaccessible, especially for girls and women of the villages situated in the creeks. Increasing poverty has driven many households to migrate to Karachi.⁹

The status of women is defined by a traditional society; women have limited choice in personal issues, such as marriage, and the majority of girls

in Keti Bunder are married without taking their views into consideration. However, marriage increases women's decision making powers to some extent in the household.¹⁰ Married women's opinions are taken into consideration in family matters, issues of children and wedding arrangements. Unmarried women and girls have limited mobility, but married women can move outside the household and village for community activities such as wedding preparations.

The indigenous fisherwomen have more freedom in the area than other women. Due to fishermen being away at sea for extended periods of time, fisherwomen have to take on household responsibilities. However, they do not have decision making powers or own any kind of assets. These women make up early in the morning for their morning prayers, prepare breakfast and start their household chores. With the expansion of the fishing industry, women have started to find small places for themselves in the fishing economy, by weaving nets, peeling shrimp, etc. but women living in the creeks do not have access to these opportunities and they are completely restricted to their homes.

Natural disasters also pose a high risk for the women, as is evident in the literature reviewed.¹¹ Vulnerability seems to be higher for women as they do not have alternative means of employment. In addition, unequal and inequitable division of labour along with a lack of access and control over material and non-material resources increases women's economic disempowerment, and their role in decision making is limited at all levels.¹²

8. Ibid.

9. Resilience Assessment, MFF Programme Priority Sites in Pakistan, Nasir Ali Panwhar, Ghulam Qadir Shah and Badarunissa Tunio, MFF Pakistan 2015.

10. Study on Knowledge, Attitudes and Practices of Fisherfolk Communities about Fisheries & Mangroves Resources, Keti Bundar Final Report, WWF, 2005.

11. Gender and Social Vulnerability to Climate Change: A Study of Disaster Prone Areas in Sindh, Social Policy and Development Centre, SPDC, 2015.

12. Ibid.



2 Gender Analysis Objectives, Methodology and Study Area

2.1 Objectives of the Gender Analysis

The Objectives of the study were to collect data on the gender roles of men and women in communities residing and dependent on resources of the Indus Delta.

The overarching goal is to develop an understanding of the position of women in the communities so that interventions can be planned based on evidence from the field. The data will also add to the limited existing knowledge and information on gender in Keti Bundar and Kharo Chan.

The output will help in documentation of the socio-economic situation of these communities with gender disaggregated information on the roles of men and women in livelihoods, gender gaps, and potential opportunities for mainstreaming the role of women in natural resource management planning.

2.2 Selected Area for Analysis

2.2.1 Keti Bundar

Keti Bundar and Kharo Chan are located in the Indus Delta, which occupies an area of about 600,000 ha, consisting of creeks, mudflats and mangrove forests. There are 75 villages comprising of 3,907 households in Keti Bundar. These villages fall into two categories, Inland and Creek villages, and majority of these consists of small settlements¹³. The estimated 2011 population of Keti Bundar is 30,766, with an annual average population growth rate of 2.2%, and an average household size of about 6 persons. Poverty is high, with 2011 estimates showing 43% of sampled households falling below the poverty line.¹⁴

13. WWF Pakistan 2008. Socio-economic Assessment of Study (Indus for All Programme) Main Report.

14. Dehlavi, A. and I. H. Adil. 2012. Socioeconomic Baseline of Pakistani's Coastal Areas, World Wide Fund for Nature – Pakistan.

2.2.2 Selected Sample Villages

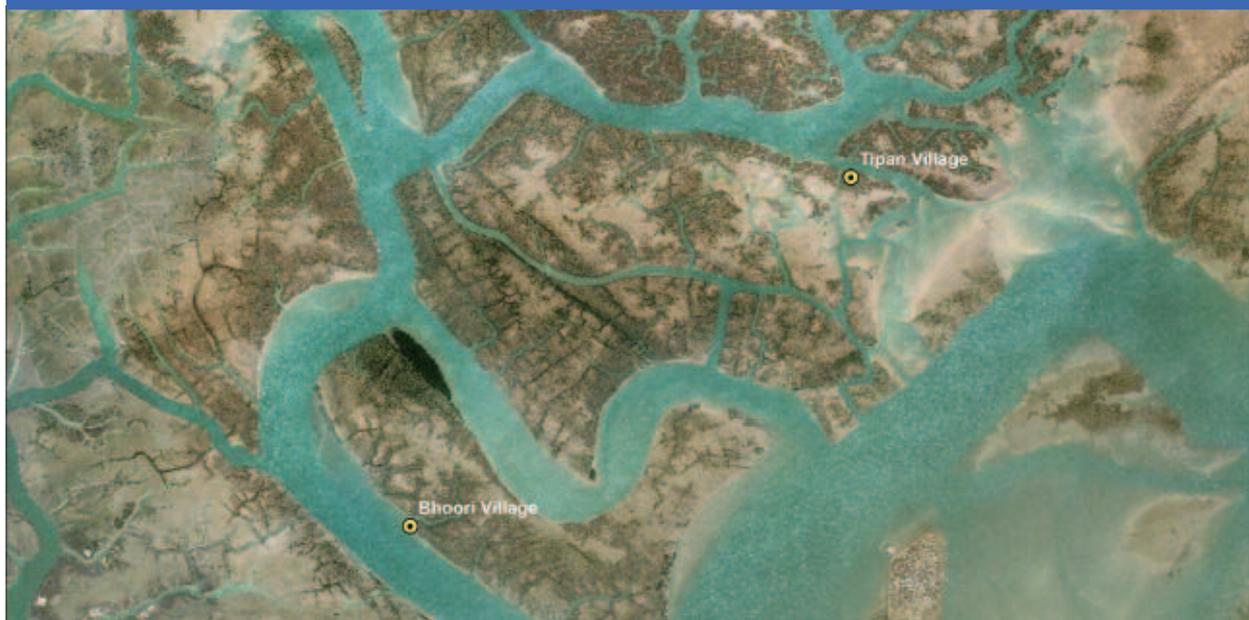
The villages were selected for the inclusion of a diverse range of perspectives from both male and female respondents, based on their location within the creeks, on the mainland and livelihoods based on agriculture. The villages of Bhoori, in Khober creek, and, Tipan in Hajamiro creek, are completely dependent on fishing as a livelihood; the villages Haji Moosa and Keti Bundar are also dependent on fishing and the villages Ahmed

Samo, and Haji Ali Bux Murgar are dependent on agriculture as the major source of livelihood.

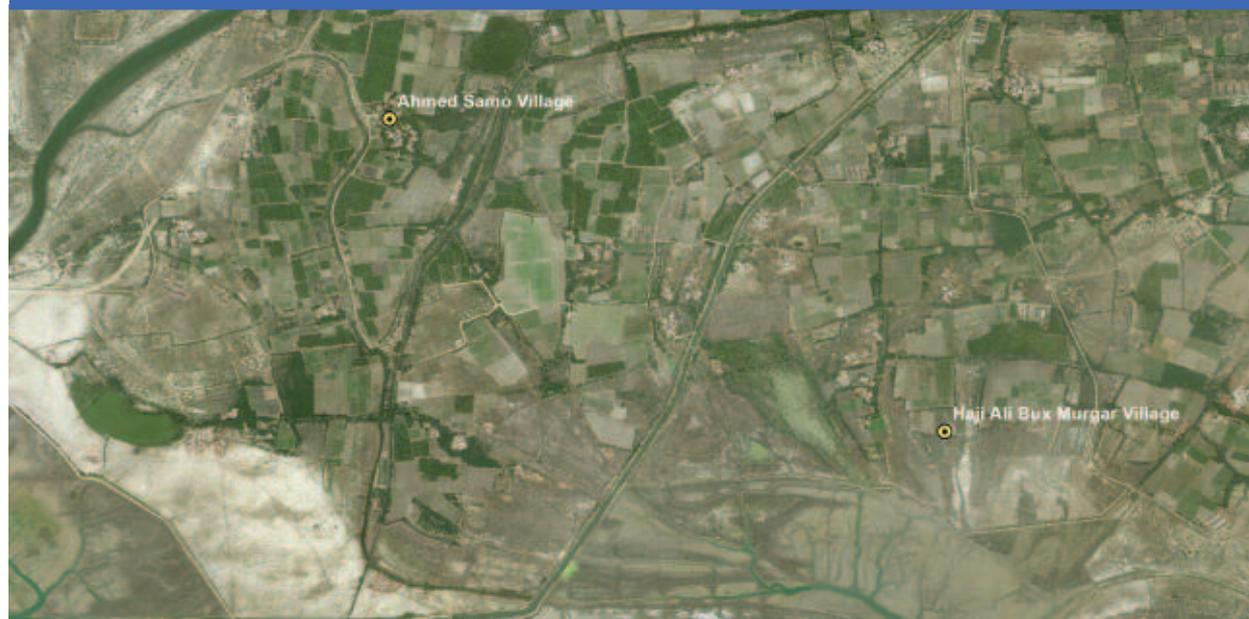
2.3 Survey Design and Methodology

The survey design and methodology of the study included the following: a brief literature review, the Gender Analysis Guide/Toolkit developed by the MFF, and qualitative methods of data collection.

Map 2: Villages in Creeks: Bhoori and Tipan



Map 3: Villages in Kharo Chan: Ahmed Samo & Haji Ali Bux Murgar



Map 4: Villages in Keti Bundar: Haji Moosa & Keti Bundar City



Qualitative Methodology

A qualitative methodology was applied through Focus Group Discussions (FGDs), and Key Informant Interviews (KIIs), supported by a literature review of relevant literature related to the site.

Based on the MFF Gender Analysis toolkit,¹⁵ “a gender analysis uses standard social science qualitative and quantitative methods for data collection, in response to research questions about how gender differences and inequalities will affect project outcomes, and how the project will differentially affect men’s and women’s opportunities and status”. Therefore, FGDs and KIIs were used to collect information from the communities and stakeholders. The FGDs were intended to seek first-hand information from the target population whereas, the KIIs were largely meant to understand institutional, policy and practical perspectives of gender dimensions at the study site.

And as the MFF Gender Analysis toolkit further emphasizes, “since, gender analysis is comparative and relational, the main difference between a gender analysis and other types of operational and formative social research is that

gender analysis requires that different social groups of men, boys, women; and girls participate equally in the research by answering surveys, and participating in focus groups, interviews, and other qualitative data collection exercises”.¹⁶

2.3.1 Review of Literature

A desk review of relevant literature, published materials and reports related to the study area was conducted. Various reports related to socio-economic, natural resources management and gender-based assessment and resilience analysis were reviewed to gather background information related to the site. The review of the secondary information revealed that other than more generic gender focused assessments, no structured analysis of gender aspects in terms of livelihood dependencies, roles, access and control, and gender power dynamics were available related to the site. However, the reviewed literature helped in understanding the background of natural resource and livelihood related issues related to the site, which have been discussed and referred in the text wherever relevant. A list of references used for the report is available in the Annex.

15. Gender Analysis Guide/ Toolkit for Coastal Resource Dependent Communities MFF, 2017.

16. Ibid

2.3.2 Adoption of Gender Analysis Tool

Under the MFF Programme, a [MFF] Gender Analysis Guide/ Toolkit has been developed, which is a practical guide for coastal and fisheries management practitioners seeking to understand how gender can impact coastal ecosystems resource use and management (Coastal Resilience). The guide has been designed to develop baseline knowledge, to examine gender dimensions related to coastal and natural resources use, livelihoods development and ecosystems management in order to understand gender gaps and to promote and advance gender integrated/ gender responsive planning for improved resilience of coastal ecosystems and the communities that depend on them.

The toolkit was adapted through necessary amendments to suit the local context. This study took considerable time in terms of developing and testing the revised questionnaire, which was initially developed as a generic set of questions applicable to coastal communities. The questionnaire was pre-tested in Sandspit village along the coast of Karachi, and necessary modifications were made to it in terms of the

current focus, and based on feedback from other MFF countries. A detailed discussion with the MFF team led to revising the questionnaire and implementing it in Gwatar Bay, in Balochistan. The questionnaire has been further revised and made specific for the next site for Gender analysis in Keti Bandar and Kharo Chan along the Sindh coast.

2.3.3 Team Composition

The survey team included female and male gender experts from the Trust for Conservation of Coastal Resources (TCCR) and MFF/IUCN who conducted separate meetings with male and female groups at the selected villages. Members of local civil society organisations facilitated the organisation of meetings and participated in discussions during the meetings. The discussions provided an opportunity of learning for the associated team members about how to conduct a gender analysis.

2.3.4 Focus Group Discussions

Primary data was collected on a number of issues related to gender roles and livelihoods, assets and control of resources, access to information, empowerment, and basic socio-



economic information, using a questionnaire administered through Focus Group Discussions. A total of 12 Focus Group Discussions (FGDs) in 6 villages, 2 in each village with individual groups of males and females was conducted. The sampled villages for FGDs were selected from three geographically distinct zones, from within creek areas, inland where fishing is the predominant occupation for the local communities, and from the areas falling adjacent to agricultural landscape where the local population have other livelihood options apart from fishing. The idea was to seek a landscape representative view of gender dimensions.

Focus Group Discussions (FGDs) were conducted with males and females separately, and each female group had about 8 to 12 respondents, between the ages of 18 and 50 years. The male group had fewer respondents, about 3 to 7, between the ages of 18 and 60 years, and because the men were away fishing. Among the 6 villages 4 were predominantly fishing communities and 2 were based on agriculture.

Table 1: No. of Participants in Focus Group Discussions (FGDs)		
Focus Group Discussions (FGDs) in Villages	Male	Female
Tipan (Hajamiro Creek)	7	10
Bhoori (Khober Creek)	6	12
Ahmed Samo (Kharo Chann Agriculture)	3	8
Ali Bux Murgar (Kharo Chann Agriculture)	3	8
Haji Moosa (Keti Bunder Town)	6	7
Keti Bundar City	6	10
Total	31	55

Note: the number of male respondents were less than female respondents because the female were available in their homes, while the men were away fishing.

2.3.5 Key Informant Interviews

KIIs were held with the officials of the Sindh Fisheries Department and the Pakistan Fisherfolk Forum This study is based on qualitative research and analysis.

2.3.6 Data Analysis and Report Preparation

The field data was tabulated using Microsoft Excel Software, and analyzed together with additional notes and observations recorded during the survey to prepare the report. The enquiry questions were kept open ended to record additional information shared by the participants. The information so gathered was analysed both quantitatively and qualitatively to understand gender perspectives of the area as they related to natural resources, local culture, norms and practices.



3 Survey Results – Observations and Key Findings

3.1 Socio-Economic Profile

Fishing is the main source of livelihood for the communities, who live in remote and isolated areas in the creeks of the Indus Delta, and along the coast of Thatta District in Sindh. The fishing practices are artisanal, using small boats, and traditional fishing equipment.¹⁷ In the absence of alternate sources of income, the communities are completely dependent on fishing for their livelihoods. Fishing is a family profession which has been practised for many generations, and it is a skill learnt from birth. Among the farming communities, agriculture is the main source of livelihood, and wheat, rice, vegetables and fruit are the main crops. Other occupations consist of small shop keepers, government jobs, or manual labour. Basic facilities are scarce, in terms of education and health, and there is a shortage of water for domestic and farming use.

3.1.1 Status of Education

The level of education in the field sites varied from complete illiteracy in the villages situated in the creeks, to a reasonable level of education in the other field sites. For males this meant Matric, or BA degrees, and for girls a primary education was all that was available.¹⁸ Table 2 shows an analysis of the differences in the sites, which revealed that in Bhoori and Tipan, the two villages in the creeks, all the respondents, both male and female, were illiterate, and only 4 women and 4 men were receiving religious education. The main reason for this state was the remoteness of these villages, which prevents access to education. The nearest school to these villages is located in Keti Bundar town, which is accessible by boats only and an expensive option for local communities to access education. However, the villagers expressed an interest and desire for the education of their children, and said that if schools were available they would send their children to school.

17. Study on Gender Analysis of Keti Bundar Area, Terms of Reference TORs, IUCN, 2017.

18. Primary school; Class 1 to 5. Middle school Class 6 to 8; High school Class 9 and 10. (Class 10 is considered Matric).

Table 2: Status of Education

Villages	Estimated Population	Primary		Secondary		Graduate		Percentage	
		M	F	M	F	M	F	M	F
Creek (Bhoori & Tipan)	960	0	0	0	0	0	0	0%	0%
Agriculture (Ahmed Samo & Ali Bux)	2640	225	91	55	18	0	0	22.5%	10%
Keti Bundar Town (Haji Moosa & Keti Bundar City)	4400	1805	41	400	50	0	0	56%	11.5%

Source: Data compiled from information collected at FGDs.

As compared to villages located in creek areas, the state of education was observed to be relatively better in inland areas and the areas adjacent to agriculture landscapes. In the agricultural villages in Khari Chan, the number of girls and boys going to primary school was encouraging, with approximately 91 girls, and 225 boys in primary school. This was mainly due to the availability of primary schools in the area. Similarly, at the secondary level, there are also a reasonable number of boys and girls going to middle school. This again indicates that if the facilities for education are provided, then both boys and girls avail the opportunity of secondary school. In Ahmed Samo village, one private school was mentioned, the Citizen's Foundation, where the quality of education was said to be much better than that of the government schools.

The non-availability of teachers was also cited, which meant that even if there was a school, it was closed because of the absence of teachers. This is a common issue in the rural areas of Pakistan, and is one of the main causes for the low level of education, particularly for females in Sindh.¹⁹ In the villages of Keti Bundar town, only 41 girls had completed primary education as compared to 1805 boys, and 50 females had completed secondary education as compared to 400 males. These findings were in conformity with an earlier MFF/ IUCN resilience assessment

study focusing on Keti Bundar²⁰. This low level of education, particularly for girls, meant that from a gender perspective, women have less access to education beyond primary school, and so the gender gap between males and females begins at this age, and continues to increase as girls grow older.

3.1.2 Sources of Fuel

Table 3 identifies the sources of fuel available in the sampled villages. The main source of fuel in all the sites was wood, and LPG gas cylinders were used by only a few well-off people in one village. According to the respondents, both men and women were involved in the collection of fuel, and depending on the remoteness of the villages, gender roles in the collection of fuel showed minor differences. In the villages of Bhoori and Tipan, in the creeks, men collect mangrove wood from the surrounding mangrove forests, and it could take them 2 days to bring the wood back to their villages. They bring enough wood to last for a month, and if the fuel runs out, they use plastic bags and cow dung as fuel. If the village is closer to the mangrove forest and accessible to women, then women and children go into the creeks to collect mangrove wood and bring it back to the village. In Bhoori village, the villagers often use plastic bags as fuel, since it burns easily, quickly, and is freely available due to the pollution and waste found in

19. Sindh Community Mobilization Program, (CMP) Gender Analysis Report 2014, USAID.

20. Resilience Assessment, MFF Programme Priority Sites in Pakistan, Nasir Ali Panwhar, Ghulam Qadir Shah and Badarunissa Tunio, MFF Pakistan 2015.

the creeks. Plastic bags were also used as an alternate to kerosene oil to ignite wood.

In the inland villages of Keti Bundar, the situation is different, as fuel is bought from wood suppliers who come to the village to sell wood. Both men and women buy wood, and pay Rs.100 for a small bundle of wood which lasts for 1 day. The average price of wood ranges from Rs. 400 for 40 kg of wood, which lasts for 3 or 4 days. Another alternative available for fuel is 'devi' wood, which is cut and collected by men, from the nearby shrub lands, and depending on household consumption, it takes about 1 hour for the men to collect the wood. In some villages, cow dung is also used as fuel. An analysis of the information indicates that both men and women are responsible for the collection of fuel, but their roles vary slightly among the villages, depending on the location of the village. For instance, in the creeks, if the village is located far away from the mangrove forest, then only men collect wood because they have to go into the mangrove forest by boat, but if the village is close to the mangrove forest, then both men and women go to collect the fuel wood.

3.1.3 Sources of water

Water scarcity is one of the important issues at the sampled sites, as they lie at the tail-end of the Indus River system. Increasing upstream diversion of river water for power generation and agricultural use combined with climate change-induced impacts have resulted in increasing scarcity of water, which was once available in abundance, in the Indus Deltaic Region. Table 4 identifies hand pumps, tankers, and canal water as the current main sources of water in different

villages. In the creeks, village Bhoori, which lies adjacent to the discharge of the River Indus into the sea, groundwater extracted through hand pumps is the main source of water for household use, though it is semi-saline. In other creek villages, water is purchased by men from tankers based at Keti Bundar at Rs 50 for 1,600 per liters and transported to the villages by boats, The water is collected in plastic drums and taken by boat to the village, which means that water is used sparingly, and if for some reason the boats cannot access the mainland, as in the monsoon season, when the sea is rough and the waves are very high, the villagers have to wait for freshwater supplies till the creeks are safer to navigate. In the villages located in inland (Haji Moosa and Keti Bunder city), water is purchased from tankers at about Rs. 2,000 to 3,000 per tanker, and lasts for about a week, depending on the consumption per household. There are also a few hand pumps available. The government has constructed a Reverse Osmosis (desalinization) plant at Keti Bundar, but due to non-functioning of the plant, water had not been available so the villagers have to rely on water tankers.

In the agricultural village, canal water was the main source; it takes the women 1 hour to collect water, and they collect water from the canal three times a day, which means that most of their time is spent collecting water from the canal.

Since women are primarily responsible for the family, the collection and management of water is primarily their responsibility, and they have to face the consequences of water scarcity if it is not easily available.

Table 3: Sources of Fuel

Name of Village	Gas	LPG	Kerosene Oil	Wood	Cow Dung
Tipan (Hajamiro Creek)	-	-	-	√	-
Bhoori (Khober Creek)	-	-	-	√	√
Ahmed Samo (Kharo Chann Agriculture)	-	-	-	√	-
Ali Bux Murgar (Kharo Chann Agriculture)	-	-	-	√	-
Haji Moosa (Keti Bunder Town)	-	√	-	√	-
Keti Bundar City	-	-	-	√	-

Table 4: Sources of Water

Name of Village	Hand Pump	Well Water	Tanker	Canal
Tipan (Hajamiro Creek)	-	-	√	-
Bhoori (Khober Creek)	√	-	-	-
Ahmed Samo (Kharo Chann Agriculture)	√	-	-	√
Ali Bux Murgar (Kharo Chann Agriculture)	√	-	-	-
Haji Moosa (Keti Bunder Town)	-	-	√	-
Keti Bundar City	-	-	√	-

3.1.4 Natural Resources

The natural resources in all the sample sites are land, the sea, fish, mangroves, and trees and shrubs. The local communities depend on these resources for their livelihoods. In terms of gender roles, the men are completely dependent on the natural resources, i.e. the sea and land, as fishing and agriculture are the main sources of livelihoods. For the women, who are responsible for the basic needs of the family, i.e. food, fuel, fodder, and water, they are completely dependent on the natural resources from the mangroves and the creeks.

Among the 6 villages, 4 villages, i.e. Tipan, Bhoori, Haji Moosa, and Keti Bunder, were entirely dependent on fishing, and 2 villages, i.e. Ahmed Samo, and Ali Bux Murgar, were dependent on agriculture and farming. The dependency of the villagers on natural resources

was explored, in terms of their use, needs, and perception of how much they relied on the trees, sea, water, and land. For the 2 villages in the creeks, i.e. Bhoori and Tipan, their livelihoods were entirely based on fishing, and as a female respondent said, “*our natural resource is the sea, from where we fish and get an income, and from the mangrove trees we catch small fish, crabs, and shrimp.*” Creeks are located in inter-tidal areas; therefore, fishing and mangroves are the only sources of livelihood for the local communities. The mangroves are used as a source of fodder for their livestock, as fuel in the households and for construction of their houses. “*If the sea did not exist, we would not be alive*”, said a villager, which indicates the intricate association of livelihood of the creek communities with mangroves and fishing. Historically, mudflats within creeks were used for rice cultivation by the local communities; however, hydrological

Table 5: Natural Resources Dependencies

Name of Village	Male	Women
Tipan (Hajamiro Creek)	All depend on fishing and mangroves.	All depend on fishing and mangroves.
Bhoori (Khober Creek)	All depend on fishing and mangroves.	All depend on fishing
Ahmed Samo (Kharo Chann Agriculture)	Most depend on agriculture and farming and a few engage in government and private jobs.	All depend on agriculture.
Ali Bux Murgar (Kharo Chann Agriculture)	Most depend on agriculture and farming and a few on manual labour and government or private jobs.	All depend on agriculture and farming.
Haji Moosa (Keti Bunder Town)	All depend on fishing.	All depend on fishing and mangroves.
Keti Bundar City	Most depend on fishing and a few on government or private jobs.	All depend on fishing and mangroves

changes and increasing salinity in the deltaic areas have resulted in this livelihood source vanishing, making the local communities reliant on fishing as the sole source of their livelihoods.

The women were also aware of the importance of mangroves as a protection from high tides, waves, and rough weather. According to a male respondent, "*mangroves protect us, so we allow the women and children to participate in the mangrove plantation activities in the villages.*" Due to climate-related changes, the coastal areas of Pakistan are now more vulnerable to disasters such as, cyclones, high tides, and sea storms which have become more frequent. Mangroves play an important role for these communities in terms of protection to their livelihood assets, such as boats and thatched houses, against the violent winds and tides. Therefore, both men and women realise their importance and participate in mangrove conservation.

Likewise, at Keti Bundar the villagers are fishermen, and there is no alternate source of livelihood for them. In the monsoon months of June and July, which is the off season for fishing, the income of the fishermen is reduced, and this has a negative effect on their livelihoods. The surrounding mangroves provide them with fuel, small fish and shrimp, and the respondents acknowledged the importance of the mangroves as a natural barrier of protection to their villages during high tides.

The awareness and knowledge about the importance of mangroves as a natural barrier of protection to the coast, and the recognition of their dependency on natural resources was higher among these villagers, which is due to many years of environmental awareness projects and programmes implemented by NGOs and the Sindh Government in this area.

In inland villages, Ahmed Samo and Ali Bux Murgar, which are agriculture based, there is no other source of livelihood apart from farming. When farming becomes difficult due to water scarcity or

salinity, or the crops do not yield a good harvest, the communities turn to cutting and selling wood from the surrounding forest to survive. The forest also provides them with a source of fuel for household needs. Additionally, the natural water ponds are an extremely valuable livelihood source for the local people, from which water is collected and used for drinking, washing and cleaning.

Therefore, as Table 5 illustrates, in all the field sites, the respondents were almost entirely dependent on the natural resource base for their livelihoods.

3.1.5 Climate Change

The coastal areas of Thatta district are vulnerable to climate induced disasters, such as cyclones and droughts. It is among the poorest districts in Pakistan, especially its coastal areas²¹. Temperature changes, extreme heat, and changing rainfall patterns, were perceptions of climate change among the respondents. The women made linkages of these weather changes to an increase in illness, and a reduction in the amount of fish caught by the fishermen. In the creek villages (Bhoori and Tipan), women revealed that an abnormal rise in seawater flooded their villages in summer and winter, and they had to take their belongings and live on their boats till the water receded. Another change noticed by the women was the reduction of sweet water in the creek areas.

The level of awareness towards changes in weather, and the effects of these changes, was greater among the villagers in the creeks. They had also developed a few basic "coping strategies" to deal with the extreme weather conditions. The women respondents said they kept a wet cloth on their head to reduce their body temperature when it got very hot. They added that the fish caught rotted faster, and because they had no electricity or ice boxes, the quality of fish deteriorated, leading to a negative impact on their income. The male respondents said that they stayed indoors longer because of the heat in order to avoid heat strokes.

21. Gender and Social Vulnerability to Climate Change: A Study of Disaster Prone Areas in Sindh, Social Policy and Development Centre, 2015.



The impact of climate change has been emphasised in other studies conducted in Keti Bundar and Kharo Chan. A study on the Gender Dimensions of Climate Change²² has also identified coastal communities as very vulnerable to the impacts of climate change. Women in particular have been severely affected since they are primarily responsible for the management of natural resources and have to deal with scarcity of water and fuel, which means they have to spend more time collecting fuel and water.

Among the inland villages whose livelihoods depended on agriculture, changes in the cycle of crops were reported, where crops that would grow in the winter did not grow anymore, because it was warmer, and rice, which was usually a summer crop, grew in winter as well. These changes in crops and their sowing and harvesting cycles meant that the farmers could no longer rely on their past experiences of farming. Similarly, forests of trees such as the acacia (*babul*), which was used for fuel and building houses, were not found anymore; respondents thought that this was due to the extreme heat and long periods of drought.

Other vegetation has also declined, such as the *jungle jelabi*, *maliro gah*, *saon gah*, lemon grass and mushrooms. Some species of birds have also declined because of shrinking forest cover, such as the Partridge (*teetar*), white pigeon (*kabootar*), parrots, and animals like deer and rabbits have moved away because there is no food left.

This change in climate and weather patterns has affected the quality of the ground water as well, as salinity has increased and this has affected the growth of certain crops. Vegetables such as bitter gourd (*karela*) and cucumber, crops such as rice and betel leaf, and fruit such as watermelon have been impacted by saltwater intrusion. This decline in crop harvest had direct bearing on household income and debt, as the villagers have to borrow money to meet their livelihood needs. According to a male respondent, “*the government should increase the amount of freshwater from the Ochito canal to our lands, which would restore our sweet drinking water, and would improve our livelihoods and the environment*”. Water is a scarce resource, and

22. Gender Dimensions of Climate change, Climate Change, Energy and Women, A Study of Coastal community in Sindh, Shirkat Gah, 2014.

any change in its supply has a negative impact on the livelihood of the villagers. As a natural resource, water is essential for crops and supports the agricultural base. Hence, the livelihood of the villagers and their prosperity or poverty depends on the availability of water.

3.2 Access and Control to Assets for Livelihoods

Access and control of assets is an important aspect to determine the position of women in the family and community. Gender equity becomes possible when women have access to resources, so it was considered essential to understand the amount of access and control both men and women have to assets for livelihood. As described in the Gender Analysis Toolkit, this section focuses on “gender as it intersects with social relations that affect access to the resources necessary for a person to be productive, such as: land, water, capital, and tools, and intangible assets such as knowledge, education, and information and social networks. Access rights, which are basically use rights, are different from control rights; control rights enable those who hold them to make key decisions on resources and their productive or non-productive uses. Within households and communities, these rights are often unequal. Therefore, it is essential to understand how and why these rights are unequal, and how social groups of women and men experience and wield them”.²³

3.2.1 Access and Control to Assets for Livelihood and Income Generation

The status of access and control for livelihoods is illustrated in Table 6. According to the FGDs, in all the field sites, only men have access, control, and ownership to land. Therefore, it appeared that men make decisions regarding the buying or sale of land. In terms of access, control and right to water, in most of the field sites, both men and women have equal access and control to water, with the exception of a village in Kharo Chan where the water sources are far away, and only

men and children are involved in its collection because the cultural norms in this village restrict women’s mobility outside their homes. In the fishing villages, since the main livelihood is fishing, the men have complete control over this occupation, as well as ownership of all fishing related equipment, so they also make all decisions related to it. Power and control in all productive resources lie with male members of the community. In terms of the natural resources, the mangrove forests are equally accessible to both men and women. And although the mangrove forests are under management control of the Sindh Forest Department, the villagers of the creeks, who have lived in these forests for many generations, use the mangrove wood for fuel, catch crabs in the forests, and take shelter from the trees during the stormy monsoons. According to FGDs, the men and women both perceive having equal access to the mangrove forests. However, fishing is only controlled by men, who have access and ownership to this resource. This strengthens the power and gender role of men as income earners in the family, and thus their economic control becomes a source of their decision making, both inside and outside the household.

The gender disparity is also noticeable in access to credit, which is only available to men, who take loans from the well-off individuals in the village, and from shopkeepers. In some cases, women mentioned taking loans from other well off women, but no formal mechanisms of credit, such as banks or micro-credit facilities were available in the area. Male respondents also mentioned that when they took loans from the shopkeepers, they had to return these loans when the fishing season began, and because of the lack of an alternative livelihood, fishermen are often in debt during the off season. The only asset women have ownership over is livestock.

Apparently, in the villages in the creeks, Bhoori and Tipan, which are more isolated, the female respondents said that men owned all the assets, and made all the decisions, but women were

23. Gender Analysis Guide / Toolkit for Coastal Resource Dependent Communities, MFF, 2017.

consulted in some minor family matters. Since the only form of transport within the creeks is by boat, women were completely dependent on men to leave the village and go to the mainland, which is about 2 hours away by boat. Therefore, when the men are away fishing, if a woman needs to get to the mainland in an emergency, there is no means of transport available to them. *“If we get sick suddenly, we cannot go to the doctor, and die gasping”*. The restriction on women’s mobility means their lives are at risk in the event of an emergency.

A similar situation prevailed at the sampled sites located in Kharo Chan and Keti Bundar. Apart from access and control over livestock, women have no other ownership of assets. Women’s mobility is restricted, since they cannot travel without a male member of the family, and without the permission of their husband.

Besides formal education, the gender related disparities in access to knowledge and opportunities of capacity building were also prevalent. The women respondents added that they also needed permission from their husband to attend any training or community meetings. They also mentioned that education was limited to primary level, and girls were not allowed access to education after primary school. Differences emerged in some cases, such as the villages in Keti Bundar where both men and women said they had equal access to education and transport. Women said they were able to take loans from their neighbours, and from local shops. In this village men had access to cold storage facilities, which helped preserve the fish caught after each fishing trip.

Embroidery is the only skill women engage in at home, and they are able to earn a small income from the sale of these embroidered items. Since access and ownership of resources lies mainly in the control of men, the women are confined to



domestic activities, and traditional skills such as embroidery. In these circumstances, the position of women in the household is limited, and their decision making power is also restricted to domestic household responsibilities. This status of women has led to the feminization of poverty, which is a global phenomenon. Women are the poorest among the poor and the most vulnerable among communities. Poverty in Pakistan has a “woman’s face”. There are also intra-household disparities in food distribution and investment of resources between male and female members. Among poorer households, incidence of chronic malnutrition is higher among female children. Women’s access and control over productive resources are extremely limited. In addition to suffering from the same deprivations as men, women face additional suffering due to unequal opportunities for education, health and other social services due to patriarchal control over their sexuality and cultural restrictions over their mobility (ADB, 2000).²⁴

24. Socio Economic Assessment Study, Indus for All Programme, Main Final Report, WWF / Management and Development Center MDC, May 2008.

Table 6: Access and Control of Assets for Livelihood and Income Generation

Resources	Access (can use)			Ownership			Control (can independently make decisions over)		
	Men	Women	Equal	Men	Women	Equal	Men	Women	Equal
Land	√	-	-	√	-	-	√	-	-
Water (for HH use)	-	-	√	-	-	√	-	√	-
Water supply/ Water rights	-	-	√	-	-	√	-	-	√
Water Points	-	-	√	-	-	√	-	-	√
Wetland (biodiversity) fisheries, plants	-	-	√	-	-	√	-	-	√
Borrowing	-	-	√	-	-	√	-	-	√
Capital	√	-	-	√	-	-	√	-	-
Credit & loans (e.g. microcredit, community fund)	√	-	-	√	-	-	√	-	-
Banking services	-	-	-	-	-	-	-	-	-
Social welfare (health & life insurance)	-	-	-	-	-	-	-	-	-
Labor (e.g. family relations), informal labor, hired labor)	√	-	-	√	-	-	√	-	-
Fisheries inputs: fishing gear boats boat engines storage facilities	√	-	-	√	-	-	√	-	-
Agricultural production materials: seed machinery	√	-	-	√	-	-	√	-	-
Poultry and Livestock	-	-	√	-	-	√	-	-	√
Raw materials for artisan and craft production	-	√	-	-	√	-	-	√	-
Transportation (boats, trucks, other vehicles)	√	-	-	√	-	-	√	-	-
Education/ training, Skill development, etc.	-	-	√	-	-	√	-	-	√

3.2.2 Access to Information

Access to information shows the potential for both men and women to be able to use opportunities which can improve their livelihoods. Therefore, it is important to understand the sources of information which are available to communities, how daily information is received, who has access to it, and who is able to benefit

from it. Considering the isolation of some of the villages, particularly the ones in the creeks, an analysis of the data revealed that sources of information were oral, and take a long time to reach the villagers. Lack of electricity, or an irregular supply of electricity, meant no access to television. Radio and mobile phones were the common sources of information.

According to the female respondents in the villages in the creeks, mobile phones are owned by men, and are the main source of any information. “we listen to the FM radio or get news from our relatives in Karachi, because there are no local organizations, and the government does not give us any information”.

Announcements through the mosque are accessible to both men and women, and people coming back from the mainland also provide news of events and information. Sometimes, individuals go from door to door giving news. However, differences emerged from among the respondents across the villages, where in one village, since an NGO had a project there, the staff became a source of information. The fishermen also said that some boats had VMS devices installed in them which provided information about the weather, and news from surrounding areas. At some places internet services are available, and where there are schools and offices of the local government, information is provided when necessary.

However, in terms of access to these sources of information, mobile phones were only owned by men, internet and social media, newspapers, and

interaction with other people outside the home was also only available to men. In general, women are restricted to those sources of information such as mosques, relatives, schools, and radio, but an interesting fact which emerged from the FGDs, was the use of mobile phones by women to get water and wood, when the men were absent or not available. In this case, women used mobile phones to call the water tanker supplier, and the wood supplier to provide water and fuel to them. This indicated the fact that in certain situations women do have access to mobile phones for a specific purpose.

3.2.3 Access to Basic Services

The availability of basic services such as water, transport, and health facilities, depend on the location of the villages. The villagers who lived in the creeks have the least access to basic services, since they have to travel to the Keti Bundar on the mainland to reach any basic facility, and transport is restricted to boats. In these cases, women are the most marginalized, and have the additional limitation of cultural aspects that do not allow them to move freely without a male family member. It was also mentioned that sometimes the husband of a

Table 7: Access to Information

Sources / Forms	Access to Information			Important Forms / Sources		
	Men	Women	Equal	Men	Women	Equal
Village leaders	√	-	-	√	-	-
Local government officials	√	-	-	√	-	-
Village Volunteers (e.g. villagers who volunteer to collect weather/climate impact information)	-	-	√	-	-	√
Local and National TV	-	-	√	-	-	√
Radio	-	-	√	-	-	√
Newspapers	√	-	-	√	-	-
School	-	-	√	-	-	√
Family members	-	-	√	-	-	√
Friends	-	-	√	-	-	√
Community Loud speaker system	-	-	√	-	-	√
Internet	√	-	-	√	-	-
NGO, Development organization	-	-	√	-	-	√
Mobile Phones	√	-	-	√	-	-

woman brought a doctor from the mainland to assist in maternal child birth.

The cultural barriers also restrict women for consulting doctors alone, as they have to be accompanied by a male member of the family. Cultural taboos also prevailed among the fishing communities as remarked by one female respondent who said, “*we cannot afford medical treatment so we visit close-by shrines and use ‘dargha ki khaak’ as a panacea when we get sick*”.

Table 8: Access to Basic Services

Basic Services	Male	Female
Water (drinking water) and sanitation	√	√
Transport	√	√

3.3 Gender Roles, Responsibilities, Time and Lived Experiences

The MFF Gender Analysis Toolkit explains this domain, as “information on the norms that influence men and women’s behavior, and also structures the type of activities they engage in, their social status, the importance assigned to their work, roles and responsibilities. This dimension captures information on men and women’s different roles, the timing and place where their activities occur, their capacity to participate in different types of economic, political, and social activities, and their decision-making.”²⁵

Gender roles and responsibilities in the research sites reflect the traditional roles of the productive and reproductive division of labour found in all rural areas of Pakistan. Table 9 reflects these roles, which show that men are responsible for all economic activities outside the household, and women are primarily responsible for domestic work, and caring for the family. In this case,

gender roles did not differ according to location, and women across all the field sites were involved in household activities. Women do the cooking and cleaning, and take care of children and elderly family members. They function within the domestic sphere, and are responsible for all household activities. Men are responsible for collecting fuel and water, although in some cases women are involved in this activity as well. The men also build houses, row boats, and cut wood from the mangrove forests to repair their huts and boats. In the fishing villages, the main livelihood is fishing, and from the fish caught shrimp and fish are sold in the market. Some individuals also worked as manual labourers, or as shopkeepers. Therefore, gender relations of power and decision making remain with the men, since they are the income earners. Women’s needs and priorities may differ, but given the traditional, patriarchal structure of the community in the field sites, the women remain confined to their household activities.

The only joint activity mentioned was caring for the elderly, where both men and women have an equal responsibility. In community activities such as marriages, or funerals, both men and women are also involved. Livestock rearing and caring is also a joint activity, but women are responsible for making cakes from cow dung for fuel.

In the villages in the creeks, of Bhoori and Tippan, it appeared that the women assisted the men in mangrove plantations, because NGOs such as IUCN and WWF had worked in the area, and the community had been involved in awareness meetings and trainings. Hence, where there is an opportunity influenced by NGOs, the women are also involved in natural resource management activities.

However, in the fishing villages, the women mentioned the stress and depression they endured related to fishing as an occupation, especially the debts incurred during the off season. Another unusual aspect of fishing which was reported by the female respondents of the

25. Gender Analysis Guide / Toolkit for Coastal Resource Dependent Communities, MFF, 2017.

villages in the creeks was that women also fished in the creeks on their own, in small boats, and left early in the morning and returned in the evening with the fish. According to a female respondent, *“it is difficult for us because there are no toilets to use, and we get scared of the waves, and sometimes get sea sick”*. The women also mentioned the reduction in the amount of fish caught, and the loss in their overall household income which has led to food insecurity. They believed this was due to the use of certain nets (*bulo gujo*) which destroyed all the small fish and damaged the breeding cycle and nutrition base of the fish.

When it comes to reproductive roles, women were responsible for child care, taking care of the sick and the elderly, cooking, cleaning, food, and livestock rearing. Men concern themselves with collecting water, collecting fuel, energy production, all kinds of farming and preparation for fishing. Both men and women take part in community activities, building houses, and grazing livestock.

Gender roles in Kharo Chan, the villages where agriculture was the main livelihood, reflected the same division of labour among men and women. The role of women is primarily caring for the family and elders, and men are responsible for the productive activities related to farming. Community events are performed jointly, and caring for the elderly is also a joint responsibility. Since agriculture is the main source of livelihood, the men are responsible for sowing and harvesting crops, but women also participate in agricultural work. In Kharo Chan, both men and women work on the land, growing crops such as wheat, rice and sugarcane, vegetables such as tomatoes, chillies, pumpkin, ridge gourd, eggplant, onions, betel leaves, and cluster beans, and fruit such as banana, papaya, chikoo, coconut and mango.

Livestock is also kept by most households and both women and men are involved in caring, rearing and collecting fodder for the livestock. An important fact that emerged from the FGDs was that poverty transcends gender divisions of



labour. As one woman remarked, *“we are so poor, we have to work together in the fields”*, which indicates that poverty supersedes cultural norms. However, this acceptance of women working on the land does not apply to women's participation in other areas outside the household such as employment, or participation in NGO trainings and meetings. Nor does it apply to women using their embroidery skills to market their products, and earn a regular income to improve their livelihoods. Women also use the palm tree leaves to make mats, which they sell for Rs. 50, and it takes one day to make 2 mats. According to one woman in Kharo Chan, *“the peak season is around Eid ul Azha, when we can earn about Rs.10,000 during the season”*. In this case, the women make the mats, and the men sell them in the village markets.

Other occupations included government jobs, shop keepers, manual labour, or employment in business in other towns and cities. The women also earn a small income from making traditional quilts called rillies, which the men sell for Rs. 400 per quilt, and embroidered dresses which sell for Rs. 200 per suit. The average income reported was Rs. 600 to Rs 3,000. Occasionally, the women remarked that they earned Rs.400 a day as labour charge to replant mangroves for an NGO involved in mangrove plantations.

Table 9: Gender Roles and Responsibilities: Male and Female

Villages	Reproductive Roles	Male	Female	Both
Tipan (Creek)	Child care	-	√	-
	Care for elderly and sick family members	-	-	√
Bhoori (Creek)	Cooking	-	√	-
	Cleaning	-	√	-
Ahmed Samo (Kharo Chann Agriculture)	Water collection	-	-	√
	Fuel collection or energy production	-	-	√
Ali Bux Murgar (Kharo Chann Agriculture)	Food security & nutrition (e.g. home gardening, livestock, gleaning)	-	-	√
	Grazing for animals/livestock	-	-	√
Haji Moosa (Keti Bunder Town)	Community activities	-	-	√
Keti Bundar City	Building a house	√	-	-

Table 10: Livelihood Activities: Male and Female

Villages	Livelihood Activities	Male	Female	Both
Tipan (Creek)	Farming	√	-	-
Bhoori (Creek)	Fishing	-	-	√
Ahmed Samo (Kharo Chann Agriculture)	Gleaning/hand-collection from wetland areas	√	-	-
	Water collection	-	-	√
Ali Bux Murgar (Kharo Chann Agriculture)	Preparing fishing gear	√	-	-
	Fish processing / post-harvest production	√	-	-
Haji Moosa (Keti Bunder Town)	Marketing/Selling	√	-	-
	Livestock rearing	-	-	√
Keti Bundar City	Timber Collection	-	-	√
	Collecting Non Timber Forest Products	√	-	-
	Salaried / waged employment	√	-	-
	Informal employment	√	-	-
	Business	√	-	-
	Casual labor	√	-	-
	Embroidery, stitching, sewing	-	√	-

At Keti Bundar, the gender roles were the same as in the other sites. The main occupation is fishing, manual labour, and employment in government jobs. Repairing boats and fish nets, processing and marketing fish are all male responsibilities.

Therefore, to a large extent, the division of labour and gender roles reflects that women are primarily responsible for the family, men are responsible for income and livelihoods, and both are responsible for joint community activities. . Even when women are involved in “productive” work such as embroidery, mat weaving, and

working in agriculture, their roles are still confined within the household and domestic sphere.

The lack of opportunity and low literacy has isolated these women from the market where their handicrafts could become an alternative source of income for their family. Any sort of income generation for women leads to gradual changes in the position of women in the family and community, as women use their income for the health and education of their children. Thus, if the women of these villages had access to skill development, and resources, it could provide an alternative source of income to supplement income from fishing.

3.3.1 Gender Roles Specific to Fishing

Since the livelihood of the respondents in most of the villages is predominantly dependent on fishing, specific questions related to fishing were also asked to understand various fishing-related activities in the community. The responses revealed that only men are involved in the fishing to market process such as gear preparation, fishing activities, post-harvest activities and repairing of nets. Women were not involved in any fishing related activities, except for minor tasks such as collecting crabs, and razor clams, from the nearby mangrove forests.

Fishermen in the creeks go out in their boats every day to fish, or for a week at a time. The fishing boats are small to medium in size, most of them are not well maintained, and the fishermen said they often have engine problems when out at sea. Sometimes, in bad weather the fishermen can be caught in heavy winds, high tides and cyclones, which makes them vulnerable in small boats. Over the last 5 years, according to the respondents, income from this livelihood has declined due to over-fishing, the use of illegal nets and degradation of mangrove forests. The fishermen mentioned a number of species of fish which have disappeared, but they also mentioned a few varieties of fish which have suddenly appeared in their waters, and did not have an explanation for this.

Fishermen in the sites of Keti Bundar city have larger boats, so they go out to sea for longer

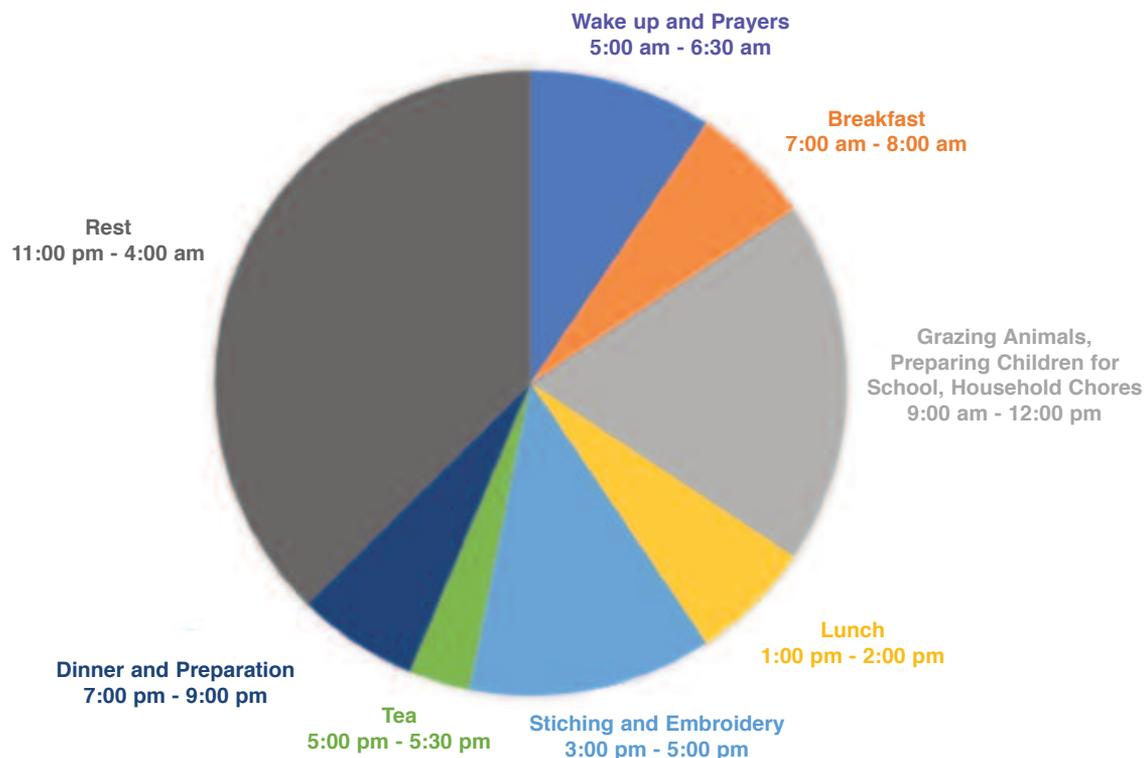


periods of time, ranging from 1 day to over 1 month. They also mentioned the same issues of unpredictable weather, and a decrease in income over the last 5 years due to the use of illegal and plastic nets. They added that fishing expenses were increasing which outweigh the decreasing income. The average age of the fishermen was between 15 and 50 years, although younger boys are also involved doing lighter work as assistants to the older fishermen. Since fishing is a hereditary profession, the skills are learnt from a young age.

3.3.2 Daily Routine: Male and Female Activities Over 24 Hours

Daily patterns of work and activities through the day reflect gender roles and provide an understanding of how men and women use their time over a period of 24 hours. Both male and female respondents were asked to share their typical day, and for women their day was divided into 4 sections, as Figure 1 illustrates, morning, afternoon, evening and night. Time and hours were irrelevant, because for the women the division of the day was often marked by prayer timings. The daily routine of the women consisted of cooking, cleaning, washing clothes, taking care of children, old and sick members of their family, collecting water and fuel, and all household tasks.

Female Activities over 24 Hours



Describing their daily routine, the female respondents said: “every day, we wake up at 4.30 am, and prepare breakfast, which we give to our family at 7 am. Then we clean our house and wash our clothes and do household tasks till 12 noon, when we prepare lunch. In the afternoon, we do more work in the house, then some stitching and embroidery, rest for a while, cook dinner and usually eat at 8 pm, and go to sleep by 10 pm”.

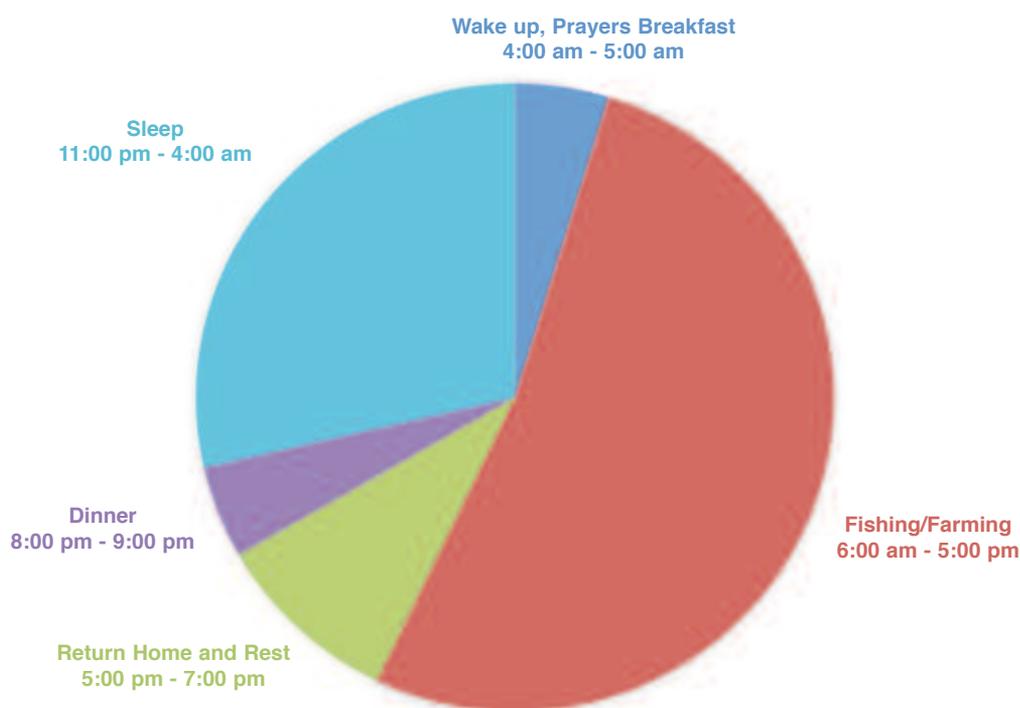
Therefore, women’s basic and strategic needs must be addressed if they are to be equipped with the skills and knowledge required to reduce their long hours of domestic work. As the UNDP Human Development Report emphasised in 2007, “women’s historic disadvantages, and their limited access to resources, restricted rights, and a muted voice in shaping decisions, make them highly vulnerable to climate change”.²⁶ Therefore, women’s status and position within the family and household in the field sites can be enhanced if gender inequalities are addressed.

The management of basic needs in the context of women and environment is reflected in collecting fuel and fodder, water, caring for livestock, and managing natural resources. Women perform a number of tasks daily, as they begin working at dawn and continue until sunset or even later. On average, the women respondents estimated that they were involved in household activities for at least 16 hours each day.

The daily routine for men who lived in the fishing villages in the creeks was an early morning start at 4.30 am, to prepare their boats and nets for fishing. Then at 10 am they returned for breakfast, and went out to fish at 3 pm in the afternoon. Here, fishing was an afternoon activity, and sometimes the men returned after midnight. The daily routines varied among the field sites, as in some of the other villages, the men woke up at dawn, for the *Fajar* prayers, then had breakfast, went fishing, returned at 4 pm, and then went to *Keti Bundar* to sell the fish, purchase diesel and other items for the next fishing trip, returned to their villages in the creeks, rested a bit, and went to sleep at 10 pm.

26. UNDP Human Development Report, 2007.

Male Activities over 24 Hours



In Kharo Chan, the routines were the same, except where agriculture was a livelihood - the men went to farm, or to their jobs, or opened their shops. Some farmers would milk the livestock before they went to the fields, then come home at lunch time, while others stayed in the fields all day. Generally, all the farmers came home by 6 pm, and then went to the market to buy household stores, and had dinner by 8 pm, spent time talking to their family and friends and were asleep by 10 pm.

3.4 Patterns of Power, Participation and Decision Making

To understand patterns of power, participation and decision making in the community, a number of questions related to women's empowerment were asked to both male and female respondents. This was based on the parameters outlined in the MFF Gender Analysis Toolkit, which focuses on "information on the different

types/ forms/ levels of participation (including decision making) by men and women of different social groups".²⁷

The information from FGDs with the women indicated that since men are the main wage earners, power and decision making for almost everything lies with men. The men stated that although most decisions were made by them, in some cases women were consulted, for instance in the sale of certain household items, like livestock. The male respondents also claimed that decisions regarding marriage of the children in a family were made by women in consultation with men.

One female respondent in Bhoori, a village in the creeks, said; "*men have decision-making power in everything except marriage of children. And although men consult with women, the decision-making powers rest with the men*". Hence, the position of women in the family remains unchanged. Changing women's position requires addressing their strategic gender interests,

27. Gender Analysis Guide / Toolkit for Coastal Resource Dependent Communities.

including equal access to decision-making and resources,²⁸ and since the traditional social structures deny women equity to resources, women's position and status remains the same.

In the villages in Keti Bundar, both male and female respondents said that in household matters, both men and women make joint decisions, which indicates that at a certain level within the family, joint decisions are made. Lack of education and no access to schools within creeks meant that the villagers, both male and female, and their children are marginalised, remain neglected, and are denied access to opportunities and a better livelihood. The women want their children to be educated so they can become teachers and doctors. There are very few resources available for alternate livelihoods. The male family members are responsible for the purchase of all household items, and are the decision makers in the family. Women receive gold in their dowry, and according to the women, the men can sell the gold which the women acquired in a dowry whenever a financial crisis occurs.

3.5 Cultural Norms, Beliefs and Perceptions

This section looks at “information on the cultural belief systems or norms about what it means to be a man or woman in this specific society. Cultural beliefs affect men and women's behavior, participation and decision-making capacity. They also facilitate or limit men and women's access to education, services, and economic opportunities. Cultural norms, beliefs and perceptions influence access to opportunities, mobility, decisions, and expectations about appropriate behavior”.²⁹ Using the MFF Toolkit as a guide for analysis, the FGDs revealed women's participation in the social and economic sphere, and perceptions regarding women's role in society emerged as a limited area of opportunity. In spite of many years of projects and programmes by both NGOs and

the government, according to the respondents of the FGDs, women's status, role, and position in the family, and community remains limited to the traditional reproductive role in patriarchal societies. Traditional cultural beliefs and practices prevent women from participating in the wider society, and even where women have been involved in NGO projects and programmes, these have not led to creating women leadership.

3.6 Laws, Regulations and Institutional Practices/ Mechanisms

Pakistan has been a signatory to numerous international conventions concerning women's human rights, most notable, the Universal Declaration of Human Rights in 1948, the Beijing Platform for Action (BPfA) 1995 and the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) 1995. Furthermore, the Constitution of Pakistan (1973) provides a strong legal framework for many dimensions of women's equality related to equal protection of law, anti-discrimination, for equal access to public places and equality of employment in public and private sectors.³⁰ The government has instituted several provisions to take affirmative action to protect and promote women's rights. In the last 13 years, a number of documents on national and provincial legislation have also been drafted which include the establishment of institutions like Provincial Commissions on Status of Women, Women's Development Departments/Directorates (WDD) and a permanent National Commission on the Status of Women (NCSW).

Between 2000 and 2013, the National Assembly passed several laws that promoted or increased protection of women's rights and empowerment. These laws include:

- Protection of Women Act 2006

28. The concept describes the place of women in society relative to that of men, Training Manual on Gender and Climate Change by Lorena Aguilar, IUCN 2009.

29. Gender Analysis Guide / Toolkit for Coastal Resource Dependent Communities.

30. Pakistan Country Case Study. Asian Development Bank's Support to GAD Phase II, 2009.



- Protection against Harassment for Women at the Workplace Act 2009
- Women in Distress and Detention Fund (Amendment) Bill 2011
- Pakistan’s Domestic Violence (Prevention and Protection) Act 2012³¹

Despite the progress made on the legal front, several sociocultural and economic barriers still persist for women to actively and meaningfully engage in social, economic and political activities within the country.

This section focuses on “information about men and women’s different formal and informal rights and how they are differentially affected by policies and rules governing institutions.”³²

Discussions were held with a representative of the provincial government, and civil society to understand the wider context of laws, policies, opportunities, and institutional mechanisms, for women’s development. According to a key informant, gender is a term considered in

sustainable development, and in health and education, but not in the fisheries sector since this is a male dominated sector. Similarly, gender specific data is not collected in any activities related to the Fisheries Department. There are no programmes or activities which focus on women in the fishing communities. Due to cultural norms, men and women do not have equal access, ownership of or control over local resources. Land near the creeks is owned by the government while in the wetlands land belongs to individual men, and women have no right to land. There is a lack of institutional credit services, and local fishermen take informal loans to purchase fishing equipment. Decisions about household spending are made jointly by the men and women.

A civil society representative of the Pakistan Fisher Folk Forum, a large network of fishermen in Sindh, and a right’s based organization, said that the proportion of women in all activities of the PFFF is over 50%, because they were aware

31. Report on the Effectiveness of the Islamic Development Bank (IDB) Operations in Empowering Women in Pakistan, Final Report, Rabia Khan, Meher Noshirwani, Gender Consultants, 2015

32. ibid

of the importance of women's livelihoods, and their role in the fishing community. The PFFF has more than 300 Units in which 30% are Female Gender Units. The Central Council has 2 males and one female. PFFF's research is project based, so they do not collect gender disaggregated data, but female participation is encouraged in all activities. In the different villages of Keti Bundar and Kharo Chan, PFFF has established small shops which are managed and run by women to sell groceries. Local awareness on biodiversity, ecosystem and natural resource management is high among the community because PFFF focuses on issues related to water and mangroves. Climate change is a secondary issue, and there is no awareness of the effects of climate change along the coast.

It was thought that women could be engaged in livelihood activities if they are given the opportunity through plans or projects implemented by NGOs, or by the provincial government.

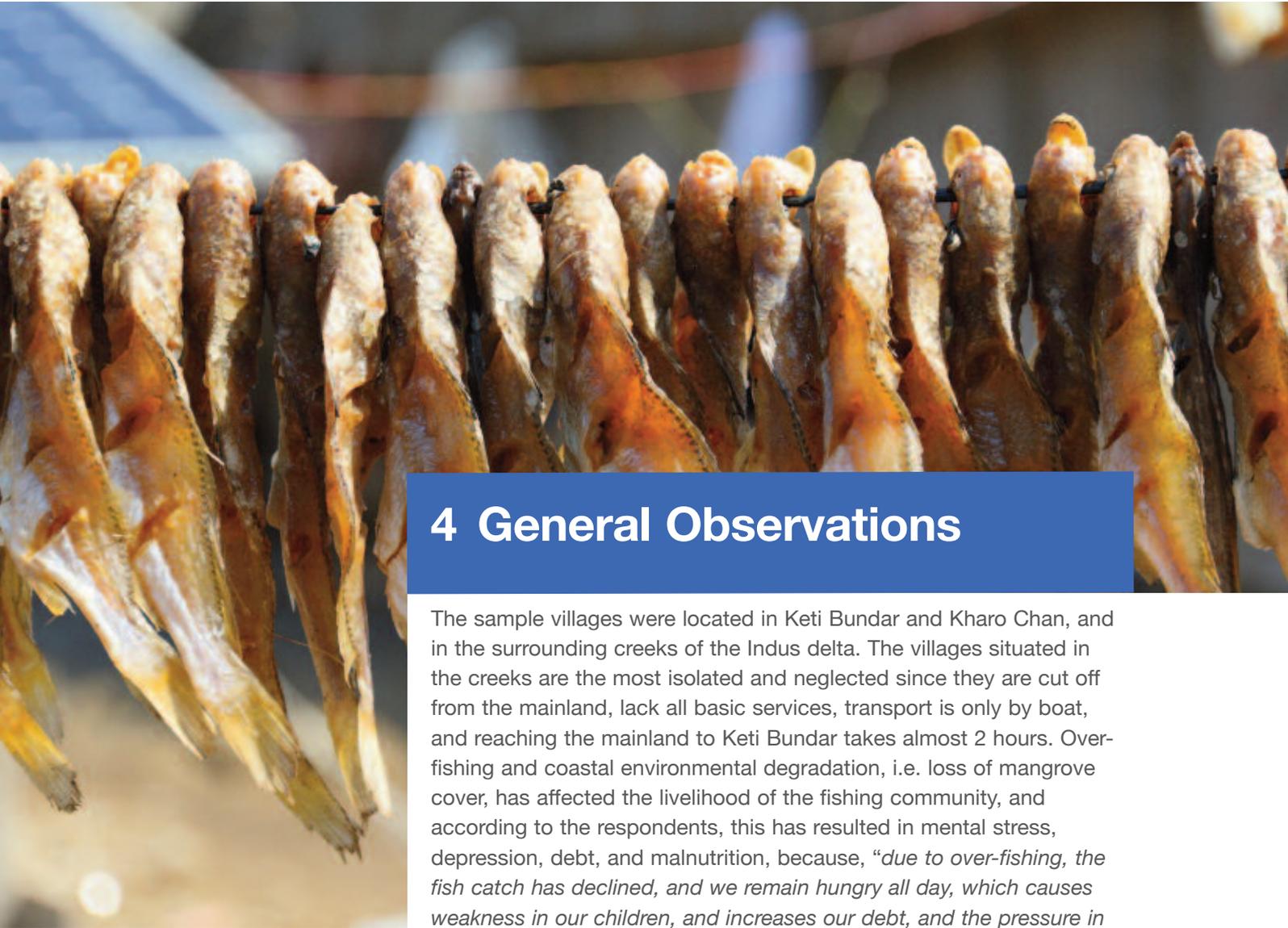
In the context of natural resources management, the CSO representative believed there have been efforts to increase mangrove plantations in the last few decades, however, the focus of such projects by NGOs and the government had always been on increasing the quantity of mangroves planted, and not on their conservation. Therefore, the sustainability of these plantations may remain uncertain. This raised the issue of the lack of freshwater in the Indus River which has led to sea intrusion, whose long term effects have already been seen in the low lying areas of Thatta and Badin, where communities have been displaced, and migration has taken place. It is feared that in the next 20 or 25 years, the areas of Thatta, Sajwal and Badin may be submerged under the sea.

It was also thought that current commercial fishing practices are harmful and unsustainable, and the reduction in fish catch means alternative sources of income are necessary for the

fishermen. It was suggested that community based fishing income generation activities should be encouraged, as opposed to commercial methods. A few decades ago, family fishing was the norm, and entire families including women and children were involved in all aspects of fishing. In the early 1960s commercial fishing investors came into the coastal market and began hiring external labour, and gradually the number of boats increased and fishing became a commercial activity. This led to a change in fishing traditions, women were marginalized, and fishing practices were commercialized.

The civil society perspective of gender roles was the same as mentioned by the respondents in the study. They believed that coastal degradation has a greater adverse psychological impact on women, because they are primarily responsible for basic needs such as food and water.

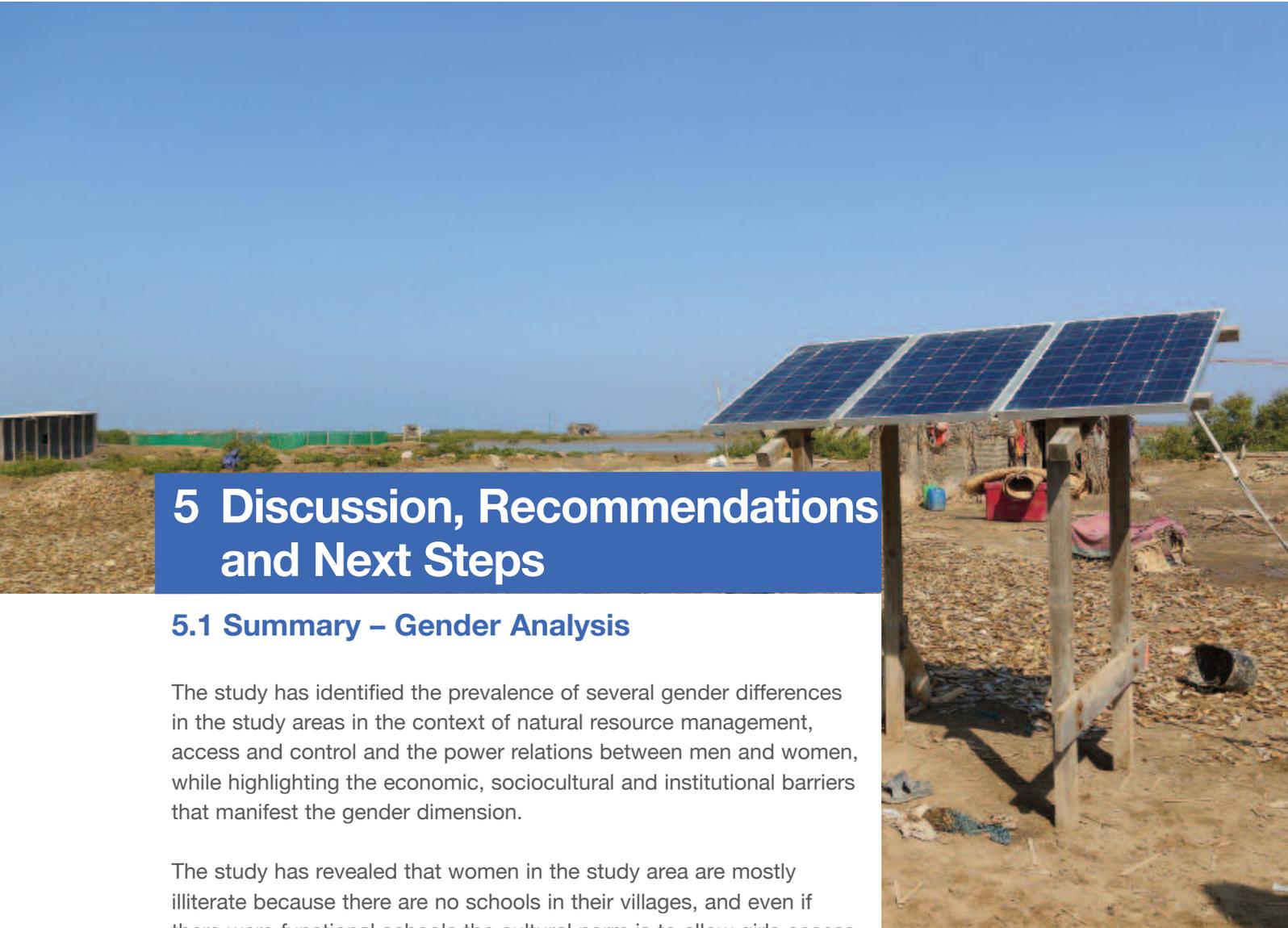
Access, control and ownership over land, according to the CSO representative, was that ownership of agriculture land belongs to the community, but in the wetlands ownership belongs to government. Most resources, and finances are mainly in the hands of men, who have decision making power in the household. It was also mentioned that there are no credit or formal money lending services available to the fishermen. Basic needs such as a regular supply of water, access to education, health and income generation for females, and equality and equity issues particularly for women are a challenge. Similarly, men have access to local and national TV, newspapers and the internet, while women use radio as a source of information, and have limited access to internet. However, both male and females have access to the community loud speaker systems. Hence, for future sustainability of the natural resources, and the improvement of livelihoods according to both government and civil society representatives, change must begin at the community level, with support of relevant institutions.



4 General Observations

The sample villages were located in Keti Bundar and Kharo Chan, and in the surrounding creeks of the Indus delta. The villages situated in the creeks are the most isolated and neglected since they are cut off from the mainland, lack all basic services, transport is only by boat, and reaching the mainland to Keti Bundar takes almost 2 hours. Over-fishing and coastal environmental degradation, i.e. loss of mangrove cover, has affected the livelihood of the fishing community, and according to the respondents, this has resulted in mental stress, depression, debt, and malnutrition, because, *“due to over-fishing, the fish catch has declined, and we remain hungry all day, which causes weakness in our children, and increases our debt, and the pressure in our lives”*. Hence, living in coastal areas and being exposed to floods and heavy rains with increasing frequency has increased the social vulnerability of the community. There are few support mechanisms, and for women this means additional emotional and psychological stress to deal with, combined with insecure livelihoods and few social networks, thus increasing their isolation and vulnerability.

In the villages situated in Kharo Chan, where livelihood is based on agriculture, a shortage of water, temperature variations, an increase in salinity, and lack of rainfall has led to a decline in the yield from crops and a decrease in the income of each household. In Keti Bundar, where fishing is also the main occupation, although location is not a barrier, the issues related to over-fishing, environmental degradation, and its impact on livelihoods remains the same. Therefore, working with these communities will require different approaches to address these challenges.



5 Discussion, Recommendations and Next Steps

5.1 Summary – Gender Analysis

The study has identified the prevalence of several gender differences in the study areas in the context of natural resource management, access and control and the power relations between men and women, while highlighting the economic, sociocultural and institutional barriers that manifest the gender dimension.

The study has revealed that women in the study area are mostly illiterate because there are no schools in their villages, and even if there were functional schools the cultural norm is to allow girls access to primary education only, since girls are usually not allowed to travel to cities for further education. Due to illiteracy, women can only use their traditional skills, and are involved in skill based activities like embroidery and sewing which keeps them within the home, and reinforces traditional gender roles. Women earn a small amount for their embroidery work, and they have no direct access to the market.

The coastal communities of the research site are quite poor, and water is scarce, there is very little electricity, and wood is the main source of fuel in the villages. There is no regular transport system from the villages in the creeks to the nearest towns, which increases the communities' isolation.

Due to lack of education and cultural barriers, women do not go out and seek employment but stay at home and look after their family, children, sick and elderly family members. Due to lack of education and awareness women have no knowledge about opportunities which may be available to them. Similarly, women have limited participation in the decision making process of a household or family, and land or property is not owned by them, even though it may be part of their inheritance. Land can be bought and sold without their consent, just

like gold which may have been given to them in a dowry but can be sold by their husband without their approval. Although the male respondents said that women were consulted, it is ultimately a male decision whether a man chooses to consult his wife or not.

Among other socio- economic issues, water is scarce, and the community depends on water supplied by government or private tankers. Women have to manage the water carefully, for both household use, and for their livestock. Fuel is predominately wood, which is bought and collected by both males and females. This increases the burden on women's workload and needs to be assessed and addressed. Electricity is available for only short periods of time in the agricultural villages, and in Keti Bunder. As for the villages in the creeks, there is no electricity available at all.

Climate change and shifting weather patterns have been mentioned, but the community is unaware of the impact of these changes. Environmental awareness is also low, and although both men and women recognise their dependency on natural resources, they are unaware of climate change and how it impacts their lives.

At present, there are a few NGOs working in the communities, and so information, and training or awareness sessions about health, environmental and social issues, or skill training is available, but there are no alternate sources of income available for the men and women in these communities. Limited resources and seasonal income does not allow these villagers to earn enough to save and live comfortably during the fishing off season, as they are always in debt since they have to borrow money during these months to survive.

5.2 Key gender issues prevalent in the area

Gender awareness is low, and issues related to gender roles and responsibilities are not understood by the males and females of the

community. Women accept their traditional roles, and do not question male authority. Gender roles among the community in all the field sites followed the traditional roles of women responsible for the family and household, and men as the main income earners. There was a low sense of empowerment, and women are extremely vulnerable because they have very little access to education and are ignored in decision making processes. Women have to deal with numerous health issues with no access to reproductive health services, and no hospitals nearby. This, compounded by a lack of transport, low income, and mobility restrictions due to cultural restraints, means that women will continue to suffer, and remain the most vulnerable within the community. If this is to change then women's basic and strategic needs should be addressed, and women should be integrated as potential agents of change to address their livelihood issues and gender inequalities.

5.2.1 Negligible engagement for women in productive activities

Women's skills, such as embroidery and sewing, which could become an important source of income for a family, are not being developed, though the potential for making this into a viable income generating activity exists. In the absence of women's groups and CBOs, there are no forums for women to have access to any information or knowledge from outside the immediate family and household. Women also weave mats from the leaves of palm trees, and this has the potential to become a viable income generating activity. But due to traditional attitudes, women are unable to develop their skills for any productive activities which would.

As mentioned earlier, women make handicrafts at home for their personal use, or for their daughters' dowries. The female respondents said they were not able to sell their handicrafts because they were unable to access the market due to cultural restrictions, and there were no income generation activities available. Although in Sindh the traditional handicraft market sources its

products from local artisans, and in many cases the men bring the products to the shops in larger cities, in the villages in these field sites, selling handicrafts was an occasional activity, and not perceived as an alternate source of income or livelihood. This also reflects an absence of any possibility for women's empowerment, since it is well established that when women begin to earn an income for themselves this leads to an increase in the household income, a positive change in women's status within the family and community, and eventually reduces their vulnerability.

5.2.2 Disparities in access to education and knowledge

Among the main gender issues prevalent in the area was the high level of illiteracy among women, and lack of education which automatically marginalises women, keeps them confined to the household and domestic sphere, and prevents them from participation in economic activities. Although, primary education and, to a limited extent, secondary education does exist, the number of girls moving from primary to secondary falls as the girls get older, and drop

out of school. Hence, women's access to knowledge and written skills are limited.

5.2.3 Gender gaps in access and control over assets and decision-making processes

Access to and ownership of assets is mainly in the control of men, and women had limited participation in the decision making process. Power predominantly lies with men, and access to information is also limited for women. Thus, gender equity needs to be addressed.

5.2.4 Cultural barriers and traditional attitudes

Due to traditional attitudes, women do not have equal access to resources; their mobility is limited to being accompanied with other male members of the family, or other women when leaving their homes, so access to health facilities is restricted. The lack of reproductive and maternal health care in the immediate vicinity means that women are vulnerable to illness and health emergencies. The health issues of women are also neglected and access to healthcare needs to be improved.





5.2.5 Institutional neglect/failures to mainstream gender in planning processes

Although local government projects have led to an increase in the quantity of mangrove plantations along the coast, and the awareness of the role and importance of mangroves among the communities, gender mainstreaming of women in these projects has been neglected. Women have been involved in community planting processes, but they have not been included in the planning of projects.

5.2.6 Low awareness and capacity of gender mainstreaming

A basic level of understanding of women's roles exists in all the field sites, but the capacity to develop gender mainstreaming or to address the concepts of gender in projects or programmes among NGOs and the local government needs to be developed further.

5.2.7 Inadequate efforts to mainstream gender, except for NGO interventions

Gender mainstreaming and the inclusion of women in the planning and implementation of

projects by NGOs has not occurred in a systematic manner, considering the fact that NGOs have worked in the coastal areas of Thatta and Keti Bundar for many years. Women's leadership, and women's empowerment have not been a focus of community development projects. Hence, women's capacity for productive activities and participation in social forums is still limited.

5.2.8 Women involved in small scale fisheries; potential of crab and razor clam collection

Women are involved to some extent in the collection of crabs and razor clams from the root systems of the mangrove forests. Although this is a small activity, there is potential to train women and develop this into an income generating activity for the villagers of Bhoori and Tipan, who live in the creeks.



6 Recommendations and Next Steps

Based on the research the following recommendations have been suggested:

S. No	Key Findings	Recommendations
1.	Women's roles are mostly confined to reproductive activities despite the fact that they are skilled in traditional embroidery, sewing and weaving mats.	Improve opportunities for women's income generation, and livelihood through technical support, equipment, and training in crafts and marketing.
2.	The overall status of education is very low for both genders and even less for females.	Increase basic female literacy through adult literacy in collaboration with local government and NGOs.
3.	Access, ownership and control of assets are male dominated, and men have control over livelihood and household decisions.	Gender Trainings for men in gender concepts to increase awareness and understanding of the importance of women's role in the household and community.
4.	Women have little access to maternal and reproductive health services.	Female doctors and mid-wives should be recruited in collaboration with the local government and NGOs to provide health services to the women. Women should also be trained in basic health and hygiene procedures.
5.	The social organization among the community, particularly for women, is very limited, and access to information was found to be unevenly distributed among men and women.	Increase capacity of women, by forming women's groups and Community Based Organizations, in coordination with WWF, Fisheries Department, Government of Sindh, Pakistan Fisher Folk Forum and other NGOs working in the area, to provide a forum to discuss gender issues.

S. No	Key Findings	Recommendations
6.	There is a lack of awareness and capacity at local and institutional levels to mainstream gender in the planning processes.	Initiate gender mainstreaming, through gender sensitization trainings with the community, and at the local and institutional level to include women in the project and programme planning process.
7.	Males have a limited role in household activities, and were completely dependent on fisheries and agriculture as the key natural resource for meeting livelihood needs.	Explore alternate sources of livelihood and income for the local communities.
8.	Fishing, farming and mangroves are key resources for women to fulfil household needs. There is water scarcity and lack of a regular water supply for drinking and household purposes and a lack of electricity was reported at all the field sites.	<ul style="list-style-type: none"> ● Explore possibilities of introducing household based fishing activities for women such as crab fattening ponds, fish processing, etc. through capacity building and financial support. ● Explore possible solutions to reduce the shortage of water, in coordination with the community, local government and NGOs. Methods of rainwater harvesting and water saving techniques could be initiated with the participation of the community, and particularly the women. ● Fuel efficient stoves could be introduced, and women should be trained to use fuel efficient methods of cooking. Alternate sources of energy should also be explored. ● Solar panels and batteries with LED bulbs should be provided at the community level.
9.	Awareness of natural resources and environmental issues already exists among the community, particularly among the males.	A greater understanding of natural resource management is required to increase women's understanding of environmental issues and livelihood linkages.

6.1 Next Steps

The potential areas for addressing gender issues under MFF projects include the following:

- 1) Enhance women's role in the productive sector by providing skill training in developing and marketing local crafts.
- 2) Gender awareness programmes and trainings should be conducted to increase the understanding of gender concepts at the community and institutional levels.
- 3) Gender awareness materials should be developed in local languages, in a simple and easy to understand format, for use in gender trainings, and for dissemination among the wider community.
- 4) Trainings on gender mainstreaming to develop capacity at the local and institutional level should be developed, keeping in mind the traditional context in which the women live their daily lives.
- 5) Environmental awareness raising sessions, to develop a greater understanding of the importance of natural resources, should be introduced at the community level, particularly among the women.
- 6) Reproductive and maternal health awareness material in simple local languages could be developed in collaboration with NGOs and the local government to improve basic maternal and reproductive health in the community.
- 7) MFF-supported grant projects targeting identified gender issues may be initiated to enhance gender mainstreaming.
- 8) Potential for women's participation in fisheries sector at the local level could be explored and demonstrated.
- 9) Similar gender analysis research could be conducted at other sites along the coast.

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Glossary

Laar: Thatta District is in Southern Sindh. It share its borders with districts Tando Muhammad Khan, Karachi, Sujawal and Hyderabad.

Taluka: It is an area of land with a city or town that serves as its administrative centre, with possible additional towns and usually a number of villages. An administrative unit within a district.

Deh: Small unit of a city/ town

Devi (Mesquite tree): Used for firewood.

Babul (*Acacia Nilotica*): A tree of warm climates which bears spikes or clusters of yellow or white flowers and is typically thorny.

Jungle Jelabi (Madras Thorn): A fruit / vegetable similar to Tamarind.

Maliro Gah: Vegetation, local term for grass.

Saon Gah: Red rice or wild rice,

Teetar: Partridge

Kabootar: Pigeon

Karela (bitter gourd): A vegetable

Dargha ki Khaak (Soil): From a holy place

Bulo Gujo (Fishing Net): A fine mesh fish net

Fajar: Fajar prayer at dawn

Annex I: Mission Gallery

Keti Bundar, District Thatta, Sindh



Focus Group Discussion (Male Group) Village Haji Moosa



Focus Group Discussion (Male Group) Keti Bundar City



Focus Group Discussion (Male Group) Ali Bux Murgar



Annex II: List of Participants

Round Table Discussion with Government Officials		
Name of Person	Designation	Department
Ahmad Nadeem	Director	Balochistan Coastal Development Authority (BCDA)
Abdul Raheem	Senior Environment Manager	Gwadar
Shahzeb	Assistant Director	BFD
Ubaidullah	Assistant Director	Social Welfare Jiwani

Round Table Discussion with Civil Society Organization		
Name of Person	Designation	Department
Shaikh Baloch	Social Mobilizing Officer	Social Harmony Awareness & Development of Women (SHADOW) Organization
Waheed Abbas	Social Mobilizer (Balochistan Education Project)	SHADOW Organization
Nazir Dawood	President	Local Support Organization
Jalil Imam	Member	Rural Community Development Council (RCDC)
Nazir Ahmed	President	PEACP Gwadar

Key Informant Interview (KII) with Government Officials		
Name of Person	Designation	Department
Ahmad Nadeem,	Director	Balochistan Coastal Development Authority (BCDA)
Abdul Raheem	Senior Environment Manager	Gwadar
Shahzeb	Assistant Director	BFD
Ubaidullah	Assistant Director	Social Welfare Jiwani

Key Informant Interviews (KII) with Civil Society Organizations		
Name of Person	Designation	Department
Shaikh Baloch	Social Mobilizing Officer	Social Harmony Awareness & Development of Women (SHADOW) Organization
Waheed Abbas	Social Mobilizer (Balochistan Education Project)	SHADOW Organization
Nazir Dawood	President	Local Support Organization
Jalil Imam	Member	Rural Community Development Council (RCDC)
Nazir Ahmed	President	PEACP Gwadar

Annex III: Survey Forms

Questions for Focus Group Discussions (FGDs) Keti Bundar Gender Study

Male and Female Group			
Village name		Date:	
Location			
District			
Province			
Age Group:		Gender:	
Ethnic Group:			
FGD Category:		No of Participants:	
Duration:			
● Introduction of Participants		● Introduction of the Topic	

Socio-Economic Profile

1.0 Education

1.1 What is your basic level of education? (Out of all respondents how many have completed primary class 1 to 5 / secondary class 6 to 10/matric)

- How many completed primary class (1 to 5) _____
- How many completed secondary class (6 to matric) _____

2.0 Sources of Fuel

2.1 What is your main source of fuel for cooking?

Gas LPG (cylinder) Kerosene oil Wood

Where do you collect fuel wood from? How much time does it take you to collect fuel wood; daily or weekly?

3.0 Sources of Water

3.1 What is your main source of drinking water?

Piped water

Well water

Collected water. If yes, who collects water, from what distance and how much time is involved per day. _____

Other: _____

4.0 Gender Roles of Men and Women

- What is a woman responsible for within the family? / Outside the household?
- What is a man responsible for within the family? / Outside the household?

Table 1: Reproductive Roles (within the family)

Reproductive Roles	Male	Female	Both
Child care			
Care for elderly and sick family members			
Cooking			
Cleaning			
Water collection			
Fuel collection or energy production			
Food security & nutrition (e.g. home gardening, livestock, gleaning)			
Grazing for animals/livestock			
Community activities			
Building a house			
Planting/gardening			
Traditional rice milling			
Other			

Table 2: List of Livelihood Activities (Productive Roles / Outside the household)

Livelihood Activities	Male	Female	Both	Comments
Farming (subsistence)				Provide example types of farming
Farming (commercial crops/crop production)				Provide example types of crops
Fishing (subsistence/HH level) - Capture fisheries (caught fish, prawns, crabs, or shellfish)				Provide example fish types
Fishing (commercial/local or external market) - Capture fisheries (caught fish, prawns, crabs, or shellfish)				
Gleaning/hand-collection from wetland areas (e.g. snails, frogs, crabs, etc)				
Water collection (consumption, water management, irrigation management etc.)				
Aquaculture				
Preparing fishing gear				
Fish processing / post harvest production				
Marketing/Selling (fish, vegetables, rice, forest products, other)				
Livestock rearing (goat, cow, water buffalo chicken, other) or Animal husbandry/livestock production				
Timber Collection				
Collecting Non Timber Forest Products (this can also include aquatic plants) or Forest user (e.g. gathering non-timber forest products)				
Peat collection				
Hunting				
Salaried / waged employment				
Eco-tourism; e.g. tour guide, boat operator, cooking, homestay working in a guesthouse etc.				
Informal employment (unpaid work e.g. shopkeeper, food preparation, handicraft production, casual work)				
Business (SME, shop, trading)				
Casual labor				
No job/means of living				
Remittance from relatives				
Illegal activities (hunting, smuggling, poaching)				
Other				

- In your opinion who works more men or women? (Focus on Natural Resources)

Table 3: Use 24 Hours Clock Below to Record Male and Female Activities	
Women	Men
00:00	00:00
01:00	01:00
02:00	02:00
03:00	03:00
04:00	04:00
05:00	05:00
06:00	06:00
07:00	07:00
08:00	08:00
09:00	09:00
10:00	10:00
11:00	11:00
12:00	12:00
13:00	13:00
14:00	14:00
15:00	15:00
16:00	16:00
17:00	17:00
18:00	18:00
19:00	19:00
20:00	20:00
21:00	21:00
22:00	22:00
23:00	23:00
24:00	24:00

5.0 Fisheries Sector (Over fishing, fishing practices)

Gender Roles Specific to Fishing

- What work do men and women do in the fishing to market process? (e.g., gear preparation, fishing activities, post-harvest activities: catch sorting/ cleaning/ processing/ preparation for market, marketing (selling fisheries products) repairing of nets, etc.
- Are there any women who fish independently?
- Do women sell any fish made items among the community?
- Would women be interested in learning, and selling fish made products?
- How does coastal degradation affect the health and livelihood of men and women?
- What do women do during the fishing off season?

(Questions to male fishermen only; responses will be based on average)

- How long have you been a fisherman? (weeks/months/years)
- How many days do you go out to fish at sea? (days/weeks)
- What sort of boat do you use? (small, medium, large)
- What are the main difficulties you face during fishing?
- Has your income from fishing increased or decreased in the last 5 years?
- In your opinion how have fishing practices changed over the last 10 years?
- Have you noticed a decline in fish catch over the last 10 years? If yes, why?
- How has this decline in fish caught affected your household income?
- How has this decline affected your nutritional status?
- What are the age structure, gender, skill and formal qualifications and casual/contract/ permanent conditions of people engaged in the fisheries sector?

6.0 Natural Resources and Climate Change

6.1 How dependent are men and women on coastal resources for daily needs e.g. food, housing materials, water, medicines etc.?

Dependent	Men	Women
100% dependent	<input type="text"/>	<input type="text"/>
Partially dependent	_____ %	_____ %
Not dependent	<input type="text"/>	<input type="text"/>

Natural Resource Map

- To learn the villagers' perception of what natural resources are found in the community and how they are used.

Key Questions:

1. What resources are abundant?
2. What resources are scarce?
3. Does everyone have equal access to land?
4. Do women have access to land?
5. Do the poor have access to land?
6. Who makes decision on land allocation?
7. Where do people go to collect water?
8. Who collects water?
9. Where do people go to collect firewood?
10. Who collects firewood?
11. Where do people go graze livestock?
12. What kind of development activities do you carry out as a whole community? Where?
13. Which resource do you have the most problem with?

6.2 In the last 10 years what changes have you noticed in weather patterns?

6.3 In what ways have you coped with these changes?

7.0 Access and Control of Assets for Livelihood and Income Generation

7.1 Do men and women have equal access to, ownership of, and control over local resources? List the other assets owned/controlled by women in the household (livestock, poultry, sewing machine, etc.)

7.2 Who owns land, men or women?

7.3 Who can enter into legal agreements and contracts related to property/ assets?

7.4 Can women and men both inherit land?

7.5 Are there money lending services available to community members? Describe the options and conditions for accessing credit (loans). Is there equal opportunity for both men and women to access credit/ loans?

Table 4: Access and Control

Resources	Access (can use)			Ownership			Control (can independently make decisions over)			Notes
	Men	Women	Equal	Men	Women	Equal	Men	Women	Equal	
Land Water (for HH use) Water supply/Water rights Water Points wetland (biodiversity) fisheries, plants										
Borrowing Capital Credit & loans (e.g. microcredit, community fund) banking services social welfare (health & life insurance)										
Labor (e.g. family relations), informal labor, hired labor)										
Fisheries inputs: fishing gear boats boat engines storage facilities										
Agricultural production materials: seed machinery poultry water buffalo storage										
Livestock production requirements										
Raw materials for artisan and craft production										
Transportation (boats, trucks, other vehicles)										
Education/training Skill development, etc.										

8.0 Access to Information

- 8.1 Do men and women have equal access to training and education/ skills development opportunities?
- 8.2 Are there women’s organizations/ women’s groups in the community? What types of activities are women’s groups engaged in?
- 8.4 Do men and women participate equally in community organizations? Local committees/ local governance arrangements? What barriers exist for men or women to attend community meetings, trainings, community group discussions?
- 8.7 Do men and women have equal access to information networks and communication media?
- 8.8 What are the important forms of information sharing within the community – for women? For men?

Table 5: Access to Information

Sources / Forms	Access to Information			Important Forms / Sources		
	M	W	Equal	M	W	Equal
Village Information Center						
Village leaders						
Local government officials						
Village Volunteers (e.g. villagers who volunteer to collect weather/climate impact information)						
Local and National TV						
Radio						
Newspapers						
Magazines						
School						
Family members						
Friends						
Community Loud speaker system						
Print Media						
Internet						
NGO, Development organization						
Other						

9.0 Access to Basic Services

- 9.1 Do men and women have equal access to basic services, such as:
- Access to maternal health services?
 - Water (drinking water) and sanitation?
 - Transport
- 9.2 In a health emergency, can a woman visit a doctor by herself?

10.0 Empowerment

- In your opinion what rights do girls have in our society (social)(economic)(political) ?
- Do you think women should work in order to earn an income?
- Do you think women in comparison to men have equal opportunities to earn a living?
- Can a woman easily come and go wherever she wants? Can a woman in your family or community socialize comfortably?
- What kind of dangers and issues do women/girls have to face outside their homes?
 - How does this affect the women/girls?
 - How do women/girls cope with the impacts of this situation?
- To what extent are women/girls involved in decision making regarding:
 - Household (like children's education, health, marriage, birth spacing etc.) Personal matters (like marriage, education, job and health)
 - Economic decisions (like expenses, buying, using and selling gold and property)
 - Mobility (alone, with someone, time & space/location)
- What are the barriers and opportunities to such decision making?
- Do you think women's status in our society has changed over the last ten years? What has changed or not changed?
- What should be done to increase women's empowerment? How can women make their voices heard?

11.0 Wrap up question

- Is there any other information you would like to add?

Annex IV: Survey Forms

Questions for Key Informant Interviews (KIIs) Keti Bundar *Gender Study*

Gender Assessment Guide Questionnaire for Key Informants

Introduction to Gender Survey

This survey has been designed to support the collection of baseline data on the gender perspective of Gwadar Bay coastal communities. The survey is designed as a guide for individual interviews with 'Key Informants' and can also be used to guide focus group discussions.

Key informants are people with an in depth knowledge of the lives and livelihoods of local communities living in Gwadar Bay area. Key Informants includes local government officials, NGO staff members working on projects in the area (past and present projects), community leaders, community elders, other etc. Defining the 'operational management boundary' for the project will help define the scope of the survey and the selection of Key Informants.

The results of the survey will provide a broad gender perspective of gender analysis of the Gwadar Bay area and be used to help ensure gender inclusive implementation of projects and support the design of specific gender responsive initiatives in the future. The gender analysis results can be further enhanced by the information generated through a more holistic situational analysis of the area that would include; biodiversity assessments, socio-economic / livelihood assessments, and analysis of governance arrangements.

Interview Date: _____

SECTION A: RESPONDENT PROFILE	
Name of Respondent	
Organization:	
Designation:	
Phone/Cell Number:	
Village Name:	
Community/Para Name:	
District:	
Province:	

1.0 Overview

- 1.1 What do you understand by 'gender' in sustainable development? Have you ever participated in gender training(s)?
- 1.2 Does your organization/department have a gender unit/ gender focal person/ gender capacity? (for Government & NGO respondents only)
- 1.3 Do you collect gender specific data or data aggregated by gender? If yes, please describe. (for Government & NGO respondents only)
- 1.4 Do you have specific programmes/ activities/ initiatives targeting women or with a gender focus? If yes, please describe how you currently involve women in your programme/ work (for Government & NGO respondents only).
- 1.5 Please describe briefly the local level of awareness and understanding of the following:

Biodiversity conservation / Ecosystems/ Natural Resources Management

Low

Medium

High

Climate change and climate change adaptation

Low

Medium

High

Livelihoods development / diversification

Low

Medium

High

What programmes support these areas of work?

- 1.6 Describe any opportunities or activities where you could engage women in wetlands management / conservation, climate change adaptation and livelihood development work. (for Government & NGO respondents only)
- 1.7 Describe any constraints that could prevent or obstruct engagement with women in wetlands conservation, climate change adaptation work.

2.0 Roles of Men and Women

- 2.1 How dependent are men and women on coastal resources for daily needs e.g. food, housing materials, water, medicines etc.?

Dependent	Men	Women
100% dependent	<input type="checkbox"/>	<input type="checkbox"/>
Partially dependent	<input type="checkbox"/>	<input type="checkbox"/>
Not dependent	<input type="checkbox"/>	<input type="checkbox"/>

- 2.2 What are the goods and services that you believe a local community member would consider as basic necessities?
- 2.3 What work/ occupations do men and women do at the household level? In the community?
- Reproductive roles: child care, cooking, cleaning, water collection, fuel wood collection, food collection, care for the sick, other – please define.³³
 - Productive roles (livelihood activities).³⁴
- 2.4 Describe the detailed roles of men and women in fishing to market process e.g. gear preparation, fishing activities, post harvest activities: catch sorting/ cleaning/ processing/ preparation for market, marketing (selling fisheries products) etc.

Note – this will vary with each fishery (species), each gear type/ method of fishing.

- 2.5 Identify and describe the roles of men and women in other important local livelihood activities e.g. retail businesses, livestock rearing, transportation services, local paid employment opportunities etc.
- 2.6 How does coastal degradation affect the health and livelihood of men and women?

3.0 Access and Control of Assets for Livelihood and Income Generation³⁵

- 3.1 Do men and women have equal access to, ownership of, and control over local resources. If no, what are the reasons?
- 3.2 What kinds of resources do people depend on for their livelihoods and household needs?
- 3.3 Who normally owns land titles and property – men or women?
- Is land inheritable by men and women alike?
- Who can enter into legal agreements and contracts related to property/ assets?
- 3.4 Are there money lending services available to community members? Describe the options and conditions for accessing credit (loans). Is there equal opportunity for both men and women to access credit/ loans?
- 3.5 Who makes decisions about household spending – men, women, both? Are decisions made jointly? Who generally has the final say?

33. See Annex 1a for details.

34. See Annex 1b for details.

35. See Annex 3.0 for details.

4.0 Access to Information and Community Decision Making Processes

- 4.1 Community environmental awareness. Please choose which best describes the communities in which you work:
- Community has strong environmental awareness / ethic in place
 - Community has some elements of a conservation awareness / ethic in place
 - There is little to no environmental awareness/ ethic evident in the community
 - Other
- 4.2 Do men and women have equal access to training and education/ skills development opportunities?
- 4.3 Do women and men tend to voice their opinions equally during community/village meetings? If not why? What barriers exist for men or women to attend community meetings, trainings, community group discussions? Are there cultural, social, religious or other constraints on women's participation in community meetings/ community decision making such as:
- Lack of interest, awareness of subject for discussion (why?)
 - Restrictions on attendance or speaking at community discussions (e.g. women may not be able to voice their opinion in the presence of male members of the household or community)?
 - Time availability (e.g. women may be unavailable due to domestic duties)?
 - Mobility (e.g. women may need to stay close to the home where the children are or feel unsafe / vulnerable in moving far from home)?
 - Ability to contribute organizational resources (e.g. provide labour or money for the project)?
- 4.4 Do men and women tend to share information they have gained from trainings and community meetings within the house hold?
- 4.5 Are there women's organizations/ women's groups? What types of activities are women's groups engaged in? e.g. Income generating activities and livelihood development, Dispute resolution, Community events, Health, Education, Youth group activities, Environment, Fishing, Farming, Forest harvesting, Other
- 4.6 Do men and women have equal access to information networks and communication media? AND
- 4.7 What are the important forms of information sharing within the community – for women? For men?

Table 6: Access to Information						
Sources / Forms	Access to Information			Important Forms / Sources		
	M	W	Equal	M	W	Equal
Village Information Center						
Village leaders						
Local government officials						
Village Volunteers (e.g. villagers who volunteer to collect weather/climate impact information)						
Local and National TV						
Radio						
Newspapers						
Magazines						
School						
Family members						
Friends						
Community Loud speaker system						
Print Media						
Internet						
NGO, Development organization						
Other						

4.8 Do men and women participate equally in community organizations? Local committees/ local governance arrangements? Explain any differences in male and female participation.

4.9 Is it normal/common for women to hold local government positions? Are these generally higher officer level positions or administrative positions?

5.0 Access to Basic Services

1. Do men and women have equal access to basic services, including:
 - a. Health care? Do women have access to maternal health services available?
 - b. Water (drinking water) and sanitation?
 - c. Education programs and skills training?
 - d. Do boys and girls have equal access to primary education?
 - e. To Secondary education?
 - f. To Higher education/ university?

About Mangroves for the Future

Mangroves for the Future (MFF) is a unique partner-led initiative to promote investment in coastal ecosystem conservation for sustainable development. Co-chaired by IUCN and UNDP, MFF provides a platform for collaboration among the many different agencies, sectors and countries which are addressing challenges to coastal ecosystem and livelihood issues. The goal is to promote an integrated ocean-wide approach to coastal management and to building the resilience of ecosystem-dependent coastal communities.

MFF builds on a history of coastal management interventions before and after the 2004 Indian Ocean tsunami. It initially focused on the countries that were worst affected by the tsunami – India, Indonesia, Maldives, Seychelles, Sri Lanka and Thailand. More recently it has expanded to include Bangladesh, Cambodia, Myanmar, Pakistan and Viet Nam.

Mangroves are the flagship of the initiative, but MFF is inclusive of all types of coastal ecosystem, such as coral reefs, estuaries, lagoons, sandy beaches, sea grasses and wetlands.

The MFF grants facility offers small, medium and regional grants to support initiatives that provide practical, hands-on demonstrations of effective coastal management in action. Each country manages its own MFF programme through a National Coordinating Body which includes representation from government, NGOs and the private sector.

MFF addresses priorities for long-term sustainable coastal ecosystem management which include, among others: climate change adaptation and mitigation, disaster risk reduction, promotion of ecosystem health, development of sustainable livelihoods, and active engagement of the private sector in developing sustainable business practices. The emphasis is on generating knowledge, empowering local communities and advocating for policy solutions that will support best practice in integrated coastal management.

Moving forward, MFF will increasingly focus on building resilience of ecosystem-dependent coastal communities by promoting nature based solutions and by showcasing the climate change adaptation and mitigation benefits that can be achieved with healthy mangrove forests and other types of coastal vegetation.

MFF is funded by Sida, Norad, Danida and the Royal Norwegian Embassy in Thailand.

Learn more at: www.mangrovesforthefuture.org

