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Sonmiani

Village Development Plan

2005

ACKNOWLEDGEMENT

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VILLAGE DEVELOPMENT PLAN – SONMIANI

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1. INTRODUCTION

1.1 Background

WWF-Pakistan is implementing a project on Tackling Poverty in Pakistan's Coastal Communities through the Sustainable Livelihood with support from EU through WWF – UK. The project will contribute to improved livelihood and sustainable resource use in the area in two ways:

- By working with partners on an advocacy programme, to address some of the root causes of livelihood and natural resource threat which are outside the control of individual communities.
- By adopting learning centered approach and disseminating lessons to the committees, thereby stimulating best practice over the wider area.

The emphasis of the project is to focus on the overall livelihood of the community and to treat the sustainable management of natural resources mainly mangrove and fisheries as a part of this.

1.2 Purpose of the Plan

The purpose of the study was to bring the local coastal community in a common vision of how their area should develop. Further, as to how the link between poverty and environmental degradation could be made. Therefore, WWF – Pakistan facilitated the community to develop a strategic plan that reflects the challenges and their solutions with regard to the existing natural resources of the area that will ensure sustainability of community efforts. The main goal behind this plan is to conserve, restore and assure the quality of the natural resource base for future generation. The plan also supports the development and enhancement of the environment to provide the communities with an attractive, healthful and satisfying place to live and work on short term and long-term basis.

1.3 Methodology

A two-pronged approach was used to identify various issues and their suggestive solutions. A workshop followed by a PLA exercise (by a multidisciplinary team) was conducted with the communities of Sonmiani, Dam, Bhira and Baloch villages where a participatory approach was adopted to develop the plan. Help was also taken from other aids such as flip-cards, coloured cards etc. Participants' thoughts and ideas were noted either on flip charts or coloured cards and were organized for the purpose of discussion, review and agreement by the group; in this way everyone had a chance to express him or herself.

Social issues were discussed in PLA exercise. PLA stands for Participatory Learning & Action. As its name suggests, it is participatory in nature, was developed in the context of rural areas, and is concerned with the appraisal of existing conditions and attitudes. PLA facilitates and enables local people to do

their own investigations, analysis, presentations, planning and action to own the outcome. This tool helps in participatory appraisal and planning as well as participatory implementation. A wide range of methods has been used in PLA. These include Semi-structured interviews (SSI), transect walk, development of resource map, Venn diagram, trend analysis etc. The exercise was conducted with both male and female groups. SSI aimed to explore priority problems in more depth, using discussion starters. The maps and diagrams focused to analyse situations and plan of action.

Participants were divided into two groups, one male and one female. Both groups represented and conducted activities from Dam Sonmiani, Bhira and Baloch village.

The facilitator briefed the community about the process and asked the groups to list down the natural resources of their area that are linked to the livelihood of the community, both directly or indirectly. Both of the groups identified the resources of the area according to their perception and then natural resources were matched and prioritized. Then the participants identified the problems/threats to the listed natural resources and determined the causes of the problem and identified the actions to be taken.



Workshop with community at Sonmiani

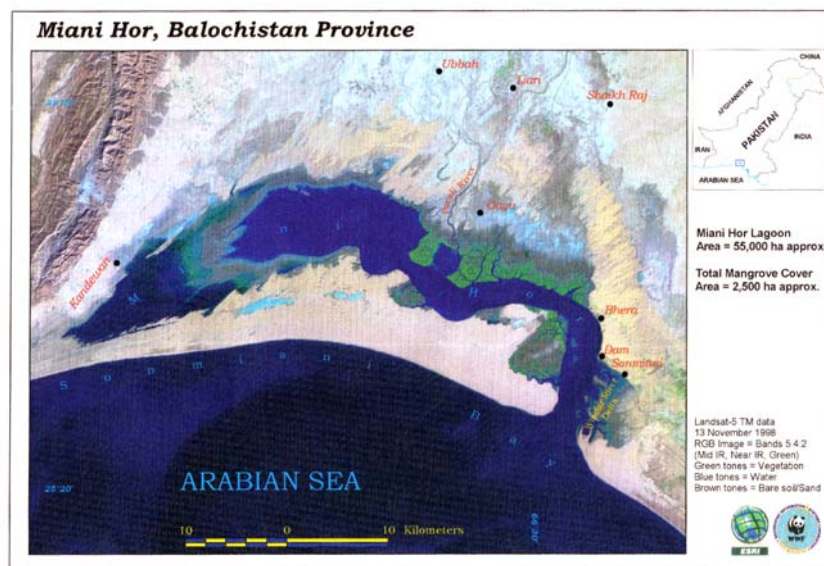
The following questions were also discussed/addressed during formulation of the Development Plan:

- How the community benefits from various actions?
- What are the main obstacles that will or may be encountered?
- What are the key people or organizations that can support the action?
- What type of support they can provide?
- How will they be involved?
- How much time is required for the specific action?

Finally, it was ensured that all community representatives agree with the plan of action that has been formulated with their input and participation and that they would implement it.

2. AN OVERVIEW OF THE AREA:

Miani Hor or Sonmiani Bay is situated at a distance of 90km, from Karachi on the east Balochistan coast. It comprises of three villages viz. Dam, Sonmiani, Bhira and a settlement called Baloch Goth (Map 1). Sonmiani constitutes the smallest administrative unit known as *Tehsil* of the District Lasbela.



Map

2.1 Demography:

According to the census (1988) the estimated population was 4000 and during a study conducted by WWF recently, the total population of the area is more than 11,000 (Table 1).

Table: 1

S. No.	Villages	No. of Household	Population
1.	Sonmiani	225	3,000
2.	Dam	550	6,500
3.	Bhira	171	1,300
4.	Baloch Goth	133	878
	TOTAL	1079	11,678

Source: WWF KAP Study 2004

It is general perception that the population of the area has been increasing. The population of the area further rises temporarily during the fishing season when working forces from other parts of the country through the area for earning livelihood through fishing.

2.2 Socio-economic condition:

These villages are directly dependent on coastal resources, especially fisheries and mangrove forests. The people belong to different tribal groups such as Lasi, Rajput, Khaskheli, Mirbahar, Jumari, Soomra and Zikri Baloch. Families of the same group live in their own mohallas or paras (neighbourhoods). A few Hindu families also live in the area. The main occupations of the local people is fishing (90%), only a few people work for government departments (e.g. fisheries, electricity and education) or are involved in trade. According to Balochistan Fisheries Department Statistics (2003), there are 5,610 fishermen (3,320 full-time, 1,490 part time and 800 occasional fishermen) in the area. There are 104 mechanised boats fitted with inboard engine, 672 motorised boats fitted with outboard engine, 03 sail boats without engine and 42 Life boats with inboard engine in the area. The community spends whatever they earn and there is non-existence of saving habits. Further, they are also indebted by loans taken from moneylenders. Most of the population is only acquainted with fishing and unable to switch to new trades.

Women are deprived of developmental opportunities due to various socio-economic and cultural reasons. They are primarily responsible for family and household activities. They lack access and control over resources and have very restricted mobility outside their communities. Women have generally no or lower formal education thus, lowering their income generating potential. They do not take part in economic activity. Women are however, knowledgeable about the problems and issues of the area.

3. NATURAL RESOURCES AND ITS PROMOTION

The community primarily depends on natural resources. The following natural resources were identified and prioritized by the local community.

3.1 Sea/Coast:

These are perhaps the earth's greatest natural resource, with life from tiny plankton to huge whales. More than 90% of the living biomass is found in the sea or ocean. The living resource under ocean and sea has not yet been fully explored. The invertebrate fauna include protozoan, coelenterates, annelids, mollusks, crustaceans and echinoderms. Fish, reptiles, mammals and birds represent the vertebrate fauna in which fish is the major group. Marine flora also

shows high diversity. Sonmiani is a bay on Balochistan coast and the total area of the bay is 125.25 sq. km and the shelf adjacent to it is 80 km wide¹.

3.2 Fishery:

Marine fish is the major natural resource of the area, on which the livelihood of the community depends. More than 350 species of fish are known to exist. Marine fishing is an important activity in the area. More than 90% of the population earns an income through fishing or fishing related activities. Shrimping is also carried out in shallow waters and shrimp trawling grounds are located in Miani Hor/ Sonmiani bay. Karachi is the main market of fish and shrimp catch in Miani Hor. Balochistan Fisheries Department Statistics shows that in the year 2003, a total of about 11,000 metric tons of fish was caught in this area, which was about 9% of the total catch on Balochistan coast (about 12,000 metric tons). The main categories of fishery resources are small pelagics and demersal fishes, sharks, shrimps, lobsters and crabs. Fishery can be divided into three classes, large scale fishing, medium scale fishing and small scale fishing. Small boats do small scale fishing within 5 km radius.



Shrimp catch

Fish catch

3.3 Water birds:

The site is important for large concentration of water birds including migratory and resident population. More than 20,000 birds representing 52 species usually visit Sonmiani/Miani Hor in winters. The area is one of the designated Ramsar sites in Pakistan. The area is also included in to Global 200 eco-regions of WWF, means the area is representing a globally outstanding example of major habitat types. It is a part of the Arabian Sea Eco-region (#232). The water birds that are found in the area include grebes, pelicans, cormorants, flamingos, egrets, herons, storks, ibises and spoonbills, cranes, coots, shore birds (waders), gulls and terns.

¹ Saifullah & Rasool 2002 Mangroves of Miani Hor Lagoon on the North Arabian Sea Coast of Pakistan, Pakistan Jour. of Botany 34(3) : 303-310



Flamingos at Sonmiani Bay

3.4 Agricultural land:

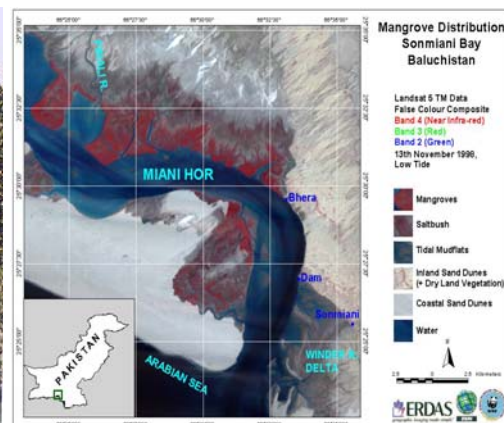
Practically, agriculture is non-existent in Sonmiani but the community has some land in the south of the village where in the rainy season some pulses and vegetables are grown. It is said that agriculture was done in the past along Winder River but the river has changed its path and has engulfed the land of the community. Further, due to drought and scarcity of freshwater, agriculture is not practiced. However, some locals grow castor oil in July, when there is little rainfall.

3.5 Mangrove forest:

Mangrove forest has a great economic and ecological significance. It is the habitat of a diverse community of organisms ranging from bacteria and fungi to fish, shrimps, birds, reptiles and mammals. It provides fuel wood and fodder for domestic animals of the local communities. The mangrove forest in Miani Hor is spread over an area of about 2500 ha, which represents 42% of total cover of mangrove forest in Balochistan. It is the only area in Pakistan where three species of mangroves i.e. *Avicennia marina*, *Ceriops tagal* and *Rhizophora mucronata* grow in natural condition.



Mangrove Forest Area



Map of Distribution Sonmiani Bay

3.6 Meadows/ pasture grazing grounds:

Grasslands like meadows and pastures are used as grazing grounds for livestock. Where there is extensive pasture, livestock rearing is one of the major activity of the rural community. Over a period of time, losses/decrease in the grazing ground has been significant in Sonmiani area. Previously, there had been livestock grazing grounds along Winder River near Sonmiani, on which Tamarix, *Prosopis cineraria* and grasses used to flourish. The area has now been taken over by Mesquite and also affected by drought. Most of the livestock grazing habitat/sites have now disappeared. Appropriate measures are needed to be put into place to rehabilitate grazing sites to encourage livestock rearing as a source of alternate livelihood.

3.7 Livestock:

Some of the local people keep goats, buffaloes, cows and donkeys. They get milk from goats, buffaloes and cows, while donkeys and camels are used for transportation. There are about 1200 goats, 100 cows/buffaloes, 50 camels and 500 donkeys altogether in the area. Local people keep livestock inside the house as well as outside of their houses. They buy fodder for their livestock from Winder. Majority of people do not prefer to keep livestock due to fodder scarcity and excessive decline of meadows.



Donkey use for Transportation

3.8 Freshwater:

The only source of freshwater is Winder River but that depends upon rainfall. There has also been decline in the underground water level. The rainfall is very scanty. The area mainly receives freshwater input from a number of seasonal streams rising in the hills of Eastern Balochistan to the North. The potable water is supplied by Public Health Engineering Department (PHED) through pipeline from Winder. There is a storage tank where water is stored for distribution to the villages.

3.9 Lakes:

There is only one natural lake in the vicinity known as *Siranda* Lake. It is a shallow brackish lagoon, separated from Sonmiani Bay to the west by a series of sand dunes. Its total area is about 2700 ha. The lake is fed by local run off and possibly seepage of seawater through the dunes. Water level fluctuates widely and in some years the lake dries out completely. It is an important wintering area for water birds including flamingos, ducks (particularly shelduck) and coots. The lake is a hunting resort for shikaris. If the lake is managed properly then there is likelihood of getting fish from the lake as well as generating opportunities for locals through eco-tourism development.

3.10 Sand dunes:

Sand dunes occur throughout the world on coast and are in majority arid desert regions. The sand is used commercially for many purposes elsewhere but the local community of Sonmiani is unaware of its utilization on commercial basis. There are about 12,698 ha of area covered by sand dune (Rasool et al, 2000). The sand dunes on the coast are encroaching the mangrove forests, thus covering the forest area².



Sand dunes at Sonmiani

² Saifullah & Rasool 2002 Mangroves of Miani Hor Lagoon on the North Arabian Sea Coast of Pakistan, Pakistan Jour. of Botany 34(3) : 303-310

3.11 Shells:

Molluscan shells are used to make artificial ornaments and many types of decoration pieces. A variety of gastropod and pelecypod shells are available that could be used for making ornaments or decoration pieces. But the locals lack knowledge of proper marketing; values of these resources, hence these resources are not being utilized at all.

Dolphin:

Hump backed dolphin and bottle nosed dolphin are commonly observed in the Hor. The people are however unaware of its importance but it could be a source of income if local people are trained to organize dolphin watch trips for tourists/visitors. The proper season for dolphin watch is from October through March.

4. CONSERVATION EFFORTS:

WWF-P started Mangrove Conservation activities in this area in 1995. In 1997, a project was supported by the DGIS, Government of the Netherlands through WWF-International. The overall objectives of the project were “to contribute to the conservation of mangrove forests at coastal areas of Sindh and Balochistan through the promotion of sustainable management and information dissemination”.

WWF-Pakistan facilitated the local communities in establishing Community Based Organization (CBOs). As a result three CBOs have formed i.e. Society for Social Development and Conservation of Nature (SSDCN) in village Dam, Sonmiani Development Organization (SDO) in village Sonmiani and Mahigeer Tarquati Tanzeem (MTT) Bhira. Two of them i.e. SSDCN and SDO have been registered with Social Welfare Department of Government of Balochistan. They have been provided skill-based and issue-based training to deal with the environmental, social or development issues. Their linkages with other organizations addressing social or development sectors have also been developed. The Forest Department of Balochistan has also been collaborating with WWF-P in developing activities aimed at conservation of mangrove forests in the coastal areas in the province. WWF along with CBOs is actively involved in mangrove restoration activities.

SSDCN implemented an 18-months project on Mangrove Rehabilitation with the support from the Small Grants Programme of the Ministry of Environment, Government of Pakistan in 2001 – 02. They also established a mechanical boat-repairing workshop at Dam Bunder with support from Trust for Voluntary Organisation (TVO). Currently, SDO has been implementing a 3-year project on Conservation of Mangrove Forests at the Coastal Areas of Miani Hor, since

November 2003 which is being financed under small Grants Programme for promotion of Tropical Forests being implemental by UNDP.

5. ACTION PLAN

This Village development program aims to empower the community living in the project area to manage their natural resources themselves, supported by governmental and non-governmental organizations. The basic objective behind the natural resource management is to improve local livelihood as well as to enhance livelihood options. The improvement in natural resources will contribute directly to the improvement of living conditions of the community and reduce the ecological degradation. Besides, the community would ultimately work towards improving the social conditions.

Therefore, the community was first asked to develop an Action Plan for the natural resources available in the area. If these resources are managed sustainably, community would be benefited. A summary of the proposed Action Plan for Natural Resources is as under (Table 2): The strategy for implementation of natural resources management plan prepared by the community is attached as per annexure – I.

TABLE 2

Proposed Action Plan for Natural Resources

S.N o.	RESOURCE S	ISSUES/ THREATS	CAUSES	SOLUTIONS	RESPONSIBILITY	DURATION
1	Sea/ Ocean/ Coast	<ul style="list-style-type: none"> a) Sea water pollution b) Filling of lagoon c) Coastal pollution d) Sea level rise e) Outside movement of sand (siltation) 	<ul style="list-style-type: none"> a) Oil pollution due to deep-sea trawlers' boat engine. b) Industrial pollution, lack of awareness c) Sedimentation of lagoon due to sea erosion/land erosion. d) Solid waste from used boat engine oil. e) Lack of interest in issues related to environment 	<ul style="list-style-type: none"> a) Use oil bins or to identify specific place for the deposition or removal of oil. b) Fixation of different drums on different potential areas for solid waste etc. c) To initiate movement in order to have funds concern stakeholders or boat owners union. d) Clear understanding of environment laws and their implementations on coastal and fishing zone. e) Channel desiltation/dredging. f) Beach cleaning. g) Conduct awareness campaign on all levels sectors. 	<ul style="list-style-type: none"> a) CBOs b) CBOs c) GoP, GoB d) Coastal Dev. Authority e) GoP, GoB f) Local CBO, Schools, WWF g) CBOs 	<ul style="list-style-type: none"> Next 3 years Next 3 Years Long term Next 4 year Long term Next 4 years Long term
2	Fishery Resources	<ul style="list-style-type: none"> a) Over fishing b) Cutting of Mangrove forest c) Use of illegal mesh size net d) Deep sea trawlers e) High population of native people and high rate of influx of immigrants in fishing season 	<ul style="list-style-type: none"> a) Influx of seasonal immigrants causing over fishing. b) Weak implementation of fishery law. c) Lack of awareness of the importance of natural resources and environmental issues of the area. 	<ul style="list-style-type: none"> a) Empower locals to control illegal fishing. b) To enhance awareness and capacity building of local organizations, CBOs/NGOs. c) Develop a strategy with relevant stakeholders for implementation of legislation on local level. d) Have clear strategy in order to have better legislation implementation. e) Campaigns to create awareness about environmental and natural resources on priority bases. 	<ul style="list-style-type: none"> a) Local CBOs & WWF b) Fisheries & CBOs c) Fisheries & CBOs d) Campaign strategy will be given by WWF & CBO will implement. 	<ul style="list-style-type: none"> Next 5 years Next 4 year Next 4 year Next 5 years
3	Water birds	<ul style="list-style-type: none"> a) Illegal hunting/trapping b) Degradation and shrinkage of habitat c) Pollution by fishing boats and 	<ul style="list-style-type: none"> a) Illegal hunting increased by outsiders (non locals) b) Weak implementation of wildlife law. c) Lack of awareness. 	<ul style="list-style-type: none"> a) Authorise locals to implement wildlife laws at local level. b) To initiate awareness program for the conservation and for the improved habitat of water birds. c) Declare "NO GO" areas for the protection of habitat of water birds. 	<ul style="list-style-type: none"> CBO, District Government & Balochistan Wildlife Deptt. 	<ul style="list-style-type: none"> Long term

		local and outsider residents		d) Watch & ward Mechanism	CBOs	Short term
4	Agricultural land	a) Scarcity of fresh water resources. b) Drought c) Lack of financial resources.	a) Drought due to decline in rainfall. b) Lack of land ownership. c) Lack of modern agricultural technology and equipment. d) Low prices of agricultural produce.	a) Proper legal land ownership given/ authorized by government. b) Introduction of sustainable water harvesting technologies. c) Agriculture extension. d) Formation of agricultural farm models.	CBR, PARC, Agriculture Deptt. , PSF, Khushali Bank & other MFIs.	Long term
5	Mangrove Forest	a) Deforestation through over cutting b) Scarcity of fresh water c) Over grazing d) Deposition of sand/ sand dune shifting. e) Sea erosion.	a) Use as fuel wood and fodder, building construction and construction of boats. b) Scarcity of freshwater due to less rainfall in previous years. c) Sand dune shifting. d) Sea erosion.	a) Alternatives such as provision of natural farms. b) Increase in the area of forest through mangrove plantation c) Introduction of alternate resources for fuel wood and fodder like FEST d) Sustainable management for better water consumption. e) Enhance awareness.	CBOs, WWF, Balochistan Forest Department.	Next 4 years
6	Pastures/ grazing ground	a) Drought b) Increasing level of livestock population c) Increasing level of human pressure (seasonal/ permanent migration) d) Over grazing in the pastures e) Sand dunes movements/ deposition of sand on grazing area f) Introduction of the invasive species of plant for fodder (mesquite)	a) Rotational of razing b) Reseeding of rangeland with palatable grasses. c) Generation of alternate income opportunities	a) To develop better pastures. b) Develop for fodder alternatives. c) Provide small loans for cattle farming. d) Strategy to deal with non-local population e) To provide better management of pastures.	Local CBOs Livestock Dept.	Ongoing process
7	Livestock	a) Excessive decline of pastures	a) Increasing number of livestock. b) Increasing rate in non-	a) To improve conditions of pastures. b) To facilitate the local people for marketing of livestock.	District Government & ZTBL	Continuous process

		b) Fodder scarcity c) Diseases/ abnormalities among livestock	c) local population. c) Lack of alternative for fodder. d) Nutritional deficiency and seasonal effects	c) To establish alternative resources for fodder. d) Capacity building of local people in livestock rearing.		
8	Fresh water	a) Shortage of rainfall b) Shortage of underground water (increase in salinity) c) Excessive water mining	a) Natural phenomenon	a) Improved water harvesting and conservation technique b) Desalination option at small scale level	Assistance/ suggestions from water management organizations PCAT/ PCRET	5 years
9	Lakes	a) Shortage of water b) Lack of interest among people c) Sand deposition	a) Natural phenomenon b) Reduction in vegetation in water shed areas	Plantation in watershed areas	CBOs, Wildlife Department. Forest Dept.	5 year
10	Sand	a) Lack of awareness regarding proper marketing	a) No commercial gain	a) Explore the commercial utilization	Assistance from WWF to explore if it can be commercially utilised	2 years
11	Shells	a) Over harvesting b) Lack of proper marketing	a) Lack of awareness and proper marketing	a) Explore market	CBOs	2 years
12	Dolphin	a) Pollution oil	a) Lack of awareness	a) Use of oil bins or to identify proper place for the disposition of oil	CBOs	4year

CBO = Community Based Organisation WWF = World Wide Fund for Nature – Pakistan
Balochistan
MFI = Micro Finance Institution

GoP = Government of Pakistan

GoB = Government of

ZTBL = Zarai Taraqqiati Bank Limited (Agricultural Development Bank PCRET= Pakistan Council of Renewable Energy Technology

6. SOCIAL ISSUES AND THEIR MITIGATION

Males and females have different perceptions of the problems or social issues related to the area. **The following are the social issues as indicated by the male members of the community.**

6.1 Unemployment:

There has been continuous decrease in fish and shrimp catch levels. This has now been the main concern of the fishermen of Sonmiani, Dam and Bhira villages as it is directly linked with their livelihood resources. The main causes of reduction are the frequent use of destructive fishing nets like bulo-gujja and katra nets (called small mesh size net). The excessive catch of large deep-sea trawlers have also reduced the stock of fish and made the condition worse. The deep-sea trawlers also violate the jurisdiction earmarked for them and forcibly enter into the local's fishing territory. The foreign trawlers net large amount of fish including underage fish. They destroy the underage fish as not required by them. The income of small fishermen who own small boats has fallen and the prevailing situation may push the small-scale fisherman below poverty line.

Further, the influx of immigrants during the fishing season who are even willing to work at cheaper rates on aboard fishing trawler has reduced the opportunities and income of the local working force. Majority of these immigrants are Bengalis, while people from northern Pakistan also come here to earn. This has created unemployment situation for the locals.

There are no alternate employment opportunities available in the area. There is an industrial estate in Winder; about 16 km away from here but the local people are not skilled to work in factories.

6.2 Education:

Education facilities are inadequate. There is a Government High School in Dam Village, a Government Middle School in Sonmiani Village and a Primary School in Bhira and one girls primary school in Baloch Goth. There are 17 teachers for 325 students at High School and 9 lady teachers for 190 girls at Girls Middle School. There is no separate secondary school for girls. Due to cultural norm, many girls are deprived of education. The parents do not allow sending their girls to the secondary schools. Further the teachers are not appropriately trained.



School at Sonmiani

6.3 Health:

There is a government Basic Health Unit in Sonmiani village but there is no female doctor. There is a male doctor appointed by the government for this hospital but he is available only twice a week to see the patients. He lives in Karachi. The dispensers of the hospital attend the patients who sometimes give improper treatment that worsens the condition of the patient. A Lady Health Visitor is available. A Basic Health Unit also exists at Dam where a MBBS doctor is available but it lacks medicines and diagnostic test facilities. There is a Basic Health Unit at Bhira village and a dispenser runs it.

As pointed out by the locals, the people usually suffer from Blood Pressure, TB, cold and cough, bronchitis, diabetes, malaria and eye diseases. The unhygienic atmosphere in the village persists mainly due to Pan (betel leaf) chewing and spitting all over the area. The betel leaf chewing also causes oral problems and sometimes leads to mouth cancer. The sewerage water also flows everywhere that makes Dam and Sonmiani villages filthy and unhygienic.

Due to lack of medical facilities, the patients are taken to Winder or Karachi for treatment; it costs time as well as more money. Further, in emergency or serious cases it becomes risky and fatal for the life of the patient.

6.4 Property Ownership:

In spite of the communities settled here for centuries, they are still not given the lease by the Government of the property owned by them. This sometime creates the feeling in them that the government might relocate them whenever they will need this land. Hence, the level of interest regarding village development by the community decreases.

The root causes of failure of the village development plans are the non-involvement of the community in the planning and implementation process. Therefore, this plan has been developed with active participation of the

community. They have vision of their problems and probable solutions and the process that could be initiated for village development. Hence, the community developed this plan with the facilitation by a Facilitator. When the community has its own plan, then it would take interest in implementing it. The Action Plan developed with the involvement of male community members of the area is given in Table 3.

TABLE 3
Proposed Action Plan for addressing social issues, as suggested/ indicated by Male Community Members

S. No.	Problems/ Issues	Causes	Solutions	Responsibility	Duration/ Target
1	Unemployment	<ul style="list-style-type: none"> • Use of illegal nets • Non-compliance of Fishing Laws • Deep sea fishing trawlers activity • Influx of immigrant during fishing seasons • lack of skills in locals for alternate profession, lack of alternate source of employment 	<ul style="list-style-type: none"> • Effective implementation of Fishing Act by Fisheries Department • Complete ban on illegal nets • Ban on deep sea trawlers • Ban imposed on non-locals on boarding fishing fleet of the area for livelihood • Vocational training center established to enhance skills; ecotourism promotion 	<ul style="list-style-type: none"> • Lobbying and advocacy with the Government by community through CBO for implementing Fisheries Act and to put ban on deep sea fishing trawlers • CBO to conduct awareness raising programmes for fisherfolk to avoid using illegal nets. • District Government to impose ban on non-locals recruitment for fishing boats • Government to explore alternate employment opportunities and establish vocational center for skill enhancement • CBO to create awareness in fishing community to engage only local labours • NGOs to assist in promotion of ecotourism and training of guides. 	Next 2 – 3 years
2	Education	Inadequate educational facility and non-existence of Girls Middle or Secondary School	Number of trained teachers to be increased at High School & Girls Middle School; Middle School in Sonmiani be upgraded to Secondary School; A separate Girls Secondary School be established	Provincial Education Department is approached by CBO; Elected representatives from the area be contacted by CBO. CBO to take up the matter with Provincial Government when WWF would coordinate/facilitate.	Next 2 years
3	Health	Inadequate facility at the local Government Dispensary	<ul style="list-style-type: none"> • MBBS doctors (both male & female) be posted on regular basis • Adequate medicine and life saving drugs be provided • Health awareness 	Pressure would be generated by community on the government through elected representatives or other means. CBO would coordinate with relevant persons/ organizations.	2 years
4	Property Ownership	No legal right/lease of the place where community has been living	District Government or Revenue Department to provide lease/ownership right to property owners	Lobbying and Advocacy by the community through CBO, elected representatives, Nazim of District Government	Next 5 years

6.2 The additional issues, as indicated by females.

Sometimes women have different perception of the problems and their solution; hence a separate exercise was conducted involving women. The Action Plan of issues and their mitigation measures that will lead to the village development mentioned by them is given in Table 4.

6.2.1 Health:

The women are the worst sufferers as they encounter many gynecological problems and due to cultural norms, they don't like to go to male dispensers of the village or male doctors in the nearest town. They even hesitate to tell their sufferings to male members of the family. There is no lady doctor available. However, a LHV is available that caters some need. Untrained midwives also handle the maternity cases in the village. For delivery in the hospital, one has to take the pregnant woman to Karachi, which becomes risky and expensive for them. Therefore, they prefer to give birth to a child at home.

Besides the gynecological problem the women encounter diseases like blood pressure, arthritis (backache), jaundice, tonsillitis, digestive problem, migraine, dental problems etc. Like males, females also chew betel leaf (pan) too much, which leads to oral problems. A woman usually takes 7 – 8 pans daily.

The infants at the age of one to twelve months and children mainly suffer from diarrhea, fever, cough and cold, pox, polio, bronchitis, ear, throat and stomach pains and jaundice. Sometimes the disease is fatal. There is no arrangement of vaccination for newborn babies. Non-adoption of cleanliness and hygiene practices by mothers also creates health problems for children.

6.2.2 Drinking Water:

Main source of drinking water has been the Winder River. People used to get water through tube wells but now the ground water level has become saline. Therefore, now the main source of water is government's water supply scheme. Water is supplied from Winder to Dam via Sonmiani through pipelines. Some village influential have made holes in the pipeline and fitted valves there to avail maximum quantity for themselves. The poor community thus gets inadequate water and sometimes people purchase water from different sources. The women suffer the most as mostly women and girls collect water from the wells or taps. There is no storage system in most of the village houses to store water for daily consumption. The community of Bhira village has dug up wells for fetching water. There is no water supply scheme In Bhira village.



Tube well

The community experienced that the water supplied through water supply scheme or through wells is often contaminated and therefore causes diseases. There is no system for testing water quality and they feel that water must be checked in the laboratory.

6.2.3 Education:

The women were mainly concerned about the education of their daughters. The girls are willing to get education beyond primary level but there is no Girls Secondary School.

6.2.4 Fuel/Gas:

The women cook food on burning firewood that also spreads smoke. The smoke is hazardous for the health of women. They suffer from eye diseases or asthma due to smoke. The women also have to bring firewood from nearby mangrove forest or from bushes of Mesquite trees, for cooking. It is an additional effort for them. Some well-to-do households buy firewood. All the villages in the area are devoid of supply of Sui Gas. The women's foremost demand is provision of Sui Gas to their villages to save them from health problems. This will also save the mangrove forest from cutting pressures.

6.2.5 Sewerage System.

There is no system for sanitation. People drain wastewater into pits they dig in front of their houses. Sewage/drainage system does not exist and therefore, dirty water remains stored into such pits. People also throw their solid wastes in front of their houses or along the streets and lanes. There is no mechanism for regular cleaning of street or road. This is also one of the causes of spreading diseases.

6.2.6 Lack of income generation opportunities:

At present, the women have no or very little role in income generation activities for the family due to limited income generation opportunities. They lack skills and confidence to start any activity that provides them with some source of income. If skill development programmes for women are initiated and their access to micro-enterprise is made possible then they would be able to generate income independently and utilize it for the benefit of their families, the community and the development of the area.

6.2.7 Reduction in fish catch:

Although this problem is not directly related to women but it has an impact on their life. The income of male members who are responsible for support to the family decreased subsequently. The women are also of the view that strict measures have to be taken to prevent the fishermen from using illegal nets that has caused reduction in fish catch. The deep-sea fish trawlers should also not be allowed to continue their activities in Pakistani waters.

6.2.8 Use of drugs:

It is a general complaint of women that many people of the area have become drug addicted. The drugs are being sold in the villages. Many people who earn livelihood through fishing spend a considerable amount on this evil habit. The strategy on priority issues identified by the women is indicated as per annexure – I.

TABLE 4**Proposed Action Plan for addressing social issues, as suggested/ indicated by Female Community Members**

S. No.	Problems/ Issues	Causes	Solutions	Responsibility	Duration/ Target
1	Health	<ul style="list-style-type: none"> • No lady doctor (MBBS) available • Medicines not available at the local Govt. Dispensary • Non-adoption of health and hygiene practices by mothers 	Lobbying and advocacy by community and CBO with the Government to provide qualified lady doctor and medicines to the dispensary. Pressures to be exerted on the local representatives of Assembly and District Government to influence the Government for this purpose.	CBO to organize community to put pressure on the elected representatives and take up the issue with the concerned Department.	Next 2 – 3 years
2	Drinking Water	<ul style="list-style-type: none"> • Leakage in the water pipelines • Contaminating water causing diseases 	Raise issue with the Public Health Engineering Department (PHED) to check leakages in water supply and explore possibility of extending pipeline to Bhira village. Also analyse/test water in laboratory before supply	Community to approach PHED to stop leakage and water theft by influential; also to initiate water testing system	Immediate
3	Education	<ul style="list-style-type: none"> • Low literacy rate in females • No opportunity for girls to get middle or secondary education. 	Provision of Girls Secondary School	CBO to approach Education Department for establishing a Girls School. This issue may also be taken up with the District Government or elected representatives.	Next 1 – 2 years
4	Natural Gas	<ul style="list-style-type: none"> • Pressure on mangrove forest for collecting firewood • Health hazards to women due to cooking on firewood. 	Natural Gas connections to be made available	An application be given to Sui Gas Co. to explore possibility of providing Sui gas connection to local households. The elected representatives to be approached to use their influences. WWF to be approached to coordinate with the Sui Gas authorities.	Next 2 – 3 years
5	Sewerage system	No sewage drainage or sanitation system	Provide drainage/ proper sanitation system	Community/CBO to raise issue with the District Government	1 – 2 years
6	Income generation by	Lack of skill and opportunity for income generation by	Vocational Training Center for Women. Micro credit activities, income-generating	CBO and WWF to explore sources for establishing center	1 – 2 years

S. No.	Problems/ Issues	Causes	Solutions	Responsibility	Duration/ Target
	women	women	trainings. Savings on self help basis.	with complete infrastructure	
7	Reduction in Fish catch	Use of illegal nets	Ban on use of illegal nets Advocacy and lobbying.	Government to impose ban; CBO & WWF to conduct awareness raising workshop/activities for fisher folk to avoid using these nets	3 – 4 years
8	Narcotics/ Drug	Easy availability of drugs in the area	Imposition of ban on drugs	Law enforcement agency to take strict action against those who sell drugs. CBO to conduct awareness raising programmes.	Immediate

7. TRAINING NEEDS ASSESSMENT FOR LOCAL COMMUNITIES

The primary goal of capacity building of the community is to strengthen them to improve decision making, networking and collaboration in relation to coastal resource management at local levels and to improve livelihood opportunities to tackle poverty issue. The training needs of the communities of Sonmiani, Dam and Bhira have been identified as follows:

7.1 Local Institution Development:

There are three representative CBOs of area. Capacity Development of CBOs is necessary for effective and smooth running of daily business and planning process. They particularly, need capacity building in organizational management, financial management, office management, project planning, leadership, conflict resolution, communication, advocacy, lobbying, monitoring and evaluation, project management, gender awareness, environmental awareness and natural resources management. WWF – Pakistan and many other national NGOs have in house strength in these fields and can provide training/organize training workshops for members of local CBOs.



CBO = Society for Social Development and Conservation of Nature (SSDCN) office

7.2 Sustainable Fishery Practices:

Unfortunately, many of the local fishermen are involved in harmful fishing practices like using illegal nets of small mesh sizes. This unsustainable practice damages juvenile fish and shrimp, resulting in depletion of fish species and destruction of fragile marine ecosystem. There are some coastal communities along the Pakistan coast, like Ganz in Balochistan which have realized the disadvantage of using these nets and have adopted traditional fishing methods. Exposure visit of this community to those areas could be arranged. Further,

training on fish catch monitoring for representatives of CBO should be organized to monitor the trends in fish catch.

7.3 Improving Livelihood:

The community is mainly dependant on fishery resources. The fish resource is depleting rapidly. There are no alternative livelihood opportunities available in the area. There is need to introduce some alternate livelihood practices, that may also reduce pressure on the fishery sector. The National or International NGOs and research organizations may provide assistance to explore the alternative resources, and make arrangements for exposure visits of local CBO members to income generation projects in other areas within the country. In this regards, the NGOs can also explore the possibilities of livelihood enterprises for women. At present, some women of Sonmiani villages have started savings on self-help basis. But most women are not involved in any income generation activity. They should be provided skills of arts and crafts, shrimp peeling, livestock husbandry etc.

7.4 Natural Resource Management:

Capacity of CBOs to be built on community based natural resource management. Particularly, their skills in mapping resources, identifying environmental goals, planning conservation, defining development priorities, implementing management practices etc. to be built. These organizations were provided training in mangrove plantation, nursery raising, monitoring by WWF - Pakistan but they require trainings on other related topics of community-based natural resource management. WWF – Pakistan may organize training workshops for them or/and organize exposure visit to areas where natural resource management is practiced by the community.

7.5 Ecotourism

Sonmiani has great potential for ecotourism. The mangroves, the birds, the dolphins and surrounding sand dunes are potentials that can contribute to ecotourism without damaging the environment. The locals can be involved as tour operators and guide, provided they are provided training as tour guide. For this purpose, community would need training as tourist guide. The training could be arranged through Adventure Foundation Pakistan with help/assistance from WWF – Pakistan.



Bird watch at Sonmiani

7.6 Gender Sensitisation:

Women have least recognition of their role in natural resource management. They can play an effective role by promoting use of indigenous knowledge and practices in environmentally friendly coastal resource management. However, at present they are not playing a significant role in conservation and management of natural resources due to their restricted mobility. They are primarily responsible for family and household activities. Workshops need to be organised for gender sensitization so that women can also play an active role in every sphere.

8. CONCLUSION:

Sonmiani and surrounding areas have been contributing to the national economy through its natural resources. However, a majority of the community lives below the poverty level. WWF – Pakistan has been playing its role in awareness raising of the community of the natural resources available in the area and their sustainable utilization. Thus, it has been felt to formulate a need-based Village Development Plan the sustainable development and improvement in livelihood of the locals. The plan has been developed with community participation and is aimed at lifting the living conditions of the community and improvement in their livelihood. The plan also addresses the management of natural resources of the area, their wise use and role of different stakeholders in managing the resources. In order to achieve the objectives, the plan suggests empowerment of local communities through their organization, capacity building and creating alternate income generating opportunities for the local people through vocational training, ecotourism and training in sustainable natural resource management.

The Community Based Organisations (CBOs) would take the responsibility of implementation of the Village Development Plan (VDP). They would be coordinating with different stakeholders for its implementation. VDP is to be monitored periodically by the CBOs to assess the progress and achievement.

9. Annexure – I

عملی منصوبہ برائے سونمیانی

نمبر	مسئلہ	ایکشن پلان	ذمہ داری	رابطہ	وقت
1.A	پھلجی کے شکار میں کمی: الف۔ ناجائز جالوں کا استعمال ب۔ ماہی گیری کے قوانین کا مؤثر نفاذ ج۔ ڈیپ سی ٹرالر	۱۔ مقامی تنظیموں کی میٹنگ ۲۔ ماہی گیری کمیٹی کا قیام (ماہی گیری اتحاد سونمیانی ۳۔ متعلقہ اداروں یا لوگوں سے رابطہ (بشمول معززین علاقہ) ۴۔ ناجائز جالوں کے استعمال پر پابندی ۵۔ نگرانی (Watch and Ward) ۶۔ عمل کروانا	۱۔ لوکل سی بی اوز: سونمیانی ڈولپمنٹ آرگنائزیشن (SDO)، ماہی گیری ترقیاتی تنظیم (MTT)، سوسائٹی فار سوشل ڈولپمنٹ اینڈ کنزرویشن آف نیچر (SSDCN) ۲۔ SDO - SSDCN - MTT ۳۔ فشریز ڈپارٹمنٹ (FD)، ڈبلیو ڈبلیو ایف، مقامی حکومت، معززین علاقہ اور سیاسی کارکنان ۴۔ ماہی گیری اتحاد، مقامی حکومت، فشری ڈپارٹمنٹ ۵۔ فشری ڈپارٹمنٹ، مقامی ماہی گیری، ماہی گیری اتحاد، - SSDCN - SDO WWF - MTT	SSDCN, SDO, MTT	۱۔ مارچ ۲۰۰۶ ۲۔ اپریل ۲۰۰۶ ۳۔ جاری (In process) ۴۔ اپریل ۲۰۰۶ ۵۔ اپریل ۲۰۰۶ تا حال ۶۔ جاری
B.2	ناجائز جالوں کا استعمال	۱۔ متعلقہ اداروں سے رابطہ ۲۔ مطالعاتی دورے ۳۔ شعور بیداری ۴۔ فشری قوانین پر عمل کروانا	۱۔ مقامی سی بی اوز، بلوچستان ماہی گیری نیٹ ورک (BMN) ۲۔ BMN, WWF, CBOs ۳۔ FD, WWF, CBOs	ماہی گیری اتحاد / CBOs	۱۔ جولائی ۲۰۰۶ تا دسمبر ۲۰۰۷ ۲۔ اپریل ۲۰۰۶ ۳۔ جاری (تین ماہ بعد ۴۔ اپریل ۲۰۰۶

<p>۱۔ دسمبر ۲۰۰۶ ۲۔ (جاری) ۲۰۰۴ سے ۳۔ ۲۰۰۸ ۴۔ Dec 2006 onwards ۵۔ فروری ۲۰۰۷ ۶۔ Nov 06 (Basic Unit) ۷۔ Dec 06 onwards</p>	<p>SSDCN SDO MTT</p>	<p>۱۔ SMEDA, CBOs, WWF ۲۔ WG, CBOs, WWF ۳۔ WWF, CBOs ۴۔ SMEDA, NGOs, Shirkat Gah, SPO, Aurat Foundation ۵۔ WWF, CBOs ۶۔ SDO - SSDCN - Donor</p>	<p>۱۔ اسٹیڈی (ذرائع آمدنی کی نشاندہی) ۲۔ مطالعاتی دورے ۳۔ عورتوں کے حقوق کے لئے مردوں میں شعور بیدار کرنا ۴۔ ورکشاپس اور سیمینار اور میٹنگ کا انعقاد ۵۔ ووکیشنل سینٹرز ۶۔ پمپت اسکیم ۷۔ مارکیٹنگ</p>	<p>۲۔ خواتین کی آمدنی کے ذرائع</p>
				<p>تمرکی دیکھ بھال</p>
<p>2007 - 2012 Dec. 2006 - Dec 2008 2007 2006 - 2009 2006 - 2020 2007 - 2008</p>	<p>SSDCN, SDO, MTT</p>	<p>۱۔ CBO/WWF/IUCN ۲۔ CBO / WWF ۳۔ CBO / WWF / AKF/PCRET/NA ۴۔ NA ۵۔ CBO/WWF/BFD ۶۔ CBO/WWF ۷۔ CBO / WWF / Fed. Govt./BFD ۸۔ WWF/CBO/IUCN/MoE</p>	<p>۱۔ شعور بیدار کرنے کے لئے رابطے ۲۔ متبادل چارے کے بارے میں شعور بیدار کرنا FEST، گیس سلنڈر، کیکر کی لکڑی وغیرہ کے استعمال کی طرف لوگوں کو راغب کرنا۔ ۳۔ قدرتی مسئلہ ہے ۴۔ شعور بیدار کرنے کیلئے ورکشاپ، اور میٹنگز کا انعقاد ۵۔ متعلقہ اداروں سے رابطہ اور نیچوں کو اس علاقے سے باہر لے جانے سے رکوانا ۶۔ پلانٹیشن کرنا ۷۔ پلانٹیشن کر کے ماحولیاتی نظام کو بہتر بنانا۔</p>	<p>۱۔ بیجا کٹائی ۲۔ لکڑی جلانے کے لئے، چارے کیلئے ۳۔ فریش واٹر کی کمی ۴۔ شعور میں کمی ۵۔ بیجوں کے ذخیرے میں کمی ۶۔ سمندری کٹاؤ ۷۔ ریت کے ٹیلوں کا تھر کے درخت پر آنا</p>