



for a living planet



Sandspit

Village Development Plan

2005

ACKNOWLEDGEMENT

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VILLAGE DEVELOPMENT PLAN - SANDSPIT

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1. INTRODUCTION

1.1 Background

WWF – Pakistan initiated a project entitled “Tackling Poverty in Pakistan’s Coastal Communities through Sustainable Coastal Livelihood” in March 2003. The aim of the project is to improve the sustainable livelihood in four coastal communities including Sandspit community by achieving sustainable use of the mangrove and fishing ecosystems on which their livelihood depends. This Village Development Plan, prepared in consultation with the local communities is a step towards conservation of natural resources and their sustainable use and community development.

1.2 Purpose of the Plan

The purpose of the plan is to give the community of Sandspit a common vision for the development of their area so as to establish the link between poverty and environmental degradation. 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 and that will ensure sustainability of community efforts for natural resource conservation. The main goal behind this plan is to conserve, restore and assure the quality of the natural resource base for future generations. The plan also supports the development and enhancement of the environment.

1.3 Methodology

A workshop followed by a PLA (Participatory Learning and Action) exercise (by a multidisciplinary team) was conducted with the communities of Kakapir. Participants’ thoughts and ideas were recorded.

PLA 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 including 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.

The participants identified the problems/threats to the natural resources and determined the causes of the problem and identified the actions to be taken. Following questions were also discussed/addressed during formulation of the Village Development Plan:

- How the community benefits from various actions?

- What are the main obstacles that will or may be encountered during implementation?
- 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 any specific action?

It was ensured that all community representatives agree with the plan of action that has been formulated with their input and participation and they would implement it. The plan was finally presented in a consultative workshop with community members including womenfolk and elected representatives of the community in the District Government.

2. AN OVERVIEW OF THE AREA:

Sandspit lies about 18 km southwest of Karachi City. It is one of the prime recreational sites for the citizens of Karachi. The area contains shallow tidal lagoons, intertidal mudflats, saltpans and about 400 ha of mangrove swamps. The western part is open sandy beach extending for about 10 km. The Lyari River feeds the backwaters from the eastern side and seawater enters from the south as well as from Karachi harbour. The climate is arid subtropical with temperatures remaining moderate throughout the year. The average annual rainfall is 125 mm and the mean annual temperature is 32 C. The Karachi Port Trust (KPT) and Manora Cantonment Board own the major portion of the area. The Karachi City District Government also manages some part of the beach. It is also a prime recreational site for citizens of Karachi. A large number of visitors (estimated as 150,000) come to the area annually.

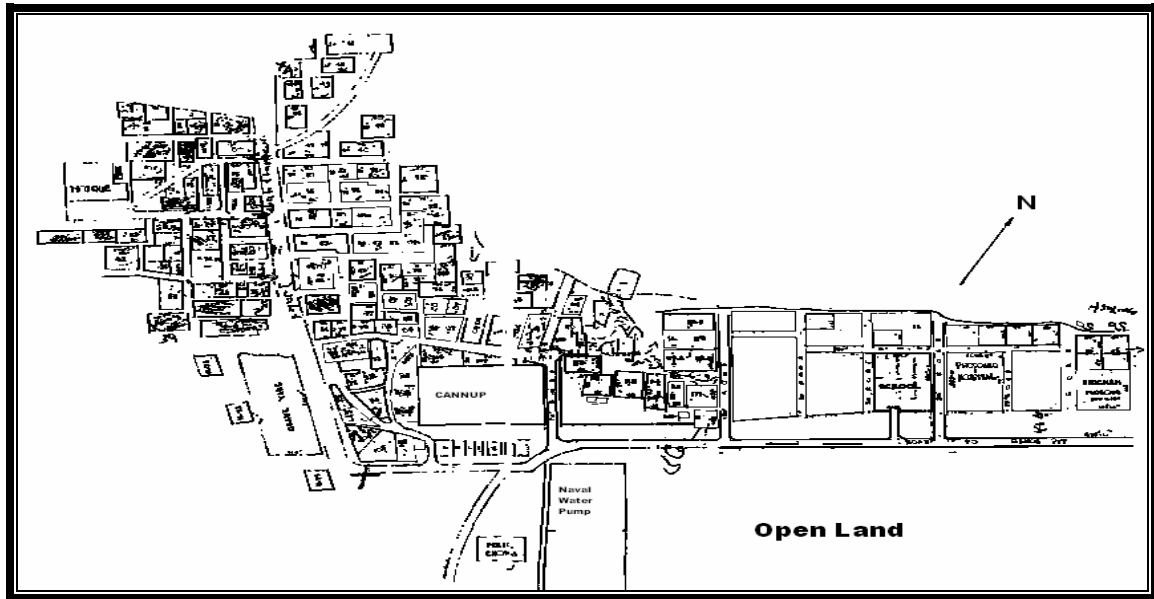
2.1 Social Setting:

The main village in Sandspit is known as Kakapir. It has 119 households with a population of about 1000 (Map 1). The majority of the population belongs to Sindhi and Lasi ethnic groups while a few belong to Jat tribe. About 85% of the population is engaged in fishing activities. Fishing activity is usually carried out for eight months and they do not go into the open sea when sea is rough from May to August. Not all the fishermen own a boat but most of them work as labour on others' boat. The average monthly income of majority of the households is about Rs. 3,000. There are only a few families whose monthly income ranges from Rs. 6,000 to 15,000.

The literacy rate in the village is very low. There are only 25 persons in the village who are matriculate (Secondary School level). The literacy in the female has been almost negligible. There are only two females in the village who are matriculate as they have come here from other parts of the city after their marriage. There is only one Government Boys Primary School and now the

WWF has recently started an Educational Center for Girls of the area in the Boys School building. More than 70 girls are attending the school.

The area is rich in respect of natural resources but there has not been sustainable utilization or management of natural resources. Women have no significant role in economic and development activities or in decision-making.



Map 1: Map of Kakapir Village

2.2 WWF – Pakistan’s initiatives in the area:

WWF-Pakistan implemented Mangrove Conservation Project at Sandspit with the support of DGIS-WWF Tropical Forest Portfolio from 1997 to 2002. The degraded mangrove area was rehabilitated with the participation of the local community and a Wetland Centre was established under the project. The Karachi Port Trust (KPT) had donated 500 sq.yds of land at Sandspit to WWF – Pakistan to establish the Wetland Centre. This Wetland Centre established in February 2001, is the first in Pakistan, located right in the middle of mangroves and opposite to the turtle nesting beach. It is playing a formidable and important role in improving environmental education and raising public awareness on environmental issues including wetland ecosystem.



WWF-Pakistan's Wetland Centre

WWF – Pakistan implemented another project on Mangrove and Biodiversity Conservation from October 2002 to December 2004 with the support from HRH Prince Bernhard of the Netherlands. The aim of the project was to enhance awareness about the mangrove ecosystem and the marine turtle-nesting in Sandspit. Apart from the conservation of flora and fauna associated with mangroves, emphasis was laid on preparation of an inventory of the biodiversity of entire Sandspit area.

WWF – Pakistan has now been implementing a project on Tackling Poverty in Pakistan's Coastal Communities through Sustainable Coastal Livelihood. Sandspit is one of the four locations where the project is being implemented. The project started in March 2003 and will continue till February 2007.

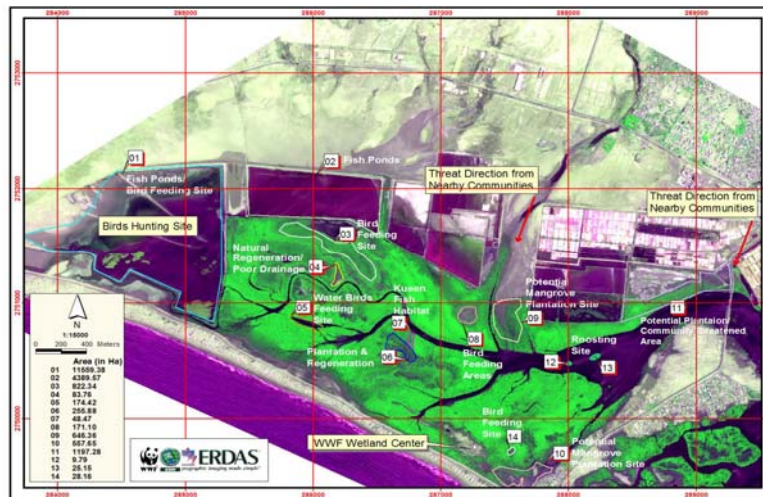
3. NATURAL RESOURCES AND ACTION PLAN:

Conservation and management of natural resources are treated as an integral part of the Area Development Plan. In the formulation of development plans, full consideration is given to ecological as well as to economic and social factors. Sandspit area has significant ecological and biodiversity value and a variety of natural resources (Map 2). The environment provides them their livelihood; income etc. and therefore they have the responsibility of preventing degradation and conserving the natural resource for the benefit of present as well as future generation.

3.1 Natural Resources:

The important natural resources available in the area include diversity of fauna, flora and their habitats supporting diverse economic activities. There are 41 species of insects, 8 species of spiders, 37 species of molluscs and 8 species of

crustacea (4 crabs, 3 shrimps and 1 amphipod), 31 species of mollusks, 107 species of birds, 6 species of mammals, 7 species of reptiles (2 marine turtles, 2 sea snakes and 3 lizards) and 13 species of Fish recorded from Sandspit – Hawkesbay area¹ (WWF – P. Report 2004). A brief discussion of various important natural resources of the area and their roles in local economy is mentioned below:



Map 2: Showing different types of ecosystem of the area

3.1.1 Mangrove forest:

The Mangrove forest that grows in the estuarine area is the storehouse of biodiversity. It is an important spawning and nursery ground of many species of fish and shrimps. There are number of marine invertebrates including coelenterates, annelids, crustaceans and mollusks available in mangroves which play significant role in the food chain and are thus important in maintaining estuarine fisheries. As per an estimate, 75% of fish caught commercially, are dependent on food chains of mangrove ecosystem. A study reveals that 1 ha of mangrove forest, if properly managed, will produce an annual yield of 100 kg of fish, 25 kg of shrimps, 15 kg of crab meat, 200 kg of mollusks and 40 kg of sea cucumbers (UNEP 1990). Mangrove also serves as roosting habitat for birds. Brahminy Kite and ardeids (egrets & herons) breed in the area.

¹ Mangrove Conservation at Sandspit through Promotion of Sustainable Livelihood – Final Report 2004



Mangrove Forest Area

There are 400 ha of mangroves in Sandspit backwaters and it includes 307 ha of dense forest and 93 ha of sparse forest. The mangrove forest at Sandspit is equally important as it provides a representative wetland ecosystem close to the city of Karachi. Many people for recreation visit Sandspit beach and thus this area may be preserved to demonstrate and educate people about this fragile ecosystem. There is only one species of mangrove in the backwaters at Sandspit called *Avicennia marina*.

The lopping of mangrove trees for stall-feeding of cattle and camel and for fuel is the main pressure on this natural resource. The encroachment or land reclamation by cutting mangroves is also an emerging threat to the mangrove ecosystem.

3.1.2 Fisheries:

Marine fish is another major natural resource of the area on which the community depends for their livelihood. There are a variety of fish available in coastal water and backwater. The preferable catch being Indian mackerel but mullets, sardinelles, kingfish, groupers and other bottom-lining fish are also caught by local fisher folk community. Besides, fish shrimp is the important livelihood resource and caught by local fisher folk community. Fisher folks commonly harvest *Penaeus sp.* and *Metapenaeus sp.* Lobster, although very scarce now, is sometimes caught by them. Crabs are also species of economic importance for locals and they catch mud crab (*Scylla sp.*) and blue crab (*Portunus pelagicus*), which fetches considerable sale prices. Crabs are mostly exported from Pakistan.



Shrimp Catch

The major problem related to fisheries is the unsustainable harvest. Although, the local fisher folks use small or medium sized boats for fishing yet the use of some harmful nets by fishing boats from other areas have decreased the fisheries production. The pollution in backwater of Sandspit is also causing the depletion of fisheries resources in backwater.

3.1.3 Molluscan shells:

The molluscan fisheries have not been developed in Pakistan in spite of its demand in international market. Prices range from US\$ 1 to US\$35 per kg for different species. Molluscs of commercial importance occur in waters off Sandspit too. This includes Pelecypods (mussels, clams, cockles) and cephalopods (squids, cuttle fish). Tirmizi ²(1994) reported the occurrence of the edible clam (*Marcia cor*) from the mangroves at Karachi that include Sandspit area. The clam is collected for local consumption only.

The squid and cuttle fish is harvested in many countries commercially but cephalopod fishery does not exist in Pakistan. The local fisher folk catch squid and cuttle fish as a by-product of shrimp fishing. It is only used locally as bait. It fetches a very nominal price in the market. Presently, there is no local market for the edible mollusks, except for a very small fraction that are supplied to big hotels.

Gastropod shells are collected in small quantity to make artificial ornaments and decoration pieces.

² Tirmizi, N.M., Studies on the Edible Clam, *Marcia cor* from Mangroves at Karachi. Proceeding of National Seminar on Fisheries Policy and Planning, Marine Fisheries Department, 1994.

3.1.4 Marine Turtle:

Sandspit/Hawkesbay is a globally important site for marine turtle nesting. Globally there are seven species of marine turtles and they are all classified as 'endangered'. Two species, the Green turtle (*Chelonia mydas*) and the Olive Ridley (*Lepidochelys olivacea*) nest along the Sandspit-Hawkesbay beach. The beach is sandy and the nesting habitat is concentrated along 5-½ km stretch of the beach.



Green Turtle

Nesting grounds of marine turtle at Sandspit are under different pressures:

- Construction of recreational beach huts and use of lights by hut occupants.
- Disturbance to marine turtles by beach visitors.
- Pollution/ Litter of solid waste on the beach by beach visitors/picnickers.
- Predation by crows, kites and dogs as they feed on eggs and hatchlings.

3.1.5 Water birds:

Sandspit/Hawkesbay is an important coastal wetland and has been identified as a candidate for declaration of the Wetland of International Importance by Ramsar Convention Bureau. The area is an important roosting; feeding and staging grounds of water birds are frequented by large number of water birds in winter including some endangered species like Dalmatian Pelican. The area regularly supports more than 20,000 water birds. The water birds that are found in the area include pelicans, flamingos, egrets, herons, ducks, coot, shore birds (wader), gulls and terns.



The Flamingoes, besides egrets and herons can be observed at the pond round the year. The area has special significance as a distinct environment in the tropical region of southern Pakistan. Hence, most of the palaeartic migratory birds visit the area during winter.

3.1.6 Salt pans:

The backwater at Sandspit has salt pans. Sea water is transferred or pumped into rectangular settling pans or ponds at high tide. The wind and sun gradually evaporates water and salt (Sodium chloride) settles down. The salts are sold commercially by contractors to different industries. The saltpan has special significance with regard to the biodiversity. The area inhabits important diversity of vertebrate and invertebrate species.



Salt pans

Action Plan for Natural Resources:

The community based action plan develops a common understanding among the local community about their resources and ultimately how they can protect these without much involvement of outside organizations. The strategy for implementation of mangrove action plan is shown as per annexure – I. The Fisheries Action Plan prepared by the community is attached as annexure – II.

**TABLE 1
PROPOSED ACTION PLAN FOR NATURAL RESOURCES**

S.No.	Resource	Issues/Threats	Causes	Solutions	Responsibility	Duration
1	Mangrove Forest	Deforestation through over cutting	<ul style="list-style-type: none"> Used as fuel wood and fodder by the local community as well as from other nearby villages. No legal protection status for mangroves. Lack of alternate fuel energy resources. 	<ul style="list-style-type: none"> Mangrove plantation in the degraded area. Sustainable management by the local CBO. Adoption of natural (Sui) gas connection by all households of Kakapir village. Watch and ward mechanism initiated to prevent people from other area cutting. Mangroves, the area is declared as a protected area by the Government of Sindh. 	Local CBO, WWF – P., KPT, Government of Sindh, Manora Cantonment Board	Immediate
2	Fisheries	Over fishing, Use of illegal mesh size net, Deep sea trawlers, Catch of crabs by non-locals (Bengalis)	<ul style="list-style-type: none"> Weak implementation of fisheries law. Lack of awareness about the importance of natural resources and environmental issues of the area 	<ul style="list-style-type: none"> Effective implementation of Fisheries Law. Campaigns to create awareness about environment and natural resources 	Provincial & Federal Fisheries Department, CBO and NGOs	1 – 3 years
3	Molluscan shell	Unexploited resource for livelihood (by the locals), No commercial gain	Lack of awareness about its economic importance and market	<ul style="list-style-type: none"> Explore the commercial utilization and market 	CBO, Assistance from WWF to explore if it can be commercially exploited/utilized, Relevant government department also to assist/facilitate	Next 4 years

4	Marine Turtle	Predation by cows, gulls, dogs. Disturbance by beach visitors, littering of beach, use of lights by hut dwellers, undesired development by hut owners	<ul style="list-style-type: none"> • Lack of awareness in public about importance of marine turtle lacking. • Inadequate legal protection to habitat 	<ul style="list-style-type: none"> • Awareness raising campaign. • Effective legal protection to the turtle habitat 	Government of Sindh, Sindh Wildlife Department, KPT, Local CBO, WWF and other NGOs.	1 – 5 years
5	Water bird	Degradation and shrinkage of habitat, hunting pressure	<ul style="list-style-type: none"> • Developmental activity, Land reclamation. • Lack of awareness and weak implementation of wildlife law 	<ul style="list-style-type: none"> • Provide the status of 'Protected Area' for the protection of habitat and birds. • Continue awareness programme for conservation of birds and the habitat 	Government of Sindh, KPT, Local CBO & WWF	Next 5 years
6	Salt pan	Non-involvement of locals in salt extraction	Salt pans have been leased out to contractors from outside	<ul style="list-style-type: none"> • Salt pans are also leased to local • Locals are at least hired as worker by contractors 	KPT, Manora Cantonment Board	Next 5 years

4. SOCIAL ISSUES AND THEIR MITIGATION:

4.1 Water Supply:

The lack of fresh water in the area is a major problem. Despite the efforts of the District Government, most of the local population is without an adequate supply of drinking water. Water is supplied through pipelines that have been mainly laid down for supply of water to Manora, or through tankers. The tap water connection through pipeline is available only to a few households and at few points/locations of common use within the village. However, water is not regularly supplied through the pipelines, rather for few hours daily or on alternative days. The tankers also supply water, which is stored in the community tank twice a week. The water supply does not commensurate with the community need and they are left to purchase unsafe drinking water from tankers. The pipeline exclusively for this village should be provided for regular supply of potable water.

4.2 Education:

There has been lack of interest in the community to get education. The children usually accompany their parents in fishing to supplement the income generation. There is a Government Boys Primary School as well as a Basic Educational Facility for Girls started by WWF in the same building. Prior to the establishment of this facility, the female education was almost non-existent. The parents were reluctant at the beginning to send their daughters for education but later they agreed to send them to the WWF established school. About seventy girls of ages ranging from 5-27 have now been enrolled as students. They have been provided education materials like books, stationery and activity sheets by WWF. The status of education of boys is still deplorable. The community now realizes the need of education for their children but their economic condition forces them to involve the boys in fishing.



Govt. School at Kakapir Village



WWF school for Girls

4.3 Health:

A Health assessment survey was conducted by WWF - Pakistan for the community in 2003. Some of the major health issues and diseases highlighted by community and assessed by the investigators were as follows:

1. Lack of awareness regarding maternal health care, both on the part of women and community in general, leading to inappropriate antenatal and post natal care, unsafe deliveries by untrained birth attendants and increased incidence of unsafe abortions. They all contribute to increased maternal morbidity and mortality.
2. Wide spectrum of childhood diseases including diarrhea, pneumonia, asthma and communicable diseases like measles, polio and chicken pox. In addition to this anemia, malnutrition and poor immunization coverage are the other major problems responsible for poor health status of the children.
3. Inappropriate knowledge regarding family planning coupled with non-cooperative attitudes of males for child spacing.
4. Higher prevalence of TB among the community.
5. Episodes of fever with chills and rigors simulating malaria are a very common complaint.
6. Hepatitis cases with jaundice, nausea and vomiting had increased in number as reported by the community, not validated by the survey.
7. In the elderly population, both in males and females, cases of untreated hypertension leading to stroke were also reported.
8. In some families of the community, almost all the members were suffering from renal calculi.
9. Intake of pan, tobacco, Gutka among the community was very common. Cases of oral cancers due to the use of pan and gutka were reported. In women use of pan and tobacco could be one of the major reasons for anemia and poor appetite.
10. There is no doctor available in the area for treatment of the patients. The community has to travel to a far-flung area to consult a doctor. Provision of a doctor (medical practitioner) in the area is required.

A high illiteracy rate coupled with limited income generation opportunities particularly for women and youth were the major issues and are related to health problem. They are taken as proxy indicators for the health status of a community. Considering that health is not an isolated issue, interventions for health should include strategies addressing illiteracy and income generation.

Actions should be initiated to address health issues of women taking into consideration their vulnerability to the risks associated with the maternity cycle. Protection of children from illnesses and their sequel is due to poor immunization coverage so vaccination of infants and children should be arranged. Provision of

employment opportunities for youth will not only help built their skills but also, help prevent them from harmful practices like use of drugs.

4.4 Sanitation and solid waste management:

Kakapir residents pointed out sanitation as a major problem and cause of concern for them. There is no provision of a drainage facility. Some houses have pit latrines while *jhuggis* (thatched house) use community latrines or open spaces. Wastewater is allowed to flow in open drains. Piles of garbage and sewage are spread all over the places. The sewage problem has been worsening with growth in population. This problem can be correlated with the health problems of the community.

Similarly, there is no proper arrangement of solid waste management and the area remains littered with garbage. It is the responsibility of the City District Government for disposal of garbage.

4.5 Reduction in fish catch:

Declining fish stocks due to over fishing is one of the major causes of the fall in the income level of the community. There has been continuous decrease in fish and shrimp catch level. The frequent use of illegal destructive/harmful fishing nets and deep sea trawlers are the main causes of decline in fish stock. There is weak implementation of fisheries laws and thus unusual practices are adopted by greedy fisher folk who in most cases do not belong to the local community and come in the area off Sandspit for fishing from other areas.

4.6 Unemployment:

The community mainly depends on fisheries for livelihood or employed as Chowkidar (Guard/Watchman) of the beach huts. Although there is opportunity for employment in industries and commercial establishments in the metropolitan city of Karachi but the community is unskilled and lacks education for job in those establishments.



Life Guard Training

In order to improve the livelihood opportunities, technical trainings may be arranged or organized for them to cope with the job market. Further, many of them can work as tourist guides and life guards, provided they are trained for these professions. WWF had arranged training of eight community members as Life Guard in collaboration with Pakistan Aquatic Life Savings (PALS) and Surf Life Saving, New Zealand in 2004. They are now rendering services voluntarily on the beach but they can be hired by a social service organization. Since the area has a variety of natural habitat and species, eco-tourism may be promoted and locals involved as tourist guides.

4.7 Income Generation Opportunities for Women:

The mobility of women is restricted and they have no role in economic activity. They are relegated to household activities. Women empowerment is not possible without making them economically self-sufficient. Therefore, some micro-enterprise activities could be initiated. Income generation activities for women should be designed in such a way that it does not affect their household responsibilities. In this regard following activities could be suggested:

- Poultry, especially rural poultry farming (keeping the chicken around the houses) and provide them technical assistance and link with market.
- Skill of arts and crafts, sewing and embroidery.
- Goat rearing and goat fattening.



Sewing and Embroidery

4.8 Provision of Jetty:

Non-existence of a proper landing station of fish from boat is a major problem faced by the local fisher folk. They anchor their boat on the bank. With the wave action, their boat is sometimes damaged. They encounter difficulty in landing fish catch. This also results in deterioration of fish quality and less market price of the catch. The Government should construct a small fish-landing jetty at Sandspit.

4.9 Social Forestry:

The village is devoid of shrubs or trees. There is potential for social forestry. It is better to plant some salt resistant trees or grass, which could be used as an alternative for fodder also. There is some area near the village that could be used for tree plantation and community could be encouraged to grow trees inside their houses, because some households have enough space in their courtyards.

**TABLE 2
PROPOSED ACTION PLAN FOR ADDRESSING SOCIAL ISSUES, AS SUGGESTED BY THE LOCAL COMMUNITY**

S. No.	Problems/ Issues	Causes	Solutions	Responsibility	Duration/ Target
1.	Water Supply	<ul style="list-style-type: none"> • Water supply pipeline not exclusive for the village • Inadequate supply of water 	Separate pipeline of water for the village	Provision of water pipeline by KWSB and adequate supply of water to the village by them	1 – 2 years
2.	Education	<ul style="list-style-type: none"> • Lack of interest in parents for children's education • Economic condition of community 	<ul style="list-style-type: none"> • Awareness on importance of education in community raised • Livelihood opportunity of the community enhanced • Educational facility in the area increased 	Local CBO and NGOs raise awareness and motivate community for children's education, Education Department is approached by CBO to improve education facility, particularly establish a Girls School; WWF would continue to support for female education until Government starts a Girls School in the area.	Next 2 years
3.	Health	<ul style="list-style-type: none"> • Lack of awareness in community on health and hygiene • Non-availability of medical facility in the village 	<ul style="list-style-type: none"> • Awareness on health and hygiene provided • Medical facility in the village provided 	NGO/CBO initiates awareness campaign addressing health issues; Government of Sindh or Local District Government establishes a hospital or Health Centre in the village; Provision of a doctor for the village	1 – 3 years
4.	Sanitation and solid waste disposal	Non-existence of proper sewage facility and inadequate facility for solid waste disposal	Provision of sanitation facility and sanitation workers and arrangement of regular disposal of solid waste	Local District Government to provide sewage facility and sanitation staff and Manora Cantonment Board to manage solid waste disposal	1 –2 years

S. No.	Problems/ Issues	Causes	Solutions	Responsibility	Duration/ Target
5.	Reduction in fish catch	<ul style="list-style-type: none"> • Use of illegal nets • Catch by fishers of other areas in adjacent waters using larger boats • Deep sea trawler's catch 	<ul style="list-style-type: none"> • Proper implementation of Fishing laws • Ban on deep sea fishing trawlers 	Advocacy with the Govt. by CBO for proper implementation of Fisheries Laws; Awareness raising on disadvantages of use of harmful nets by CBO and NGOs	Next 2 – 3 years
6.	Unemployment	<ul style="list-style-type: none"> • Lack of skills in locals for alternate profession • Opportunities of alternate source of livelihood in the area like eco-tourism unexplored 	<ul style="list-style-type: none"> • Vocational training center established to enhance skills • Eco-tourism promotion and other sources explored 	Government to explore alternate employment opportunities and establish vocational center for skill enhancement; NGOs to assist in promotion of eco-tourism and training of guides and explore other sources of livelihood	Immediate
2	Income Generation Opportunity for Women*	<ul style="list-style-type: none"> • Mobility of women restricted • Lack of skill and opportunities 	<ul style="list-style-type: none"> • Skill development programme for women initiated • Opportunities explored 	The District Government/Social Welfare Department of the Government of Sindh/NGOs assist local CBO in skill enhancement of community women	Immediate
8.	Provision of jetty	Difficulty in landing fish catch	Construction of fish landing jetty	Government of Sindh, Lobbying by CBO	Next 5 years
9.	Social Forestry	Almost non- existence of plants/trees other than mangroves growing in the estuarine area	Plantation of suitable plants by the community in consultation with the Forest Department	Saplings to be provided by the Forest Department and plantation by the community/CBO	2 – 5 years

* Indicated by female community members

5. TRAINING AND CAPACITY BUILDING OF LOCAL COMMUNITIES:

The primary goal of capacity building of the community is to strengthen them to improve decision making, networking and collaboration related to coastal resource management at local and regional levels and improve livelihood opportunities to reduce poverty. The training needs of the communities of Kakapir village have been identified as follows:

5.1 Institutional Development:

Institutional Development of CBO is necessary for effective and smooth running of the 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, savings and credit scheme management, environmental awareness communication skill and natural resources management. WWF – Pakistan and many other national NGOs have in-house strength in this field and can provide training/organize training workshops for members of the CBO.

5.2 Natural Resource Management:

Capacity of the CBO to be built in 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 and 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.

5.3 Social forestry:

There is potential for social forestry. However, the community needs proper training in the field of social forestry. The CBO members could be encouraged and provided training in social forestry.

5.4 Gender Sensitisation:

Women have least recognition of their role in natural resource management. They can play effective role by promoting use of indigenous knowledge and practices in environment friendly coastal resource management. However, they are not playing significant role in conservation and management of natural

resource due to their restricted mobility. They are primarily responsible for family and household activities. Workshops are to be organised for gender sensitization so that women can also play a role in every sphere.

5.5 Improving Livelihood:

The community is mainly dependant on fishery resources. The fish resource is depleting rapidly. There is need to introduce some alternate livelihood practices, that may also reduce pressure on the fishery sector. The National or International NGOs may provide assistance to explore the alternative resources and make arrangement or exposure visit of local CBO members to income generation projects in other areas within the country. Feasibility of apiculture, fish farming and grading and packing of fish locally for marketing could also be explored for income generation. Eco-tourism may also be a potential as turtle watch, bird watch, mangrove watch could be organised by the community and for this purpose community would need proper training. The training could be arranged through Adventure Foundation Pakistan with help/assistance from WWF – Pakistan.

5.6 Income generation activities for women:

The women lack skill and confidence to start any income generating activity. 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 to supplement their family. They may be provided training in poultry farming and provide them technical assistance to link with market. Skill of arts and crafts, sewing and embroidery should also be provided. They may also be trained in goat rearing and goat fattening.

5.7 Water purification and safe storage:

More than 70% of local community fall victim of water borne diseases due to use of contaminated water. Therefore, formal or informal training on safe storage and use of drinking water is needed to be organized, particularly for women of the community. The womenfolk are mainly responsible for fetching and storage of water. This would help in improvement of their health status.

5.8 Lobbying and advocacy:

There are several problems of the community that are due to the unawareness and ignorance of community of their rights. In this connection capacity building in the field of lobbying and advocacy is required for community so that they can take their issues to respective departments to secure their rights and address other social services.

5.9 Environmental education

There is a need of environmental education and awareness in the community. Therefore a comprehensive education program should be designed specially for women and youths of the area. WWF – Pakistan’s Wetland Centre could do this programme. The strategy for implementation of social action plan is shown as per annexure – I.

6. CONCLUSION

WWF – Pakistan works on the principle of integrated conservation and development (ICD). The ICD simultaneously addresses two purposes i.e. the promotion of socio-economic development and the conservation of nature and natural resources. The community is the integral part of ICD approach. The community of Sandspit is therefore, a major stakeholder in the implementation of the WWF – Pakistan’s conservation projects in the area. A majority of the community of the area lives below the poverty level. WWF – Pakistan has been working with the local community, raising their awareness on natural resources of the area and making them realise that they are one of the beneficiaries of the resources. The economic and social development of communities living in the area is linked with ecologically sustainable activities. Therefore, this 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 addresses the management of natural resources of the area, their wise use and role of different stakeholders in managing the resources. Further, measures for the enhancement of livelihood opportunities and economic conditions of local communities should be taken to improve their standard of living. In order to achieve the objective, 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 and training in sustainable natural resource management.

The Community Based Organisation (CBO) 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 CBO to assess the progress and achievement.

7. Annexure – I

عملی منصوبہ برائے سینڈز پیٹ

نمبر	مسئلہ	ایکشن پلان	ذمہ داری	رابطہ	وقت
۱۔	فراہمی آب	<p>۔ کیوٹی کے ساتھ میٹنگز (رابطہ کاری)</p> <p>۔ پانی کی ایک اور لائن (۶ انچ قطر کی)</p> <p>۔ اوور ہیڈ ٹینک</p> <p>۔ کیوٹی کی لائن سے پانی لینا</p> <p>۔ محلوں تک پانی کے لائنوں کی فراہمی</p> <p>۔ فالو اپ</p> <p>۔ عملدرآمد</p>	<p>۔ ڈیپوڈ بیوائف، سی بی او، کیوٹی</p> <p>۔ لوکل گورنمنٹ</p> <p>۔ کیوٹی، پاکستان نیوی</p> <p>۔ سی بی او، این جی اوز (کیوٹی ایس او)</p> <p>۔ مقامی افراد، سی بی او</p> <p>۔ سی بی او، مقامی افراد</p>	<p>CBO / WWF -</p> <p>CBO / WWF -</p> <p>CBO / WWF -</p> <p>CBO -</p> <p>CBO / WWF -</p> <p>CBO / WWF -</p>	<p>۔ نومبر ۲۰۰۶</p> <p>۔ نومبر۔ دسمبر</p> <p>۔ نومبر۔ دسمبر</p> <p>۔ فروری ۲۰۰۷</p> <p>۔ جون ۲۰۰۷</p> <p>۔ نومبر ۲۰۰۶</p>
۲۔	صحت	<p>۔ ڈپنٹری کا قیام</p> <p>۔ طبی سہولیات کی فراہمی</p> <p>۔ چھڑ مارا سپرے</p> <p>۔ صحت عامہ کے بارے میں آگہی</p> <p>۔ احتیاطی تدابیر</p>	<p>۔ محکمہ صحت / این جی اوز</p> <p>۔ ڈوڑا بکنسز، کاروباری و تجارتی ادارے</p> <p>۔ ڈوڑا بکنسز، کاروباری و تجارتی ادارے</p> <p>۔ لوکل گورنمنٹ اور محکمہ صحت</p> <p>۔ این جی اوز، گورنمنٹ، محکمہ صحت</p> <p>۔ مقامی افراد</p>	<p>CBO / WWF -</p> <p>CBO / WWF -</p> <p>CBO -</p> <p>CBO / WWF -</p> <p>Community / CBO -</p>	<p>۔ نومبر، دسمبر ۲۰۰۷</p> <p>۔ جنوری ۲۰۰۷</p> <p>۔ دسمبر ۲۰۰۶</p> <p>۔ جنوری ۲۰۰۷</p> <p>۔ نومبر ۲۰۰۶ تا حال</p>

- دسمبر	CBO/WWF -	SSGC.CBO سے رابطہ کریگی تاکہ	- گھروں تک سوئی گیس کی فراہمی	تمراییشن پلان
- فروری، مارچ ۲۰۰۷	CBO/WWF/KPT -	لوگوں کو کنکیشن فراہم کیا جائے۔	- تمر پلانیشن	
- نومبر ۲۰۰۶	CBO/WWF/KPT -	CBO/ WWF/ -	- تمر کے جنگلات کی کٹائی روکنے کے لئے عملی	
- جاری	CBO/WWF -	Community	اقدامات	
- اگست - ستمبر ۲۰۰۷	CBO/WWF -	WWF/CBO/Community -	- نرسری	
- مارچ ۲۰۰۵		CBO/WWF/ -	- دیکھ بھال کیلئے کمیٹی کا قیام	
		Community		
		CBO/WWF/-		
		Community		

8. Annexure – II

COMMUNITY BASED FISHERIES MANAGEMENT PLAN

SANDSPIT, KARACHI

1. INTRODUCTION:

Sandspit is about 18 km south west of Karachi City. The area contains tidal lagoons/backwater, inter-tidal mudflats and mangrove swamps. The open sea is on the western part. The Karachi Port Trust (KPT) owns the major portion of the area, including the backwater.

There is one village known as Kakapir in the vicinity of Sandspit area. It has 127 household with a population of about 600. The village economy is primarily based on fishing as majority of the population is engaged in activities related to fishing. Almost every household own one or two small boats or work on others boats.

WWF – Pakistan is implementing a project in the area on Tackling Poverty in Pakistan’s coastal communities through sustainable livelihood with support from European Union through WWF – UK. The project is focusing on the overall livelihood of the community and the sustainable management of natural resources that include fisheries on priority.

2. FISHERIES RESOURCE AND ISSUES:

The community of Kakapir village (Sandspit) is mostly small fishermen and possesses small sized boats. They do not go very far in the deep sea but fish in close proximity of the coast as well as in the backwater. The fishermen from other areas commonly undertake fishing activity in backwater and adjacent fishing ground in open sea. They use small mesh sized nets like Tangri Gujji, Boolo Gujjo, Plastic net, wire net etc. Looking at the practice of outsiders, the local fishermen have also started using these harmful nets. This has led to gradual reduction in fish catch, particularly in back water.

The community did not realize the importance of sustainable fishing practices. WWF – Pakistan’s awareness raising efforts and continuous interactions with the community has made the local fishermen realize the negative impacts of the harmful fishing practices adopted by them. The community has started thinking themselves of the long term negative effect of these practices.

In 2005, WWF – Pakistan facilitated the local communities of Kakapir (Sandspit area) in formulation of the Area/Village Development Plan (VDP) using different PRA techniques. Under the VDP the community has identified the following issues related to the depletion or threat to the fisheries resources:

- Use of illegal/harmful mesh size nets
- Weak implementation of Fisheries Law
- Catch of crabs by non locals
- Deep sea trawlers
- Lack of awareness of the importance of natural resource

3. PROCESS OF COMMUNITY BASED MANAGEMENT:

In order to ensure sustainable management of fisheries, WWF – Pakistan has organized and mobilized the local community of village Kakapir. The local community has organized to form Fisherfolk Development Organisation (FDOK). FDOK, a Community Based Organisation (CBO) of the area which has been strengthened and motivated to take a lead role in the formulation and implementation of fisheries regulations in the area that could lead to sustainable fisheries practices.

The CBO after consultation with the community initiated to demarcate an exclusive fishing zone in the adjacent open sea for the community and established a watch and ward system in the backwater, close to their village. They have demarcated the sea front area by putting visible signs (flags) to show their territorial area. The information regarding marking of exclusively communal fishing ground has been disseminated by the CBO among all the neighbouring fishing communities.

The CBO has formed two Committees, the Executive Committee (EC) and the Fisheries Management Committee (FMC) to oversee and regulate the sustainable fishing in their area. The Executive Committee comprises of mainly the local elders to provide necessary guidance, liaise with Nazims and other stakeholders. The members of the Executive Committee are:

- Haji Siddique
- Ibrahim Soan
- Haji Hassan
- Ishaque
- Faqir Muhammad

The Management Committee is responsible for implementation on ban of harmful nets, effective mechanism for watch and ward, stopping intrusion of outsiders in their territory and action harmful nets. The committee members use mobile phones to coordinate with each other for joint action against any one using harmful nets. The members of Fisheries Management Committee are:

- Abdul Ghani
- Hashim
- Ahmad
- Muhammad Saleem
- Ejaz Ahmed

- Muhammad Siddique

Initially, the Executive Committee decided to take immediate action to stop harmful practices in the backwater. The implementation in the open water will be taken into consideration after a reasonable time of publicity so that the outsiders could know the decisions.

The summarized version of management actions decided by the community is shown as per attached matrix.

MATRIX INDICATING SUMMARY OF FISHERIES ACTION PLAN FOR SANDSPIT

What (Issues)	How (agreed rules & practices)	Who (roles and responsibilities)	When
Use of harmful nets, mostly by the outsiders leading to unsustainable fishing practices in Sandspit area.	<ul style="list-style-type: none"> • Establish a territory in the adjacent open sea, exclusively to be the fishing zone for the local community and ensure fishing rights in the backwater and territorial zone in open sea for use by the locals only. • Measures will be taken to prohibit the outsiders fishing in the territory of the local community. • There will be a complete ban on the use or fixing of harmful nets in backwater and community's fishing zone in open sea. • Establish a Fisheries Management Committee for ensuring a community based watch and ward system. • Liaise with the Fisheries Department to ensure proper implementation of the existing Fisheries Act. 	<ul style="list-style-type: none"> • CBO will demarcate a territory in the open sea for fishing exclusively by the local fisherfolks. • CBO to display signs and disseminate information about the territorial fishing zone of the community. • CBO/EC will consult the respective UC and Town Nazims before demarcating the area and ensure their support in implementing the community based fisheries management. • The CBO will approach WWF for help in getting support of Fisheries Department in implementing community based fisheries management in the area and proper implementation of Fisheries Act. • Fisheries Management Committee (FMC) of the CBO will be responsible for imposing ban on harmful nets. 	<ul style="list-style-type: none"> • CBO will organize a consultative meeting with the community to initiate the community based fisheries management • Display of signs showing territory and dissemination of information to outsiders to prohibit them to intrude into the territory in ----- • Formation of Fisheries Management Committee • Implementation of Fisheries Action Plan

		<ul style="list-style-type: none"> • FMC will generate local support in the matter and create awareness. • FMC will arrange regular watch and ward in the territorial water through volunteers from the community. The community's boat going out for fishing will be used for watch and ward. • The members of FMC will also make visits to the area fortnightly to assess the situation and hold six monthly review meeting to monitor the progress. • CBO will maintain a record of the operational boats of the local fishers. • CBO will fix monthly contributions from local fishers to generate funds to meet expenses on monitoring and other expenditure on local fishers welfare. 	
<p>Pollution in the backwater – Lyari river brings effluents of the city and discharges near the backwater</p>	<ul style="list-style-type: none"> • CBO will raise the issue with Town Nazim and Environmental Protection Agency and other relevant departments/organizations. 	<ul style="list-style-type: none"> • CBO will contact the Town Nazim in this regard and WWF – P will help CBO in lobbying with other organizations. 	<ul style="list-style-type: none"> • It is a long term process, however actions will be initiated in 2007 in this regard.

4. PRESCRIPTION OF FISHERIES ACTION PLAN

4.1 Duration: The Management Plan will be effective for a period of three years and then it will be reviewed. It will be re-implemented after revision.

4.2 Priority issues to be tackled: It was decided that the following issues are to be considered for the management plan.

- i. Fishing right in backwater and adjacent open sea.
- ii. Ban on harmful nets
- iii. Awareness and capacity building
- iv. Advocacy and lobbying

4.2.1 Fishing right in backwater and adjacent area:

Backwater: The area is in the close proximity of Kakapir village and KPT is the custodian of the area. The area is surrounded by mangroves. The Kakapir community by virtue of its being closer to the area feels its right to harvest and manage the fisheries available in the area. Therefore, the EC decided that no fishermen other than those living in Sandspit area will be allowed fishing in the backwater. The FMC will be responsible for implementing the ban and managing the fisheries resources in the area. The UC and Town Nazims of the area will be taken into confidence of this decision and implementation process. The KPT will also be informed in this regard and their support will be obtained. The ban for the outsiders will be affected with immediate effect after Nazims are taken into confidence.

Open Sea: It was decided that one km area from the coastline will be marked as communal fishing ground. No outsiders will be allowed for fishing within this area. This area will be managed by the FMC. The EC will liaise with Nazims and the Provincial Fisheries Department for their support on this issue. The EC will launch an information and awareness campaign in advance about the proclamation of ban on the intrusion of outside fishers into the territory marked for management by locals. They will give at least one months notice for this purpose.

4.2.2 Ban on harmful nets:

There will be a complete ban on the harmful nets as described in the Provincial Fisheries Department.

4.2.3. Advocacy and Lobbying:

The CBO will establish linkages with the network of CBOs in coastal areas, Fisheries Department, District Government, NGOs for lobbying to support the Community Based Fisheries Management Plan.

4.2.2. Awareness and capacity building:

The CBO will organize capacity building training for local fisher-folk like exposure visit to the coastal communities who are practicing the traditional methods of fishing. The CBO will inform the fisher-folk about the benefits of sustainable fishing practices.