

Table 3.5.5
List of Plant Species Planted For Social Forestry

Sr. No.	Scientific Name	Local Name
1.	<i>Acacia nilotica</i>	Babul, Baval
2.	<i>Acacia senegal</i>	Gorad
3.	<i>Salvadora oleoides</i>	Pilu
4.	<i>Casuarina equisetifolia</i>	Saru
5.	<i>Embllica officinalis</i>	Amla
6.	<i>Eucalyptus hybrid</i>	Nilagiri
7.	<i>Azadirachta indica</i>	Neem
8.	<i>Dalbergia sissoo</i>	Sissoo
9.	<i>Ficus bengalensis</i>	Aala
10.	<i>Ficus religiosa</i>	Arali
11.	<i>Mangifera indica</i>	Aam, Ambo
12.	<i>Pongamia pinnata</i>	Karanj

Source: Social forestry division, State Forest Department, Surendranagar and Patan District of Gujarat

Table 3.5.6
List of Agricultural Crops in Rajasthan and Gujarat

Sr. No.	Scientific Name	Common Name
Rabi Cereals		
1	<i>Triticum aestivum</i>	Wheat
2	<i>Hordeum vulgare</i>	Barley
Pulses		
3	<i>Phaseolus</i>	Gram
4	<i>Lens culinaris</i>	Lentil
Oil Seeds		
5	<i>Brassica juncea</i>	Mustard
Vegetables		
6	<i>Coriandrum anum</i>	Coriander
7	<i>Allium sativum</i>	Garlic
8	<i>Capsicum anum</i>	Chilly
9	<i>Solanum tuberosum</i>	Potato
10	<i>Daucus carata</i>	Carrot
11	<i>Pisum sativum</i>	Pea
Kharif Cereal		
12	<i>Oryza sativa</i>	Rice
13	<i>Zea mays</i>	Maize
14	<i>Sorghum vulgare</i>	Jowar
15	<i>Millet</i>	Bajra
Pulses		
16	<i>Cajanus cajan</i>	Arhar
17	<i>Phaseolus angularis</i>	Urd
18	<i>Phaseolus mungo</i>	Moong
Oil seed		
19	<i>Seasamum</i>	Til
20	<i>Arachys hypogea</i>	Groundnut
21	<i>Glycine max</i>	Soyabean
22	<i>Riccinus communis</i>	Castor
Others		
23	<i>Saccharum officinarum</i>	Sugarcane
24	<i>Gossipium species.</i>	Cotton
Vegetables		
25	<i>Capsicum anum</i>	Chilly
26	<i>Zingiber officinale</i>	Ginger
27	<i>Piper nigrum</i>	Pipper

Source: District Agriculture Office, Jamnagar, District Abstract Book (2003), Jalore

Table 3.5.7
Fauna of Barmer and Jalore District of Rajasthan

Sr. No.	Name	Zoological Name
Mammals		
1.	Chinkara	<i>Gazelle gazelle*</i>
2.	Jackal	<i>Canis aurens</i>
3.	Hare	<i>Lapus nigricollis</i>
4.	Hedgehog	<i>Parachinus micropus</i>
5.	Jungle Cat	<i>Felis chaus</i>
6.	Fox	<i>Vulps bengalensis</i>
7.	Mongoose	<i>Herpestes edwardis*</i>
8.	Wolf	<i>Canis lupus</i>
Birds		
1.	Babbler, Common	<i>Aggya caudate*</i>
2.	Babbler, Jungle	<i>Tudoides somevillai*</i>
3.	Bee ealer, Blue cheeked	<i>Merops superciliosus*</i>
4.	Bee ealer, Small green	<i>Merops orientalis*</i>
5.	Bulbul, Red vented	<i>Molpaster cafer*</i>
6.	Bulpul, Red whiskered	<i>Otocompsa jocose*</i>
7.	Crow, house	<i>Coovus splendense*</i>
8.	Crow, jungle	<i>c. macrophyches*</i>
9.	Cuckoo	<i>Euchynamis scolopacus</i>
10.	Dove, little brown	<i>Streptopelia bengalensis</i>
11.	Dove, Red Turtle	<i>S. tranquibaria</i>
12.	Dove, Ring Indian	<i>S. decaotao</i>
13.	Drongo	<i>Dicruus macrocarous</i>
14.	Eagle, Short-toed	<i>Corcatus gallicus</i>
15.	Eagle. Tawny	<i>Aquila rapax*</i>
16.	Great Indian Bustard	<i>Choriotis nigriceps</i>
17.	Falcon, Lagar	<i>Falco jugger</i>
18.	Flycatcher	<i>Rhepidura aureala*</i>
19.	Common Kite	<i>Malvus mighans*</i>
20.	Lapwing, Red Wattled	<i>Lobivanellus inducus</i>
21.	Lark finch	<i>Eremopterix grisea</i>
22.	Myna, Common	<i>Acridotheres tristis*</i>

Sr. No.	Name	Zoological Name
23.	Owl, Great Horned Indian	<i>Capriugus asiaticus</i>
24.	Owlet, Spotted	<i>Athene brama</i>
25.	Partridge, Grey	<i>Francolinnus pondicerainus</i>
26.	Robin Indian	<i>Saxecolides fulicate*</i>
27.	Sandgrouse, Common	<i>Pteroceles exustus*</i>
28.	Sandpiper, Common	<i>Tringa glareola*</i>
29.	Shrike	<i>Asrubadius sp.*</i>
30.	Shrike, Grey Common	<i>Tephrodornis pondicreanus*</i>
31.	Stilt, Black-winged	<i>Himantopus bengalensis*</i>
32.	Tailor bird	<i>Orthimis sutorius</i>
33.	Vulture, White-backed	<i>Pleudogyps bengalensis*</i>
34.	Vulture, Scavenger	<i>Neophron peonoterus*</i>
35.	Woodpecker	<i>Branchyternus bengalensis*</i>
Reptiles		
1.	Common Lizard	<i>Calotus varciclor</i>
2.	Common Lizard Monitor	<i>Varanus bengalenses</i>
3.	Dhaman	<i>Ptyas cucous</i>
4.	Krait	<i>Bungarus careuiesns</i>
5.	Russel's viper	<i>Vipera russelli</i>
6.	Spiny-tailed lizard	<i>Uromaxtys helicswicki</i>

Source: Desert National Park, Jaisalmer

Table 3.5.8

List of Fauna found in the along the Pipeline route of Gujarat
(Wankaner, Patan, Surendranagar, Rajkot, Jamnagar)

Sr. No.	Scientific Name	Common Name
Mammals		
1.	<i>Antelope cervicapra</i>	Black Buck
2.	<i>Axis axis</i>	Chital
3.	<i>Boselaphus magocamelus</i>	Nilgai (Blue bull)
4.	<i>Canis laureus</i>	Jackal
5.	<i>Canis lupus</i>	Wolf
6.	<i>Equus hemionus khur</i> *	Indian Wild Ass
7.	<i>Felis caracal schreber</i>	Caracal
8.	<i>Felis chaus</i>	Jungle Cat
9.	<i>Felis constantina</i>	Desert Cat
10.	<i>Funambulus pennati</i> *	Squirrel
11.	<i>Gazelles gazelles benetti</i> *	Chinkara
12.	<i>Hemiechninas auritus</i>	Long Eared Hedge Hog
13.	<i>Anropunctatus</i> *	Mongoose
14.	<i>Hyaena hyaena</i>	Hyaena
15.	<i>Hystrix indica</i> *	Indian Porcupine
16.	<i>Lepus nigricollis</i>	Hare
17.	<i>Manis carassicauda</i>	Pangolin
18.	<i>Micro chiroptera</i> *	Bat
19.	<i>Panthera pardus</i>	Panther
20.	<i>Presbytis entellus</i> *	Common Langur
21.	<i>Sus scrofa</i>	Wild Boar
22.	<i>Vulpes bengalensis</i> *	Common Fox
23.	<i>Vulpes bucopus</i>	Desert Fox
Birds		
24.	<i>Accipiter badius</i>	The Shikara
25.	<i>Acridotheres ginginianus</i>	Bank Myna
26.	<i>Acridotheres tristis</i> *	Common Myna
27.	<i>Aloedo atthis</i> *	Small Blue Kingfisher
28.	<i>Anas clypeatea</i>	Shoveller Duck
29.	<i>Andea alba</i> *	Large Egret
30.	<i>Anhinga rufa</i>	Darter
31.	<i>Anthropoides virgo</i>	The Demoiselle Crane
32.	<i>Ardea cinerea</i> *	Grey Heron
33.	<i>Ardeola grayii</i> *	Pond Heron

Sr. No.	Scientific Name	Common Name
34.	<i>Athene brama</i>	Spotted Owlet
35.	<i>Bubulcus ibis</i> *	Cattle Egret
36.	<i>Ceryle rudis</i> *	Pied Kingfisher
37.	<i>Chlamydotis undulata</i>	Houbara Bustard
38.	<i>Choriotis nigriceps</i>	The Great Indian Bustard
39.	<i>Circus aeruginosus</i>	Marsh Harrier
40.	<i>Clamator Jacobinus</i> *	Pied Crested Cuckoo
41.	<i>Columba livia neglecta</i> *	Blue Rock Pigeon
42.	<i>Coracias benghalensis</i> *	Indian Roller
43.	<i>Corvus macrorhynchos</i> *	Jungle Crow
44.	<i>Corvus splendens</i> *	House Crow
45.	<i>Cypsiurus parvus</i>	The Palm Swift
46.	<i>Dicrurus adsimilis</i> *	Black Drongo
47.	<i>Egretta garzetta</i> *	Little Egret
48.	<i>Egretta gularis</i> *	Reef Heron
49.	<i>Elanus caeruleus</i>	Blackwinged Kite
50.	<i>Eudynamys scolopacea</i> *	Koel
51.	<i>Francolinus pondicerianus</i> *	Grey Partridge
52.	<i>Galerida deva</i>	Crested Lark
53.	<i>Gyps bengalensis</i> *	Whitebeaked Vulture
54.	<i>Haliastur Indus</i>	Brahminy Kite
55.	<i>Himantopus himantopus</i>	Blackwinged Stilt
56.	<i>Hydrophasianus</i>	Pheasant tailed Jacana
57.	<i>Lanius schach</i>	Rufousbacked Shrike
58.	<i>Larus argentatus</i>	Herring Gull
59.	<i>Limosa lapponica</i>	Barnacle Goose
60.	<i>Limosa limosa</i>	Blacktailed Godwit
61.	<i>Monticola gularis</i>	Blue Rock Thrush
62.	<i>Motacilla alba dukhuensis</i>	White Wagtail
63.	<i>Motacilla cinerea</i>	Grey Wagtail
64.	<i>Mycteria leucorodia</i> *	Painted Stork
65.	<i>Nectarinia asiatica brevirostris</i> *	Purple Sunbird
66.	<i>Neophron percnopterus</i>	White Scavenger Vulture
67.	<i>Numenius arquata</i>	Curlew
68.	<i>Orthotomus sutocius</i>	Tailor Bird
69.	<i>Pandion haliaetus</i>	Osprey
70.	<i>Parus major</i>	Grey Tit
71.	<i>Pavo cristatus</i> *	Common Peafowl

Sr. No.	Scientific Name	Common Name
72.	<i>Pelecanus qnocrotalus</i>	Rosy Pelican
73.	<i>Perdica asiatica</i>	The Jungle Bush Quil
74.	<i>Phalacrocorax niger</i> *	Little Cormorant
75.	<i>Phalacrocorax qarbo</i> *	Large Cormorant
76.	<i>Phoenicopterus roseus</i> *	The Flamingo
77.	<i>Platalea leucorodia</i> *	The Spoonbill
78.	<i>Pluvialis squatarola</i>	Grey Plover
79.	<i>Podiceps raficollis</i>	Little Grebe
80.	<i>Pseudibis papillosa</i> *	Black Ibis
81.	<i>Psittacula krameri</i> *	The Roseringed Parakeet
82.	<i>Recarvirostra avosetta</i>	Avocet
83.	<i>Saxicoloides fulicata</i>	Indian Robbin
84.	<i>Sterna aurantia</i>	River Tern
85.	<i>Streptopelia decaocto</i> *	Ring Dove
86.	<i>Streptopelia senegalensis</i>	Little Brown Dove
87.	<i>Sturnus pagodarum</i>	Brahminy Myna
88.	<i>Sturnus roseus</i>	Rosy Pastor
89.	<i>Sypheotides indica</i>	Lesser Florican
90.	<i>Tephrodornis pondicerianus</i>	Common Wood Shrike
91.	<i>Threskiornis aethiopica</i>	White Ibis
92.	<i>Tringa tetanus</i>	Redshank
93.	<i>Turdoides striatus</i>	The Jungle Babbler
94.	<i>Vanellus indicus</i> *	Redwattled Lapwing
Reptiles		
95.	<i>Crocodyles palustris</i>	Crocodile
96.	<i>Geochelone elegans</i>	Star Tortoise
97.	<i>Python molurus</i>	Python
98.	<i>Varanus bengalensis</i> *	Monitar Lizzard
99.	<i>Varanus salvator</i>	Water Monitor
100.	<i>Ptyas mucosus</i>	Rat snake
101.	<i>Naja naja</i>	Indian cobra
102.	<i>Bungarus caeruleus</i>	Common Indian Krait
103.	<i>Vipera russelli</i>	Russell's Viper
104.	<i>Calotes versicolor</i> *	Garden lizard

Source: State Forest Department, Jamnagar and Surendranagar

*These species were observed during the Survey by NEERI Team

Table 3.5.9
List of Inland Fish Species along the
Mangala to Salaya Pipeline Route

Sr. No.	Scientific Name	English Name
A. Major Carp		
1.	<i>Catla catla</i>	Katla
2.	<i>Labeo rohita</i>	Rohu
3.	<i>Cirrhinus mrigala</i>	Mrigal
B. Minor Carp		
1.	<i>Labeo bata</i>	Bata
2.	<i>Cyprinus carpio var communis</i>	Common carp
C. Exotic Carp		
1.	<i>Hypophthalmichthys molitrix</i>	Silver carp
D. Catfishes		
1.	<i>Clarias batrachus</i>	Magur

Source: District Abstract Book, Jalore

Table 3.5.10
List of Marine Fish Species

Sr. No.	Name of Fish
1.	White pomfret
2.	Black pomfret
3.	Bombay duck
4.	Thread fin
5.	Jew fish
6.	Hilsa
7.	Clupeid
8.	Coilia
9.	Shark
10.	Mullet
11.	Cat fish
12.	Eel
13.	Leather Jacket
14.	Seer fish
15.	Indian salmon
16.	Ribbon fish
17.	Silver bar
18.	Perch
19.	Small Sceindies
20.	Shrimp
21.	Prawn (Medium)
22.	Prawn (Jambo)
23.	Lobster
24.	Crab
25.	Levta
26.	Cuttle/Squids
27.	Miscellaneous

Source: Assistant Director of Fisheries, Jamnagar

Table 3.5.11
Different Prawn Species Found in the Gulf of Kutch

Family	Species
Penacidae	
	Penaeus indicus
	P. latisulcatus
	P. meguiensis
	P monodon
	Penicillatus
	P. semisulcatus
	Metapenaeus affinis
	M. brevicornis
	M. burkenroadi
	M. lysianassa
	M. lysianassa
	M. monoceros
	M. stebbingi
	Paprpeneopsis harswickii
	P. psculptilis
	P. stylifera
	Trachypenaeus granulosus
	T. pescadoreensis
	Solenocera crassicornis
	Metapeneopsis stridulans
Sergestidae	
	Acetes indicus
Palaemonidae	
	Palaemon semmelinkii
	P. styliferus
	P. tenuipea
Hippolysmata	
	Hippolysmata ensirostris
	Saron marmoratus
Alpheus	
	Alpheus distinguendus

Source: Marine National Park, Jamnagar

Table 3.5.12
List of Rare, Endangered and Vulnerable Animals along the
Mangala to Salaya Pipeline Route

Sr. No.	Common Name	Botanical Name	Status
Mammals			
1.	Blackbuck	<i>Antelope cervicapra</i>	Vulnerable
2.	Chinkara / Indian Gazelle	<i>Gazella bennetti</i>	Vulnerable
3.	Common fox	<i>Vulpes bengalensis</i>	Indeterminate
4.	Indian Wild Ass	<i>Equus hemionus khur</i>	Vulnerable
5.	Grey Wolf	<i>Canis lupus pallipes</i>	Vulnerable
6.	Desert Cat	<i>Felis libyca</i>	Endangered
7.	Desert Fox	<i>Vulpes vulpes pusilla</i>	Vulnerable
8.	Hyaena	<i>Hyaena hyaena</i>	Lower risk
Birds			
9.	Great Indian Bustard	<i>Ardeotis nigriceps</i>	Critically Endangered
10.	Whitebeaked Vulture	<i>Gyps bengalensis</i>	Critically Endangered
11.	Common Peafowl	<i>Pavo cristatus</i>	Vulnerable
Reptiles			
12.	Python	<i>Python molurus</i>	Lower risk / Vulnerable

Source: Zoological Survey of India Red Data Book and Wild life Institute of India, State Forest Department, Jamnagar

3.6 Socio-economic Environment

3.6.1 Reconnaissance

The study of socio economic component of environment is incorporating various facets viz. demographic structure, availability of basic amenities such as housing, education, health and medical services, occupation, water supply, sanitation, communication and power supply, prevailing diseases in the region as well as features such as places of tourist attraction and monuments of archeological importance. Studies of these parameters help in identifying, predicting and evaluation the likely impacts due to project activity in that region.

The total pipeline length is about 600 km from Mangala to Salays terminal via Viramgam terminals and 1.0 m underground pipeline hence issues such as rehabilitation and resettlement (R & R) are not involved in the project. The temporary acquisition of land and compensation thereon will be included in the study.

3.6.2 Baseline Data

Baseline information is collected to define the socio-economic profile of the study area. The database thus generated in the process includes the followings:

- ◆ Demographic Structure
- ◆ Infrastructure base in the study area
- ◆ Economic attributes
- ◆ Health status
- ◆ Socio-economic status with reference to QoL
- ◆ Awareness and opinion of the people about the project

The data is generated using secondary sources viz. census records, district statistical abstract, primary health centers, official records etc. and primary data collection through field survey as well as field observations. Pipeline route map identified for socio-economic survey. **Fig. 3.6.1** shows the BSPL pipeline routes from Mangala, Rajasthan to Salaya Terminals, Gujarat. Villages from the study area are presented in **Table 3.6.1** and **Table 3.6.2**.

3.6.2.1 Demographic Structure

The study comprises of two states Rajasthan and Gujarat. Two districts in Rajasthan includes 28 villages and 3 talukas. The study of demographic data based

on primary census abstract CD 2001 of Rajasthan states with reference to population, employment, household, literacy and community structure.

The significant demographic features are:

- ◆ The number of residential households within the study area are 12604
- ◆ The total population of villages in the study area are 80672
- ◆ Percentage of Schedule caste and Schedule tribe people are 22.02 % and 3.41% respectively.
- ◆ Sex ratio (No. of females per males) is 917
- ◆ It is observed that the study area has an average literacy rate 44.83%
- ◆ Out of total population 31068 (38.51%) are main worker, 12809 (15.87%) marginal worker and 36795(45.62%) non-workers. District-wise demographic structure in Rajasthan study area is given in **Table 3.6.3** and summary is presented in **Table 3.6.5**

In Gujarat study area includes 180 villages, 18 talukas and 6 districts. The study of demographic data based on primary census abstract CD 2001 of Gujarat states with reference to population, employment, household, literacy and community structure is presented in **Table 3.6.1** and **Table 3.6.2**.

- ◆ The significant demographic features are.
- ◆ The number of residential households within the study area are 238074
- ◆ The total population of villages in the study area are 1282304
- ◆ Percentage of Schedule caste and Schedule tribe people are 9.46 % and 0.63% respectively.
- ◆ Sex ratio (No. of females per males) is 921
- ◆ It is observed that the study area has an average literacy rate 57.95%
- ◆ Out of total population 410230 (31.99%) are main workers, 75461 (5.88%) marginal workers and 796613 (62.13%) non-workers. District-wise demographic structure in Gujarat study area is given in **Table 3.6.4** and summary is presented in **Table 3.6.6**

3.6.2.2 Infrastructure Resource Base

The infrastructure and amenities in the area, denotes the economic well being of the region. The study area as a whole possesses poor to moderate level of infrastructural facilities. The infrastructure resource base with reference to education, medical, water resources post and telegraph, transportation and power supply based on statistical handbook 2001 and presented in **Table 3.6.7**. However the information is collected through socio-economic survey about the facilities in the villages is described below:

Education Facility

Anganwadi Center is available in most of the surveyed villages. The figures from survey reported that most of the villages have primary and middle school facility. All the high school and higher secondary schools are situated in larger villages. The female literacy rate in the study area is quite low. The scope of higher and technical education is available at the Tahasil place and only few people are able to take benefits of these educational institutions and the school (**Fig. 3.6.2**).

Medical Facility

Different types of health facilities including hospital, dispensaries etc. are available in the study area. Medical facilities in terms of community health worker and medical practitioner are available in most of the villages. The villages devoid of government medical facility avail them from private clinics or visit to district places for treatment (**Fig. 3.6.3**).

Power Supply

Almost all villages are in electrified and the electricity are supplied for domestic, non-domestic, industrial, agricultural and public lighting purposes.

Water Supply

The Rajasthan regional rural water supply system is water to the villages through its regional water network system. This water supply is supplemented with other sources such as wells, hand pumps, bore wells and tanks. Water supply is available in all Gujarat states villages that include tap water, hand pump, bore wells and water tanks. The quality of water is salty in some villages. Water supply in villages of Rajasthan state is mainly from the protected water supply system as shown in **Fig. 3.6.4**.

Transport and Communication

Transportation facilities are satisfactory. Bus stop is available in some villages and bus visits to the villages for more than 4-5 times in a day. The approach route is either Kaccha or Pucca Road as presented in **Fig. 3.6.5**.

The study area has moderate to good level of post and telegraph services. Communication facilities are available with the PCO, STD and ISD. People are satisfied with communication facilities.

Fuel

Fuel is mainly used for cooking and other domestic purposes as wood, kerosene and LPG. LPG Agencies are available in most of the villages while some people have to fetch it from the villages located more than 5 km.

3.6.2.3 Economic Attributes

Rajasthan is basically an agrarian economy. More than 50% of the farmers are small and marginal in level who cultivate for subsistence. The farmers who also have availability of groundwater for irrigation they can grow cash crops as well. The major crop grown in the district under study are wheat, bajra, rapeseed, mustard, and few pulses mainly grown for self consumption oil seeds are the main cash crops and the study area is industrially backward. The major exports items from the district of Barmer include Handicraft items, Hand embroidered items and woolen carpets.

Employment pattern in Rajasthan study area is shown in **Fig. 3.6.7** and is described below:

- ◆ Total main worker in the villages of the study area are 31068 (38.51%)
- ◆ There are 21910 (70.52%) workers as cultivators
- ◆ There are 772 (2.48%) agriculture labours
- ◆ Non-worker population in the study area are 36795 (45.62%)

The information on one economic resource base of the Gujarat area reveals that the main occupation of the people in the study area is agriculture and its allied activities. The main crops grown are jowar, Bajra, Groundnut, Cotton, Custer, Chilies and Sugarcane etc. Local people are also employed in the nearby industries on contract basis. The marginal farmers and landless agriculture labour works in the

farm during the agriculture season. Employment pattern in Gujarat study area is shown in **Fig. 3.6.8** and is described below:

- ◆ Total main worker in the villages of the study area are 410230 (31.99%)
- ◆ There are 95856 (23.37%) workers as cultivators
- ◆ There are 56204 (13.70%) agriculture labours
- ◆ Non-worker population in the study area is 796613 (62.13%)

3.6.2.4 Health Status

Health of the people is not only a desirable goal, but it is also an essential investment in human resources. As per the National Health Policy (1983), Primary Health Care has been accepted as main instrument for achieving this goal of development and strengthening rural health infrastructure through a three-tier system, viz. Primary Health Sub-Centres, Primary Health Centre (PHC) and Community Health Center (CHC), which have been established.

Lack of building, shortage of manpower and inadequate provision of medicine supplies are hampering the operation of these units. The standards to be met according to National Health Policy are given below:

Population	Infrastructure	Personnel
1,00,000	Rural	Medical superintendent
25,000 – 30, 000	1 PCH, 6 beds	2 Medical officers
3,000 – 5, 000	1 Sub center	1 ANM

Data regarding health status has been collected from Primary Health centres, General Hospitals. From the data collected, different health problems are reported to be prevalent in the community cases of acute watery diarrhea are reported to be high in the month of August. Other ceases like gastroenteritis and malaria are also highly prevalent in the study area besides common fever. The primary health center conducts various health camps and vaccination camps. Health awareness programmes such as family welfare camps to motivate people for family planning operations. AIDS awareness programme and regular medical check-up camps are organized by PHC.

3.6.3 Socio-economic Survey

Socio-economic survey serves as an effective tool for fulfilling this requirement. Socio-economic survey was conducted during summer, 2007. Sarpanch of each village and respondent (Adult male / female) were chosen for the collection of awareness status and opinion, by using judgmental or purposive sampling methods representing various socio-economic sections of the community.

- ◆ Majority of respondents are engaged in agricultural and allied activities
- ◆ Unemployment problem is also prevailing in the villages surveyed
- ◆ The literacy rate in the study area is higher in the younger age group as compared to people above 35 years.
- ◆ The major crops are jowar, Bajra, Groundnut, Cotton, Custer, Mustard, Rapeseeds, Oil seeds, Chilies and Sugarcane etc
- ◆ Most of the villages are not having streetlights
- ◆ Most of the respondents are unhappy about of non-availability of poorly maintained medical facilities
- ◆ Veterinary hospital is also available in some villages (**Fig. 3.6.6**).
- ◆ Wood and kerosene are the major sources of fuel for cooking and other purposes
- ◆ The condition of some villages roads are very poor and maintenance of roads has been not done since long time, people expect periodic maintenance of major roads
- ◆ In few villages irrigation facility is good but in some of the villages are reported problems in water quality and water scarcity
- ◆ Some respondents opined that local manpower should be preferred in employment

3.6.4 Awareness and Opinion of the People about the Project

Majority of the respondents are not aware of proposed Pipeline Project. Most of the respondents opined good about the project due to increase in job opportunity. But at the same time people have adverse comments that due to

proposed project their land will have poor crop yield due to deterioration in texture of land.

People are expecting that the proposed pipeline project will bring new development in the region and may generate jobs for the local people. People are expecting the project authority will improve the basic infrastructure of the village.

3.6.5 Quality of Life (QoL)

Quality of life (QoL) is a term, which indicates overall status of socio-economic environment in a given area. Quality of life (QoL) is defined as a function between “objective conditions” and “subjective attitudes” involving a defined “area” of concern.

The “objective conditions” are defined as numerically measurable artifacts of a physical, sociological event or economic event. Objective conditions may be defined as any number, which stands for a given quantity of a variable of interest so long as it is independent of subjective opinion.

“Subjective attitude” is primarily concerned with affective and cognitive dimensions. It is specifically concerned with ‘how aspects of cognition vary with variation in objective conditions.

Once objective measures are obtained for each factor they are transformed to a normal scale varying from 0 to 1 (value function curve) in which 0 corresponds to the lowest or least satisfactory measure, and 1 corresponds to the highest. The weights assigned to each factor by ranked-pairwise technique, by the expert group based on the secondary data and general observations.

For each objective measure, a corresponding subjective measure is developed for each individual of the sample population by asking him to rate his satisfaction scale (value function curve). It is used such that 0 corresponds to the lowest level of attitudinal satisfaction and 1 corresponds to the highest level of satisfaction. Weights are assigned to each factor using ranked - pairwise comparison techniques.

The Socio-economic Indicators for QoL Assessment are:

- ◆ Income, Employment and Working Condition Housing
- ◆ Food
- ◆ Clothing

- ◆ Water Supply and Sanitation
- ◆ Health
- ◆ Energy
- ◆ Transportation and Communication
- ◆ Education
- ◆ Environment and Pollution
- ◆ Recreation
- ◆ Social Security
- ◆ Human Rights

$$QoLs = \frac{1}{p} \sum_{i=1}^m \sum_{j=1}^p Qlij \times Wi$$

Where,

QoLs = Subjective quality of life index

p = No. of respondents, j = 1,, p

m = No. of factors, i = 1,, m

Qlij = Subjective quality index for ith factor assigned by jth respondent

$\sum Qij$ = Subjective quality index for ith factor assigned by all respondents in an area

Wi = Relative weightage of the ith factor

(I) Objective Quality of Life

$$QoLo = \sum_{i=1}^n Qli \times Wi$$

Where,

QoLo = Objective quality of life index

n = No. of QoL Factors

i = 1,, n

Qli = Satisfaction level (assigned by the expert group) for the ith objective indicator

W_i = Normalized weight for i^{th} factor

(II) Quality of Life (Cumulative Index)

$$QoLc = \frac{QoLo + QoLs}{2}$$

The subjective and objective QoL indices prior to commissioning of the project are presented in **Table 3.6.8**.

The average QoL index values are estimated as:

$$QoL (s) = 0.50$$

$$QoL (o) = 0.52$$

$$QoL (c) = 0.51$$

The average QoL index value for the study area is at the satisfactory level due to good economic status like income, employment and also availability of basic needs, viz. food, clothing and housing.

The area is lacking with medical, educational facilities and social security, besides water scarcity, inadequate irrigation, lack of sanitation, which are subjective conditions and are not much satisfactory as compared to objective conditions.

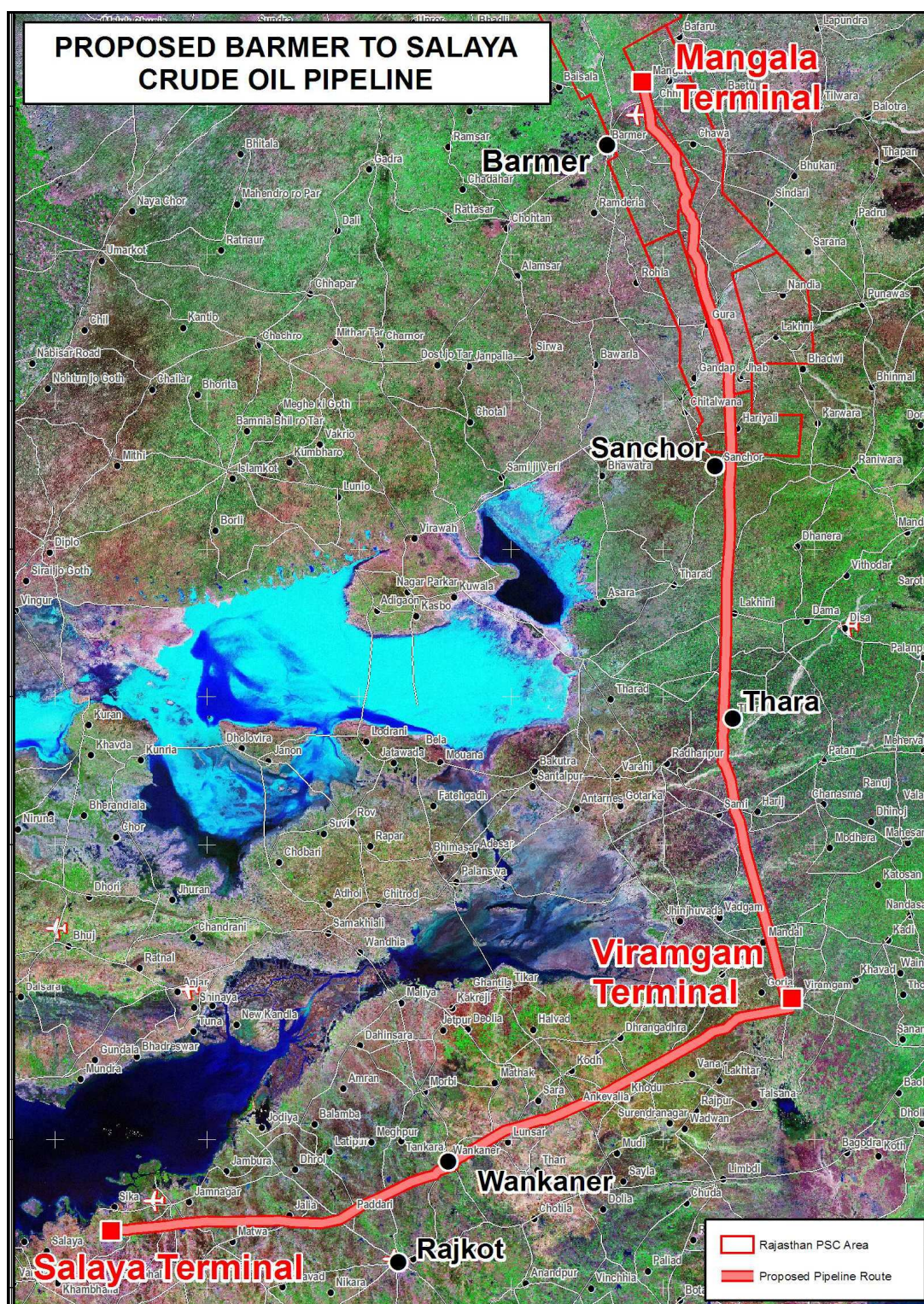


Fig. 3.6.1: BSPL Pipeline Routes from Mangala to Salaya Terminals



Fig. 3.6.2: Educational Facility Available in Study Area



Fig. 3.6.3: Medical Facility Available in Study Area



Fig. 3.6.4: Camel Cart used for Transporting Water



Fig. 3.6.5: Transport and Road Facility Available in Study Area



Fig. 3.6.6: Veterinary Hospital Available in Study Area

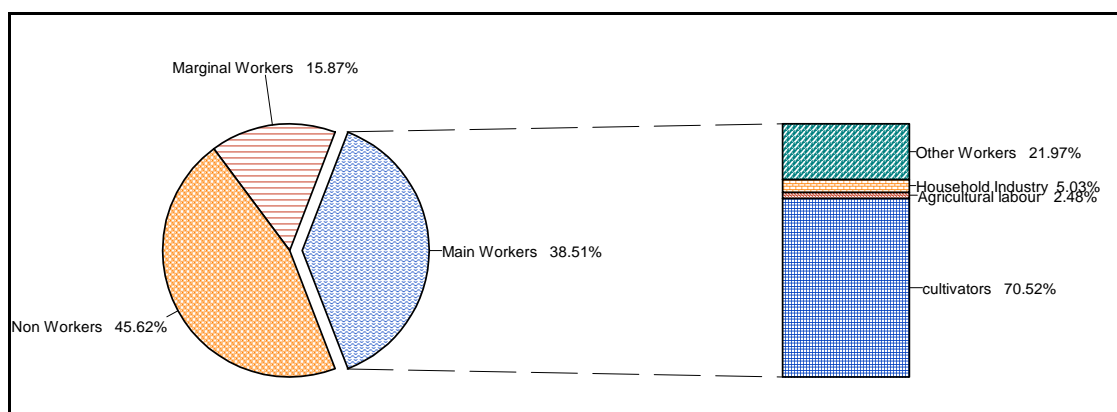


Fig. 3.6.7: Employment Pattern in Rajasthan Study Area

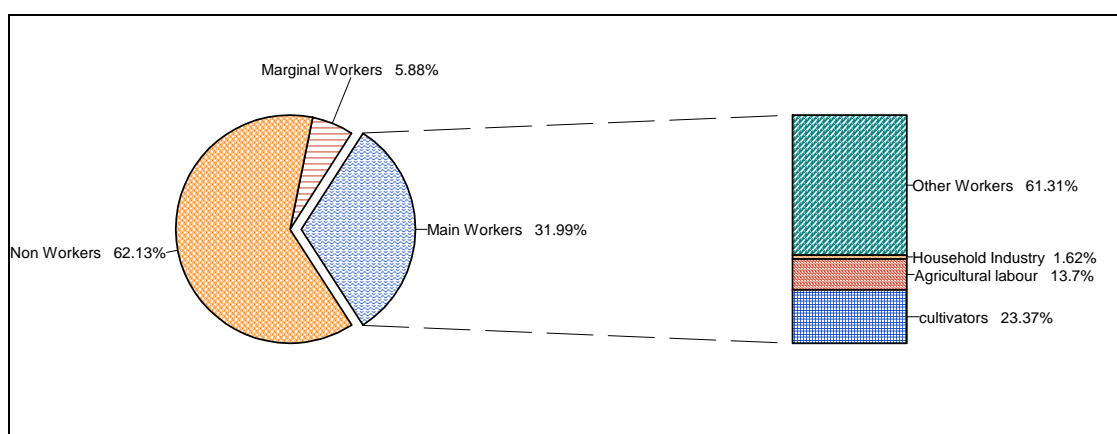


Fig. 3.6.8: Employment Pattern in Gujarat the Study Area

Table 3.6.1
Villages along Mangala – Viramgam Pipeline

Sr. No.	District	Taluka	Village Name
Rajasthan State			
1	Barmer	Gudhamalani	Godaron Ka Tala Nagana Sadecha Andaniyon Ki Dhani Pratapnagar Sindhaswa Chauhanan Padarri Kandhi Ki Dhani Rawali Nadi Dhola Nada Neembal Nadi Dhelani Nadi
2	Barmer	Barmer	Nangana Rawatsar Sanjata Lookhon Ka Tala Gangasara Dhoondha Magnaniyon Ki Dhani
3	Jalor	Sanchor	Sanchore Rampura Borli Amarpura Tatra Akoli Jakhal Hariyali Malwara Karawari Khirodi Dangra Jajoosan Lachhri Paladar Barsam

Sr. No.	District	Taluka	Village Name
			Maliyon Ka Goliya Dharnawas Bhadoo & Goyton Ki Dhani
Gujarat state			
4	Banaskantha	Kankrej	Rajpur Ranakpur Bhavnagar Thara Runi Khengarpura Nava Shiya Valpura Bhadrevadi Anandpura Indramana Maidkol Adhgam Katediya
5	Banaskantha	Tharad	Bevata Terol Chotapa Meghpura Lakhapura Thara Asasan Rah Asodar Sodal Taruwa Ganata Gela Khengarpura
6	Banaskantha	Diodar	Vakha Nava Deodar Chamanpura Liladhar Raiya

Sr. No.	District	Taluka	Village Name
			Duchakwada Mojru Nava Sesan Nava Sesan Juna Mojru Juna Kuwana Lavana Sanadar Salpura Delwada Kotda Deodar Chagwada Surana
7	Patan	Harij	Khakhhal Jasvantpura Raghnathpura Sarval Kumbhana
8	Patan	Sami	Dhadhana Matrota Nana Joravarpura Kathivada Tarora Dhanora Ravad Palipur Kukrana Mujpur Kuvarad
9	Ahmedabad	Viramgam	Viramgam Vani Kakaravadi Vadgas Goraiya Bhojwa Dhakdi
10	Ahmedabad	Mandal	Trant Nana ubhada Rakhiyana

Sr. No.	District	Taluka	Village Name
			Dalod Vinzhuwada
11	Surendranagar	Dhrangadhra	Sokhada Rajcharadi Hamper Mota Aankevaliya Bharada Rajsitapur Prathugadh Gujarvadi Khambhda Rajgadh
12	Surendranagar	Dasada	Nani Majethi Moti Majethi Sidhsar Kamalpur Gediya Kherva Sedia Sushiya Gosana Vanod Valevada Mota Ubhada Amnagar Almpura
13	Surendranagar	Lakhtar	Pedhda Nana Ankewaliya
14	Surendranagar	Muli	Rupavati Kuntalpur Kalmad Vadadhra Jepar Raysangpar Ranipat Sangadhra
15	Surendranagar	Chotila	Undvi
16	Rajkot	Wankaner	Sardharka Rajthali

Sr. No.	District	Taluka	Village Name
			Derala Chitrakhada Lunasar Khanpar Jail Lunsariya Dhamalpar Panch Dwarka Amarsar Chandrapur Kerala Rajavadia Lalpar Kotda Nayani Palansdi Sindhavadar Pratapghadh Pipaliyaraj
17	Rajkot	Tankara	Neknam Hamirpar Chhattar Vachhakpar Sakhpar Kothariya
18	Rajkot	Poddhari	Chanol Moti Chanol Nani Fatepar Visaman Khokhri Bodi Ghodi Moviya Adbalka Paddhari Ukarda
19	Jamnagar	Dhrol	Golita Dangra Khengarka Khijadiya
20	Jamnagar	Jamnagar	Gangajala

Sr. No.	District	Taluka	Village Name
			Moda Mota Thavariya Chela Dadiya Mokhana Suarda Sapda Jaga Varna Beraja Champa Beraja Vav Beraja Virpar Jamnagar Khoja Beraja Vajarkhi Dadiya Tamachan
21	Jamnagar	Lalpur	Pipli Kanalus Rangpar Meghnugam Rasangpar Lakhiya Mota Padana Machhu Beraja Lakhiya Nana

Table 3.6.2

District wise Distribution of Villages in the Study Area

Sr. No.	District	No. of Talukas	No of Villages
Rajasthan State			
1.	Barmer	02	19
2.	Jalor	01	19
Gujarat State			
3	Banaskantha	03	48
4	Patan	02	16
5	Ahmedabad	02	13
6	Surendranagar	05	35
7	Rajkot	03	36
8	Jamnagar	03	32
	Total	21	218

Table 3.6.3
District Wise Demographic Structure in Rajasthan Study Area

Name	House Hold	Total Population	Total Male	Total Female	Population SC	Population ST	Population literate	Main Worker Population	Marginal Worker Population	Non Worker Pop
Rajasthan State										
District-Barmer										
Tehsil-Gudhamalani										
Godaron Ka Tala	80	534	285	249	100	0	215	88	164	282
Nagana	64	445	227	218	211	0	166	66	141	238
Sadecha	149	1141	607	534	167	194	454	564	11	566
Andaniyon Ki Dhani	97	662	342	320	31	54	402	169	156	337
Pratapnagar	73	469	240	229	59	0	269	168	69	232
Sindhaswa Chauhanan	144	955	516	439	652	0	413	374	81	500
Padarri	159	906	462	444	154	44	570	383	39	484
Kandhi Ki Dhani	84	576	308	268	45	0	315	294	5	277
Rawali Nadi	204	1368	732	636	134	9	736	480	237	651
Dhola Nada	179	1185	599	586	156	92	617	156	468	561
Neembal Nadi	100	621	327	294	54	0	395	292	14	315
Dhelani Nadi	99	631	326	305	69	5	390	248	95	288
District-Barmer										
Tehsil-Barmer										
Nangana	138	902	478	424	111	68	554	419	65	418
Rawatsar	607	3953	2071	1882	963	37	1663	1087	1086	1780
Sanjata	235	1443	746	697	428	0	571	483	339	621
Lookhon Ka Tala	84	579	293	286	0	0	355	294	5	280
Gangasara	182	1214	649	565	53	6	637	668	48	498
Dhoondha	590	3590	1914	1676	1220	60	2275	1234	504	1852
Magnaniyon Ki Dhani	66	437	204	233	56	0	142	90	80	267
District-Jalor										
Tehsil-Sanchor										
Sanchoe	4261	25884	13635	12249	6372	860	12188	7462	1269	17153

Chapter 3: Baseline Environmental Status

Name	House Hold	Total Population	Total Male	Total Female	Population SC	Population ST	Population literate	Main Worker Population	Marginal Worker Population	Non Worker Pop
Rampura	365	2374	1258	1116	279	6	974	1266	540	568
Borli	125	719	340	379	72	0	295	192	283	244
Amarpura	104	770	407	363	0	0	366	351	195	224
Tatra	129	824	404	420	71	81	311	421	187	216
Akoli	263	1736	892	844	157	207	751	863	426	447
Jakhal	501	3292	1717	1575	1436	19	1189	1120	1170	1002
Hariyali	651	4368	2292	2076	797	162	1768	2539	934	895
Malwara	413	2567	1335	1232	828	11	1092	1250	295	1022
Karawari	226	1477	781	696	376	0	493	778	254	445
Khirodi	405	2779	1395	1384	143	240	895	1617	321	841
Dangra	300	1976	1021	955	549	116	934	1042	575	359
Jajoosan	158	1085	569	516	400	124	428	497	260	328
Lachhri	194	1342	690	652	439	27	437	689	289	364
Paladar	369	2557	1307	1250	450	280	602	1082	612	863
Barsam	326	2210	1135	1075	558	50	984	975	707	528
Maliyon Ka Goliya	173	1133	592	541	13	0	507	661	202	270
Dharnawas	164	1027	509	518	82	0	349	299	414	314
Bhadoo & Goyton Ki Dhani	143	941	492	449	87	0	465	407	269	265
Total	12604	80672	42097	38575	17772	2752	36167	31068	12809	36795

Source: Primary censuses abstract CD 2001 Rajasthan

Table 3.6.4
District Wise Demographic Structure in Gujarat Study Area

Name	House Hold	Total Population	Total Male	Total Female	Population SC	Population ST	Population literate	Main Worker Population	Marginal Worker Population	Non Worker Pop
Gujarat State										
District-Banaskantha										
Taluka-Kankrej										
Rajpur	244	1340	705	635	64	0	581	375	346	619
Ranakpur	415	2576	1297	1279	152	0	912	824	78	1674
Bhavnagar	140	839	434	405	104	0	383	309	168	362
Thara	2427	13882	7315	6567	1498	0	7613	3631	669	9582
Runi	158	846	451	395	207	38	472	404	38	404
Khengarpura	57	318	162	156	0	0	115	70	19	229
Nava	35	181	87	94	0	0	42	113	4	64
Shiya	235	1219	637	582	246	0	499	341	184	694
Valpura	301	1719	876	843	87	2	666	643	75	1001
Bhadrevadi	276	1686	849	837	150	0	714	399	328	959
Anandpura	189	1108	612	496	120	0	413	293	316	499
Indramana	553	3087	1594	1493	189	0	887	841	226	2020
Maidkol	244	1499	777	722	73	0	530	508	12	979
Adhgam	375	2296	1192	1104	384	0	1042	725	265	1306
Katediya	181	1176	620	556	10	0	387	356	271	549
District-Banaskantha										
Tehsil-Tharad										
Bevata	387	2642	1385	1257	4	0	740	1014	320	1308
Terol	100	639	348	291	2	4	176	242	5	392
Chotapa	144	892	467	425	44	0	352	245	188	459
Meghpura	166	1097	560	537	67	0	328	388	178	531
Lakhapura	182	1043	551	492	225	0	185	488	93	462
Thara	2427	13882	7315	6567	1498	0	7613	3631	669	9582
Asasan	309	2048	1075	973	139	0	648	948	143	957
Rah	652	4294	2247	2047	528	304	1548	1967	260	2067
Asodar	352	2409	1245	1164	274	5	888	888	471	1050
Sodal	181	1120	560	560	35	5	252	462	0	658
Taruwa	241	1685	894	791	257	0	600	825	237	623
Ganata	410	2704	1410	1294	225	14	581	973	512	1219
Gela	423	2947	1531	1416	356	0	1121	1359	356	1232
Khengarpura	190	1729	866	863	193	0	398	765	180	784
District-Banaskantha										
Tehsil-Diodar										
Vakha	303	1890	981	909	309	10	706	439	235	1216
Nava	579	3447	1771	1676	146	6	1492	1468	58	1921
Deodar	2440	13018	6869	6149	1363	127	7303	3488	526	9004

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Name	House Hold	Total Population	Total Male	Total Female	Population SC	Population ST	Population literate	Main Worker Population	Marginal Worker Population	Non Worker Pop
Chamanpura	170	1074	559	515	0	0	485	317	160	597
Liladhar	219	1466	759	707	59	0	558	428	329	709
Raiya	818	4961	2525	2436	1274	0	1925	1298	1107	2556
Duchakwada	442	2556	1304	1252	284	0	941	750	362	1444
Mojru Nava	196	1357	718	639	162	62	451	362	376	619
Sesan Nava	150	880	454	426	0	0	175	182	50	648
Sesan Juna	111	698	346	352	12	0	201	166	164	368
Mojru Juna	340	2336	1233	1103	61	53	652	955	356	1025
Kuwana	237	1484	761	723	121	15	580	634	141	709
Lavana	681	4310	2255	2055	765	240	1346	1428	182	2700
Sanadar	117	653	354	299	10	0	299	286	76	291
Salpura	88	535	291	244	0	0	226	162	137	236
Delwada	241	1440	742	698	65	1	649	668	39	733
Kotda Deodar	443	2798	1426	1372	441	0	759	1129	367	1302
Chagwada	245	1705	882	823	193	0	642	637	46	1022
Surana	410	2391	1224	1167	134	0	1159	936	414	1041
District-Patan										
Taluka-Harij										
Khakhal	326	2134	1100	1034	163	0	454	764	189	1181
Jasvantpura	126	610	319	291	122	0	252	228	95	287
Rughnathpura	172	859	429	430	87	0	451	390	92	377
Sarval	309	1700	876	824	232	0	620	826	2	872
Kumbhana	163	914	475	439	117	0	387	263	273	378
District-Patan										
Taluka-Sami										
Dhadhana	416	2314	1191	1123	214	1	822	843	410	1061
Matrota	249	1312	687	625	250	0	603	370	245	697
Nana Joravarpura	119	720	371	349	169	0	292	274	35	411
Kathivada	115	650	348	302	60	0	287	205	180	265
Tarora	193	1127	558	569	349	0	452	334	266	527
Dhanora	318	1669	861	808	228	60	769	744	270	655
Ravad	262	1281	592	689	250	0	574	405	241	635
Palipur	97	534	264	270	136	0	255	180	81	273
Kukrana	582	2828	1434	1394	647	0	1504	840	549	1439
Mujpur	758	3925	1997	1928	425	1	1808	1090	637	2198
Kuvarad	534	2587	1313	1274	242	3	1193	766	587	1234
District-Ahmedabad										
Taluka-Viramgam										
Viramgam	34141	172400	89874	82526	22326	2825	90678	54719	19685	97996
Vani	501	2259	1175	1084	564	12	1275	588	572	1099
Kankaravadi	184	821	409	412	87	1	407	287	128	406
Vadgas	278	1316	672	644	416	1	653	526	152	638

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Name	House Hold	Total Population	Total Male	Total Female	Population SC	Population ST	Population literate	Main Worker Population	Marginal Worker Population	Non Worker Pop
Goraiya	906	4534	2321	2213	1069	6	2879	1611	1024	1899
Dhakdi	262	1223	627	596	71	0	757	327	250	646
Bhojva	842	4299	2241	2058	442	13	2947	1311	36	2952
District-Ahmedabad										
Taluka-Mandal										
Trent	662	3107	1627	1480	410	0	1967	993	361	1753
Nana Ubhada	385	2019	1002	1017	380	0	1276	622	429	968
Sher	248	1155	612	543	181	0	773	548	71	536
Rakhiyana	267	1348	685	663	275	0	805	384	285	679
Vinzuvada	407	1913	984	929	348	0	1137	701	57	1155
Dalod	500	2499	1273	1226	532	0	1369	1087	203	1209
District-Surendranagar										
Taluka-Dhrangadhra										
Sokhada	211	1011	516	495	321	0	636	471	112	428
Rajcharadi	449	2469	1238	1231	425	5	1549	1015	309	1145
Hampar	198	1179	605	574	155	10	732	367	242	570
Mota Ankevaliya	532	2647	1382	1265	328	145	1645	782	578	1287
Bharada	421	2192	1143	1049	154	7	1061	837	215	1140
Rajsitapur	755	3914	2025	1889	797	0	2320	1568	366	1980
Prathugadh	305	1682	904	778	0	0	803	693	249	740
Gujarvadi	674	3572	1842	1730	673	0	2064	1403	427	1742
Khambhda	321	1822	955	867	387	4	1058	446	47	1329
Rajgadh	335	1908	943	965	275	17	791	762	178	968
District-Surendranagar										
Taluka-Dasada										
Nani Majethi	140	669	358	311	284	0	375	403	39	227
Moti Majethi	310	1639	879	760	543	0	789	716	235	688
Sidhsar	127	617	314	303	61	0	355	379	1	237
Kamalpur	183	845	447	398	343	0	496	427	61	357
Gediya	338	1613	825	788	189	0	884	541	345	727
Kherva	702	3115	1596	1519	481	4	1905	1028	386	1701
Sedla	459	2123	1079	1044	487	0	1314	753	530	840
Sushiya	271	1550	814	736	188	0	609	795	77	678
Gosana	139	740	391	349	4	0	316	315	7	418
Vanod	1054	5405	2824	2581	878	0	3156	1963	795	2647
Valevada	249	1359	720	639	123	0	618	635	124	600
Mota Ubhada	256	1244	636	608	136	0	661	356	358	530
Amnagar	58	286	147	139	8	0	174	103	14	169
Alampura	171	941	489	452	132	0	549	222	273	446
District-Surendranagar										
Taluka-Lakhtar										
Pedhda	226	1138	582	556	229	0	667	392	45	701

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Name	House Hold	Total Population	Total Male	Total Female	Population SC	Population ST	Population literate	Main Worker Population	Marginal Worker Population	Non Worker Pop
Nana Ankewaliya	461	2385	1207	1178	431	0	1566	771	302	1312
District-Surendranagar										
Taluka-Muli										
Rupavati	160	940	484	456	192	16	376	482	25	433
Kuntalpur	405	2158	1101	1057	95	0	1248	1215	44	899
Kalmad	374	2217	1118	1099	317	32	891	1347	7	863
Vadadhra	187	1263	674	589	0	7	243	634	84	545
Jepar	69	440	234	206	3	0	86	180	18	242
Raysangpar	269	1699	878	821	220	0	518	793	88	818
Ranipat	352	2145	1096	1049	251	0	423	517	468	1160
Sangadhra	135	828	445	383	0	0	70	275	176	377
District-Surendranagar										
Taluka-Chotila										
Undvi	212	1157	581	576	15	4	120	217	461	479
District-Rajkot										
Taluka-Wankaner										
Sardharka	341	1902	995	907	18	0	942	566	436	900
Rajthali	100	629	317	312	0	0	264	329	40	260
Derala	158	1022	546	476	6	0	333	485	29	508
Chitrakhada	254	1567	814	753	0	0	376	376	575	616
Lunasar	705	3671	1904	1767	214	4	2242	1681	454	1536
Khanpar	107	703	359	344	0	0	202	317	33	353
Jali	211	1183	619	564	45	0	393	333	328	522
Lunsariya	202	1122	564	558	12	0	528	435	94	593
Dhamalpar	323	1723	909	814	3	7	883	599	147	977
Panch Dwarka	402	2364	1177	1187	29	6	1373	1260	137	967
Amarsar	243	1401	726	675	30	6	777	629	58	714
Chandrapur	1129	6038	3224	2814	165	4	4370	1730	584	3724
Kerala	290	1717	844	873	107	0	977	688	182	847
Rajavadla	604	3610	1867	1743	124	0	1936	1285	393	1932
Lalpar	119	614	306	308	4	5	350	302	3	309
Kotda Nayani	410	1926	986	940	20	0	1045	497	473	956
Palansdi	112	657	326	331	62	0	345	238	81	338
Sindhavadar	613	3846	1921	1925	429	0	2398	1829	65	1952
Pratapghadh	126	721	343	378	0	0	454	391	4	326
Pipaliyaraj	649	3843	1989	1854	100	5	2458	1797	80	1966
District-Rajkot										
Taluka-Tankara										
Neknam	591	3372	1714	1658	259	0	2061	1030	157	2185
Hamirpar	277	1393	694	699	62	0	897	593	158	642
Chhattar	296	1746	878	868	153	28	869	732	276	738

Chapter 3: Baseline Environmental Status

Name	House Hold	Total Population	Total Male	Total Female	Population SC	Population ST	Population literate	Main Worker Population	Marginal Worker Population	Non Worker Pop
Vachhakpar	144	791	402	389	0	0	335	285	87	419
Sakhpar	98	543	277	266	0	0	233	173	115	255
Kothariya	390	2362	1210	1152	418	0	1206	1002	256	1104
District-Rajkot										
Taluka-Poddhari										
Chanol Moti	123	681	354	327	175	0	374	174	16	491
Chanol Nani	38	224	111	113	81	0	142	64	1	159
Fatepar	156	950	479	471	0	0	603	409	20	521
Visaman	389	2157	1013	1144	333	3	1243	915	295	947
Khokhri	153	835	415	420	144	0	398	543	0	292
Bodi Ghodi	223	1212	597	615	5	5	743	562	203	447
Moviya	351	2032	1026	1006	233	3	1307	710	239	1083
Adbalka	102	563	273	290	45	0	338	327	0	236
Paddhari	1701	9234	4734	4500	453	46	5908	2832	77	6325
Ukarda	314	1767	919	848	111	0	1045	697	123	947
District-Jamnagar										
Taluka-Dhrol										
Golita	187	948	494	454	468	0	490	285	46	617
Dangra	78	316	160	156	7	0	127	84	38	194
Khengarka	200	1148	577	571	243	4	654	354	280	514
Khijadiya	93	493	245	248	24	0	196	286	0	207
District-Jamnagar										
Taluka-Jamnagar										
Gangajala	41	231	121	110	0	0	125	76	0	155
Moda	206	1173	653	520	60	0	683	344	0	829
Mota Thavariya	406	2285	1193	1092	341	81	1328	1034	123	1128
Chela	1024	5696	2994	2702	978	67	2556	1989	256	3451
Dadiya	458	2793	1449	1344	609	0	1483	804	205	1784
Mokhana	222	1234	617	617	123	0	584	333	0	901
Suwarda	89	517	260	257	3	0	241	155	5	357
Sapda	160	888	465	423	29	0	418	256	101	531
Jaga	213	1134	581	553	22	11	623	380	3	751
Varna	259	1257	602	655	12	0	705	729	18	510
Beraja	265	1410	680	730	95	0	764	425	413	572
Champa Beraja	178	879	462	417	0	7	473	249	34	596
Vav Beraja	148	775	393	382	7	0	418	302	8	465
Virpar	444	2327	1105	1222	25	0	1249	935	95	1297
Jamnagar	141588	761375	397689	363686	59353	3546	480497	232338	19540	509497
Khoja Beraja	164	871	443	428	91	7	482	346	141	384
Vijarkhi	294	1670	848	822	201	0	691	574	101	995
Dadiya	458	2793	1449	1344	609	0	1483	804	205	1784
Tamachan	129	722	354	368	82	0	262	190	24	508
District-Jamnagar										
Taluka-Lalpur										
Pipli	290	1571	827	744	521	192	706	723	29	819
Kanalus	388	2059	1044	1015	245	9	1075	858	64	1137
Rangpar	164	954	482	472	95	0	495	353	96	505

Chapter 3: Baseline Environmental Status

Name	House Hold	Total Population	Total Male	Total Female	Population SC	Population ST	Population literate	Main Worker Population	Marginal Worker Population	Non Worker Pop
Rasangpar	203	1013	524	489	157	0	572	273	83	657
Lakhiya Mota	178	992	495	497	48	0	548	271	154	567
Padana	636	3364	1803	1561	489	5	1637	1051	112	2201
Machhu Beraja	273	1626	810	816	38	3	825	610	211	805
Lakhiya Nana	91	546	287	259	64	0	345	139	25	382
Meghnugam	49	252	119	133	0	0	101	76	5	171
Total	238074	1282304	667362	614942	121326	8114	743133	410230	75461	796613

Source: Primary cences abstract CD 2001 Gujara

Table 3.6.5
Summary of Demographic Structure in Rajasthan Study Area

Demographic parameters	Details
Number of Districts	02
Number of Taluka	03
Number of Villages	28
Total No. of households	12604
Total population	80672
Sex ratio (No. of females per 1000 males)	917
Scheduled Castes (%)	17772(22.02%)
Scheduled Tribe (%)	2752 (3.41%)
Literate (%)	36167(44.83%)
Main workers (%)	31068 (38.51%)
Marginal workers (%)	12809 (15.87%)
Non workers (%)	36795 (45.62%)

Source: Primary Census Abstract –Census of Rajasthan– 2001 (CD)

Table 3.6.6
Summary of Demographic Structure in Gujarat Study Area

Demographic Parameters	Details
Number of Districts	06
Number of Taluka	18
Number of Villages	180
Total No. of households	238074
Total population	1282304
Sex ratio (No. of females per 1000 males)	921
Scheduled Castes (%)	121326 (9.46%)
Scheduled Tribe (%)	8114 (0.63%)
Literate (%)	743133 (57.95%)
Main workers (%)	410230 (31.99%)
Marginal workers (%)	75461 (5.88%)
Non workers (%)	796613 (62.13%)

Source: Primary Census Abstract –Census of Gujarat – 2001 (CD)

Table 3.6.7
Infrastructure Resource Base of the Study Area

Sr. No.	Districts	Educational institution	Medical facilities	Power supply	Source of Drinking Water							
					Tap	Hand pump	Tube well	Well	Tank, pond, lake	River, canal	Spring	Any other
Rajasthan State												
Barmer												
1	Total	3277	592	72256	82220	9895	42889	88220	69229	2156	75	16355
2	Rural	3156	533	50399	60689	8894	42837	87613	68576	2154	56	15399
3	Urban	121	59	21857	21531	1001	52	607	653	2	19	956
Jalore												
4	Total	1643	499	93942	96219	9732	20494	78639	30983	30	53	8758
5	Rural	1514	453	78540	78868	9087	20457	78033	30965	30	45	8314
6	Urban	129	46	15402	17351	645	37	606	18	0	8	444
Gujarat State												
Banas Kantha												
7	Total	3,838	907	424,315	295,296	23,935	40,997	47,026	622	254	81	16,104
8	Rural	3,566	641	372,619	247,006	22,861	40,047	46,617	609	249	81	15,149
9	Urban	272	266	51,696	48,290	1,074	950	409	13	5	0	955
Patan												
10	Total	2,025	666	228,583	186,437	1,809	15,965	13,827	368	401	22	9,754
11	Rural	1,725	364	182,092	141,834	1,439	15,703	13,696	365	399	22	8,634
12	Urban	300	302	46,491	44,603	370	262	131	3	2	0	1,120
Ahmedabad												
13	Total	4,776	6,006	1,084,250	979,544	53,063	87,761	33,732	9,708	401	26	22,422
14	Rural	2,021	523	187,109	145,632	14,020	18,417	30,883	9,475	200	2	8,795
15	Urban	2,755	5,483	897,141	833,912	39,043	69,344	2,849	233	201	24	13,627
Surendranagar												
16	Total	2,047	635	276,065	145,792	28,245	14,860	71,508	6,147	1,014	184	8,315
17	Rural	1,684	316	199,869	82,647	22,141	12,696	70,555	6,110	762	183	4,775
18	Urban	363	319	76,196	63,145	6,104	2,164	953	37	252	1	3,540
Rajkot												
19	Total	3,921	2,211	584,677	362,419	97,651	27,566	46,619	1,543	1,103	220	47,556
20	Rural	2,570	726	273,941	133,025	61,453	14,152	43,264	1,327	929	92	19,699
21	Urban	1,351	1,485	310,736	229,394	36,198	13,414	3,355	216	174	128	27,857
Jamnagar												
22	Total	2,629	902	296,004	189,197	60,678	10,919	46,066	1,265	902	185	30,230
23	Rural	2,074	448	157,963	86,479	40,523	6,345	43,379	1,184	898	183	11,724
24	Urban	555	454	138,041	102,718	20,155	4,574	2,687	81	4	2	18,506

Source: Household, Amenities and Assets CD – 2001, State Rajasthan and Gujarat.

Table 3.6.8
Existing Quality of Life in the Study Area

Sr. No.	Village Name	QoL(s)	QoL(o)	QoL(C)
1	Viramgam	0.54	0.56	0.55
2	Bhojva	0.49	0.51	0.50
3	Dolod	0.48	0.50	0.49
4	Mota Ankevaliya	0.48	0.50	0.49
5	Khambha	0.49	0.51	0.50
6	Moti Majethi	0.48	0.50	0.49
7	Kherwa	0.50	0.52	0.51
8	Kalmad	0.49	0.51	0.50
9	Undvi	0.50	0.52	0.51
10	Lunasar	0.51	0.53	0.52
11	Lalpar	0.49	0.51	0.50
12	Palansdi	0.50	0.52	0.51
13	Hamirpar	0.52	0.54	0.53
14	Fatepar	0.49	0.51	0.50
15	Ukarda	0.52	0.54	0.53
16	Beraja	0.50	0.52	0.51
17	Virpar	0.51	0.53	0.52
18	Kanalus	0.50	0.52	0.51
19	Padana	0.51	0.53	0.52
20	Bhadrevadi	0.50	0.52	0.51
21	Asodar	0.50	0.52	0.51
22	Salpura	0.49	0.51	0.50
23	Kumbhana	0.51	0.53	0.52
24	Mujpar	0.51	0.53	0.52
25	Padarri	0.51	0.55	0.54
26	Rawatsar	0.53	0.55	0.54
27	Amarpura	0.50	0.52	0.51
28	Paladar	0.52	0.54	0.53
	Avarge	0.50	0.52	0.51

QoL(s) -Subjective Quality of Life

QoL(o)-Objective Quality of Life

QoL(C)-Cumulative Quality of Life