



ASHUGANJ POWER STATION COMPANY LTD

[AN ENTERPRISE OF BANGLADESH POWER DEVELOPMENT BOARD)

DETAILED FEASIBILITY STUDY AND ENVIRONMENTAL IMPACT ASSESSMENT STUDY FOR ASHUGANJ 450MW COMBINED CYCLE POWER PLANT (SOUTH) AT ASHUGANJ EXISTING POWER STATION SITE



SOCIAL IMPACT ASSESSMENT STUDY REPORT



ATLANTA ENTERPRISE LIMITED

in association with

PROKAUSHAL UPODESTA LIMITED

HOUSE NO-1 ROAD NO-3 SECTOR-7, UTTARA, DHAKA-1230

JUNE 2011

TABLE OF CONTENTS

ABBREVIATIONS AND ACRONYMS EXECUTIVE SUMMARY

CHAPTER-1

- 1.1 INTRODUCTION
- 1.2 SOCIO ECONOMIC SURVEY
- 1.3 METHODOLOGY
- 1.4 SOCIO ECONOMIC CONDITION OF THE SURVEY AREA AND LANDSCAPE
- 1.5 Population and Demography
 - 1.5.1 Population
- 1.6 FINDINGS OF SOCIO-ECONOMIC SURVEY
 - 1.6.1 Religion
 - 1.6.2 Household Composition
 - 1.6.4 Housing Pattern and ownership
 - 1.6.5 Access to Health Facilities
 - 1.6.6 Source of Drinking Water and Sanitation
 - 1.6.7 Fuel Source
 - 1.6.8 Literacy
 - 1.6.9. Electricity Facility
 - 1.6.10 Impact of the Project
 - 1.6.11 Co-operation of Local people During Implementation Period
 - 1.6.12. Family Composition, Household size and Sex ratio
 - 1.6.13 Arsenic Problem
 - 1.6.14 Perception about Proposed Combined Cycle Power Plant Project
 - 1.6.15. Marital Status of the Project Area
 - 1.6.16 Working Place of Population in the Study Area
 - 1.6.17 Income of Population in the Study Area
 - 1.6.18 Occupational Pattern
- 1.7. Social and Economic Impact of the project and Existing Situation
 - 1.7.1 FISHING
 - 1.7.2. Agriculture
 - 1.7.3 ARCHEOLOGICAL, CULTURAL HERITAGE AND RELIGIOUS SITE
 - 1.7.4 CULTURAL ASPECTS AND INDIGENOUS PEOPLE
 - 1.7.5 TRAFFIC
 - 1.7.6 TREES
 - 1.7.7 TOURISM
 - 1.7.9 MEDIA ACCESS AND CULTURAL ASPECTS
 - 1.7.10 INDUSTRY
 - 1.7.11 NGO ACTIVITIES
 - 1.7.12 CROPPING PATTERN LAND USE
 - 1.7.13 HEALTH INFRASTRUCTURE

CHAPTER-2

- 2.1 COMMUNITY CONSULTATION
 - 2.1.1 Information Dissemination Process
 - 2.1.2 Key Stakeholder's View
 - 2.1.3 Summary of Consultation
 - 2.1.4 Ensure Community Participation
 - 2.1.5 Suggestion from the Local People
 - 2.1.6 Resettlement
- 2.2. Recommendations

List of Tables

Table.1	Population and demographic characteristics surrounding the project area (Zila, Upazilas and Paurashavas).
Table.2	Population and demographic characteristics surrounding the project area unions of Ashuganj and Bhaiab Upazila
Table.3	Population and demographic characteristics surrounding the project area PourashavaUnions of Bhairab Upazilas
Table 3.1	Popultion of the Project Upazila Table-4 Type of Religion of the sample households Bhairab Upa
Table 5	Household Members (Male & Female).
Table-6	Land holdings and Ownership Land of Ashuganj Upazila
Table 7	Main house of the dwelling household by type of structure
Table 8:	Access to Health Facilities
Table- 9.1	Access of Drinking Water
Table- 9.2	Access of sanitary Latrne
Table- 9.3	Access of sanitary Latrine
Table- 9.4	Access of Drinking Water
Table 10	Cooking Fuel
Table: 11	Rate of literacy for male and Female
Table 12	Electricity Facility
Table13.1	Impact of Proposed Combined Cycle Power Plant at Ashuganj
Table13.2	Impact of Proposed Combined Cycle Power Plant at Ashuganj of different Aspects
Table 14	Marital Status of the Project Area
Table 15	Yearly Income
Table 16.1	Occupational Pattern of the Households
Table 16.2	Occupational Pattern of the Households
Table17	Cropping Patterns Practiced in the Study Area

ANNEXURES:

1. Annexure-1
 - 1.1 Ashuganj Upazila Profile
 - 1.2 Bhairab Upazila Profile
2. Annexure-2 Minutes of the Focus Group at Upazila Complex (To be corrected by Atlanta)
3. Annexure-3 Questionnaire and Check list for FGD Meeting and KII (Checklist 1 & 2)
4. Annexure-4 Picture of the FGD Meeting (At Atlanta, will be supplied later)
5. Annexure-5 Leaflet distributed in the FGD Meeting (At Atlanta)

ABBREVIATIONS AND ACRONYMS

APSCL-Ashuganj Power Station Company Ltd

BBS-Bangladesh Bureau of Statistics

BPDB-Bangladesh Power Development Board

CCPP-Combined Cycle Power Plant

CSR-Corporate Social Responsibility

DOE-Department of Environment

DPHE- Department of Public Health and Engineering

FGD- Focus Group Discussion

Haor- Large low lying area formed naturally

KII-Key Informant's Information

PRA- Participatory Rural Appraisal

RRA- Rapid Rural Appraisal

UNO-Upazila Nirbahi Officer

EXECUTIVE SUMMARY

APSCCL intend to construct the 450MW new Combined Cycle Power Plant (South) in the existing premises of the APSCCL.

The main objective of the proposed study is to construct the 450MW CCPP (South) to meet the growing demand of BPDB's power system. The executive summary of the SIA study is as follows.

For benchmark socio economic analysis, a survey was carried out on both the banks of the river Meghna. This has been done on the basis of Participatory Rural Appraisal (PRA) and Rapid Rural Appraisal (RRA). One FGD was held at Upazila level and Five Focus Group discussion (FGD) were organized in the union level with about 200 stakeholders of different social strata representing the project area. There was a checklist and structured questionnaire for discussion in the FGD, KII (Key Informer's Information) for primary and secondary data collection.

The survey covers roughly an area of 5 km radius around the proposed Ashuganj combined cycle power plant project site.

The project area designated for the construction of the 450MW Combined Cycle Power Plant(South) is a part of Ashuganj Upazila under Brahmanbaria district and Bhairab upazila under Kisoreganj district. Considering the Union/Pourashava coverage, a total of- 7 unions/Pourashava are in the project site around five km radius of which 4 are in Ashuganj. viz.Char Charchartala, Ashuganj, Araishida, Durgapur(Dakshin Panisar) and 2 unions and one Pourashava are in Bhairab Upazila, These are Bhairab Pourashava, Srinagar (part of previous Sadekpur) and Simulkandi..

Both secondary and primary data have been used for SIA analysis.

A good number of the respondents of key stakeholders (52.54%) provided positive answers regarding the installation of the project. Rests are also positive with some comments and precautions.

The project is expected to enhance the economic development of the study area. The study area generally represents an industrial belt. There is high demand of electricity in the area. Hence, production of electricity will bring about speedy industrialization in the area and consequently generate employment opportunities.

Livelihoods, Employment and Income

The Construction of the plants is likely to lead to the short term employment of a number of local people (400 to 500 people). In addition to this the additional income injected into the local economy through spending on local products and services will also have a positive impact, though this will be limited in duration.

The Ashuganj Power plant project will not result in long term or widespread damages that would impact negatively upon subsistence and lifestyles of local residents. Jobs provided to local people will increase the local economic base.

All these will contribute positively towards the livelihoods, employment and income sources of the local people despite being of short duration.

Discussion with the local elected representatives will be conducted during implementation to help avoid dissatisfaction of the specific area people.

Agriculture and Cropping

Proposed power plant will be constructed in the existing premises of the project plant site where 2x64 MW steam turbine generators, 3x150 MW steam turbine generator, 1x90 MW CCPP and 1x56 gas turbine generator are already prevailed in the present site. Earlier construction of 150MW CCPP and another 450MW CCPP are under process. But no new acquisition and requisition are needed. Also, on agriculture there will not be any negative impact. Since the area is low lying, main characteristic of the cropping pattern in the area consists of boro and rabi as the main crops in the area.

Social and Cultural Practices

The influx of outsiders may cause some disruption to the social and cultural practices of the local people. This may increase demand for food, fuel wood and other daily necessities. This may also include pressure on local utilities and service facilities particularly on potable water, health and sanitation. However, with the nature of activities and APSCCL's plans to manage these demands and disruptions, these potential impacts will be minor, temporary in nature and able to be mitigated. APSCCL will seek to reduce this impact by introducing a Code of behaviour (to be developed in consultation with local communities). Good relationships should be established with local communities and help support their community activities and representatives from local communities should be allowed to join the committee to promote fairness and transparency of any unforeseen damages. Finally, since most of the workers will be from the local region, the potential for changes in local cultures is considered to be low.

Archaeology and Historical Places

There are no known remarkable archeological or historically important sites in and around the survey area. But about six to seven kilometer away, three kilometer west of Belabo upazila in the Narshidhi district historically important relics of ancient civilization (450 BC) named Wari Bateswar exists. However, there will be no impact on this historic archeological site during or after the construction of the proposed plant. The probability of finding significant cultural resources in the designated areas is low.

Araishidha union of Ashuganj is the birthplace of renowned poet Abdul Kadir, situated at a distance of about three km south of the proposed plant. The place will not be affected anyway. As a historic item, Bhairab Rail Bridge, constructed during British period can be mentioned which is located within one km of the plant site. No negative impact is identified on this historic site from the project.

Commercial and Recreation Activities

The project should not interfere with any local commercial or recreational activities. The project site is located to the north east of Ashuganj Bazar in the less populated area and will avoid areas of high human activity for logistic and operational reasons. Therefore, the potential for any negative impacts is considered low.

Traffic

Project area is very important relating to the communication. Roads, river and rail traffic halts in the area. It is the gateway of haor region and greater Sylhet district. In past the project site was a portion of greater Comilla district. Strategically the site is very important and in near future location value of the area will be increased manifold after proposed connection with 'Asian Highway' and transit point with Indian territory as Ashuganj has been declared as port on call and also Ashuganj will be connected by rail with Indian Tripura state.

Launch, cargo boats and mechanized country boats use the river port on both bank of the river Meghna. River traffic is the only way of movement in the haor areas both for human traffic and cargo traffic. The approximate size of haor areas is 5000 sq km.

During project period public roads will be the main way of moving transport to carry the equipment and personnel to the field. Traffic will be disrupted of short term duration at intermittent periods. The potential impacts of the traffic on existing roads will be of low severity and will not have any long term impacts on the existing traffic patterns and socio economic environment.

Population and demography

Population density of Ashuganj Upazila is 2158 per Sq. Km. and in Bhairab Upazila the figure is 1774 per Sq. Km. The survey conducted on the approximate sample population of 2,50,000 and of 50 thousand household within 5km radius around plant site. Within 2km radius population is roughly 1, 25,000. Data have been collected from this around 5km radius of the project location. Respondents gave their views and comments about the impacts of implementation of the proposed 450MW Ashuganj Combined Cycle Power Plant (South) Project.

Crop and Cropping Pattern

Main crops grown in the study area are Aus, Aman and Boro paddy. Besides this, potato, sweet potatoes, oil seeds, vegetables, arum, til (sesame), wheat, sugarcane, mustard etc. are cultivated in the study area. Of fruits jackfruit, lemon, watermelon are produced in the study area.

Fishing

At present, professional fishing community is (2%) in the project area. During monsoon some people of the project site catch fishes in the Upper Meghna River. Fish is an important resource of the area. There are two large 'arats', fish sales centres, one in Bhairab and another in Kuliarchar. Fishes are exported to the Dhaka city mainly from these arats. Impact on fishery of the project is found minor.

Tourism

The unbound natural beauty of the project area, wide river (upstream of the river Meghna) and its fresh water offer great prospects of tourism in the area. But no commercial tourism has been developed till today in the area. The strategic location of the area is very important. Scope of river cruise, excursion, plenty of fishes, hotel facilities, picnic spot, and archeological relic, easy communication of rail, road and river has made the area for flourishing the area as tourist spot.

Cultural aspects

People residing in the surrounding areas of the project location consist of mainly Muslims and Hindus. The general culture and heritage of the area based on core belief of both the religions. Culture also differs by these religions. The Muslims pray in the mosques and observe their religious festivals like Eid, the Hindus observe their Pujas (Durga puja, Kali puja, etc.) in the temples. They usually celebrate various religious occasions as well as “pujas” as a religious festivals of the Hindus.

Inland River Traffic

Ashuganj and Bhairab are important river ports of the country. Launch and cargo boats berth in the port and load and unload various commodities. So, the area is important both nationally and internationally in respect of river traffic also.

Road Communication

The Dhaka – Sylhet highway passes beside the Study area and Dhaka-Sylhet rail line passes through the middle of the area.

There are other metaled roads of LGED in and around the Survey area.

Besides the train communication facility mechanized vehicles like truck, bus, car, jeep, baby taxi, battery driven auto rickshaw, CNG auto rickshaw, mishuk, tempo, motor cycle etc ply in the road. Non- mechanized traffic like rickshaw, van, bicycle, cart etc utilize these roads. In the surrounding rivers both mechanized and traditional country boats are plying regularly carrying both passengers and goods.

Public Consultation

Public consultations were held in different stages of Focus Group Discussion (FGD) and personal contact and it will be continued till the completion of the project. Discussions with the public representative were held to help avoid dissatisfaction of local people and specific area.

Summary of focus Group Discussion (FGD) and public consultation:

- Project affected people appeal that they/their dependents should be given employment opportunity during construction of the project.
- Due compensation for affected persons for any unforeseen loss due to the project should be given
- Electricity facilities to be extended to the villagers including community places like school, mosque, temple etc.
- Local unemployed youths to be given training and employment opportunity as far as practicable.
- Sound and vibration should be under accepted level by installing good and of best quality equipment.
- Temperature should be minimum during discharging water from cooling system.
- Fish breeding and the flora and fauna of the area should be saved.

Summary Report of Key Informant Interview (KII)

About 50 KII were taken. The following are the key highlights of their comments

- To take care of the public safety as well as to provide security in critical locations. In order to remove any fear of explosion, the authority should exercise adequate care in construction & maintenance work, particularly of gas pipe line.
- Works should be completed as quickly as possible in order to reduce the constructional impacts.
- The electricity should be made available to the people at the earliest possible opportunity.
- The executing agency should follow all rules, regulations and standards in the construction of the project.
- Care should be taken for ensuring the least possible damage to local infrastructure viz. roads & structures during construction of the project including gas pipe line.
- Contingency plan should be taken to meet any eventual accident.

CHAPTER-1

SOCIO ECONOMIC SURVEY

1.1 INTRODUCTION

APSCCL intend to construct Ashuganj 450MW new Combined Cycle Power Plant (South) in the existing premises of the APSCCL in Ashuganj.

The main objective of the proposed study is to construct the 450MW CCPP (South) to meet the growing demand of BPDB's power system. The report of the SIA study is as follows.

This section discusses socio economic condition of the project area. Both primary and secondary sources data are utilized for understanding of the socio economic condition of the project area.

1.2. SOCIO ECONOMIC SURVEY

For collecting latest social information, four skilled Investigators under the guidance of a Sociologist were engaged in constructing primary data using structured questionnaire, a copy of which is attached hereto at Annexure-3

1.3 METHODOLOGY

For benchmark socio economic analysis, a survey was carried out on both the banks of the river Meghna. This has been done on the basis of Participatory Rural Appraisal (PRA) and Rapid Rural Appraisal (RRA). One FGD meeting was held at Upazila level and Five Focus Group discussion (FGD) were organized in the union level with about 100 stakeholders of different social strata representing the project area. There was a checklist and structured questionnaire for discussion in the FGD, KII, for primary and secondary data collection. The Union/ Pourashava were selected on the basis of strategic location and distance. In the west bank of the river 2 FGD were organized and 3 FGD were organized from the east bank of the river Meghna. One FGD from the project union within one km radius, two from 2 to 3 km radius and two from 4 to 5 km radius. In addition to that Ashuganj and Bhairab Upazila government officers, Local government representatives public representatives and Key Informants Interviews (KII) were taken. As secondary sources, Bangladesh Bureau of Statistics (BBS), Upazila, Union and Pourashava records, Banglapedia, concerned books and periodicals were consulted. The socio economic information has been taken from both upstream and downstream areas of the river Meghna. The survey area is roughly of 5 km radius around the proposed Ashuganj combined cycle power plant project site.

On the west bank, the Pourashava/ Unions covered are Bhairab Union, Bhairab Pourashava, Simulkandi Union. On the east bank, the unions covered are Ashuganj, Charchartala Araishida and Durgapur (Dakshin Panishar). Structured questionnaires and Checklist were used for data collection. Socio economic, environmental, demographic questions were included in the structured questionnaires.

1.4 SOCIO ECONOMIC CONDITION OF THE SURVEY AREA AND LANDSCAPE

The project area is an industrial site beside and adjacent to the Dhaka Sylhet highway and locates in the eastern bank of mighty river Meghna. Economically the area is very active. The River Meghna is the main navigation route near the project site which connects Dhaka with north eastern region of the country via Bhairab and Ashuganj river port. Different types of commodities including quarry, cement, fertilizer and paddy etc are carried through the river route. So cargo vessel is seen frequently in the river.

Other than the industrial site, rest areas are low lying agricultural land. West part of the project site across the Meghna River is under Bhairab Upazila of Kisoreganj district and east part is under Ashuganj Upazila of B.Baria district. The project locates in Sonaram Mouza of Ashuganj upazila. Syed Nazrul Islam Bridge across the river Meghna connects both the banks of Bhairab and Ashugnj. The Bridge lies on the Dhaka Sylhet Highway. The project site locates in the North West direction of the highway. Location of Bhairab Rail Bridge is in the south west direction of Syed Nazrul Islam bridge. Within 1km distance of project site, Ashuganj fertilizer factory is located. Beside the rail line, on the east bank Ashuganj rail station is situated and a Silo is located in the eastern bank. In the western bank Bhairab rail station is located. On both banks there are residential areas. During monsoon low lying paddy field is submerged by the flood water. Boro crop is the main crop in the dry season.

1.5. Population and Demography

The project area designated for the construction of the 450MW Combined Cycle Power Plant (South) is a part of Ashuganj Upazila under Brahmanbaria district and Bhairab upazila of Kisoreganj district.

There are seven unions within the radius 5km around the project site. Out of seven unions, 4 unions namely, Ashuganj, Charchartala, Araishida and Durgapur (Dakshin Panisar) belongs to Ashuganj Upazila while other unions namely Bhairab, Srinagar and Simulkandi belongs to Bhairab Upazila. Bhairab Pourashava also included within it.

Population and demographic characteristics of the Zila, 4 Upazilas and 1 Paurashava (Bhairab) in the study area have been presented in **Table 1&2**. The table shows that the population density per/sq. km. varies significantly among the different Pourashava, Upazila and Zila/district. Population and demographic profiles of the concerned unions have been presented Union and Upazila wise in **Tables -1 and Table -2.-and Table-3 respectively**.

Table.1: Population and demographic characteristics surrounding the project area (Zila, Upazilas and Paurashavas).

SI	Population Characteristics	B.Baria District	B. baria Sadar Upazila	Sarail Upazila	Ashuganj Upazila	Kishoreganj District	Bhairab Upazila
1	Total Area (Sq. km.)	1927.11	440.55	227.22	67.59	2731.21	139.2
2	Total Household	429390	109369	48822	26,709	534770	46634
3	Total Population	2398254	625484	271101	-145,828	2594954	247166
	- Male	1205552	318579	136240	-74,191	1320117	125621
	- Female	1192702	306905	134861	-71,637	1274837	121545
5	Household Size						5.3
	-Rural	5.58	5.7	5.5	5.5	4.9	5.3
	-Urban	5.59	5.7	5.6	5.5	4.8	5.3
		5.52	5.7	5.3	5.3	5.0	
6	Literacy Rate % (7 years+)						
	-Male	39.46	44.3	32.9	46.2	38.3	40.7
	-Female	42.26	46.2	36.2	47.7	41.3	44.8
		36.69	42.4	29.7	42.7	35.1	36.6
7	Sex Ratio	101	104	101	104	104	103
8	Total Mouza/ Mohallah						
		1024	320	76	30	953	32
		97	34	-	-	147	26
9	Total Village	1331	375	140	38	1794	84
10	Total Union	98	21	9	7	105	6
11	Total Upazila	8	1	1	1	13	1
12	Pourashava	4	1	-	-	4	1
13	Paura Ward	39	12	-	-	39	12

Source: Population Census 2001, Community series, Zila:B.Baria and Kishoreganj, BBS, August, 2006

Table.2: Population and demographic characteristics surrounding the project area unions of Ashuganj and Bhairab Upazila

Ashuganj Upazila								
SI	Population Characteristics	*Ashuganj	*Araisidha	Charchartala	*Dakshin Panisar (Durgapur)	Lalpur	Pacchim Talshahar	Sharifpur
1	Total Area (Acres)	2799	1469	1572	3038	1818	2813	3193
2	Total Household	5958	2701	4092	4550	2817	3155	3436
3	Total Population							
	-Male	30282	15482	23555	26831	14201	17954	17523
	-Female	16054	7740	12500	13691	7069	8971	8166
		14228	7742	11055	13140	7132	8983	9357
4	Total Household	5548	2690	3990	4519	2803	3117	3423
5	Household Size	5.46	5.76	5.90	5.94	5.07	5.76	5.12
6	Literacy Rate % (7 years +)	50.06	47.18	56.35	45.64	35.45	38.25	41.99

Source: Population Census 2001, Community series, Zila: B.Baria, BBS, January, 2007 and National Series, Volume-2, Union Statics, March 2007

Table.3: Population and demographic characteristics surrounding the project area Pourashava Unions of Bhairab Upazilas

SI	Population Characteristics	Bhairab Upazila						
		*Bhairab Pourashava	Aganagar	Gazaria	Kalika prashad	Sadekpur	*Shimulkandi	Shibpur
1	Total Area (in acres.)	3784	6331	4737	3241	5903	2866	1669
2	Total Household	17692	4872	4510	5246	5594	4721	3999
3	Total Population	-93254	-27306		---26906	-29914	-25567	-21091
	- Male	-48764	-13964	-23128	-13435	-14674	-12973	-10400
	- Female	-44490	-13342	-11411	-13471	-15240	-12594	-10691
6	Literacy Rate % (7 years +)	53.57	23.54	32.85	-32.23	33.75	37.14	35.26

Source: Population Census 2001, Community series, Kishoreganj, BBS, February, 2007

1.5.1 Population

As per Population Census 2001, population and other relevant information are as follows.

Table 3.1 Population of the Project Upazila

Upazila	Area (km ²)	Total Household (No)	Population (No)	Male (No)	Female (No)	Literacy7+ (%)	Population 18+ (No)
Ashuganj	67.59	26709	1,45,828	74,191	71,637	46.2	72,332
Bhairab	139.32	46,634	2,47,166	1,25,621	1,21,545	40.7	1,24,941

The above Table shows that there are 109.5 males compared to 100 females. Sex Ratio (2001, BBS) in the Dhaka district is 109.5. But the ratio is different in the urban area, namely, 121.9 and the same in the rural area it is 103.6.

Family Size: Average family size in districts (Census, 2001) is given here. In the district of Kishoreganj house hold size is 4.9 and in Bramanbaria it is 5.6. Family size of Ashuganj is 5.5 and in Bhairab it is 5.3. In the urban and rural area it is 5.52 and 5.39 respectively.

The Study area consists of two Upazilas under B baria and Kissoreganj district. The Upazilas are Ashuganj situated in the east bank of the Meghna, while Bhairab upazilla situated on the west bank of the river Meghna. Density of population of Brahmanbaria district is 1244 per sq km.

1.6 FINDINGS OF SOCIO-ECONOMIC SURVEY

Following findings have been obtained from the socio economic survey. Data is mainly from secondary Sources but some data have been collected from FGD meeting and KII based on PRA and RRA method. The secondary sources are Union Parishad, Upazila Parishad and BBS. And some records are collected from concerned key stakeholders viz associations and public representatives.

1.6.1 Religion

Religious feature of the population are as follows. The community is predominantly Muslim.

Table-4 Type of Religion of the sample households Bhairab Upa

Upazila	Total H.H	Muslim	Hindu	Buddists	Christian	Trbal	Others
Ashugnj	26709	25,599	1088	11	1	1	10
Bhairab	46,634	44,448	2,173	4	1	1	8

Source::BBS, Community series, Kishoreganj and B.Baria census 2001

From the above Upazila records, it shows in Ashuganj, 95.84% population is Muslim and rest is mainly Hindu communities. And in Bhairab upazila 95.31% population is Muslim. Project area's condition is also same. In the sample area mainly Muslims are residing. Hindu communities are very minor. In Table-4 above shows the religious condition of the survey area.

1.6.2 Household Composition:

From Table-5 below, male/female ratio (sex ratio) can be derived. Sex ratio means no of male per 100 female. Here sex ratio is 104 and 103 for the two Upazilas referred to in Table - 2. Sex Ratio (2001, BBS) in B.Baria district is 101. But it is different in the urban area, that is, 105 and in the rural area it is 100. In Kishoreganj sex ratio is 104, in the urban this is 109 and in the rural area the ratio is 103. The project area is a semi urban industrial area and in fact the area consists of middle and lower middle class people. In Bhairab pourashava family size is 5.3 and in Ashuganj UP it is 5.1. Thus, the average family size in the survey area is 5.2

Table 5: Household Members (Male & Female).

Area (Upazilla)	Male (No)	Female (No)	Total (No)	Sex Ratio(M/F)%
Ashuganj	74,191	71637	145828	104
Bhairab	125621	121545	247166	103

1.6.3 Land Ownership and Homestead Land

From the Table-6 below it is found that more than 30% of the households do not possess any land. That means, majority of the people in the area are involved in profession other than agriculture.

Table-6 Land holdings and Ownership of Land at Ashuganj Upazila

	Ashuganj	Bhairab Upazila
Agricultural Land in decimal	(%) of Total	(%) of Total
0	30	30
1-50	40	15
51-100	10	20
101-150	10	20
151-250	5	5
251-500	5	10
Total	100	100

Source: Upazila Statistical Department, Ashuganj and Field survey

Table-6 shows the land ownership pattern of the households in the Study Area. It is found that 30% of the household doesn't have any land. 15-40% has land size, namely, 50 decimal and 10-20% has land size of 101-150 decimal and 5% have land size of 151 to 250 decimal respectively. The price of the land is increasing rapidly as proportionately with urbanization and development.

1.6.4 Housing Pattern and ownership

In the project area maximum people live in their own houses but a few in rented house. As more urbanization more households will reside in the rented house in future. The area is a semi urban area. Moreover, it has also a rural character. Most people live in inherited land. Table-7 below shows the pattern of the ownership of residence.

Table 7: Main house of the dwelling household by type of structure

Upazla	Jhupri(thatched)	Kutchha	Semi Pucca	Pucca
Ashuganj	3.03	76.01	11.91	9.05
Bhairab	3.21	80.24	10.58	5.97

Source: BBS, community series, Kisoreganj and B.Baria census 2001

In both the Upazilas maximum housing structures are kutchha Ashuganj(76.01%) and Bhairab(80.24%). In the project area, on both the banks in Asuganj union and Bhairab Pourasava about 90% structures are semi pucca and pucca.

1.6.5 Access to Health Facilities

There are government Health complex in both the Upazilas. Two government hospitals are giving services, one owned by Ashuganj power plant and another is owned by Zia Fertilizer factory in Ashuganj Upazla. Two Clinics are in Ashuganj union near the project area. Also one diabetic Centre is rendering services for diabetic patients. In Bhairab, there is a 50 beds government hospital and a private hospital in the Pourashava. People normally contacts medicine shop and quack doctor primarily. But solvents go to private Clinic. Normally the poors go to government hospital. Zia fertilizer and power plant hospital is mainly for staff treatment but in emergency case, limited service is provided for the common people.

In Ashuganj the following health facilities are available. These are Upazila Health Complex-01, Community Health Centre-06, Hospital (non-govt.)-02, Private Clinic-02, Diabetics Centre-01, and Veterinary Hospital-01.

In Bhairab available health facilities are Upazila Health Complex-01 (50 Bed), Upazila Community Health Centre-02 (Shimulkandi, Bhairab), Community Clinic-07, Health and Family Welfare Centre-05, Hospital (non-govt.)-06, Private Clinic-02, EPI Vaccination Centre-170, X-Ray Machine-01.

The project has some short term minor negative impact on health during construction period

Table -8 below illustrates the access of the population to health facilities. Health awareness and regular visit to the doctor is a key to maintaining good Health. One may have multiple practices. An approximate estimation is found in the field survey regarding health service. Percentage of health access to government hospital is 30%, good doctor is 10-%, NGO Clinic is 10% and pharmacy shop is 50% approximately.

Table 8: Access to Health Facilities

Source	Facilities
Government Hospital	√
Union Clinic	√
Good Doctor	√
Private Clinic	√
NGO Clinic	√
Good Pharmacy Shop	√

Main diseases are waterborne diseases viz diarrhea, dysentery, typhoid and sexually transmitted disease (STD). Also Acute Respiratory Infection (ARI) is predominantly seen in the area. The STD is of abundance due to migratory people and workers in the area and in the boiler based rice husking mills. In the area lot of women workers work in these husking mills locally known as 'Chatal' approximately there are 250 Chatal in the project area.

1.6.6 Source of Drinking Water and Sanitation

As reported by DPHE, Ashuganj Upazila 100% sanitation coverage. Total sanitary latrine is 1722. No of total TW is 1539. On average 17.35 households fetch water from a single Tube well.

There is no water supply system in the study site. The people are dependent on tube well water for drinking purpose.

Due to various development program and campaign for total sanitation the situation has been changed. Table 9.1 to 9.4 shows previous position of sanitation and drinking water facilities in the project Upazila. Present and previous position of drinking water access within 5 km around the plant area has shown in the Tables.

Table- 9.1 Access of Drinking Water

Union	Household	Tap	TW	Well	Pond	Others
Ashuganj	5548	345	4978	24	24	177
Bhairab Pourashava	17155	852	15,789	88	24	402

Source: Community Series, BBS, Census 2001

Table- 9.2 Access of sanitary Latrine as per households

Union	Hh. No	Sanitary	others	None
Ashuganj	5548	2829	2406	313
Bhairab	17155	11179	4957	1019

Source: Community Series, BBS, Census 2001

Table- 9.3 Access of sanitary Latrine in percentage

Upazila	Sanitary Latrine	Non Sanitary Latrine	No latrine
Ashuganj	44.89%(Upazila) 42.36%(Rural) 54.33(urban)	51.37%(Rural) 41.76%(Urban)	5..77%
Bhairab	39.74%(upazila) 65.16%(urban) 24.62%(rural)	45.51%(Upazila) 55.38%(Rural) 28.90%(Urban)	14.76%

Source BBS, 2001 census

Table- 9.4 Access of Drinking Water

Upaila	TW	Pond	DeepTW	Tap	Other
Ashuganj	88.21%	1.27%	0.50%	6.62%	3.40%
Bhairab	93.06%	0.11%	0.65%	2.01%	4.18%

Source: BBS, 2001 census

Sanitation practice is very important for a community. It is a part of social behavior after toilet use. Earlier it is mentioned that the area has both urban and rural character. Table-9.2 and 9.3 above shows the sanitation coverage in Ashuganj and Bhairab Upazila. Sanitary latrine coverage was 44.89% of the households in Ashuganj and 39.74 % households in Bhairab upazila respectively. But present situation has been drastically improved. Ashuganj is at present under 100% and Bhairab is under 90% sanitation coverage.

1.6.7 Fuel Source

Table-10 below deals with the pattern of use of cooking fuel in the area. Most of the households have natural gas connection (40 %). for cooking purpose. Others depend on fuel wood. Fuel wood is a costly item. Survey shows that households using natural gas for cooking as well as those using fuel woods are almost same (35% each) and 5%. depend on leaves

Table 10: Cooking Fuel

	Ashuganj Upazila	Bhairab Upazila
Type of Cooking Fuel	(%) of Total	
Natural Gas connection	40%	50%
Leaves	5%	5%
Cow dung	20%	15%
Wood / Straw	35%	30%
Total	100%	100%

Source: Field Survey and FGD meeting

1.6.8 Literacy

Education rate is rapidly increasing in the project area. According to the Upazila education office, about 90% enrollments are in Ashuganj Upazila. Current year, 20,000 students have been new enrollment in the primary Schools excluding Kindergarten School. Number of household in the Upazila is 26,709(Census 2001), that means almost from each family one student is enrolled in the primary classes except ultra poor family of the Upazila.

According to BBS 2001 census in Ashugnj Upazila the literacy rate for both sexes is 46.2%, for male is 47.7% and for female is 42.7%. According to BBS 2001 literacy rate of 7+ populations is 50.06% in Ashuganj and is 49.05 % in Araishida. So it is assumed that near plant site education rate is high to some extent, roughly 65%.From FGD meeting in Dakshin Panishar it is found that the education rate is now 60% approximately. Education rate is also increasing among the female.

Table: 11 Rate of literacy for male and Female

Upazila	Both	Male	Female
Ashuganj	46.2	47.7	42.7%
Bhairab	40.7	44.8	36.6%

Source: BBS, Census 2001

Table 11 above clearly depicts the present situation of literacy with regard to the education level in the area. Literacy rate is 46.2% in the project area for 7+ populations in Ashuganj upazila whereas it is 40.7% in Bhairab Upazila.

1.6.9. Electricity Facility

Now, in the project area about 70% to 80% households have electricity connection. At Ashuganj union it is about 80%. Dakshin Panishar and Simulkandi unions of Bhaiab Upazila have 80% and 70% electricity coverage respectively.

In the project area most of the households have electricity connection (99%). The area may be considered as largely dependent on electricity due to growing business in the area. From Table – 12, it verifies this statement.

Table 12: Electricity Facility

Area (Upazila Basis)	Electricity Facility Available in Household (No)
Ashuganj	57.75%
Bhairab	51.31%

Source: BBS, 2001 census

However all the unions are under rural electrification program in both the Upazilas.

1.6.10 Impact of the Project

Table-13.1 below reveals the results of the survey with regard to the impact of the proposed power plant. A good number of the respondents (52.54%) have given positive answers regarding the installation of the project. These people showed their response by stating that they were ready to cooperate with APSCCL for implementation of the project.

Normally people of the locality are in favor of the project. But they have some concerns regarding the project and they urged this should be solved with proper precautions. However, they have some suggestions in implementation the project. In addition to that they have some request to the power plant authority for doing some welfare activities for the local people under the Corporate Social Responsibility (CSR) resulting cordial relation with the local people. The concerns and suggestions are given below.

Mr. .Md. Anisur Rahman, Upazila Chairman, Ashuganj has given the following suggestions

1. Sound pollution should be restricted by installing the best quality equipment
2. He claims that the plant authority should arrange meeting with local public representative before finalization of detailed lay out plan with the concerned person of power plant.
3. He suggested the authority to intensify the CSR activities for the local people, giving the

electricity connection for community organizations like school, mosques etc. Giving education support for local poor and hospital supports for community and power plant staff. He urged for creation of good school and college in the area which will help both local people and dependent of plant staff.

4. Water temperature is to be maintained minimum but the plant authority repeatedly confirms that it will not exceed DOE(Department of Environment) regulation and in no way hampers the environment.

Mr. Firoj Miah, President, AL Ashuganj Upazila suggested that

1. Proposed plant will have positive impact on over-all socio-economic condition. No impact on environment. Precautionary Safety measures should be taken in flow of artificial outfall into the cooling water canal

2. Ensure social welfare from the plant under CSR department like hospital, establishing quality school and providing job and technical education etc

Mr. Toufique Ahmed Khan, Upazila Agriculture officer, Ashuganj said that water from the cooling centre is to be diverted for low cost irrigation device under CSR department.

In other FGDs local influential also suggested in the same way. But in most cases people have no objection against the construction of the power plant. All of them on both the banks of the project area urged to plant authority to do some betterment of common people especially for the poor and underprivileged.

Table13.1: Impact of Proposed 450 Combined Cycle Power Plant (South) at Ashuganj

Area (Upazilla Basis)	Total Response	No of Positive Response	% [+ve]	No of Negative Response	% [-ve]	Zero impacts	No comments
Ashuganj Upazila	13	6	46.15	1	7.69	4	2
Ashuganj Union	8	5	62.5	2	25	-	1
Arashida union	7	5	71.43	0	0	2	-
Dakshin panishar(Durgapur)	5	3	60	2	40	-	-
Bhairab Upazila	13	4	30.77	1	7.69	5	3
Simul kandi	7	4	57.14	0	0	1	2
Srinagar(part of Ex Sadekpur Union)	6	4	66.67	0	0	2	-
Total	59	31	52.54%	6	10.17%	14(23.73%)	8(13.56%)

Table13.2: Impact of Proposed Ashuganj 450 MW Combined Power Plant (South) at Ashuganj of different Aspects

SI	Types of the Affects	Advantages	Disadvantages	No Impacts
1	Agriculture	1. Existing irrigation facilities will be continued. Presently a portion of water used of plant cooling system are diverted to a reservoir then it is diverted to paddy field through link canal 2. More power supply may enhance more irrigation facilities and more crop		
2	Fish		1. Discharging of hot water and digging of artificial canal damages breeding natural fish varieties viz Taky etc of Ashuganj union. But the impact is minimum	
3	Livestock			No impact.
4	Bird		1. Because of deforestation, urbanization and sound pollution birds leave from the plant site area.	
5	Animal		1. Due to urbanization, wide movement people and vehicle, sound and deforestation. They are moving to other areas	
6	Forestry		Due to rapid urbanization, of the project area and grid line, plants, herbs and bushes have been reduced in the plant side area but its impact is limited	
7	Income	Expansion of business, more electric connection income will be increased because of employment generation and in migration.		
8	Employment	Employment opportunity will be increased in the area due to industrialization, influx of professionals, workers, employment resulting growing demands goods and services.		
9	Movement of Local People		Short time impact will occur on movement of local people due to increased movement of goods, instrument and vehicle and in migration workers in construction of plant.	
10	Tourism	The plant location strategically is in a very important place. The natural beauty of this upper Meghna attracts everyone. So in migration of professional, employees, visitors and workers may be influenced by the expansion of tourism, river excursion etc.		
11	Business	Here exists a lots chatal(Boiler based rice husking mills) runs by electricity and also Bhairab bazaar and Ashuganj are very developed, Moreover, some ice factory is available in the area for exporting haor's fishes and		

Report on SIA for Ashuganj 450 MW CCPP South, Ashuganj, B.Baria

		marketed into the capital city and other areas of the country.		
12	Industry	Different industry will be developed in future. At present shoe-factory, tannery, ice factory, fish-processing, fertilizer factory, rice husking mills etc are prevailing in the area.		
13	Housing	Naturally project area is beautiful and a place of business and well communicated with other areas of the country. The area will be developed as a satellite city in near future. Some housing society and real state business organization have been working in the area. In addition to that the region is being developed rapidly. At present few multistoried buildings have been constructed in the project area.		
14	Archeological and historical site			No negative impact on the archeological sites. Sound and temperature effect is at minimum. There is no archeological and historical site adjacent to the plant site
15	Health		Negative impact on health due to in migration relating STD and waterborne diseases	

Overall impact of the project is positive .Now farmers are benefited during boro cultivation. Plant authority pumps the water from river for its cooling system. Then it is diverted to reservoir and used by the farmer. Existing irrigation facilities will be continued. Presently a portion of water used for plant cooling system are diverted to a reservoir then it is diverted to paddy field trough a link canal. Normal costing of irrigation water is Tk.1500/biga by the diesel machine. But the plant water is supplied at the rate of Tk.200.00 per biga to the farmer. This is a direct benefit of the project

Two canals are used for irrigation; one canal is from plant reservoir upto Sarail upazila stretched along the highway. Length of irrigation facilities is 8km and $1/2$ km wide. And second canal is from plant site to Naoghat-Tarora 7km length and $1/2$ km breadth. So irrigation facilities are the positive impacts of the plant. More power supply may enhance more irrigation facilities and more crops. However, addition of the 450MW C.C.P.P will not affect this system.

1.6.11 Co-operation of Local people During Implementation Period

Community co-operation is considered very important for project implementation. The Survey indicates respondents are willing to co-operate with APSCCL toward implementation of the proposed project. But the implementation authority, meaning APSCCL should carefully handle the construction of the project. It is stated by the respondents in the FGD that APSCCL

should ensure that during project implementation, the surrounding area (households) should not be subjected to harmful vibration, noise etc. It was recalled by a number of respondents that NEPC's barge-mounted 110 MW power plant constructed in 1998 in Haripur and power plant in Sylhet, caused severe sound and vibration problem, as a result of which several households developed cracks in their structures. KII complained regarding Ashuganj Fertilizer factory's ammonia discharge problem. So plant authority must be careful regarding any pollution by the project. Some affecteds were not paid compensation from Ashuganj power plant earlier. The respondents also complained that they did not receive any employment or business benefits from the authority. In the above background, the respondents request that APSCCL should take special care during construction of the proposed project so that similar problems are not faced by the inhabitants surrounding the project area. The respondents appeal to APSCCL to provide certain economic benefits, namely, employment, extension of electricity to the community etc. During survey, no negative impact has been identified. However, if any unforeseen damage is caused due to implementation of the project, APSCCL should keep some provision in the budget for meeting resettlement, if any, as well as compensation etc.

1.6.12. Family Composition, Household size and Sex ratio

In assessing family composition, the following relationship appeared prominently: The area is semi urban and both rural and urban characters are found in the area. So normal family relationship is distinct in the area.

According to BBS, distributions of households by type shows that there are 98.68% are dwelling units, and 0.47% are institutional and 0.85% other units in Bhairab upazila. The household size (dwelling) for the upazila is 5.3 persons for the rural area and urban area it is 5.13. Population of the area is 2, 47,166 of which 125,621 are male and 1, 21,545 are female; sex ratio is 103 males as against 100 females. The decadal population growth is 28.43% and annual growth is 2.53. (BBS, 2001).

In Ashuganj Upazila, of total households, 97.68% are dwelling units, 1.11% are institutional and 1.21% are other households. Household size in the upazila is 5.47. In rural area family size is 5.52 and urban area it is 5.29%. Total population of the Upazila is 145,828 of which 74, 191 are males and 71,637 are females. The sex ratio is 104 males as for 100 females. Decadal growth rate of population is 17.08% and annual compound growth rate is 1.59 %. (BBS, 2001 census)

1.6.13 Arsenic Problem

The area surveyed has some arsenic problem in ground water. In the project area, arsenic has found in underground water in some areas. In Durgapur (Dakshin Panisar) union, 11 arsenic patients are identified. In Bhairab, no arsenic problem is reported

1.6.14 Perception about Proposed Ashuganj 450 MW Combined Cycle Power Plant (South) Project

A small portion of the local people know about the construction of new power plant. It is revealed in the FGD meeting. But after FGD and KII meeting and distribution of leaflet almost all people have known the fact. Chairman of the Union Parishad, Mayor of the Pourashava, Upazila Chairman, local elites and upazila level government officials are also communicated about the plant. All of them have given positive opinion in favor of constructing power plant. But they expect that the plant will not hamper the socio-economic environment of the project site. The APSCCL authority has already given proper publicity about the project to the people in the area.

1.6.15. Marital Status of the Project Area

In the following Table 14 shows that, in Ashuganj 10+ population is 99,398 of which male is 49,885 and female 49513. Here male married population is 26,340 and female married population is 30,390

In Bhairab total 10+ population is 167,632 of which 84,285 are male and 83347 are female and married male is 47,279; married female is 52,356

Table 14 Marital Status of the Project Area

Male					
Upazila	Total 10+	Never Married	Married	widow	Divorced
Ashuganj	49,445	23287	26340	223	35
Bhairab	84,285	36422	47,279	478	106
Female					
Asshuganj	49513	156952	30,390	11	160
Bhaiab	83,347	23,490	52,356	659	6852

Source: BBS, Census, 2001

1.6.16 Working Place of Population in the Study Area

In the project unions most of the low income people work in Bhairab and Ashuganj market. In both the bazars and launch ghats, various types of non agricultural income activities are available. A large number of woman labourer work in boiler based rice husking mills. Comparatively rich depend on large and poor on small business. They come from adjacent low-lying and haor areas. Educated go outside to Narshingdhi and the capital city.

1.6.17 Income of Population in the Study Area

Table-15 below gives a picture of the yearly income of the households in the study area. In sample unions ,5% to 20% of total households earn Tk 0- Tk20,000 , 10% to 30% households earn Tk20,001 to Tk36,000 , 30% to 55% households earn Tk 36,001 to Tk60,000, 15% to 20% households earn Tk 60,001 to Tk1,00,000 and 10% to 15% hh earn Tk.1,00,000 ++ yearly. Income is comparatively higher in Bhairab and Ashuganj Pourashava. The area is very active in respect of business. But adjacent areas except upazila headquarters, residents are mainly agro based. Person who resides in low-lying areas depends mainly on boro crop. So except urban area income is comparatively low.

Table 15: Yearly Income of Total households

Average yearly Income	Ashuganj Union%	Bhairab Union%	Araishidha	Durgapur (Dakshin Panisar)	Simulkandi
Tk0- Tk20,000	10.00	5.00	20.00	5.00	5.00
Tk20,001- Tk36,000	30.00	30.00	20.00	35.00	10.00
Tk36,001- Tk60,000	30.00	35.00	30.00	30.00	55.00
Tk60,001- Tk1,00,000	15.00	15.00	20.00	20.00	20.00
Tk.1,00,000 ++	15.00	15.00	10.00	10	10

Source: Field survey and FGD meeting

1.6.18 Occupational Pattern

Tables 16.1 & 16.2 below give present and previous situation of the occupational pattern of the people living in the study area. In Table 16.1 it reveals that in Ashuganj and Bhairab, farming is decreasing as occupation. At present farming as occupation is 20% at Ashuganj and 10% at Bhairab of total households respectively. At Dakshin Panisar it is 40%. Bhairab pourashava and Ashuganj Union have urban character and remaining area are predominantly rural. Agriculture activities and business are the main occupation of the area.

Table 16.1 Present Occupational Pattern of the Households

	Ashuganj	Ararishida	Dakshin Panishar	Bhairab	SimulKandi
Occupation	(%) of Total	(%) of Total	(%) of Total	(%) of Total	(%) of Total
Farmers	20	78	40	10	20
Fishermen	2	1	1	3	5
Agricultural labor	15	5	10	-	40
Non - Agricultural	30	3	18	30	5
Service	15	2	15	5	10
Business	10	4	10	20	10
Overseas Work	5	2	5	6	6
Others	3	5	1	6	4
Total	100	100	100	100	100

As per BBS, 2001 previous occupational pattern of the survey upazila are given in the Table 16.2.

Table 16.2: Previous Occupational Pattern of the Households

Name of Upazila	Agriculture (%)	Business	Agricultural Labourer (%)	Wage labourer (%)	Industry (%)	Service (%)	Transport (%)	Others (%)	construction	Remittance
Ashuganj Upazila	27.88	23.55	8.46	6.56	1.79	14.10	2.24	18.19	2.02	3.57
Bhairab Upazila	30.08	23.54	8.93	10.17	1.33	8.86	3.87	17.94	18.32	2.14

Source: BBS, Census, 2001

In Table 16.2 it shows that previously agriculture was more prominent but now its position is diminishing, Agricultural coverage is 27.88% and 30.08% in Ashuganj and Bhairab respectively. Also percentage of business is 23.55% and 23.54% in those areas respectively.

1.7. Social and Economic Impact of the project and Existing Situation

The project is expected to enhance the economic development of the study area. The study area generally represents an industrial belt. There is high demand of electricity in the area. Hence, production of electricity will bring about speedy industrialization in the area and consequently generate employment opportunities.

The survey conducted on the sample population of 2, 50,000 approximately and 50 thousand household around 5km radius of plant site. Around 2km radius population is roughly, 1, 25,000. Data have been collected from this (around 5km radius mainly, respondents gave their views and comments on the effect of implementation of the proposed Ashuganj 450MW Combined Cycle Power Plant(South) and the same have been recorded

at Table-13.1 above. It must be remembered that the general level of education in the study area is rather low. Their responses relate to the following fields: Most of the respondent's views are positive. However, a few have negative views but their views are of minor nature. The directly affected unions/pourashava are Ashuganj, Charchartala, Araishida, Durgapur (Dakshin Panisar) in the Ashuganj upazila and Bhairab Pourashava, Aganagar, Simulkandi and Srinagar(Part of previous Sadekpur union) under Bhairab upazilat. The project has direct impact on the following issues

- Agriculture
- River water
- Drinking water
- Air pollution
- Trees and plants
- Fish cultivation
- Domestic animals
- Source of family income
- Transportation
- Waste disposal and sanitation
- Sound pollution
- Water pollution

While elaborating the survey results, the study reveals that KII-31 positive response 52.54 % (out of 59 KII) responded with regard to the effect of the implementation of the project. Out of 59, only 6 KII of persons gave negative responses (10.17-%). These 6-persons think that implementation of the project will cause adverse effect on environment, fish resources and flora and fauna. It has been explained that there will be no acquisition of land and that there will be no construction of transmission line. Hence, their concern is rather not based on facts. But these comments will be carefully handled as no negative impacts occurred on the socioeconomic and environmental condition for project site by the power plant. Similar issues are regarding response on (i) river water (ii) drinking water (iii) trees and plants (iv) wild animals (v) transportation etc. Thus the negative responses recorded at Table – **Table13.1:** above, against the aforesaid issued, though it is minor in nature, may be ignored.

The more relevant responses relate to the following issues:

- Air pollution
- Sound pollution
- River water pollution
- Waste disposal and sanitation
- On fish and fish breeding
- On Health STD and waterborne disease

Adequate mitigation measures are recommended to combat the negative impacts on account of the above issues due to implementation of the proposed project.

The positive impacts that may be derived from implementation of the proposed Ashuganj 450 MW Combined Cycle Power Plant(South) Project are reproduced below. During field survey relevant responses were received from the—59 KII and from 5 FGD meeting

- Reduction or elimination of load-shedding
- Opening of new avenues of employment for local people
- Increase in development activities in the area
- Enhancement of trade, commerce and industry

1.7.1 FISHING

There are 42 Jalmahal(open water fishing zone) below 20 acres each in Ashuganj Upazila. No of pond is 764 and 10% ponds are under fish culture. The river Meghna is flowing beside the project area. Production of cultured fish is 250kg/Acre (0.25 metric ton) and open water fish production is 500 kg/Acre (0.5 ton.). 288 households live on fishing and fish culture (Source: Upazila fishery office Ashuganj). Major fish varieties are Ruhi, Katla, Taki, Kai, Magur, Singhi and Boal etc. Dependent population on fishery is 2% in the Upazila. Kai and Singhi are nearly extinct varieties. And rare fishes like River Pangas, Rani, Raia, Mahashail and Lacho fish are totally extinct varieties. On the other hand Telapia, Grass carp, Pangas are exotic fish in the upazila

According to Upazila Fishery officer, in Bhairab there are 731 persons are professional fishermen who are about 2% of total households. Fish culture is being conducted in 213 ponds.

At the present point of time, there is some professional fishing (2%) community or fisherman at the project site. During monsoon season, some people catch fishes in the Upper Meghna River Fish is an important resource of the area. There are two large 'arats, fish sales centre, one in Bhairab and another in Kuliarchar near the project area from which fishes are exported to the Dhaka city mainly.

1.7.2. Agriculture

The area is low- lying especially Ashuganj portion. In the upazila, cropping pattern and cropped area are Aus 90 hectares, Aman-6750 hectares and boro 5200 hectares. Of Rabi crops Mustard is 820 hectares, Jute is 107 hectares, Sweet potatoes is 95 hectares, Mashkalai is 90 hectares, wheat- is 1 hectares, Potatoes is 50 hectares, Til is 40hactates, ground nut is 40 hectares. Water logging area is 5%. Cropping intensity is 199%, Irrigation coverage is 80%. About 21,671 hh are found dependent on agriculture in the upazila.

Production of paddy is Aus local-1.75 ton/hectare, Aus HYV 2 ton/hectare, Aman local1.78 ton/hectare, Aman HYV2.30 ton/hectare, Boro- HYV3.70ton/hectre, Potato 15.20 ton/hectare Sweet potato 15 ton/hectare, Jute1.04 ton/hectare, Mashkaai ton/hectare, Mustard1.20 ton/hectare(Source:: Upazila Agriculture office, Ashuganj)

In Bhairab cropping pattern and cropped area are Aus 40 hectares, Aman 2010 hectares, Boro 6900 hectares. Mustard-75 hectares, Chili and vegetables 157 hectares, Cropping intensity-152%, irrigated land is 95%(5200 hectares). Single crop land is 3618 hectares, double crop land- is 2779 and triple crop land is 372 hectares (Source: Upazila Agriculture office, Bhairab).

Main crops grown in the study area are Aus, Aman and Boro. The paddy is grown in the main three seasons of the year. Besides these, potatoes, sweet potatoes, oil seeds, vegetables, arum, til (sesame), wheat, sugarcane, mustard, bottle gourd etc. are cultivated in the study area. Fruits like, jackfruit, lemon, watermelon are also produced. About 9 cropping patterns are practiced in the area and these are identified through discussion with the Upazila Agriculture Officer and local farmer, which are presented in the Table17.

Table17 Cropping Patterns Practiced in the Study Area

Crop	
Boro	Fallow
Fallow	Transplanted Aus
Boro	Transplanted Aus
Pulses	Transplanted Aus
Oil seeds	Transplanted Aus
Spices	Broadcast Aus
Watermelon	Broadcast Aus
Sweet Potato	Broadcast Aus
Sugarcane	Annual crop

Source: Upazila Agriculture Office, Ashuganj, Bhairab

1.7.3 ARCHEOLOGICAL, CULTURAL HERITAGE AND RELIGIOUS SITE

No known remarkable archeological or historically important structure or sites are reported in the survey area. But at about six to seven kilometer distance three kilometer west of Belabo upazila in the Narshigdhi district historically important place of ancient time of 450 BC named Wari Bateshwar exists. However, there will not be any impact on this historic archeological site due to the project. The probability of finding significant cultural resources in the designated areas is low. Any impacts that may occur as a result of the project would be in future and the overall severity of impact will be low.

Araishidha union of Ashuganj is the birthplace of renowned poet Abdul Kadir. But the place will not be affected anyway. The place is about three km south of the proposed plant. Of historic place Bhairab rail bridge of British period can be mentioned and located within one km of the plant side and have not any impact on the structure.

There are only few sites of significant archaeological value or sites of tourist interest in and around the survey area. However, people from all over the country usually visit the area but the commercial tourism is not yet developed.

There will be no negative impact on cultural and archeological sites of the adjacent districts to them due to the project.

1.7.4 CULTURAL ASPECTS AND INDIGENOUS PEOPLE

No indigenous people live in the area. So, there will be no impact on them from the project. People residing in the surrounding areas of the project location are mainly Muslims and Hindus. Besides the general culture and heritage of the area, culture also differs among these religions. The Muslims pray in the mosques and observe their religious festivals like Eid. The Hindus observe their Pujas (Durga puja, Kali puja, etc) in the temples.

The Hindus usually celebrate their religious occasion as well as various “pujas” as religious festivals.. There are special gatherings among the workers where cultural events are performed and special foods are prepared. Both the communities live in the area harmoniously.

1.7.5 TRAFFIC

Project area is very important relating to the communication. Roads, river and rail traffic halts in the area. Bhairab and Ashuganj are the river ports. It is the gateway of haor region and greater Sylhet district. Once a portion of the project area was a part of greater Comilla district which was under Tripura district during British colonial rule. Bhairab and Akhaura are about 40km away from the Indian border. Strategically the site is very important in near future. Location value of the area will be increased manifold after proposed connection with 'Asian Highway' Launch, cargo boats and mechanized country boats berth in the river port on the both bank of the river. River traffic is the only way of movement of the haor (low lying depression area) areas both for human traffic and cargo traffic of about 5000 sq area of haor region. About 50 launches ply from the river ports to different destinations. About 100 cargo launches and mechanized boats carry cargo to different locations of the region. Tens of thousands roads traffics ply in the highway. By any condition no negative impact was found from the survey on traffic movement.

But during project period public roads will be the main form of transport for moving equipment and personnel to the project site. Traffic will be limited and of short term duration at intermittent periods. The potential impacts of the traffic on existing roads will be of low severity and will not have any long term impacts on the existing traffic patterns. In order to satisfy safely traverse some internal private roads, plantations, some upgrades may be required with consent from the relevant local persons.

1.7.6 TREES

Local fruit trees are Guava, Mango, Jackfruit, Papaya. Medicinal plants are Nim and Arjun. Tulshi etc. Timber trees are Akashi, Rain tree, Mehgani, Nim, Black berry, mango etc. Extinct varieties like Karpush are available in the area. No major impact has found on them from the existing power station as reported. Thus the new project will not have any impact on them.

1.7.7 TOURISM

The area may be considered a place of tourism industry but no development has been made to attract tourist till today. Natural beauty of the Upper Meghna river and archeological sites (Archeological site of Wari Bateshwar at Belabo Upazila near Bhairab of 450 BC), old mosque in Sarail, Largest Medical College at Bajitpur of "Vhati" area (down stream Surma, Kusshiyara and Barak river System) are the major places for tourists' attraction. In future, tourism may be developed in the area.

The unbound natural beauty of the project area, Wide River (upstream of the river Meghna) and its fresh water offer great prospects of tourism in the area. But no commercial tourism has been developed till today in the area. The strategic location of the area is very important. Scope of river cruise, excursion, plenty of fishes, hotel facilities, picnic spot, and archeological relic, easy communication of rail, road and river has made the area for flourishing the area as tourist spot

1.7.8 INFRASTRUCTURE AND NAVIGATION

The strategic location is fit for the future development of the area. At Ashuganj roads rail way and water way communications is good. Communication facilities consist of -220.36 km. Of Roads pucca road is 28.69 km, semi pucca road is 16.50 km and mud road is 175.17; Railway Track is 07 km, River Way is 14 km, Bus Road is 07 km, Bridge/Culvert is 161m.

Traditional transports were sailing boat, palanquin (extinct) and horse carriage (nearly extinct).

Bhairab upazila is well connected by road, rail and waterway. Total Road is 370.8 km of which Pucca Road is 227.22 km, Semi Pucca is 6.10 km, Katcha road is 125.21 km, Railway Track is 12.27 km and waterway is about 17 nautical mile approximately (Source:: upazila profile). This will be further developed in future and no impact on existing road network.

1.7.9 MEDIA ACCESS AND CULTURAL ASPECTS

Field survey reveals that as the area is very near to the capital city, people have large access to the media, both news and electronic. Approximately 50% people buy daily news paper. Roughly 50% households own TV sets, cassette radioes and almost 50% people have a mobile telephone sets each.

1.7.10 INDUSTRY

Now Bhairab and Ashuganj is industrial zone. Zia Fertilizer factory is an industrial infrastructure in Ashuganj. 250 chatal are found in the east bank of the Meghna river. About 10,000 workers are getting employment in the chatal for husking rice. And most of them are female workers. In Bhairab different medium industries are found. Jute based factory making gunny bag employed about 1000 people. Two Soap factories, steel galvanizing plant for producing C.I sheet, steel re-rolling industry for producing MS rod, nail industry for making Peg. Ice factory, dry food industry, flat rice industry, cold storage (2) for preservation of potatoes, sanitation products are found in the survey area. Shoe factory(2000 no) employing 8000 workers, aluminum factory producing utensils, mosquito coil, ground nut crushing mill, spice processing factory, poultry farm, candle factory, plastic factory, bidi factory(04), etc are important industrial units in the project area

The proposed project will bring positive impact on them.

1.7.11 NGO ACTIVITIES

Different NGOs are working in the area. Name of the major NGOs are ASA, BRAC, Grameen Bank, Proshika Manabik Unnayan Kendra, etc. The main activities are microfinance, group formation, savings and community and Health services.

CHAPTER-2 PUBLIC CONSULTATION

2.1 COMMUNITY CONSULTATION

2.1.1 Information Dissemination Process

On behalf of Ashuganj Power Station Company Ltd (APSCL), the consultant and study team arranged several consultation meetings with the local stakeholders for information dissemination and community participation with the concerned NGOs, probable affected persons and different stakeholders. Also, a printed leaflet was distributed among the community people mentioning the aims of the project. The consultant and investigators investigated all the relevant matters regarding the project by arranging meetings and group discussions for people's awareness. Information campaigns were carried out in presence of the Project Director, AMA Sazzadur Rahman, Ashuganj 450 MW CCPP (South) representing APSCL and Md Anwar Hossain, manager operation of APSCL were present in the meeting. Both APSCL executives and the consultants addressed in a Focus Group Meeting in the Ashuganj Upazila Parishad's conference room on 9.6.2011. The meeting was presided over by Mr. Anisur Rahman, Upazila Chairman, Ashuganj and Ms Monira Begum, AC land of the Upazila was present on behalf of Upazila Nirbahi Officer as special guest. Eng Siddiqui Rahman, Executive Director, Atlanta Enterprise Ltd (Consultant) was present and addressed in the meeting five other unions Focus Group Meeting were held in several project sites. These are Ashuganj, Araishida, Durgapur of Ashuganj Upazila and Bhirab pourashava and Simulkandi of Bhairab Upazila. In the meetings all classes of stakeholders including businessmen, farmers, school teachers, religious leaders, NGO and public representatives as well as Members and Chairman of the Union Council were present. It is important to note that the project will be constructed in the existing APSCL's land. No acquisition of land is needed for the proposed project. No new tower is needed to be installed for transmission of the power to the national grid. So there will be no need for acquisition of land and consequent resettlement. Some noise, air pollution may occur, but it will be minimized by using proper methods. The consultant has carefully studied all types of impacts in the locality likely to be caused by the proposed plant. Information dissemination and consultation will continue throughout the project implementation period.

2.1.2 Key Stakeholders View

Consultation with the key stakeholders was held at the time of field survey. It is a continuous process till the completion of the project. During the survey period, school teachers, village leaders, Members and Chairman of the local bodies and others were contacted in-groups and individually with particular importance to female headed households. The community leaders living in both the banks of the river Meghna have agreed to co-operate with APSCL for implementation of the project. However, from the key stakeholders' views it appears that they are rather skeptical about the problems of vibration & noise due to implementation of the existing power stations in the area. In this connection, they have requested APSCL to give special attentions to the problems mentioned above during implementation of the proposed project and APSCL has agreed to do all precautionary measures for this. APSCL assured the community of performing under existing DOE accepted rule and regulations and limit. Anyway it will have not any negative impact on socio-economic environment

2.1.3 Summary of Consultation

Consultation with the key stakeholders is a continuous process till the completion of the project. During field survey, Upazila Chairman, Upazila Nirbahi Officer, Mayor and Councilor of the adjacent Pourashava, School teachers, village leaders and local government's Members and Chairman were contacted in group and individually. Female heads of the households were also interviewed in the group meetings. Leaders of the different associations namely, launch, bus, cargo vessel, fisherman, fish trader, other business leaders were interviewed. NGO representatives were also interviewed. Some important highlights of public consultation are given below: This has been done both formally and informally.

Summary of focus Group Discussion (FGD):

- Project affected people appeal that they/their dependents should be given employment opportunity during construction of the project.
- Due compensation for affected persons for any unforeseen loss due to the project should be given.
- Community and religious sites are to be protected if acquisition of land in course of time is necessary.
- Electricity facilities are to be extended to the villagers including community places like school, mosque, temple etc.
- Local unemployed youths are to be given training and employment opportunity as far as practicable.
- Under Corporate Social Responsibility of CSR department, local people expect for scholarship facility for the poor students and constructing school, college and vocational institute, health centre in the Upazila.
- Sound and vibration should be under accepted level by installing good and of best quality equipment
- Temperature should be at minimum level during discharging water from cooling system.
- Fish breeding ground and the flora and fauna of the area should be saved

About 50 Key Informants Interview (KII) were taken. The following are the key highlights of their comments

- To take care of the public safety as well as to provide security in critical locations. In order to remove any fear of explosion, the authority should exercise adequate care in construction & maintenance work, particularly of gas pipe line.
- Works should be completed as quickly as possible in order to reduce the constructional impacts.
- The electricity should be made available to the people at the earliest possible opportunity.
- To ensure quality of material & best workmanship for safe and durable power plant and to provide uninterrupted supply of electricity to the consumers.
- Prompt placement of fund by the authority for quick completion of the plant.
- The executing agency should follow all rules, regulations and standards during the construction of the project.
- Care should be taken for ensuring the least possible damage to local infrastructure viz. roads & structures during construction of the project including gas pipe line.
- Contingency plan should be taken to meet any eventual accident.
- Minutes of Focus Group Discussion Meeting held at Upazila level are attached at Annexure-2.
- List of the key informants and their individual comments are given in the Table 2.1

2.1.4 Ensure Community Participation

It has been observed through the foregoing exercises that the reason behind their affirmative views is due to the fact that the project activities will benefit the country and locality. Further, the affected person and community will be duly compensated as per the law of the land. At present stage no acquisition and requisition is required, hence no apprehension for crop loss and other losses.

2.1.5 Suggestions from the Local People

Overall suggestions from the local people are as follows:

(a) Local people urged to give them all sorts of employment opportunity both temporary and permanent.

(b) Electricity connection for the local people will be made available.

(c) Noise pollution should be avoided.

It may be recalled that during field survey a total of 5 FGD were held. About 200 participants representing different social strata (both east bank as well as west bank of the river Meghna) were interviewed. Their views in the KII are summarized below at Table-18

Table 18: Suggestions with regard to implementation of the project

SI	Date	Name of the Stakeholders and designation	Suggestion	Impact +/-0
1	9/6/2011	Mr. Md. Anisur Rahman, Upazila Chairman, Ashuganj Cell-01920013193, 01713103959, 01711930905 Phone - 0852874533	CSR of the company should be strengthened and following issues to be highlighted in favor of local people 1.Sound pollution should be restricted 2.Meeting with details lay out Plant with the concerned engineers 3. Height of the silencer should be 40meter 4. Water temperature is to be maintained minimum 5. Ensure social welfare from the plant under CSR department 6. To ensure security in the artificial water canal 7. Recreation, tourism, beautification from the authority in the plant site area. The site of the project located on the bank of river M. Meghna. The river side may be afforested and a road may be developed on the riverside and beautification will create new dimension for the socio-economic development of the area. Very small fund may be needed in comparison to large fund of project completion. 8.Establishing 30-50 bed hospital in the project area 9. In the nearby area Sonarampur Primary school should be given electricity connection. About 800 students have been enrolled in the school but have no electricity connection. 10. Local people should be provided with the jobs where possible. 11. Support of agriculture from water of cooling system 12. To provide support by establishing good school and college which will be helpful both local students as well as children of the power plant staff. 13. Ashuganj bazar is located beside the APSC. The authority can sanction some budget as road conditions and other facilities in the market is very poor from CSR activities	+
2	,	Md. Sirajul Islam, Vice Chairman, Ashuganj Upazia Parishad Cell-01731807887	Precautions are to be taken against environmental pollution. No objection against proposed power plant	+
3	"	Mr. Md Ismail Hossan UNO , Ashuganj Upazila	1. Positive impact on overall socio-economic condition. Precautionary measure should be taken to limit the impact on environment.	+

Report on EIA & SIA for Ashuganj 450 MW CC P P Project (South), Ashuganj, B.Baria

4	"	Ms. Monira Begum Assistant Commissioner Land,Ashuganj	No comments	0
5	"	Mr.Toufique Ahmed Khan Assistant Agriculture Officer Ashuganj	Used water from cooling System to be diverted to irrigation purpose	+
6	"	Md. Shah Alam, R.E office, PDB Ashuganj.	No comment	0
7	"	Dr.Md. Habibur, Upazila Livestock Office, Ashuganj	No impact on livestock.	0
8	„	Md. Kamal Uddin,Upazila Engineer	From the project infrastructure of local market should be developed and drainge system should be developed	+
9	"	Md. Fazlur Rahman, Upazila Palli Unayan Officer, BRDB, Ashuganj	No comment	
10	"	Md. Abdur Rashid Bhuyan, Upazila Nirbahi Office	No comment	
11	"	Md. Aminul Islam Chowdhury, Upazila Nirbahi office	No Comment	
12	"	Md. Shakawat Hossain, Secretary Araishida UP	No Comment	
13		Mosammat Hafeza Khatoon, Social Worker, Ashuganj UP	No comment	
14	"	Mosammat Majeda Khatoon, Social Worker, Ashuganj UP	Local development to be ensured	
15	"	Md. Nurul Islam Commander, Chairman Ashuganj UP	No adverse effect on fishery resource	0
16	"	Md. Rafiqul Hasan Masum, Member Ashuganj UP	Project authority should support for local development	
17	„	Mr.Rafiqul Islam, UNO office, Ashuganj	No effect	0
18	„	Mosammat Mamtaj Begum, Member Ashuganj UP	No impact	0
19	„	Ms Nilufar Jahan Upazila Secondary Educatin Officer, Ashuganj	Positive impact, education will be enhanced	+
20	"	Mr. Mir Hossain, Senior Sub Asstt. Engineeer, BADC, Ashuganj	Anxious about sound pollution	-
21	„	Mr. Monirul Islam BRDB, Ashuganj	Positive impact on employment	+
22	5/6/2011	Md. Momin Mia, EX-UP Chairman, 5 no Araisida Union,Ashuganj Cell-01937523433	Positive impact on employment.	+
23	„	Md. Shamsul Alam, Freelance Photographer	Positive Impact	+
24	"	Mr. Anwar Hossain, Secretary,5 no Araishida Union, Ashuganj	Positive impact on education and employment.	+
25	„	Mr. Abu Bakar Siddique , Principal , Araisida Kamil Madrasa. Ashuganj Cell-01818499193	Employment facility will be increased.	+
27	2/6/2011	Md. Johirul Islam, Retired School Headmastar, 5 no Araisida Union Ashuganj	The Power Plant will generate employment, health and education facilities.	+

Report on EIA & SIA for Ashuganj 450 MW CC P P Project (South), Ashuganj, B.Baria

28	„	Md. Ismail Hossain Shirazi, Ex-UP Chairman, 5 no Araisida Union , Ashuganj Cell-01711530897	Positive impact on overall socio-economic condition	+
29	„	Mobarak Ali Chowdhury, Joint secretary, AL,Ashuganj bazar	Safety to be ensured of the drainage canal of water cooling system but project will be helpful for the people	+
30	”	Dr. Selim, Local Doctor, 5 no Araishida Union, Ashuganj Cell-01730167356	No adverse effect on health.	0
31	12/6/2011	Md. Nurul Islam Commander,EX UP Chairman, Ashuganj Cell-01711009577	Request for controlling to the minimum limit of sound pollution and vibration	+
32	14/6/2011	Md. Atiqur Rahman, Secretary Ashuganj UP	Positive impact on agriculture and business	+
33	14/6/2011	Md. Abdus Sattar, Ex Secretary Ashuganj UP, Cell-01712846038	Negative impact on fishery in the artificial canal	-
34	6/6/2011	Md. Abdul Haq Headmaster of High school, Ashuganj Cell-01716589968	Positive impact	+
35	„	Hazi Md. Yunus Mian Local Businessman, Ashuganj Cell-01712054750	He was unable to receive compensation of land acquisitioned by the Power Pant since its inception. So he is anxious	-
36	”	Md,Jamal Uddin Businessman, Ashuganj Cell-01714265152	positive	+
37	”	Hazi Md. Safiullah Ex. UP Chairman, Ashuganj	positive	+
38	„	Md. Mahbubur Rahman President, Rice Husking Mills(Chatal), Ashuganj	No comment	
40		Md. Shamim Ahmed, Secretary, Dakshin panishar (Durgapur) Union, Ashuganj Cell-01190468090	positive	+
41	2/6/2011	Md. Ruhul Amin Local businessman , Dakshin Panishar (Durgapur) Cell-01670604054	Negative impact, sound pollution and vibration.	-
42	”	Md. Salauddin Khan Businessman, Dakhin panishar (Durgapur) Cell-01712213266	Positive impact	+
43	”	Md. Saju Khan UP Chairmn Dakhin Panisar (Durgapur) Union, Ashuganj Cell-01711549389	Existing power plant have been erected Power Plant's polls on public land	-
44	”	Mr. Nepal Chandra Sarkar Farmer, , Dakhin panishar (Durgapur), Ashuganj Cell-01925204493	Positive impact on agriculture. Irrigation facilities will be developed.	+
45	9/6/2011	Hazi Firoz Mian, President AL, Ashuganj Upazila	Public interest to be ensured	
46	14/6/2011	Md. Bulbul,Upazila Chairman, Bhairab	All sorts of support will be rendered	+
47	”	Md. Shahin Mia, Pourashava Chairman, Bhairab	We are happy to cooperate	+
48	”	Md. Korshed Alam,UNO Bhairab	No, Negative Impact but people's support is needed	+

Report on EIA & SIA for Ashuganj 450 MW CC P P Project (South), Ashuganj, B.Baria

49	„	Md.Mizanur Rahman,Upazila Fishery officer, Bhairab	No adverse effect on fishery resource	0
50	„	Md. Shahin Mia, Chairman Shimulkandi UP,Bhairab	No adverse effect on livestock resource	0
51		Md. Abul Kalam, Upazila Agriculture Officer, Bhairab	There will not be any adverse effect on agriculture	0
52	“	Haji Afikul Islam(Haris), UP Ex-Chairman, Shemulkandi Union, Bhairab Cell-01712678922	Positive impact	+
53	“	Md. Nurul Islam, Headmaster of High School, Shemulkandi Union, Bhairab	Positive impact	+
54	„	Md. Shahiduzzaman Principal, Shemulkandi College.	Positive impacts, reduced load shedding	+
55	“	Moulana Ahmed Karim Local Imam,Shimulkandi Union, Bhairab.	No comments	
56	“	Dr. Abdul Wahab President Shemulkandi Bazar Committee. , Bhairab	Improved living standard due to increased income , more service facilities for the common people	+
57	“	Md. Arshad Ali Bhuyan Local Farmer, Shemulkandi Union, Bhairab.	No comments	
58	“	Md. Ferozur Rahman Fisherman, Shemulkandi Union, Bhairab.	No adverse effect on fishery resource	0
59	“	Md. Osman Gony Ex-Chairman, Srinagar Union (Part of Ex Sadekpur Union),Bhairab. Cell-01712214311	Positive impact.	+

Note: Impact+/-/0, Positive impact (+), Negative impact (-), Zero impact (0)

All stakeholders were interviewed, for their suggestions and comments. People’s response, on the basis of their previous experiences, are given in Table – 8.2 below.

2.1.6 Resettlement

The project does not need any resettlement as no land acquisition is envisaged. The proposed project is unlikely to affect any fishery project. Overall, socio economic condition of the common people is expected to improve.

2.2. Recommendations

In spite of the criticisms people of the project area are very much interested about the construction of the proposed power plant. Following recommendations are given from the study team during and post construction period.

1. All necessary measures and precautions will have to be taken as there will have not been any negative impact on local people and the environment.
2. Community participation will have to be ensured in all stages and CSR activities are to be strengthened. All sorts of employment opportunity both temporary and permanent are to be provided for local youth where possible. There may be skill development programmes viz. school, hospital and electricity may be given to the community of the project area.
3. The project does not need any resettlement as no land acquisition is envisaged though there will have to be a fund for unforeseen effect by the project as resettlement fund.