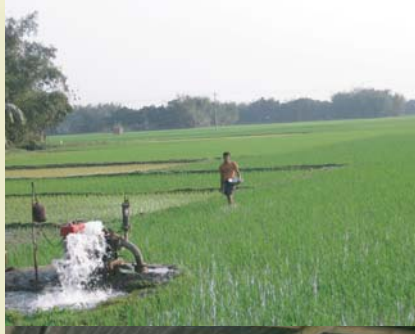
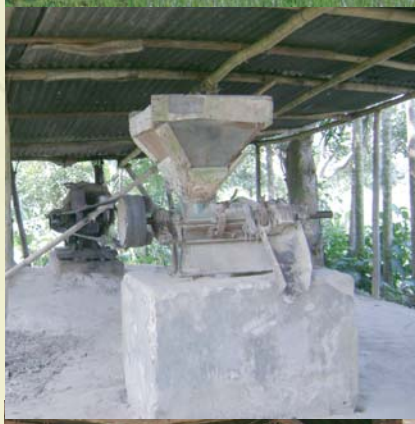
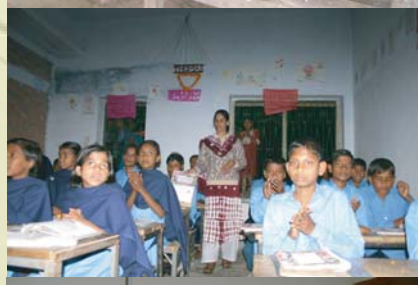
Socio-economic Baseline Study of the Rural Electrification Development Project (REDP)







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EXECUTIVE SUMMARY

RURAL ELECTRIFICATION DEVELOPMENT PROJECT: *FROM CONCEPT TO IMPLEMENTATION*

"Rural Electrification" (RE) is not just about light, it entails enlightenment; and at the same time it is one of the most powerful vehicles for reducing disparities between urban and rural areas. The Constitution of Bangladesh has identified the rural electrification as the important means towards accelerating the process of socio-economic and cultural development of the country. Rural Electrification Program (REP) is based on the concept of consumer-owned, *Palli Bidyut Samitys* (PBSs).The PBSs are organized and registered by the Rural Electrification Board (REB). The development of Rural Electrification in Bangladesh is one of the success stories of rural development in Bangladesh. On this backdrop, DFID of the United Kingdom has committed £50 million to increase the provision of electricity in rural and peri-rural areas of Bangladesh through Rural Electrification Development Project (REDP). The REDP, in its duration of 5 years (2005-2010) is intended to provide 1.35 million new electricity connections to rural households and business, directly and indirectly benefiting up to 10 million people. For implementing REDP, DFID has entered into an agreement with USAID. The National Rural Electricity Cooperative Agency (NRECA) is currently overseeing the execution of these tasks on behalf of DFID. Through covering all the 70 PBSs, REDP provides intensive supports in development of 9 relatively low coverage PBSs along with limited support to rest 61 PBSs.

The main focus of REDP is expansion of electric connections to households, enterprises and others using two approaches: (i) to avail the existing energized electric lines and make connection to those consumers within 100 feet (maximum) distance from the poles/transformers, and (ii) to expand the distribution network with the decisions regarding construction of new lines following REB's established "revenue criteria". REDP intends to have most comprehensive, all encompassing and high precision estimates on socio-economic impact of the project mediated rural electrification using the findings of the (i) Baseline Survey, (ii) Annual Progress Monitoring Review, and (iii) Socio-economic Impact Study for evaluating the socio-economic impact of rural electrification program on development. Here lies the key rational of the accompanying Baseline Survey for REDP.

BASELINE SURVEY: OBJECTIVES

The **overall objective** of the accompanying socio-economic baseline survey is to conduct the survey itself through collecting, collating and analyzing baseline data for all five Observation Measurement Units (OMUs) – Household, Commercial unit, Industrial unit, Irrigation unit, and Social/human development units) – in such a way that all pertinent baseline information will persist for evaluation and measurement of economic and social impact and benefits in later stage.

The **specific objectives** of the survey are:

(1) To assess the pre-electrification livelihood status of the would-be electrified people, especially the poor people, directly before provisioning of electricity and/or financing, and indirectly prior to availability of pertinent to electricity services in the community;

(2) To assess the access, employment and income-earning opportunities, and assess the state of key human development indicators such as health, education, safety net support; and female empowerment among the poor and female-headed households;

(3) To compare income and livelihoods of the project's future participants against a control group of similar poor people (who will receive no benefits from the project);

(4) To assess the status of non-electrified industrial, irrigation, commercial units, and human development institutions (educational and health).

METHODOLOGY

The baseline survey has been designed with an ultimate aim to serve the relevant purposes of the socio-economic impact assessment study of REDP-mediated rural electrification. Holistically, the accompanying socio-economic baseline survey falls under the true experimental design of operations research. The baseline survey has defined the experimental and control categories as follows: Experimental= Villages with electricity (but sample observation measurement units without electricity) and villages without electricity but to be electrified by 2010; Control = Villages without electricity and not be electrified by 2010. PBS has been considered as the Primary Sampling Unit (PSU). In PBS selection process, all the 9 REDP-thrust PBSs have been included, while 6 PBSs from the remaining 61 non-REDP thrust PBSs have been included.

Five Observation Measurement Units (OMUs) have been incorporated in the accompanying study: Household, Commercial unit, Industrial unit, Irrigation unit, and Social/human development units. The sample PBSs are: Rajshahi, Brahmanbaria, Mymensingh, Magura, Faridpur, Nilphamari, Kurigram, Nawabgonj, Jhenaidah, Meherpur, Joypurhat, Mymensigh-1, Pirojpur, Chittagong-2, and Satkhira.

A total of 6,751 samples from different OMUs were designed to be included in this study for data and information collection. However, the sample size has been changed a bit for some OMUs for some operational reasons- in reality a total of 6,726 samples have been considered. To assess time use and various activities by a household, an additional sampling (not envisaged in the original Technical Proposal) was done where a total of 423 sample survey at household level was conducted.

A total of 9 data collection instruments (DCIs) have been prepared and administered in the survey. These included Interview Schedule for Household (DCI 1), Commercial Unit Questionnaire (DCI 2), Industrial Unit Questionnaire (DCI 3), Irrigation Equipment Questionnaire (DCI 4), Health Facility Questionnaire (DCI 5), Educational Institution Questionnaire (DCI 6), Household Member's Time and Activity Survey (DCI 7), Price Sheet: Food Price at Union Level (DCI 8), and Secondary Data Collection Format: Village Profile (DCI 9).

The team members for data and information collection were grouped into 7 field teams. Each team had 1 Quality Control Officer, 1 Field Supervisor, along with 3 to 6 Field Enumerators.

The field operation (data collection) had been commenced on October 23, 2008 and continued till January 20, 2009. The data were being computerized, using the in-house

computer facilities of HDRC. All activities have been closely monitored and supervised by the core-team members in close consultation with members of the Design Team comprising REB, DFID, USAID, NRECA, and HDRC.

Sample Size by Observation Measurement Units		
Observation Measurement Units	**Experimental**	**Control**
Household Survey (covering all indicators)	3,648	1,831
Household Time and Activity Survey	290	133
Irrigation Unit Survey	333	117
Industrial Unit Survey	265	93
Commercial Unit Survey	313	126
Social/ Human Development Institution Survey: Health Service Facility/Provider, Educational Institution/Teacher	25	4
Total	**4,874**	**2,304**

KEY FINDINGS

The key findings based on the analysis of the survey data/information on five Observation Measurement Units namely, Household, Commercial, Industry, Irrigation, Social/Human Development Units are presented below The key findings are presented in the following major areas namely **household** including background characteristics; household's asset ownership; household income; savings and credit; household food consumption; household expenditure; household poverty status; knowledge and awareness on health, hygiene and sanitation; allocation of time of household members; women empowerment and gender issues; migration; access to information, awareness and knowledge; attitude towards household electrification; **irrigation and agriculture; industry; commercial enterprises;** and **social/human development institutions.**

HOUSEHOLD

Household Background Characteristics

Household (HH) is the primary unit of social institution, and almost all the socio-economic activities are being performed around this unit. The average household size is 4.7 in experimental and 4.4 in control households. In both experimental and control, the proportion of male-headed household is 92% and 8% is female-headed. Sex ratio in experimental household is 104.1 and that 100 in control. Sex ratio of 104.1 in experimental implies existence of 'missing women', and 100 in control shows 'no missing women'. The mean age of population is 25.5 years in experimental and 25 years in control household. Slightly over 1% of households members have been reported as disabled – in both experimental and control.

In the experimental households, the average years of schooling, irrespective of gender, is low at only 2.8 years with no significant variation between male (2.9) and female (2.7). The average year of schooling is 2.6 in control households.

About 21% of total population has been engaged in agriculture related activities (e.g., farming, laborer etc.) in experimental households, which is 16% in control. Day laborer has been pronounced as occupation for around 17% household members in both experimental and control households. A large share of the day laborers is employed in non-agricultural sector

(61%) and a relatively less share in agricultural sector (30-40%), in both experimental and control households.

Number of employed person per household in experimental households has been estimated as 2.5 which is 53% of total household members. In control, the estimated number of employed person is 2.4 per household which is 56% of total household members. More than 48% employable persons were full time employed in last year, in both experimental and control households. Partial or seasonal employment has been found among 50% of employable household members in both areas.

In experimental, 8% households have non-resident income earning members which is about 6% in control. Most experimental households (93%) own homestead land, which is 82% in control. However, homestead found dilapidated/broken for about 40% households in experimental and 50% in control. More than half of the total households, regardless of experimental and control do not have any agricultural land. Food security status is relatively better (67.5%) in experimental than that in control households (58%). In terms of almost all the indicators, irrespective of experimental or control, the situation of female-headed households is more deplorable than the male-headed households.

Household's Asset Ownership

A 80% sample households in the experimental electrified villages are landless (owning 0 to 49 decimals). Over two-thirds of the households operational land is owned irrespective of experimental or control households. An experimental households, possess 87 decimals of land of which 70% (61 decimal) is own land and the remaining 30% (26 decimal) is leased in/mortgaged in/rented in land. A control household possess 82.8 decimals of land, of which 71% (58.7 decimals) is own land and the remaining 29% (24 decimal) is leased in/mortgaged in/rented in land. Among experimental households, on average, a household of upper poverty line possesses 122 decimals of land while households of below upper poverty line posses 55 decimals of land. In experimental, a male-headed household possess 89 decimals of land, which is 26 decimals higher than the land possessed by a female-headed household (63 decimals). In control, a male-headed household possess 79 decimals of land, which is 44 decimals higher than the land possessed by a female-headed household (35 decimals).

The average number of dwelling rooms in a household, in both experimental and control is 2 (two). The current market price of a homestead is Tk. 28,302 in experimental and Tk. 19,183 in control. Valuation of movable assets in the households of experimental is higher than that in the control; an average experimental household possess movable assets worth Tk. 42,629 which is Tk. 8,282 higher than that of the control households (Tk. 34,347). For an experimental household of above upper poverty line, the valuation of household asset is Tk. 57,673 while it is much less among the poor households with Tk. 29,094 for households of below upper poverty line and Tk. 25.798 for household of below poverty line. In experimental, an average male-headed household possess assets worth Tk.43,639 which is Tk. 12,055 higher than the valuation of asset of a female-headed household (Tk. 31,584). This pattern holds true for the control households.

Household Income, Savings and Credit

An average in experimental and control household reported about 4.3 different sources of income. Crop agriculture is the most common source of income, followed by poultry and

backyard vegetable production. An average experimental household earns about Tk. 72,000 per annum (last year), while the same for control is about Tk. 60,000.

Agriculture as source contributes highest to the income in both experimental and control households (37% vs. 40%), and is followed by salaries and wage labor (28% vs.33%), and business (23% vs.18%). The foreign remittance is in the fourth position (9% vs. 5%).

Although about 50% of the population is women, the reported contribution of women in household annual net income in experimental and control is 8.7% and 8.4% respectively. About 1.3% (Tk. 1,000) of household annual net income in experimental is being contributed by electricity which is about 0.4% (Tk. 241 only) in the control.

About 86% of experimental and 83% of control households reported to have at least some savings. An average experimental household reportedly have Tk.14, 000 as savings on the day of survey, while the same for control household is about Tk. 9,700.

About 66% and 69% of experimental and control households respectively availed credit during the last two years. An average experimental household received loan/credit of Tk. 16,527 and control household Tk. 14,364.

On average a member in experimental household is living with Tk. 2,173 unadjusted loan burden (equivalent to 48 days of per capita daily net income) while the same in control is equal to Tk. 2,081 (equivalent to 55 days of per capita daily net income).

Household Food Consumption

The average food consumption, irrespective of experimental and control households, is lower compared to the normative bundle of 934 gm per person per day (705 gm and 697 gm respectively.) In terms of absolute quantity of food consumed, rice constitutes 59% in experimental households and 62% in control households. In both the categories of households, vegetables and potatoes with around one-fourth of the total food consumed are in the second position and are distantly followed by fish (6%). The quantity of food consumed by an average woman is about 9% less than that of a man, in both types of households.

Across experimental and control, the average household's daily intake of energy is around 1890 Kcal/person per day, which is 17% less than the recommended by the Bangladesh Nutrition Council normative of 2280 Kcal. Carbohydrate-based energy constitutes around 80% of the energy intake and is followed by vitamin and minerals-based sources (vegetables and fruits).

The low proportion of protein energy intake (around 6%) indicates higher incidences of protein energy malnutrition (PEM) among the members of both experimental and control households.

Household Expenditure

An average experimental household spends annually about Tk. 69,337 as household expenditure, and the same in the control is about Tk.61, 686. Across the categories, the share of food expenditure is about two-thirds of the total annual expenditure of the household.

An average experimental household spends annually about Tk. 44,062 as food expenditure, and the same in control village is about Tk. 39,305. An average person in the experimental and control households spends Tk. 787 and Tk. 734 respectively on food. The food

expenditure per women as percentage of male member in an experimental household is about 19 percentage-points less and the same in the control is about 11 percentage points less.

In an average experimental household about 44% (Tk. 361) of monthly food expenditure is spend for rice, 15% for meat/egg, and about 15% for milk, vegetable and puffed rice jointly. Item wise pattern of food expenditure in the control is almost similar to that in the experimental households.

An average experimental household spends about Tk. 26,483 as annual non-food expenditure (Tk. 2,207 monthly and Tk.73 daily), while for the same purpose a control household spends Tk. 22,893 (Tk. 1,908 monthly and Tk.63 daily).

In physical terms, both food and non-food expenditures are low. Among all non-food expenditure heads the spending for fuel constitute the highest proportion, irrespective of categories of observation household (with about 16% and 18% respectively in experimental and control households). For both experimental and control households, the expenses for clothing is about 13% closely followed by health expenses (about 12%), which are about Tk. 265 per month and Tk. 220 per month respectively in experimental and control households. Per household monthly expenses on education in experimental and control are Tk. 137 and 100 respectively.

The basic needs expenses constitute around 81% of the total annual household expenditure across all types of sample households. The share of food expenditure is around 66% and the same for other basic needs is around 15%; and around 19% of total household expenditure is left to meet all the non-basic needs taken together.

An average experimental household, in reality, enjoys about Tk. 44.52 surplus over their daily expenditure and the same for control household is about Tk. 26.31.

Household poverty status household poverty status, due to multidimensional nature of poverty, has been ascertained using the following measures: direct calorie intake (DCI) method, cost of basic needs (CBN) method, international poverty lines, land-poverty or land-poor, poverty based on ownership of other assets, poverty as capability, poverty as access to safety net programs, poverty from view point of self-assessed socio-economic status, and poverty from view point of crisis coping capability. Poverty rates vary depending on the measurement indicator used.

In terms of **DCI measure** (head count), about 73% of the households – irrespective of experimental and control – fall below the absolute poverty line. Hard core poverty is highly pronounced with 45% experimental households fall below hard core poverty (48.3% among those in the electrified villages and 41.4% in the non-electrified experimental villages). The same is 46.2% in the control households.

Poverty measure using **CBN method** shows that about 53% of all experimental households are situated below the upper poverty line which is 61.4% in case of control households. Estimates for lower poverty line show that about 36% of all households in the experimental and 45% of those in the control fall below this line.

Estimates based on **international poverty line** of US PPP $1 a day per person shows that, 57% of the experimental and 62% of the control households are poor. Poverty rate increases

with US PPP $ 2 a day per person threshold – with 88% in the experimental and 91% in the control households.

Land-poverty is highly pronounced among the sample households with 73% in the experimental and 75% in the control households. Also, within the experimental, it is much more pronounced among the non-electrified households in electrified villages (84%) than that among the other category of villages (61%).

Self-assessment of household poverty status has been ascertained using nine broad socio-economic variables: economic, social, housing, health and medicare, education, asset ownership, clothing, food, and women's security. **Self-assessed poverty** status show that overall 29% of the respondents in experimental and about 36% in control households consider themselves to be poor. In the experimental, although the overall poor have been reported by 29% households, the same is higher at about 37% for non-electrified households in electrified villages. Self-assessed poverty was found most pronounced for the variables 'asset ownership' and 'economic', and least pronounced for 'women's security'. Comparison of various poverty measures shows that in terms of "shelter poverty" (housing) is closer to the CBN-based lower poverty line; and that in terms of 'asset ownership' is closer to the CBN-based upper poverty line as well as to the international poverty line of less than US PPP $ 1 a day per person.

Once people are poor and vulnerable they should have **access to safety net programs.** However, 60% of the experimental households and 56% of the control households reported that they have **no access** to safety net programs. Around one-third households reported that at least one member of their household had access to safety net program. Within the overall low coverage scenario, the most pronounced safety net programs reported are "money for education allowance" (reported by 18% in experimental and 16% in control), and "vulnerable group feeding" (VGF). Among safety net programs, access to which are less reported (between 3% and 5%) include 'old-age allowance', 'test relief/gratuitous relief' (TR /GR), and "vulnerable group development" (VGD). The least reported safety net programs (reported by less than 1% household) are "distress women allowance", "freedom fighter allowance", "disability allowance", "maternity health voucher", "food for work", and "employment for vulnerable women".

During the last two years, 37% households – both experimental and control – reported facing **economic crisis**. Of those who faced such crisis, the most frequently cited crisis reported by over 60% of the households was "high expenditure due to illness", followed by 20% who said crisis due to "loss of crops". Among other crises, which were less reported in terms of frequency but may be much more devastating in terms of cost of crisis include "cyclone/sidr" (reported by 6.3% in experimental and 8.5% in control households), "flood", "land dispute", 'death of livestock'. One of the most devastating for any family is the death of the earning member – this crisis was reported by about 4% households. Among other crisis reported were "loss in business", "theft/robbery", "social injustice", 'river bank erosion', "expenditure for marriage", "funeral costs", "workless", and "loss in fish cultivation".

Around one-fifth of those who faced crisis during the last two years have said that they did nothing to cope with. Among those who faced crisis and did something, 44% in the experimental and 50% in the control households took 'loan' from others to cope the crisis; 28% in the experimental and 31% in the control households mitigated the crisis by "utilizing

savings". Among other coping strategies pronounced were "selling of livestock", "mortgaging out land", "selling land", and "selling of durable assets".

Health, Hygiene and Sanitation – Knowledge, Awareness and Practice

Questions related to knowledge and awareness about 20 crucial public health issues pertaining to health-hygiene – sanitation were asked to the adult female respondents. The overall baseline knowledge situation found is bleak. Out of 20 crucial public health issues, knowledge is limited to 5.9 and 5.5 issues, on average per respondent respectively in experimental and control households. Statistical analysis of knowledge of the respondents on public health issues by household poverty status reveals a significant gap in knowledge level between the different stratums. Household wealth is found to have a direct relationship with knowledge level of the respondent.

The sickness pattern is almost identical in experimental and control households. However, some discrepancy is reported in receiving treatment from competent medical providers with 44% in experimental and 37% in control households reported receipts of such treatment. Women/girls are less likely to receive treatment from medically competent providers than male members.

Child delivery (last birth) conducted by medically competent persons is low both in experimental and control households (7% and 5%). As regard to maternal health care in terms of antenatal care (ANC) and postnatal care (PNC) from medically competent providers as well as receipt of tetanus toxoid (TT) vaccine during last pregnancy – all except ANC, are slightly higher in experimental as compared to the control households. In case of ANC, it is equal in both types of households. ANC coverage is higher than national average while PNC and TT vaccine coverage are less than national average.

The full immunization coverage among children aged 12-23 months is modestly higher in control households (77%) as compared to that in experimental (73%). Conversely, vitamin A capsule (VAC) supplementation to under-5 children is somewhat higher in experimental than in the control households (80% vs 76%). National rural average of full immunization coverage is 80.5%.

The contraceptive prevalence rate (CPR), in both experimental and control households, is almost close to national average. It is slightly higher in experimental than in control (55% vs. 53%). Irrespective of experimental and control, health and family planning workers are the prime contributors to current use of family planning methods.

The mean age at first marriage and age at first pregnancy are 15 and 17 years respectively. More so, average number of pregnancy per woman in experimental households is 3.7 and in control 3.5.

Tube-well is the main source of drinking water. However, use of arsenic- free tube-well is relatively more pronounced in experimental than in control households (60% vs. 55%).

Only a small percentage of experimental and control households currently use sanitary latrine: 14% and 9% respectively – leaving a great challenge of achieving national goal of *Sanitation for All by 2013* (under Vision 2021 of the present government). Statistical analysis

for the sanitary latrine user reveals a significant gap between households of different poverty status. Higher the poverty, lesser is the use.

The use of soap after defecation is not a common practice in sample households. Only about 26% households in experimental and 21% in control use soap for washing hands after defecation.

Neonatal, infant, late infant, and child mortality – all rates are higher across the sample households than the comparable national averages. All mortality rates are slightly higher in experimental than in control households. Neonatal mortality in control and experimental households are 54 and 75 per 1000 live births respectively; infant mortality rate is 56 and 80 per 1000 live births respectively. Late infant mortality and child mortality per 1000 live births in experimental households are 25 and 108 respectively, and 22 and 84 respectively in control households.

Education – Literacy, Enrolment, and Quality

Among population aged 7 years and above, the **literacy rate** is 56.6% in experimental and 51% in control households with a gender disparity (disfavoring girls) of about 5 percentage points. Adult literacy rate for the population of 15 years and above is 47% in experimental and 44% in control households with a substantial disparity (9 percentage points) between male and female. Statistical analysis of literacy rate by different household wealth status shows a significant gap in literacy rate between the experimental and control households at different level of poverty status. More so, across the study population, literacy of the males are little higher than the female at all level of poverty status.

By and large, the combined gross **school enrolment ratios** (primary and secondary) are almost equal in experimental and control households with 78% and 77% respectively. Primary gross enrolment ratios in experimental and control households are 93% and 95% respectively. Secondary gross enrolment ratios are 47% and 43% respectively in experimental and control households.

The **quality of education** has been measured in terms of marks obtained in the last examination, school attendance rate, and school drop-outs. In terms of marks obtained in last final examination, educational attainment across the study households is not high. Nevertheless, high degree (>85%) of school attendance is recorded in both experimental and control households. Although school drop-out across the study households is not remarkable, it is relatively higher in experimental as compared to control households. Moreover, in the experimental households, it is higher among the boys than that among the girls; the opposite is true in control households.

'Kerosene lamp" or "*kupi bati*' is the most widely-used source of light for children's study during after sunset and it is more pronounced in control as compared to experimental households (87% vs. 82%).

Time Allocation of Household Members

The availability and allocation of time is one of the major determinants in shaping the life style for each individual concerned. On average, **an adult male** in experimental households is involved with different type of tasks for a total of 922 minute in a day (15.4 hours in a 24 hour day). In this time span, an adult male is involved for 170 minutes (19% of 922 minutes)

as agri and/or non-agri wage labor, followed by agricultural activity (86 minutes; 10% of 922 minutes). If *agricultural activity, agri and/or non-agri labor, rickshaw/van pulling, shop keeping, trading, poultry and animal husbandry, handicrafts and other income generating activities*- all together, termed as 'income generating activities', then it is found that a total of 55% of the time span goes to this category. After sunset (6pm), among the total working time in a day (i.e., 922), a total of 202 minutes (22% of 922 minutes) is used by a male member till sleep. In that 202 minutes 46% time (i.e., 93 minutes) is consumed as leisure, followed by personal task (26% of 202 minutes). It is to note that in that time span 17% time has been used in income generating activities. This trend of time allocation among males in control households is similar to that of male in experimental.

Except for sleeping time at night, on average, **an adult female** gets 917 minutes in a day (1,440 minutes constitute a day where on average an adult female sleeps for 523 minutes; the remaining 917 minutes is used for various activities). That means, on average, a female sleeps for 8.7 hours a day. In her daytime, a female is mostly involved with household works (411 minutes; 45% of her all activities except sleep), followed by leisure (188 minutes) and personal task (174 minutes). From sunset (6pm) till sleep, an adult female in experimental households gets a total of 181 minutes (20% of 917 minutes). This time-span is mostly used for leisure (61 minutes), followed by household work (57 minutes), personal task (39 minutes), and taking care of family members (18 minutes). They, in almost all the cases, do not use a part of this time for any type of income generating activities. This trend of time allocation for female in control households is similar to the female in experimental households.

Excluding sleeping time at night, on average, **a school going child** gets 864 minutes time in a day (1,440 minutes constitute a day where on average a child sleeps for 576 minutes; the remaining 864 minutes is used for various activities). That means, on average, a child sleeps for 9.6 hours a day. Day time of a school going children in experimental households is mostly consumed by study/attending classes and personal task. On average, a school going child spends a total of 441 minutes for the purpose of study/attending classes. It is interesting to note that children in control villages give a total of 379 minutes for study/attending classes, which is 62 minutes less than that of children in experimental villages. From sunset (6pm) till sleep, a children passes 170 minutes of time (20% of 864 minutes), of which 49% (83 minutes) is used for study, followed by other personal task (27%) and leisure (25%). This pattern of time allocation among children is similar in both experimental and control households.

Women Empowerment and Gender Issues

The empowerment status of women is mixed. Equal distribution of health care and clothing in household among male-female has been reported by majority respondents. However, in almost half of the households male-female are not treated equally in providing education. In around half of the households girls are not encouraged to go to school. In two-thirds of the households dowry is practiced. In only one-third of the households, women take part in decision making process of marriage. Very few women can freely choose occupation and can go outside of *para* for work. Almost no women can participate in local mainstream arbitrations. Getting similar wage irrespective of sex is almost non-existent. The trend of women empowerment on these indicators is similar both in experimental and control households.

The overall status of women's independent decision making practice, irrespective of experimental or control households, is bleak. In most cases women cannot take decision independently or in other words- are not allowed to. The pattern of women's independent decision making status is similar both in experimental and control. Women's mobility situation is mixed. Majority women can go to any part of para/village alone. However, at best half of the women can go to health centre/hospital and children's school unattended. Less than one-third of the women can go for shopping alone; only one-fourth can alone attend CBO/ cooperative/mother's club; almost no women can go to any cultural show (cinema/*jatra*) un-attended.

Almost all women reported that there are cases of verbal abuse towards women in their neighboring households. Around two-thirds reported of battering in their neighboring households, which is indeed very high and matter of serious concern. Dowry related violence is also reported by significant portion of women. *Female child abuse* and *compelling to suicide* has also been reported. Despite low extent of reporting, the presence of abduction, sexual abuse, intimidation at workplace, acid throwing, women trafficking, forced prostitution and homicide in the community is a matter of serious concern. The scenario of violence against women in both experimental and control areas is significantly similar.

Women's overall knowledge status about gender equality issues is not satisfactory. More than one-third women do not know that *dowry taking or giving is a punishable criminal offence*. Around two-thirds of the women are not aware about the *informed choice in use of family planning methods*. Around half do not know about *women's equal right to vote and participate in election as men*. Over half are not informed that *women have equal access to resources as men*. Two-thirds do not know that *acid throwing, child trafficking, and women trafficking are punishable criminal offence*. Only one-fourth of the women know that *men and women should enjoy equal benefits in terms of employment and wage*. Only about one-fourth women (a 24% in experimental and 21% in control) know the legal age at marriage for boys. Almost all women reported that ideal number of children for a couple is 2 (two). Most women reported that ideal spacing between two child births should be about 5 (five) years. Almost all women believe that proper place for girl's education is school, rather than home. Three-fourths of the women think that unmarried girls should not be allowed to work outside of her village.

Around half of the women respondents (47% in experimental and 44% in control) are member in credit group. On average, a woman respondent from experimental household has taken a credit of Tk. 5,455 in last year. In control, on average a woman respondent has taken credit of Tk. 4,388 in last year, which is Tk. 1,067 less compared to the women in experimental households. In experimental, an woman in male-headed household took Tk. 5,260 as credit in last year, which is Tk. 7,583 for female-headed household. In control, an woman in male-headed household took Tk. 4,680 as credit in last year, which is only Tk. 1,150 for a female-headed household.

A 57% women in the experimental households reported that they have some amount of savings, which is 7 percentage points higher than the women in control households (50%). A 60% woman in experimental households who have some amount of savings can spend the saved money on their own decision. Majority of the women, irrespective of experimental and control, have reported that currently they have savings of less than Tk. 5,000 on average. In experimental an average woman currently has a savings of Tk. 14,107. In experimental, an average woman above upper poverty line (by Cost of Basic Needs Method) currently has

savings of Tk. 22,107 which is significantly less among the women in poor households (Tk. 6,933 among women under upper poverty line households and Tk. 5,871 among women under below poverty line households). In control area the trend is almost identical.

Migration

About 11 % experimental households and 8 % control households have reported about out-migration of at-least one member of the household during last two years preceding survey. The average number of members out-migrated is 1 per household among those reported incidence of migration, in both experimental and control households. Respondents reporting in-migration in the household constitute 4% in experimental and 2% in control. In terms of both out migration and in-migration, the incidence is least reported among the poorest households – in both experimental and control households.

"Marriage" is reported as the prime reason for out-migration by 35 % in experimental and 49% in control households; and 67% in experimental and 52% in control households reported the same as the reason for in-migration. Besides marriage, the other reasons for out-migration are – "due to job place", "looking for job", and "education".

Access to Information, Awareness and Knowledge

Access to radio and television is almost similar in low prevalence, both in experimental and control households. Exposure to TV as compared to radio is much more pronounced - in both experimental and control households. About 14 % respondents in experimental and 16% in control households listen to radio. But 30% experimental and 22% control households reported watching TV. In experimental households, 8% respondents listen to radio daily, 3 % at least once a week, and 3% less often. In control, 10% respondents listen to radio daily, 2% at least once a week, and 4% less often. The average time spent per day per household in listening radio is 4 minutes in experimental and 6 minutes in control households. In experimental, about 7% respondents watch TV daily , 4% at least once a week, and 10% less often. In control, 5% watch TV daily, 8% at least once a week, and 8% less often. The average time spent per day per household in watching TV is 4 minutes in experimental and 3 minutes in control.

About 5% households in experimental and 7% in control own radio, while 8% in experimental and 7% in control visit to neighbor's/relative's home for listening radio. About 1% in both experimental and control visit to hat/bazaar for listening radio. About 20% respondents in experimental and 13 % in control households visit to neighbour's/relatives' home, while 3% in both experimental and control visit to hat/bazaar for watching TV.

Regarding the source of news of national and regional importance and important educative information, the majority respondents reported about neighbors/relatives –both in experimental and in control households. Respondents reporting "neighbors/relatives" as the source of news of national importance, news of regional importance, and important educative information constitute 46%, 72% and 34% respectively in experimental, and 48%, 75% and 35% respectively in control households. Respondents reporting TV as the source of news of national importance, news of regional importance, and important educative information constitute 22%, 6%, and 15% respectively in experimental, and 16%, 3%, and 11% respectively in control households. Respondents reporting radio as the source of news of national importance, news of regional importance, and important educative information constitute 9%, 2%, and 6% respectively in experimental, and 12%, 2% , and 6% respectively in control households. About 16% respondents in experimental and 15 % respondents in

control households have reported of having no access to news of national importance. About 8% respondents in experimental and 7% of control households reported of having no access to news of local/regional importance. About 36% in experimental and 38% in control households reported of having no access to important educative information.

Attitude towards Household Electrification

A portion of the surveyed households are living in electrified villages and about 91% of these households reported that their neighbors are electrified. The most pronounced reason behind not having electricity in their own household is *financial insolvency* (100%) followed by *delay made by PBS* (58%), afraid of *paying regular electricity bill (11%), and not interested to use electricity (3.1%).*

Almost all the households, regardless of experimental (96%) and control (94%), that they want electricity reported (demand for electrification). The demand for electricity connection is higher among households above the poverty line than among households below the poverty line, thereby indicating the economic status as an important determinant of demanding electricity connection. The demand for electricity is also higher among male-headed households as compared to female-headed households. *Using electric light* is the most pronounced reason (96%) for taking electricity connection followed by using electric fan (72.5%) in experimental villages; control villages follow similar pattern. *Children get more time with more light for studying* as reason of demanding electricity has been reported by half of experimental households, the same is 42% in control. *Cost effectiveness* has been reported by around 22% of experimental and control households.

Though the major part of the population living in survey area reported their demand for electricity a small section of households ranging between 4% in experimental and 6% in control expressed that they would not be able to take electricity connection at their household. *Financial insolvency* is the mostly reported cause for not taking electricity in both experimental (87%) and control (97%) households.
Only 6% experimental households reported of existence of organizations providing financial support (micro-credit) for getting electricity; the same is known to only 1.4% of control households. Over half of the households surveyed demand *financial support* for getting electricity connection.

IRRIGATION AND AGRICULTURE

The irrigation activities in the sample plots are mostly run by STW and LLP. Majority respondents own STW, with 79% in experimental and 84% in control groups. About 27% respondents in experimental and 16% in control groups own LLP. Only about 3% respondents in experimental and none in control groups own DTW. About 96% of the irrigation units in both experimental and control groups are run in diesel and the rests are run in gas.

The average gross irrigated area is 9 acres per irrigation-unit in experimental and 10 acres per unit in control groups. The average gross irrigated area under DTW is 22 acres in experimental groups. The gross-irrigated area covered by majority of the units ranges between 2.50-7.50 acres (64% in experimental and 57% in control groups). The average net irrigated area per unit is 6 acres in experimental and 5 acres in control groups.

In both experimental and control groups, the average number of breakdowns as reported for last one year preceding the survey is 1.8 per unit. The average number of days lost per unit due to breakdown during last one year preceding the survey is 3.2 days in experimental and 3.1 days in control groups. Total operational cost per irrigation unit per acre of net irrigated area during last one year preceding the survey is estimated to be Tk. 8,140 in experimental and Tk. 9,487 in control groups.

In experimental groups, 90% of the units are used for irrigation of Boro, followed by 58% for Aman, 22% wheat, 18% cornflower, 15% potato, 14% Aus, 13% jute, 13% oilseeds, 13% chili, 10% cauliflower, 9% pulse, 7% sugarcane,6 % guard/pumpkin, 6% radish, 5% brinjal, 5% onion, 4% arum, 3% tobacco, 3% tomato, 2% red amaranth, 2% bean, and 1% cucumber. In the control group, 94% of the units are used for irrigation of Boro, followed by 66% for Aman, 15% wheat, 13% cornflower, 13% Aus, 8% jute, 7% oilseeds, 7% potato, 7% chili, 6% pulse, 5% cauliflower, 4% guard/pumpkin, 3% .red amaranth, 2% onion, 2% arum, 2% tobacco, 2% tomato, and 2% cucumber, 1% radish, and 1% brinjal.

On average, 1 hired labour and 1 household labour were used per unit on regular basis; and also 1 hired labour and 1 household labour used on irregular basis - in both experimental and control groups during last one year preceding the survey.

In experimental group, the average number of workdays per unit per worker is estimated to be 82 days for hired laourers working in regular basis, 52 days for hired laourers working in irregular basis, 330 days for household labourers working in regular basis, 62 days for household labourers working in irregular basis. In control, the average number of workdays per unit per worker is estimated to be 93 days for hired laourers working in regular basis, 26 days for hired laourers working in irregular basis, 108 days for household labourers working in regular basis, and 67 days for household labourers working in irregular basis. The daily average wage rate per worker per day during last one year preceding the survey is estimated to be Tk. 103 for regular workers and Tk.101 for irregular workers in the experimental group. In the control, those rates are estimated to be Tk. 103 and Tk. 97 respectively.

In experimental group, the yield per acre of land during last one year is estimated at 115 mounds for Boro, followed by 99 mounds for potato, 89 mounds for chilli, 85 mounds for wheat, 80 mounds for Aman, 59 mounds for jute, and 57 mounds for Aus. In control villages, yield per acre of land is estimated at 114 mounds for potato, 85 mounds for chilli, 57 mounds for Boro, 49 mounds for wheat, 43 mounds for Aman, 33 mounds for Aus, and 25 mounds for jute. In experimental group, the Cost Return Ratio (CRR) is estimated to be at 2.4 for Aus, 3.7 for Aman, 2.6 for Boro, 2.3 for wheat, 2.6 for potato, and 1.3 for Jute. In control, the CRR is estimated to be at 1.7 for Aus, 2.2 for Aman, 1.9 for Boro, 2.8 for wheat, 2.1 for potato, and 2.3 for Jute. Cropping intensity of land for all types of unit is estimated to be 187% in experimental and 157% in control groups. The intensity is 431% for DTW (in experimental group). For STW, it is 153% in experimental and 200% in control groups. For LLP, it is 147% in experimental and 135% in control groups.

In experimental groups, the estimated person-days employed per acre of land is 114 in Aus, 99 in Boro, 87 in Chili, 73 in wheat, 58 in Aus, 43 in potato, and 34 in jute. In control, the estimated person-days are 111 in chili, 102 in Boro, 100 in Aman, 70 in jute, 62 in Aus, 38 in wheat, and 37 in potato.

About 95% respondents in experimental and 99% respondents in control groups have reported that they demand electricity. The reasons mentioned for demand for electricity include: cost effectiveness, more land coverage in electricity powered pumps, easy to operate, easy to repair, higher reliability, and better service.

INDUSTRY

Industries, in both the experimental and control groups are mostly owned by male (96% in experimental and 84% in control). Most industries are run usually by family members. Average number of employees in the industrial units in experimental group is around 4 and that in control 2. Most industries are located far away from the market: 77% in experimental and 92% in control.

No medium and large industries are found in the sample. In experimental group, 66% of the industries are small and the rest 34% are handicrafts. In control, 47% industries are small-scale industries and 53% are handicrafts.

On average, the number of working days and working hours are pretty much similar across experimental and control groups. In experimental, the average working day during last one year is estimated to be 268 and average working hours per day is estimated to be 8. The corresponding figures for control group are 273 days and 8 hours, respectively. Most industries, in both experimental and control, are run manually or by diesel. Two types of laborer are employed in the industries: skilled and unskilled.

About 91% respondents from experimental and about 95% from control groups have expressed their keen interest in taking electricity connection at their industries. Over 90% of the industries currently being non-electrified, irrespective of experimental or control want electricity connection.

In experimental group, total estimated annual income from actual production is Tk. 190,585 per unit with highest possible production at Tk. 266,361. In control, the same is Tk. 82,935 with maximum possible annual production is Tk. 136,276 per unit.

Diesel and rag are the frequently reported fuel used in the industries, in both experimental and control groups. The average expenditure of diesel is 79% of the total average expenditure in experimental, and the same is 88% in control. In experimental, industries spend mostly on wood/trees/khodoi (Tk. 2,608). But in control, industries spend a large part of their money on bamboo/bamboo twig (Tk. 5,152).

Rice-husking, bamboo mats (*"chatai"*), pot, timber, molasses, flour, furniture-making, traditional sweeping brass (*"jharu"*), backery products (*"chanachur"*), spice-processing, loom and embroidery constitute the main products of the industries surveyed. A large majority of the respondents, 78% from both experimental and control groups, reported that they sell their products directly to the wholesale traders.

Around 20 % respondents from experimental group have reported that they have expanded their industries by setting up new plants. At present, the average capital of the industries is Tk. 52,899 in experimental and Tk. 27615 in control groups. Cottage and small industries are reported to be the fastest growing industries in both experimental and control areas. Around

70% respondents from both experimental and control groups have reported that they need credit.

The major problem of the manually-run industries is reported to be the lack of sufficient light at night: 34% respondents in experimental and 37% respondents in control groups. Higher production cost is reported as the major problem for the diesel-run industries in the experimental group (reported by 46% respondents). In control, huge cost on diesel consumption (54%) is the major problem.

Smoke, chemical, and disposal of waste into air are found to be the hazardous elements emitted by the industries.

COMMERCIAL UNITS

Among the commercial units surveyed, 35% in experimental and 26.2% in control groups are located adjacent to the market. The average distance of the commercial units from the market in experimental is 1.2 km and in control 1.7 km.

About 60% of the commercial units surveyed in both experimental and control groups are groceries. The majority of the commercial units with 97 % in experimental and 98 % in control groups are retail shops. In experimental, about 71% of the commercial units use (hurricane) lantern, by 61% use indigenous fan, 39% indigenous lamp, 11% telephone/mobile, 6% radio, 6% battery, 3% TV, and 2% cassette player. Similar pattern is observed in the control in terms of use status of different equipments in their shops.

The average length of business hour is 11hours in – both experimental and control. Regarding whether demands electricity connection at his/her commercial unit, about 94% of the respondents in experimental and 98% in control have reported in affirmative.

Regarding the perceived gains from the electricity connections, respondents mentioned the following: lights will be there; business hours will be extended; electric fan can be used; more customers will come; sales turnover will increase; more profit can be earned; and various new commodities will be sold. Those who have reported not-demanding electricity at his/her commercial units have mentioned the following as the reasons for not demanding electricity: affording electricity is costly; necessity of electricity is not felt; frequent load shedding; and getting electricity connections is troublesome.

On average, the number of off-days per shop per month is 1.8 in experimental and 1.6 in control. About 71% of the units in experimental and 67% in control groups are run by respondents themselves.

The estimated average sales turnover per month per commercial unit is Tk.22,123 in experimental and Tk. 26,344 in control groups. The estimated monthly sales turnover per month per commercial unit after sunset is Tk. 6,217 in experimental and Tk.8, 051 in control, which are 28% and 31% of total monthly sales turnover respectively. The estimated total expenditure for running business per commercial unit per month is Tk. 20,777 in experimental and Tk.22, 916 in control groups (excluding Tax/VAT).

HUMAN DEVELOPMENT INSTITUTIONS – HEALTH AND EDUCATION

Out of 14 **health centres** visited (all without electricity), 13 were from experimental PBS. Health service centres (facilities) covered in the survey include FWCs, UHCs, and NGO Clinics; and health service providers interviewed were Sub-Assistant Community Medical Officer (SACMO), Family Welfare Visitors (FWV), Pharmacists, and Medical Assistants (MA). Three-fourths of the health centres covered were FWCs. Among interviewees around half were SACMOs and one-third FWVs. The interviewee from Control PBS was an FWV.

As for the health services provided currently by services providers, family planning services is provided by almost all, irrespective of experimental and control. In experimental, services to general patients, antenatal care, and postnatal care are available in half of the clinics; maternal and child health services, and normal delivery are available in one-third of the facilities; and EPI services, counseling, supply free medicines and services to under-5 children in others. In control, family planning services, services to general patients, antenatal care, maternal and child health services and postnatal care are available only. The service providers in experimental, on average, provided services to 1,217 patients during last 3 months, and in control it was 3,957. In both the places around two-thirds were general patients followed by family planning clients.

Services which could be provided after electricity connection at the health facilities include normal delivery, IUD, MR and other clinical contraception services through improvement of overall OT services. As there will be light, fan and freeze – the service providers reported of improvement of services to all types of patients and provision of EPI services.

As to the question of who will pay the electricity bill, more than three-fourths of service providers opined that it should be paid by Upazila Family Planning Office (UFPO) and/or Upazila Health Complex.

Out of the 15 **schools** surveyed (all without electricity), the mean number of students in the primary schools and secondary schools are 282 and 325 respectively in experimental schools and 220 and 220 respectively in control schools. The ratio of girls to boys in the primary schools is 101 in experimental and 120 in control schools, and that in the secondary schools is 123 in experimental and 120 in control schools.

As per teacher's statement, the rate of attendance is higher among girls as compared to boys in both primary and secondary schools and in both experimental and control schools. In primary schools, the rates are 85% and 89% respectively in experimental and 85% and 90% respectively in control schools; and in secondary schools, those are 73% and 83% respectively in experimental and 70% and 84% respectively in control schools.

Among those participating at the last year examination at class five in the primary schools, about 78% students in experimental and 88% in control schools appeared successfully. In the secondary schools, those who have appeared successfully at the examination at class eight constitute 88% in experimental and 96% in control schools; and those who have appeared successfully at the SSC examination in last year in the experimental schools constitute 70%.

The average marks obtained by successful candidates at the examination of class five in last year is 53% in experimental and 60% in control schools. In the secondary schools, the average marks obtained by successful candidates at the examination of class eight are 53%

and 44% respectively in experimental and control schools. The average marks obtained by successful candidates at the SSC examination in the last year are 63% in experimental schools.

Out of a total of 15 teachers' respondents, 1 from each of the 15 schools surveyed, all reported that it is not possible to undertake computer course at present due to not having electricity. They opined that the weather is hot during summer season and that if electricity is available, it will be possible to use electric light and fan which can improve students' attendance and attentiveness in learning and also of teachers' attentiveness in class. It is also reported by few that electricity can develop the security status of the educational institution at night and create scope for introducing science education/science laboratory. Some respondents reported that if electric motor is installed it will ensure availability of clean water; cultural programs could be arranged at night; and overhead projector can be used as teaching-learning tool – all these according to most teachers will be instrumental in the overall improvement in the quality of education.

Baseline Survey Summary Statistics

Observation Measurement Unit: Indicators	Experimental	Control
HOUSEHOLD (HH)		
Socio-demographic		
Average HH size	4.7	4.4
Female-headed HH (% total HH)	8	8
Sex Ratio (# male per 100 female)	104.1	100
Mean age of population (yrs)	25.5	25
Disable HH member (% of total members)	1	1
Literacy Rate (among 7 years and above; %)	56.5	51
Adult Literacy Rate (among 15 years and above; %)	47	44
Average years of schooling	2.8	2.6
HH members engaged in agriculture (%)	21	16
HH members engaged in wage-labor (%)	16	17.6
HH employed members (%)	53	56
HH having non-resident income (%)	8	6
Household Asset Ownership		
HH average land possession (decimal)	87	82.8
HH average land ownership (decimal)	61	58.7
HH average valuation of movable assets (Tk.)	42,629	34,347
HH average dwelling space (sq. ft.)	310	269
Household Income, Savings and Credit		
HH average number of source of income	4.3	4.2
HH average yearly income (Tk.)	72,000	60,000
HH average savings (Tk.)	14,000	9,700
HH average credit (Tk.)	16,527	14,364
Household Food Consumption		
HH food intake of energy (Kcal/person/day)	1889	1890
Household Expenditure		
HH annual average expenditure (Tk.)	69,337	61,686
HH annual average expenditure for food (Tk.)	44,602	39,305
HH daily surplus over expenditure (Tk.)	44.5	26.3
Household Poverty Status		
Absolute poor HH: Direct Calorie intake Method (%)	73	73
Hardcore poor HH: Direct Calorie intake Method (%)	45	46.2
HH below upper poverty line: Cost of Basic Needs Method (%)	53	61.4
HH below lower poverty line: Cost of Basic Needs Method (%)	36	45

Observation Measurement Unit: Indicators	Experimental	Control
Poor HH: Using International Poverty Line of <US PPP $ 1/day/person	57	62
Land Poor HH (%)	73	75
HH Self Assessed Poverty (%)	29	36
HH having access to safety net programs (%)	40	44
HH faced economic crisis in last two years (%)	37	37
Health, Hygiene and Sanitation – Knowledge and Awareness		
Treatment received from competent medical providers while sick (%)	44	37
Child delivery (last birth) conducted by medically competent persons (%)	7	5
Full immunization coverage among children aged 12-23 months (%)	77	73
Vitamin A capsule (VAC) supplementation to under-5 children (%)	80	76
Contraceptive prevalence rate (CPR, %)	55	53
Average number of pregnancy per woman	3.6	3.5
HH using arsenic-free tube-well (%)	60	55
Neonatal mortality rate (per 1000 live births)	75	54
Infant mortality rate (per 1000 live births)	80	56
Education – Literacy, Enrolment, and Quality		
Gross school enrolment ratios (%)	72	70
School attendance rate (%)	85	85
Time Allocation of Household Members		
Average work time for an adult male in a day (minutes)	922	898
Average work time for an adult female in a day (minutes)	917	895
Average work time for an school going child in a day (minutes)	864	820
Average time spent by an adult male after sunset (6pm) till sleep (minutes)	202	194
Average time spent by an adult female after sunset (6pm) till sleep (minutes)	181	175
Average time spent by school going child after sunset (6pm) till sleep (minutes)	170	156
Women Empowerment and Gender Issues		
Women empowerment score (out of 100)	47.9	46.7
Women independent decision making status gap (out of 100)	13.7	13
Women mobility score (out of 100)	39.3	37.8
Women knowledge on gender equality issues	47.5	44.4
Women's average amount of credit taken in last year (Tk.)	5,456	4,389
Women having any type of savings (%)	57	50
Women who can use saving independently (%)	60	52
Migration		
Incidence of out-migration during last two years (% HH reported)	11	8
Incidence of in-migration during last two years (% HH reported)	4	2
Access to Information, Awareness and Knowledge		
Respondents reported listening to radio (%)	14	16
Respondents reported watching TV (%)	30	22
HH reported owning radio (%)	5	7
HH reported owning TV (%)	7	5
Average time spent per day in listening radio per respondent (all HH, in minutes)	4.2	5.5
Average time spent per day in watching TV per respondent (all HH, in minutes)	4.2	3.3
Attitude towards Household Electrification		
HH expressed demand for electricity connection	96	94
IRRIGATION UNIT		
Respondents own DTW (%)	3	0
Respondents own STW (%)	79	84
Respondents own LLP (%)	27	16
Average gross irrigated area per irrigation unit (acres)	9	10
Average net irrigated area per irrigation unit (acres)	6	5
Average number of breakdowns per irrigation unit during last one year	1.8	1.8

Observation Measurement Unit: Indicators	Experimental	Control
Average number of days lost per irrigation unit (due to breakdown) during last one year	3.2	3.1
Total operational cost per irrigation unit per acre of net irrigated area during last one year (Tk.)	8,140	9,487
Yield of Aus during last one year (per acre, in maund)	57	33
Yield of Aman during last one year (per acre, in maund)	80	43
Yield of Boro during last one year (per acre, in maund)	115	57
Yield of wheat during last one year (per acre, in maund)	85	49
Yield of Potatoe during last one year (per acre, in maund)	99	114
Yield of Chili during last one year (per acre, in maund)	89	85
Yield of Jute during last one year (per acre, in maund)	59	25
Cost Return Ratio of Aus	2.4	1.7
Cost Return Ratio of Aman	3.7	2.2
Cost Return Ratio of Boro	2.6	1.9
Cost Return Ratio of Wheat	2.3	2.8
Cost Return Ratio of Jute	1.3	2.3
Cost Return Ratio of Potatoe	2.6	2.1
Cropping intensity of land under irrigation per irrigation unit (%)	187	157
INDUSTRIAL UNIT		
Average number of employees per industrial unit	4	2
Average number of working days during last one per industrial unit	268	273
Average working hours per day per industrial unit	8	8
Average expenditure of diesel as percent of total average expenditure	79	88
Average amount of money spent on wood/trees/khodoi (Tk.)	2,608	5,152
Average capital of industries (Tk.)	52,899	27,615
Respondents expressed interest in taking electricity connection (%)	91	95
COMMERCIAL UNIT		
Average distance of commercial units from market (Km)	1.2	1.7
Average length of business hour (in hour)	11	11
Number of off-days per month per unit	1.8	1.6
Average sales turnover per month per unit (Tk.)	22,123	26,344
Average sales turnover per month per unit after sunset (in Tk.)	6,217	8,051
Respondents expressed demand for electricity connection	94	98
SOCIAL/HUMAN DEVELOPMENT INSTITUTIONS – HEALTH AND EDUCATION		
Number of patients received services per health unit during last 3 months	1,217	3,957
Rate of attendance in primary schools (Boys)	85	85
Rate of attendance in primary schools (Girls)	89	90
Rate of attendance in secondary schools (Boys)	73	70
Rate of attendance in secondary schools (Girls)	83	84
Students appeared successfully at the examination of class five in last year (in primary schools, %)	78	88
Students appeared successfully at the examination of class eight in last year (in secondary schools, %)	88	96
Students appeared successfully at the SSC examination in last year (in secondary schools, %)	70	-
Mean numbers obtained by successful candidates at the examination of class five in last year (in primary schools, %)	53	60
Mean numbers obtained by successful candidates at the examination of class eight in last year (in secondary schools, %)	53	44
Mean numbers obtained by successful candidates at the examination of class five in last year (in secondary schools, %)	63	-