



# CARE-Bangladesh SHOUHARDO III

BBSS 2017

FINAL REPORT

30 October 2017



**Data Management Aid (DMA)**

Flat C4, House 18A, Road 32, Dhanmondi R/A, Dhaka-1209. Phone: 9144400

[www.dmabd.com](http://www.dmabd.com)

# Table of Contents

Acknowledgement .....	iii
List of Abbreviation .....	iv
Executive Summary .....	1
1. Introduction .....	3
1.1 Background .....	3
1.2 Survey Objectives.....	4
2. Methodology.....	6
2.1 Survey Design.....	6
2.2 Sampling Frame of the BBSS.....	6
2.3 Estimation of Sample Size.....	7
3. Findings .....	9
3.1 Agriculture and Livelihoods .....	9
3.1.1: Number of hectares of land under improved technologies or management practices with USG assistance .....	9
3.1.2: Farmer's gross margin per hectare, per animal, per cage obtained with USG assistance .	10
3.1.3: Value of small-holder incremental sales generated with USG assistance.....	11
3.1.4: Comparison of Major Indicators of Purpose-1 .....	12
3.2: Maternal and Child Health and Nutrition.....	13
3.2.1: Pregnant and lactating women taking iron supplements.....	13
3.2.2: % of children under age two who had diarrhea in the prior two weeks .....	13
3.2.3: Prevalence of children 6–23 months receiving a minimum dietary diversity and minimum meal frequency .....	14
3.2.4: % of live births receiving at least four antenatal care (ANC) visits during pregnancy.....	14
3.2.5: Services received from Govt. health department.....	15
3.3: Water and Sanitation.....	16
3.3.1: Percent of physically improved sanitation facilities with feces visibly present.....	16
3.3.2: Percent of mothers who feel it is important to wash hands at five critical times.....	17
3.4: Resilience and Shocks.....	18
3.4.1: Average Coping Strategy Index of the targeted households .....	18
3.4.2: % of people using climate information or implementing risk-reducing actions.....	18
3.4.3: Comparison of major indicators of Purpose-3.....	19
3.4.4: % of households reporting the understanding of elements of disaster preparedness in project defined criteria: .....	19

3.4.5: Percentage of household reporting receiving risk and early warning information:.....	20
3.4.6: % of households that report that health, gender, and disaster preparedness by actors build on each other are well coordinated and focus on most critical needs: .....	20
3.5: Women Empowerment .....	21
3.5.1: Percentage of poor & extreme poor women accessing community level platforms for women empowerment .....	21
3.5.2: Percent of respondents who know a neighbor or friend who has experienced domestic violence .....	21
3.5.3: Percentage of program participants aware of cost and consequences of Gender Based Violence.....	22
3.5.4: Percentage of program participants reporting the EKATA platform can resolve Gender Based Violence issues .....	22
3.5.5: Percentage of poor & extreme poor (PEP) women actively participating in community level organization.....	22
3.5.6: Mean decision making score (Index) for women in household level .....	23
3.6: Governance .....	23
4. Conclusions .....	24

## **Acknowledgement**

Data Management Aid (DMA) wishes to thank SHOUHARDO III for making the BBSS 2017 possible. There are numbers of people involved and contributed in the whole works. DMA acknowledges the efforts and contributions of each individual involved in the BBSS 2017. DMA provides special thanks to Eyasin Ali Sarker and Biswajit Banik of CARE Bangladesh for their endless supports. DMA is especially grateful to Walter Mwasaa and Raquibul Hasan for their guidance and thoughtful feedbacks to enrich the data quality and the report.

This study also owes enormous credit to the work of the data collection field team. The field team (enumerators, supervisors and field coordinators) successfully completed the fieldwork; they showed their patience even though within the limited logistic supports. Special thanks also goes to the SHOUHARDO III colleagues who coordinated the overall logistics for this survey; thanks also goes to all the program field staff who provided excellent support to the DMA team during fieldwork.

Finally, the individual respondents and their families make us indebted through providing their time and responses against each questions asked by the enumerators. Without their generosity and openness in welcoming us into their homes and sharing invaluable information about their lives, this important survey would have never happened.

### ***DMA Team***

## List of Abbreviation

ANC	:	Antenatal Care
BBSS	:	Beneficiary Based Sample Survey
BDHS	:	Bangladesh Demographic Health Survey
BMD	:	Bangladesh Meteorological Department
COG	:	Core Operational Group
CSI	:	Coping Strategy Index
EKATA	:	Empowerment Knowledge and Transformative Action
EPI	:	Expanded Program of Immunization
EVAW	:	Ending Violence against Women
FANTA	:	Food and Nutrition Technical Assistance
FFP	:	Food for Peace
FFWC	:	Flood Forecasting and Warning Center
FPC	:	Finite Population Correction factor
GBV	:	Gender Base Violence
GoB	:	Government of Bangladesh
HH	:	Household
IFA	:	Iron and Folic Acid
IGA	:	Income Generating Activity
IPTT	:	Indicator Performance Tracking Table
MICS	:	Multiple Indicator Cluster Survey
MoH&FW	:	Ministry of Health & Family Welfare
MoU5	:	Mothers of Under 5 Children
NNPC	:	Nari Nirjaton Protirodh Committee
PACC	:	Program Advisory and Coordinating Committee
PEP	:	Poor and Extreme Poor
PNGOs	:	Partner Non-Government Organizations
PPS	:	Probability Proportional to the Size
SHOUHARDO	:	Strengthening Household Ability to Respond to Development Opportunities
SRS	:	Systematic Random Sampling
TBA	:	Traditional Birth Attendants
UDCC	:	Union Disaster Management Committee
USAID	:	United State Agency for International Development
USD	:	US Dollar
USG	:	US Government
VDC	:	Village Development Committee
VIP	:	Ventilated Improved Pit
WATSAN	:	Water and Sanitation

## Executive Summary

SHOUHARDO III is designed to transform the lives of women and men of 549,000 Poor and Extreme Poor (PEP) participants in eight of the poorest and most marginalized districts in Bangladesh.

SHOUHARDO III conducts the Annual Monitoring Survey each year. The main goal of the survey is to compare the changes of the set indicators of SHOUHARDO III over the period.

Given the relative mix of programming activities and the indicators selected to monitor program progress, four major sampling frames: i) value chain beneficiaries, ii) other farmers (on-farm IGA), iii) CHD and iv) mothers of U5 children were taken to capture the information necessary to track all annual monitoring indicators from 1-13. Indicators 14-27 were collected from the entire COG beneficiaries.

CARE Bangladesh's program, SHOUHARDO III is a USAID funded food security initiative, which covers agriculture, livelihoods, food security, health, water and sanitation, resilience and women's empowerment. With such scope, it has in place a robust Monitoring Evaluation mechanisms which conduct a rigorous Annual Monitoring survey, among others. The Beneficiary Based Sample Survey-2017 (FY17) of CARE SHOUHARDO III was conducted with the poor and extreme poor households of Char and Haor regions where the program operates. A total of 910 samples were taken this year and the distribution of samples are 572, 221 and 117 respectively for FFP-16 & FFP-9a, MCHN only and Other COG.

The summary findings are presented in the Dashboard below:

Indicator	Achievement FY'16	Target FY'17	Achievement of FY'17	p-value
<b>Significant Improvements</b>				
<b>Farmers Gross Margin:</b>				
% of beneficiary households with increased food production	8.9	24	78.9	<0.001
% of poor & extreme poor (PEP) households accessing markets	42.20	51	66.7	<0.001
Number (%) of live births receiving at least four antenatal care (ANC) visits during pregnancy	7.4		63.5	<0.001
Percent of physically improved sanitation facilities with feces	75.30	70	35.5	<0.001
% of household reporting receiving risk and early warning information	27.71	35	55.9	<0.001
Percentage of program participants reporting the EKATA platform can resolve Gender Based Violence issues	0.40	10	45.4	<0.001
Percentage of respondents who are satisfied with overall services provided by local govt. (Union Parishad).	18.55	20	44.6	<0.001
Prevalence of children 6–23 months receiving a minimum meal frequency	24.8	28	38.7	<0.001
% of pregnant and lactating women taking iron supplements in last 7 days	2.60	10	28.5	<0.001
% of mothers who feel it is important to wash hands at five critical times	1.14	20	13.5	<0.001
Number (%) of people using climate information or implementing risk-reducing actions	3.4		26.5	<0.001
% of households reporting understanding of elements of disaster preparedness	11.29	20	28.3	<0.001

Mean decision making score (Index) for woman in household level	20.79	23	25.6	<0.001
<b>Moderate / Poor Improvements</b>				
Percent of respondents who know a neighbor or friend who has experienced domestic violence	48.38	45	43.2	0.05
% of children immunized against 8 diseases	48	55	58.5	0.06
<b>New Indicator in FY'17 (not collected in FY'16)</b>				
<b>Vale of per farmer incremental sales (Tk.):</b>				
Maize			1639	
Chili			1958	
Sweet gourd			5706	
Goat (live)			3065	
Duck			1251	

From above table, it is observed that the differences of the value of last two years' data for most of the indicators are quite significant ( $p < 0.001$ ). There are only 02 indicators which were not statistically significant – these two indicators are: a. % of respondents who know a neighbor or friend who has experienced domestic violence and b. % of children immunized against 8 diseases as their p-values are found 0.05 and 0.06 respectively.

SHOUHARDO III works in two regions, namely char and haor. Both regions have their different characteristics along with different geographical context, so it is observed that there are clear differences in the progress of set indicators. Working in haor region is not as easy as in char. Almost half of the period of a year, the communities are inundated or surrounded by water in haor region. Different planning and a different set of strategies could be applied for haor region.

# 1. Introduction

## 1.1 Background

The SHOUHARDO Programs of CARE Bangladesh, funded by USAID is aimed to fight malnutrition and improve the lives of more than two million of the country's poorest people. This program has been directing with an aim to reduce food insecurity among Bangladesh's poor and extreme poor households by addressing underlying causes, including women's empowerment and livelihoods. A wide range of activities have already been implemented by The SHOUHARDO and SHOUHARDO-II Programs in the communities that together support the poor and undernourished in working towards greater socio-economic development and social change.

In this regard, The United States Agency for International Development's (USAID) Food for Peace program has awarded a grant to CARE Bangladesh to fund a five-year program, 'Strengthening Household Ability to Respond to Development Opportunities III (SHOUHARDO III)' to build on the successful predecessors SHOUHARDO and SHOUHARDO II. This Project aims to improve gender equitable food and nutrition security and resilience of the vulnerable people living in the Char and Haor in Bangladesh by 2020.

SHOUHARDO III is designed to transform the lives of women and men of 549,000 Poor and Extreme Poor (PEP) participants in eight of the poorest and most marginalized districts in Bangladesh. The project focuses on addressing the availability, access, utilization and stability of food insecurity as well as the underlying causes that include social injustice and discrimination, lack of participation and voice, and heightened vulnerability to natural disasters and climate change. To achieve this goal, five purposes have been designed, i.e.:

- Purpose 1:** Increased equitable access to income for both women and men, and nutritious food for men, women, boys and girls;
- Purpose 2:** Improved nutritional status of children under five years of age, pregnant and lactating women and adolescent girls;
- Purpose 3:** Strengthened gender equitable ability of people, households, communities and systems to mitigate, adapt to and recover from man-made and natural shocks;
- Purpose 4:** Increased women's empowerment and gender equity at family and community level;
- Purpose 5:** Increased provision and utilization of public services (i.e. Local Elected Bodies & Nation Building Departments) for communities especially for Poor and Extreme Poor (PEP)

The program is implemented through six national Partner Non-Governmental Organizations (PNGOs) with technical and operational guidance from CARE. The program partners with the GoB through Program Advisory and Coordinating Committees (PACC) at multiple levels as well



as through government provision of technical training provided to field staff and beneficiaries on key topics related to agriculture, livestock, fisheries, health and disaster risk management.

## 1.2 Survey Objectives

The main objective of the BBSS'17 is to compare changes in indicators set by the SHOUHARDO III over time. This annual performance survey will provide progress on the set impact and outcomes indicators for the SHOUHARDO III.

The data has been collected in a manner that will facilitate the monitoring of the project activities over time and evaluation of the project at various stages. The BBSS will help the SHOUHARDO III to monitor and assess the extent to which SHOUHARDO III will be meeting the outcome and output targets in the IPTT and PIRS over a period of 12 months (October 2016 to September 2017). The survey results will help to identify areas where emphasis should be given in order to achieve the goals of the project.

The survey will sample beneficiary/participant households to ascertain progress against predefined annual monitoring indicators. In 2016, BBSS generate/set base values and helped develop targets that the program can compare its progress against in the out year targets. In 2017 and subsequent years, survey data for the respective year will be analyzed to measure the progress/changes on annual monitoring indicators compared to the annual targets. In other words, the indicator values that are estimated from the BBSS of a specific year will be compared to the targets of the respective year i.e. indicator value that is obtained from the BBSS 2017 will be compared to the target for 2017. Therefore, a comparative analysis will be conducted between Year1 and Year2 results that includes succinct and pertinent information of program performance.

SHOUHARDO III has already developed a five-year Monitoring and Evaluation (M&E) plan to track progress and outcome of the program regularly and periodically. Out of 79 Annual Monitoring Indicators, 27 annual monitoring indicators will be measured by conducting a Beneficiary Based Sample Survey (BBSS) annually --- this is agreed with donor that the progresses of these 27 indicators will be measured through BBSS and there will be other ways to measure the rest indicators. These 27 indicators will be monitored each year to generate data for annual reporting to FFP/USAID and to provide timely information for program management decisions.

**Table 1: Indicators for Annual Monitoring**

SL#	Ind. #	Indicator
1	FFP-16	Value of small-holder incremental sales generated with USG implementation
2	FFP-8	Farmer's gross margin per hectare, per animal, per cage obtained with USG assistance
3	FFP-15	Number of hectares of land under improved technologies or management practices with USG assistance
4	FFP-9a	Number of farmers and others who have applied improved technologies or management practices with USG assistance
5	Custom	Percentage (%) of beneficiary households with increased food production
6	Custom	% of poor & extreme poor (PEP) households accessing markets

SL#	Ind. #	Indicator
7	Custom	% of pregnant and lactating women taking iron supplements in last 7 days
8	Custom	% prevalence of diarrhea for children between 6-23 months of age (Percentage of children under age two who had diarrhea in the prior two weeks)
9	Custom	Prevalence of children 6–23 months receiving a minimum dietary diversity
10	Custom	Prevalence of children 6–23 months receiving a minimum meal frequency
11	FFP-53	Number of live births receiving at least four antenatal care (ANC) visits during pregnancy
12	Custom	Percent of mothers who feel it is important to wash hands at five critical times
13	Custom	% of children immunized against 8 diseases under GoB protocol by 12 months of age
14	Custom	% of PEPs HHs received health and nutrition services from community level health facilities
15	FFP 46	Percent of physically improved sanitation facilities with feces visibly present on the floor, wall, or area immediately surrounding the facility
16	Custom	Average Coping Strategy Index of the targeted households
17	FFP-77	Number of people using climate information or implementing risk-reducing actions to improve resilience to climate change as supported by USG assistance
18	Custom	% of households reporting understanding of elements of disaster preparedness in project defined criteria
19	Custom	Percentage of household reporting receiving risk and early warning information
20	Custom	% of households that report that health, gender, and disaster preparedness by actors build on each other are well coordinated and focus on most critical needs.
21	Custom	Mean decision making score (Index) for woman in household level
22	Custom	Percentage of poor & extreme poor women accessing community level platforms for women empowerment
23	Custom	Percent of respondents who know a neighbor or friend who has experienced domestic violence (includes: child marriage, physical abuse, sexual harassment, emotional oppression) in the last month
24	Custom	Percentage of program participants aware of cost and consequences of Gender Based Violence
25	Custom	Percentage of program participants reporting the EKATA platform can resolve Gender Based Violence issues
26	Custom	Percentage of poor & extreme poor (PEP) women actively participating in community level organization
27	Custom	Percentage of respondents who are satisfied with overall services provided by local govt. (Union Parishad).

## 2. Methodology

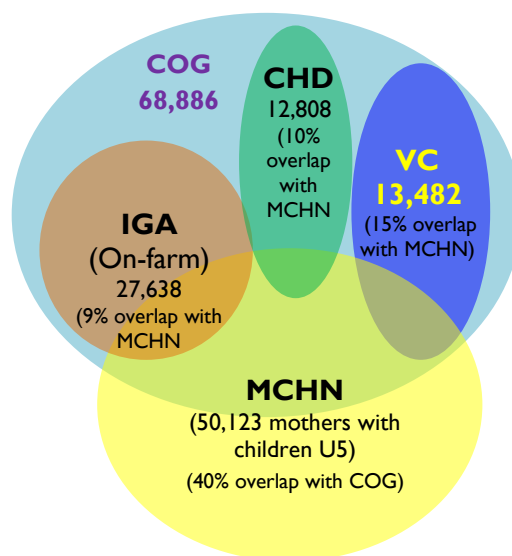
A rigorous and concrete mechanism was applied throughout the whole survey period to maintain the quality of data. In another word, it could be said that quality control mechanism was applied for every stage of the survey ranging from questionnaire/tool development, deployment and training of enumerators, development of field survey manual, follow-up/spot checking during field data collection, etc. DMA deployed 01 Team Leader, 02 Field Coordinators and 24 skilled and experienced enumerators to collect and maintain the quality of data. An electronic form of the questionnaire (data collected through using tablets) allows data validation rules. At the end of each day, the Field Coordinators reviewed the full electronic dataset collected on every given day. The software that DMA used for the tablets automatically captures the GPS location of the place where the interview was conducted. In addition, SHOUHARDO III staff checked and monitored the field survey to enrich the quality of surveyed data.

### 2.1 Survey Design

Certain program outcomes will be monitored each year to generate data for annual reporting and to provide timely information to program managers. Twenty-seven IPTT indicators are identified for estimating values on an annual basis. Following are the details on the sampling frame, final sample size and sampling methodology for the annual BBSS.

### 2.2 Sampling Frame of the BBSS

SHOUHARDO III intends to work with 168,521 households of Core Operational Group (COG) for all activities, through different subgroups over the LOA. The project has targeted 68,886 COG beneficiaries in 2017 for the livelihood component, including 13,482 value chain farmers, 12,808 beneficiaries for comprehensive homestead developments (CHD), 27,638 On-farm income generating activities (On-farm IGAs) and 14,958 other activities. The FTF indicators FFP-16, FFP-8 and FFP-15 need to be collected exclusively from the value chain beneficiary sampling frame. Another indicator FFP-9a is applicable for all value chain farmers (13,482), other farmers (27,638 on-farm IGA) and others (CHD 12,808) who will apply project promoted improved technologies or management practices. Therefore FFP-9a needs to be collected from value chain farmers, on-farm IGA farmers and CHD beneficiary sampling frames (13,482+27,638+12,808=53,928).



There are 5 value chain commodities (Maize, chili, sweet gourd, goat and duck) that SHOUHARDO III is promoting to the 5 different groups of value chain farmers. SHOUHARDO III program's target is to work with 3,371 beneficiaries for Maize, 2,022 for chili, 2,022 for the sweet gourd, 4,719 for goat and 1,348 for duck beneficiaries in 2017. Therefore, the value chain sample needs to be selected from five separate sampling frames corresponding to each of the five commodities.

The SHOUHARDO III program will directly reach 76,460 Maternal Child Health and Nutrition (MCHN) Beneficiaries. These MCHN beneficiaries are also a part of mothers' groups. Two-thirds (50,123) of the MCHN beneficiary households have U5 children. In FY 2017, 40% of the 50,123 HHs with U5 children will also be integrated with COG intervention. Of this 40% COG MCHN beneficiaries, 15% are with VC, 10% with CHD, 9% with On-farm IGA and 6% are other COG beneficiaries. Mothers of U5 children are the respondents of the health and hygiene-related indicators and infant and young feeding practice indicators. Therefore, another sampling frame of the mothers of U5 children is necessary for the BBSS of SHOUHARDO III program. The sampling frame for Mothers is the list of beneficiary mothers with U5 children.

Given the relative mix of programming activities and the indicators selected to monitor program progress, four major sampling frames: i) value chain beneficiaries, ii) other farmers (on-farm IGA), iii) CHD and iv) mothers of U5 children are sufficient to capture the information necessary to track all annual monitoring indicators from 1-13. The value chain sampling frame is divided into 5 sub-sampling frames by the value chain commodities. Indicators 14-27 need to be collected from the entire COG beneficiaries. The sample size estimated for the indicators 14-27 will be collected from the four sampling frames described above (VC, CHD, On-farm IGA and 60% of the nutrition sampling frame) and remaining COG sampling frame (Other COG) of the beneficiaries that do not participate in any of the four intervention areas.

Since the program will increase the number of beneficiaries according to the annual targets, it is necessary to update the sampling frame prior to the BBSS each year. Annual random samples will be drawn independently from the updated sampling frames.

### 2.3 Estimation of Sample Size

The sample for the annual survey will be a random sample of beneficiary drawn from separate lists of value chain farmers for each commodity, (Maize, chili, sweet-gourd, goat and duck), other farmers and MCHN beneficiaries with mothers of children U5. Independent samples are drawn from separate sampling frames, one for each value chain commodity, other farmers, MCHN beneficiaries and COG beneficiaries. A two-stage cluster sampling procedure will be applied to select the sampling units, where the clusters are the program villages will be selected using the Probability Proportional to the Size (PPS) method. For the purposes of PPS selection, 'size' of the cluster will be the total number of beneficiaries from the three sampling frames (value chain, other farmers, and mothers with children U5) within that cluster.

The following main indicators given in the below **Table** have been used to estimate sample sizes for 2017 BBSS.

**Table: Indicators for BBSS sample size estimation**

Indicator	Direction of change
FFP-16: Value of incremental sales (collected at farm level) attributed to USG implementation	Increase
FFP-9a: Number of farmers and others who have applied improved technologies or management practices with USG assistance	Increase
<b>Custom:</b> Percentage of mothers who feel it is important to wash hands at five critical times	Increase
<b>Custom indicators 14-27</b>	Increase/decrease

Following are two different sample size estimation formulae have been used to estimate sample sizes:

1. The formula<sup>1</sup> to estimate sample size for the indicators (FFP-16, FFP-9a) with mean value:

$$n = \frac{N^2 \times Z^2 \times S^2}{MOE^2}$$

Where,

- Z = critical value from the normal probability distribution (95% confidence level: 1.96)
- N = total number of beneficiary in the respective sampling frame
- S = standard deviation of the distribution of beneficiary data (approximation:  $[\text{indicator}_{\max} - \text{indicator}_{\min}] / 6$ )
- MOE = margin of error ( $p \times \text{target value of indicator}$ )

2. Sample size estimation for MCHN indicator and other custom indicators 14-27:

$$n = \frac{z_{\alpha}^2 \times p(1-p)}{\epsilon^2}$$

The binomial distribution formula to obtain point estimate for the indicators with values in proportion  
Where,

- $Z_{\alpha}$  = is the critical value for normal probability distribution at 95% confidence level = 1.96
- P = Proportion of population with the desired attribute
- $\epsilon$  = Maximum desired sampling error at 95% confidence level = 6.5% = 0.065

In accordance with FANTA guidance, a design effect that accounts for cluster sampling, as well as, an estimated non-response factor will be applied to obtain an adjusted final sample size estimate. Below table includes descriptions of all parameters used to calculate the final sample sizes, by the indicator.

Also finite population correction factor  $FPC = 1 / (1 + n_1/N)$ , where  $n_1$  is the initial sample size and N is population needs to be used to adjust the final sample size if the initial sample size is greater than the population.

The final sample size for 2017 BBSS is: FFP-16 & FFP-9a + MCHN only + Other COG = 572 + 221 + 117 = 910. Below table shows the final sample sizes by the sampling frames.

**Table: Final Sample size for FY17 BBSS**

Sampling Frame	Population	Sample	No. Clusters	Sample per cluster
1. Value Chain Farmer	<b>13,482</b>	<b>325</b>	<b>25</b>	<b>13</b>
1.1 Maize	3,371	65	5	13
1.2 Chili	2,022	65	5	13
1.3 Sweet Gourd	2,022	65	5	13
1.4 Goat	4,719	65	5	13
1.5 Duck	1,348	65	5	13
2. CHD	12,808	77 ≈ 78	6	13
3. On-Farm IGA	27,638	167 ≈ 169	13	13
4. Mother of Children U5	30,074*	210 ≈ 221	17	13
5. Other COG	14,952	114 ≈ 117	9	13
<b>Total</b>	<b>98,954</b>	<b>910</b>	<b>70</b>	<b>13</b>

\*20,049 overlap MCHN beneficiaries with COG are excluded.

<sup>1</sup> Sampling Guide for Beneficiary-Based Surveys in Support of Data Collection for Selected Feed the Future Agricultural Annual

### 3. Findings

Agreed upon with donor, data were collected for the set 27 indicators in the Beneficiary Based Sample Survey in FY'17. The numbers of surveyed indicators under each of the 05 Purposes are:

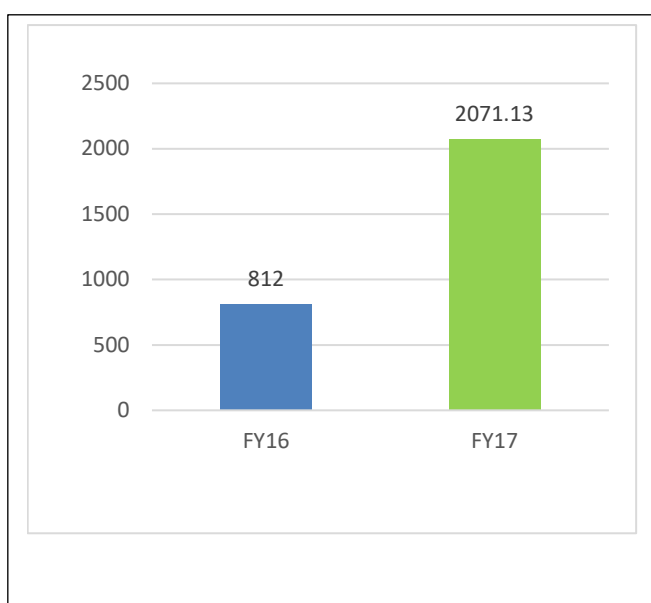
Purpose	# of Indicators Covered in FY'17
<b>Purpose 1:</b> Increased equitable access to income for both women and men, and nutritious food for men, women, boys and girls	06
<b>Purpose 2:</b> Improved nutritional status of children under five years of age, pregnant and lactating women and adolescent girls	09
<b>Purpose 3:</b> Strengthened gender equitable ability of people, households, communities and systems to mitigate, adapt to and recover from man-made and natural shocks	05
<b>Purpose 4:</b> Increased women's empowerment and gender equity at family and community level	06
<b>Purpose 5:</b> Provision and utilization of public services (i.e. Local Elected Bodies & Nation Building Departments) for communities especially for Poor and Extreme Poor (PEP) increased	01
<b>TOTAL Indicators</b>	<b>27</b>

The analyzed data were presented under 06 themes below: a. Agriculture and Livelihoods, b. Maternal and Child Health and Nutrition, c. Water and Sanitation, d. Resilience and Shocks, e. Women's Empowerment and f. Governance.

#### 3.1 Agriculture and Livelihoods

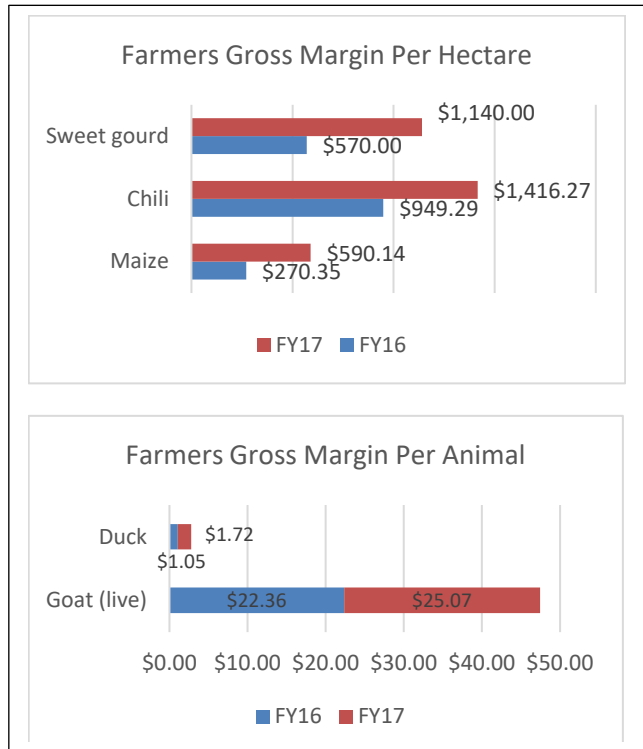
##### *3.1.1: Number of hectares of land under improved technologies or management practices with USG assistance*

Successful application of technologies and management practices are key for good production as this helps to improve agricultural productivity, water productivity, sustainability, and resilience to climate impacts, especially in SHOUHARDO III operated areas. There is a significant increase (from 812 to 2071.13 hectares) in the use of land under improved technologies in FY'17. The result also revealed that 63,874 farmers have applied improved technologies in FY'17.

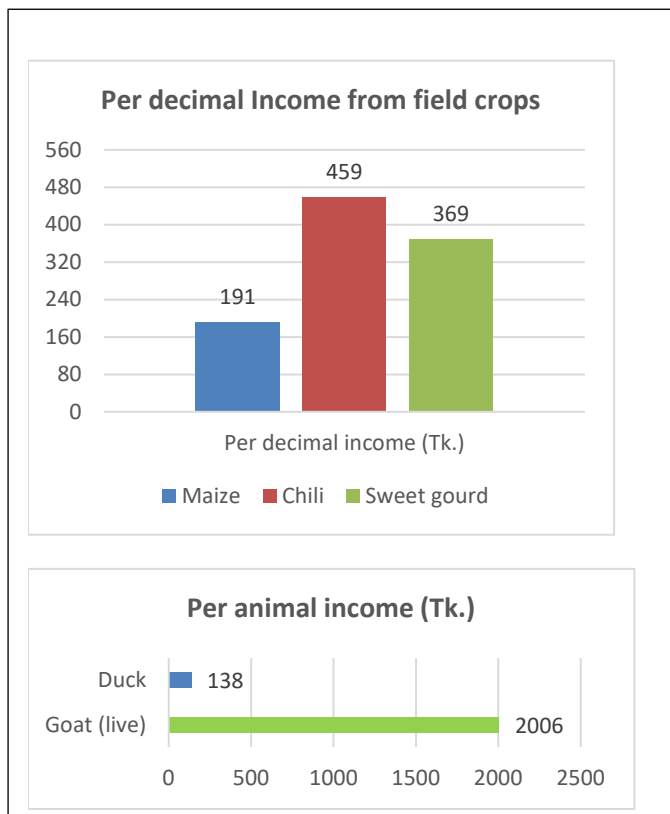


**3.1.2: Farmer's gross margin per hectare, per animal, per cage obtained with USG assistance**

SHOUHARDO III defines the gross margin as the difference between the total value of small-holder production of the agricultural product (crop, milk, eggs, meat, live animals, fish) and the cost of producing that item, divided by the total number of units in production. Chili is found as the maximum gross margin among the 03 filed crops. Gross margin for Chili is increased more than 1.5 times in FY'17 (\$1416.27) than FY'16 (\$949.29). Gross margin for Sweet gourd and Maize is \$1140 and \$590.14 respectively in FY'17 – for both of them, it was 50% lesser in FY'16. There is slightly increment of gross margin for duck and goat in FY'17.



A good attempt has been taken by the program in FY'17 to collect the per decimal income data for the field crops, which helps a farmer to understand his/her income margin easily. Data revealed that the source of highest per decimal income is chili (Tk. 459) and the same for sweet gourd and maize are Tk. 369 and Tk. 191 respectively. It's very interesting to see the good performance of chili rather maize or sweet gourd. In-depth thoughts are demanded, probably production cost is less for Chili.

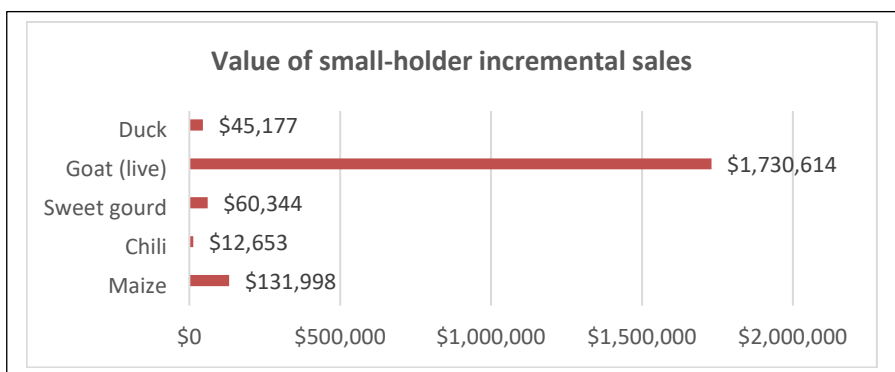


Per animal income from the goat is Tk. 2006 and the same is Tk. 138 for per duck --- it is acceptable that income from per duck and income from per goat should not be same. On the other hand, one household does not rear the same numbers of ducks and goats, usually, the number of duck rearing is higher than goats.

### 3.1.3: Value of small-holder incremental sales generated with USG assistance

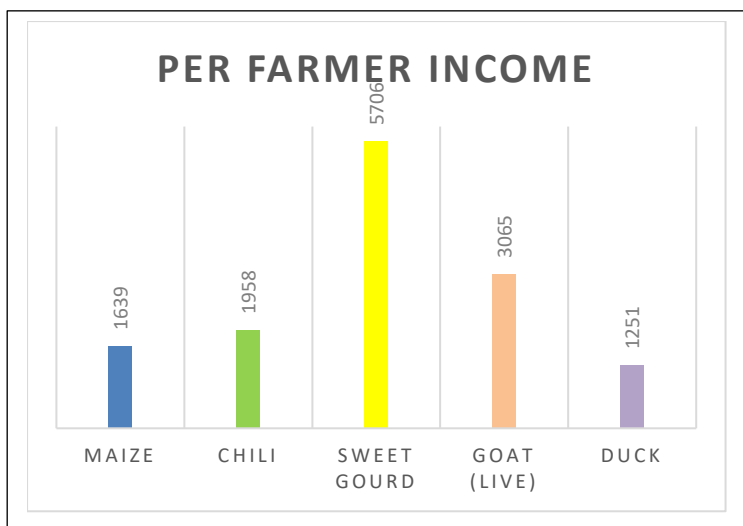
SHOUHARDO III

collects the value of small-holder farmers' incremental sales each year and this includes all sales by the small-holder direct beneficiaries of the targeted



commodity (ies), not just farm-gate sales. The findings revealed that the maximum sale value has come from goat (\$1730614), the second highest is maize, which is around 17 times lesser than the goat. The sale value for other products are not so significant, especially from chili, it is only \$12,653.

It's important to know per farmer income from field crops and animals. From the figure, it is clearly revealed that per farmer income from sweet gourd stands the highest value, which is Tk. 5706. It seems that each farmer cultivated more sweet gourd in more land than the other crops. On the other hand, the duck farmers got the lowest income, which is Tk. 1251 – the reason



behind this finding is that the mortality rate of duck is higher than the other animal and in addition, it is noted that this year huge numbers of ducks have been died in haor region due to the devastating flood and due to water pollution at a scale.

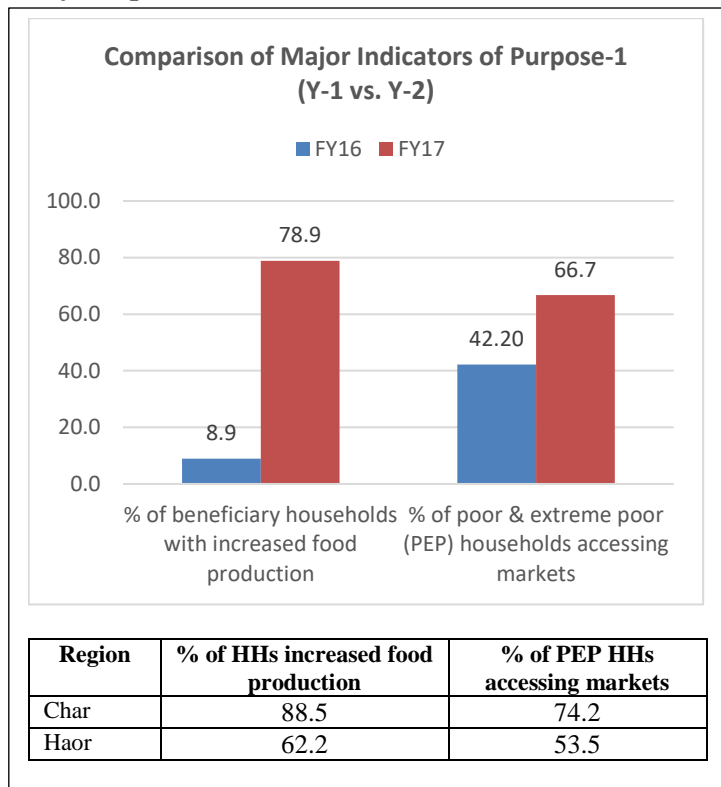


### 3.1.4: Comparison of Major Indicators of Purpose-1

The major indicators of Purpose-1 are food production and accessing markets. There is a significant increase for both of these 02 indicators in FY'17. 78.9% households responded that their food production has been increased, which was only 8.9% in FY'16. Incremental of food production is higher in char areas than that of in haor areas and this is caused by the huge crop damage this year in haor areas.

Poor and extreme poor (PEP) households' access to markets is crucial for their substantial improvement. Accessing markets by the PEP household members

increased by 25% as it was only 42.2% in FY'16 and now it is 66.7%. This incremental trend of accessing markets by the PEP households in char region is 20% higher than that in haor region.



Region	% of HHs increased food production	% of PEP HHs accessing markets
Char	88.5	74.2
Haor	62.2	53.5

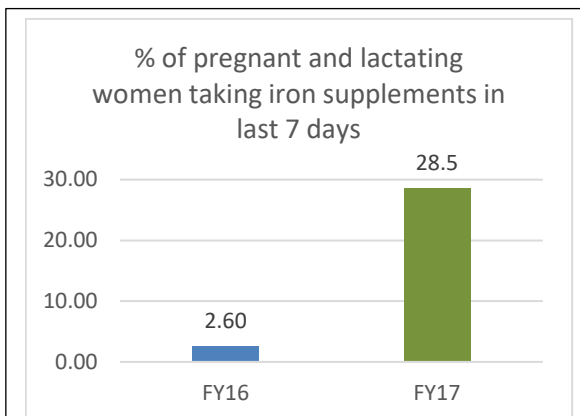
### 3.2: Maternal and Child Health and Nutrition

#### 3.2.1: Pregnant and lactating women taking iron supplements

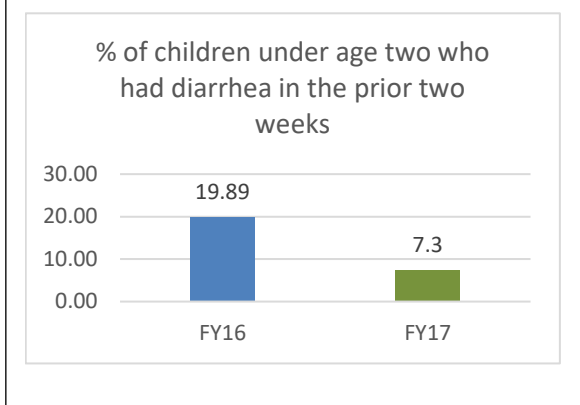
Iron and Folic Acid (IFA) has a great impact on both pregnant women & fetus and also lactating mothers. Iron deficiency causes complications during pregnancy, childbirth and postnatal period. So Iron and folic acid supplementation prevents iron deficiency anemia in pregnant women and also early months of lactating period.

This indicator defines the proportion of pregnant women (completed 3rd month of pregnancy up to childbirth) and lactating mothers (First 3 months after childbirth) receive an iron (including Folic Acid) supplements in last 7 days of the survey conducted.

Though the data shows significant improvements (from 2.6% to 28.5%) in having iron supplements by the pregnant and lactating mothers, still there is a chunk of space to emphasize in this area.



Region	% of pregnant and lactating women taking iron supplements	% of children under age two who had diarrhea
Char	35.6	7.9
Haor	14.7	6.2



#### 3.2.2: % of children under age two who had diarrhea in the prior two weeks

Children stunting is directly related to diarrhea. Diarrhea is one of the leading causes of childhood morbidity and mortality in developing countries, where an estimated 1.5 million young children annually

die of diarrhea. Diarrheal illnesses affect weight as well as height gains, with the most dramatic effects observed in cases of recurrent illnesses<sup>2</sup>.

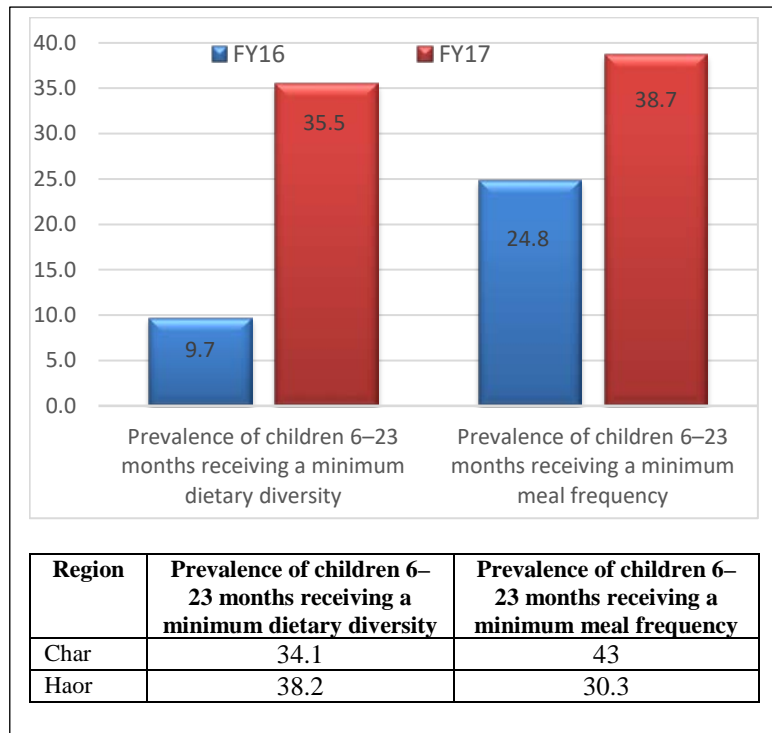
During FY'16, 19.89% children found with diarrhea disease and it is reduced to 7.3% in FY'17. So, there is found a solid improvement in this area.

<sup>2</sup> Severity of Diarrhea and Malnutrition among Under Five-Year-Old Children in Rural Bangladesh; Am J Trop Med Hyg. 2013 Aug 7; 89(2): 223–228.

**3.2.3: Prevalence of children 6–23 months receiving a minimum dietary diversity and minimum meal frequency**

Minimum Dietary Diversity and Minimum Meal Frequency are important outcomes that contribute to improving child health and nutrition. SHOUHARDO III program measures the minimal acceptable diet of children 6-23 months in each year.

The dietary diversity both for breastfed and non-breastfed children 6-23 months is defined as four or more food groups out of 6/7 food groups, like, grains, legumes, dairy products (only for non-breastfed children), flesh foods, eggs, vitamin-A, other fruits, and vegetables.

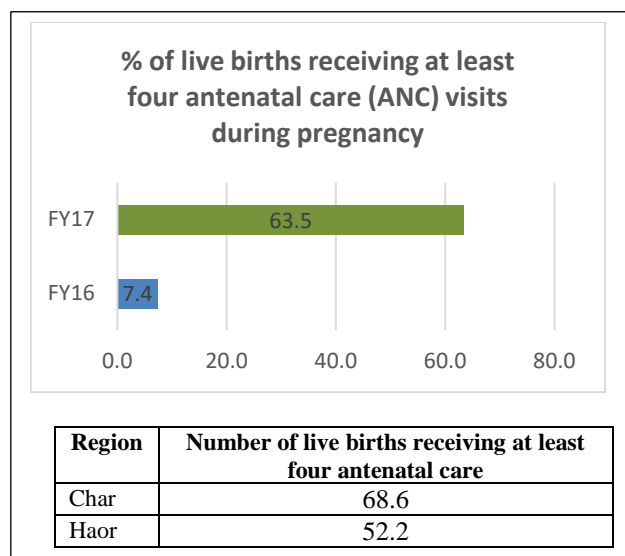


Region	Prevalence of children 6–23 months receiving a minimum dietary diversity	Prevalence of children 6–23 months receiving a minimum meal frequency
Char	34.1	43
Haor	38.2	30.3

Both minimum dietary diversity and minimum meal frequency has been increased from FY’16 to FY’17. But, the increment for minimum dietary diversity is not similar as that of for meal frequency --- there is around 26% increment for the dietary diversity, which is only 14% for minimum meal frequency. The prevalence of dietary diversity is more in haor areas (38.2) than that of in char areas (34.1). This is the indicator among few others where the result is gained better in haor areas --- this demands further analysis with a positive note that if this indicator can perform, why not for the other indicators.

**3.2.4: % of live births receiving at least four antenatal care (ANC) visits during pregnancy**

Live birth is the birth of one or more fetus after 22 weeks gestation or weighing 500 g or more that shows signs of life—breathing, cord pulsation, or with an audible heartbeat. This indicator does not measure the quality of the ANC visit and does not require that a minimum number of services are received from ANC. For reference, the following are the four main



Region	Number of live births receiving at least four antenatal care
Char	68.6
Haor	52.2

categories of care and examples of services for each category that may be provided during ANC: identification of pre-existing health conditions, early detection of complications arising during pregnancy, health promotion and disease prevention and birth preparedness and complication planning.

The ANC should be provided by skilled health personnel. Skilled health personnel refers to a doctor, nurse, midwife, skilled birth attendant, or clinical officer. Visits to either trained or untrained traditional birth attendants (TBA) are excluded here.

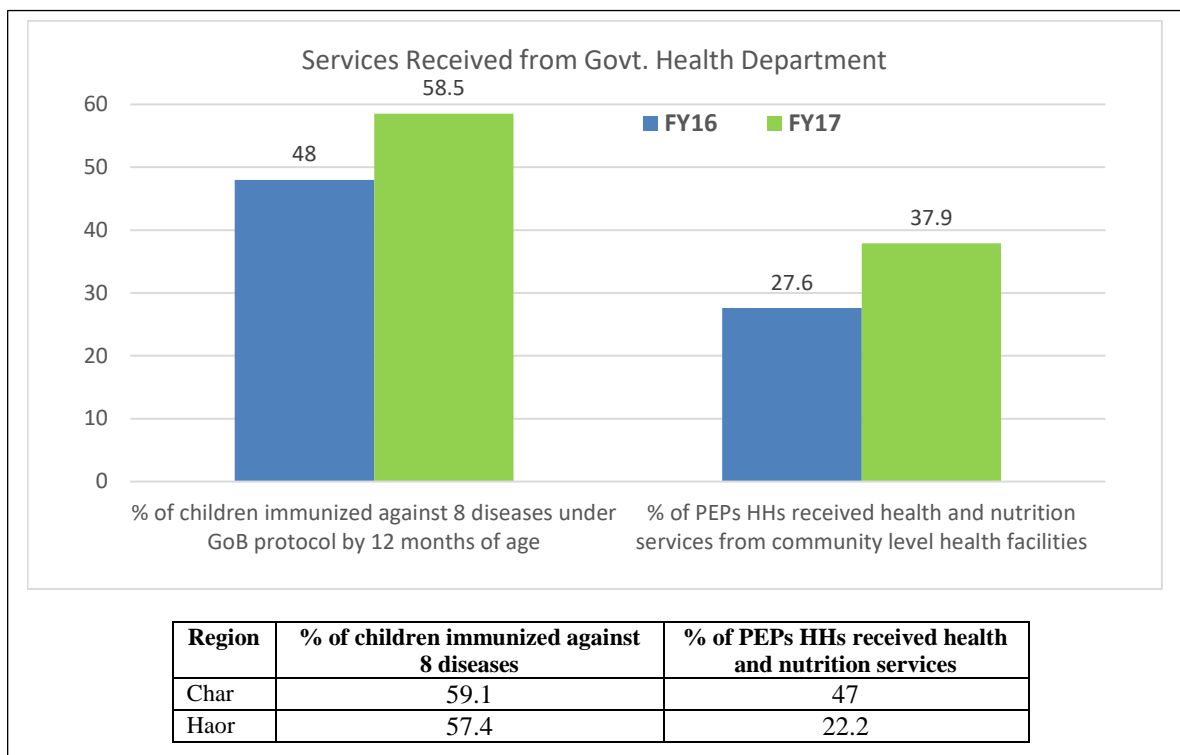
A good attention was given in FY'17 at Antenatal Care for the live birth as 57% more visits were found in FY'17. As like other indicators, antenatal care is found more in char regions (68.6%) than that of in haor regions (52.2%).

### ***3.2.5: Services received from Govt. health department***

This section covers 02 indicators, such as childhood immunization and health and nutrition services received by the PEP households.

Immunization is considered as a precondition of children sound health and preventive measures to save children from major killer diseases, which includes Tuberculosis, Polio, Diphtheria, whooping cough, Tetanus, Hepatitis, HiV (against meningitis and severe pneumonia), and MR (Measles & Rubella).

It's important to know the ability of Poor and Extreme Poor households to 'access to' and 'utilization of' health and nutrition services from Health & Family Welfare Center facilities. As because, higher coverage of health and nutrition services has a direct impact to reduce under-nutrition of pregnant women, lactating mothers, under 5 children & adolescent girls.



There is no significant improvement in having children immunized, if we compare the last 02 years data -- 58.5% in FY'17 and 48% in FY'16. So, it could be said that there was less attention on this indicator this year and also there is no significant change irrespective of regions. There are serious implications on children health if they are not immunized on time; the possibility of the prevalence of Tuberculosis, Polio, Diphtheria, whooping cough, Tetanus, Hepatitis, HiV and MR will be increased.

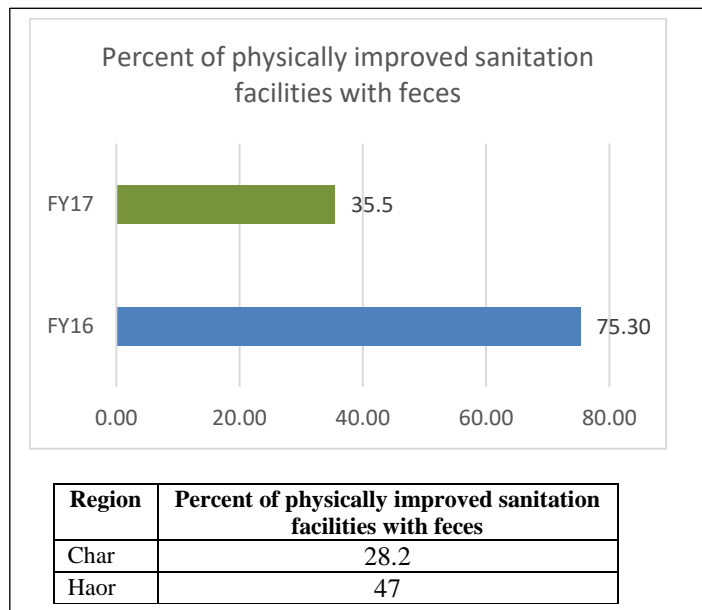
The incremental trend from FY'16 (27.6%) to FY'17 (37.9%) of health and nutrition services receiving status by the PEP HHs is not so significant. But there are regional differences as it reveals that more than double PEP HHs members of char regions are receiving the health and nutrition services from the community clinics. It proves that it is difficult to reach out the PEP HHs in haor region. So, it demands to find out the alternative or innovative strategies for haor region.

### 3.3: Water and Sanitation

#### 3.3.1: Percent of physically improved sanitation facilities with feces visibly present

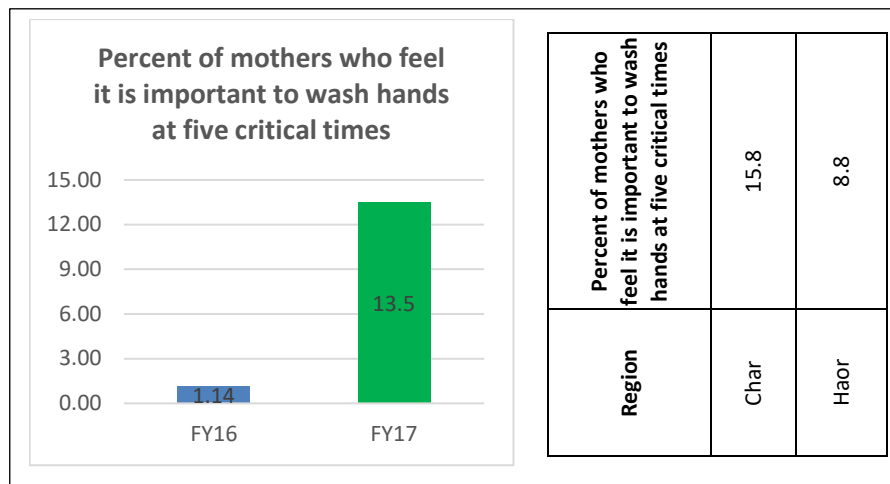
This indicator measures the percentage of sanitation facilities that meet the criteria of "physically improved," and that have feces visibly present on the floor, walls, or the area immediately surrounding the facility. This indicator attempts to identify the dirty (with feces surrounding the facility) latrines though it is physically improved.

There is a significant improvement in FY'17 regarding 'keeping the environment clean surrounding the latrines' as there are only 35.5% latrines with feces surrounding the facility, whereas it was 75.3% in FY'16. The scenario for the haor region (47%) is logically worsened than char region (28.2%) as it is really a challenging task for the haor people to make the sanitation facilities neat and clean for the whole year. Here it is noted that project management should carefully check the target of this indicator as the target of FY'17 was 70%, which means they are seeking for the un-cleaned latrines, but ideally, this should not be.



**3.3.2: Percent of mothers who feel it is important to wash hands at five critical times**

Hand wash is a critical behavior that people usually give hardly any importance though it has a great impact on child diarrhea and child malnutrition including stunting. In spite of that, the level belief regarding hand-wash is not much. In FY'17, only 13.5% mothers felt that it is necessary to wash hands at five critical times, though it was less than that in FY'16 (1.14%). Even though the result is not so impressive, but it is better in char region (15.8%) than that of haor region (8.8%). So, SHOUHARDO III should give more emphasize on this during the rest tenure of the project. Mothers are the primary teachers and doctors for children; so, if this particular group is not aware as much as it requires, it ultimately will affect children health and nutrition.



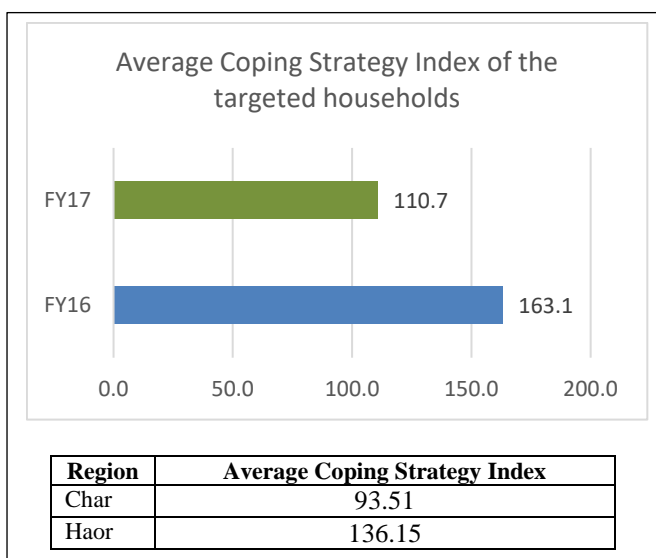
### 3.4: Resilience and Shocks

#### 3.4.1: Average Coping Strategy Index of the targeted households

Coping Strategy is an indicator of household food security about how households manage to cope with a shortfall in food for consumption and results in a simple numeric score. SHOUHARDO III attempts to capture people’s basic consumption-related coping responses to inadequate access to food in a given culture or location. Some examples of coping strategies are:

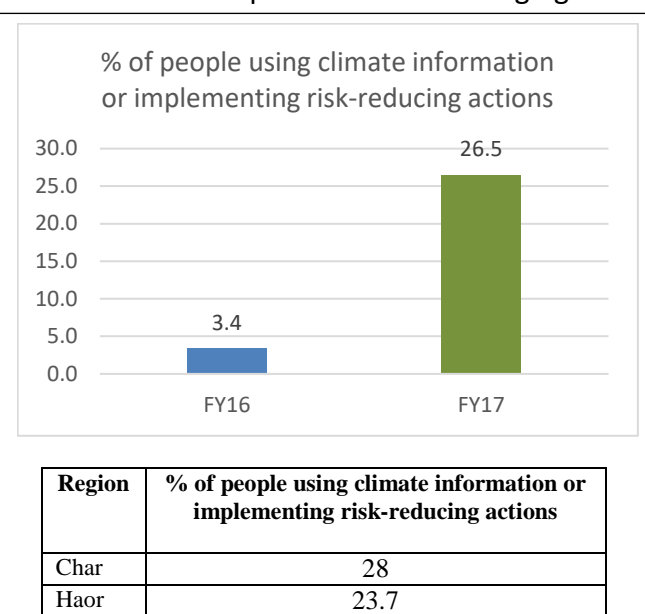
reducing quantity of food, collecting wild foods, 02 meals a day, etc. The CSI of a household is calculated by multiplying the frequency of coping the strategies used in the last thirty days with their respective severity weights. The sum of the scores is then used to determine the CSI. The higher the CSI, the more food insecure a household is.

The findings revealed that the average CSI is reduced in FY’17; this indicates the food insecurity has been significantly reduced in FY’17. There is also regional variation, in char region the average CSI is 93.51, whereas it is 136.15 in haor region. So, the program should give more emphasize for the haor region and going with same strategies for haor region may not work well.



#### 3.4.2: % of people using climate information or implementing risk-reducing actions

Existing practices and technologies may not be well suited to perform under emerging climate stresses. Improved management and new technologies are available and others are being developed to perform better under climate stresses and risks. SHOUHARDO III encourages to adapt/implement improved management and new technologies in agriculture, water, health, DRR and urban sectors.

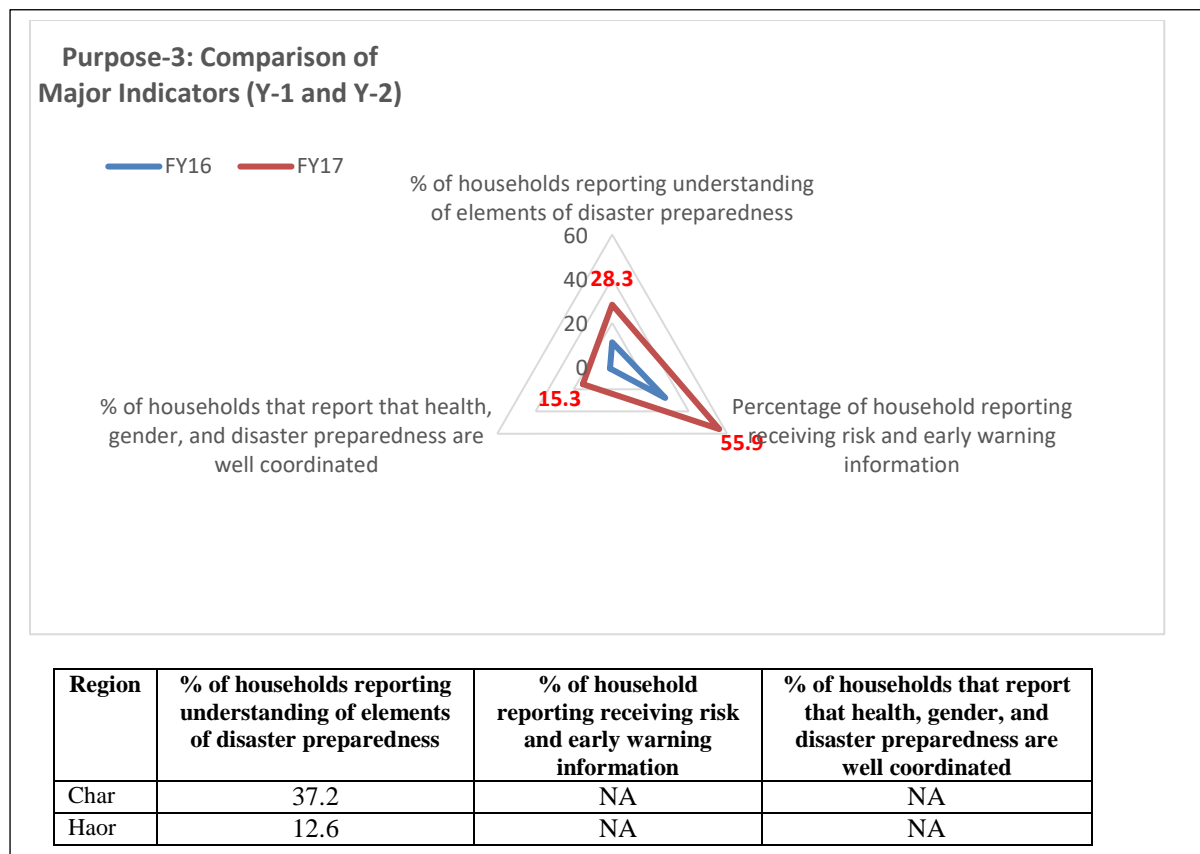


The findings revealed that the program participants are being more adaptive with the improved and new technologies as only 3.4% people used

improved and new technologies in FY'16, which is around 8 times more in FY'17 (26.5%). This is a positive trend and the program should continue it's momentum. There are no significant differences by region for this indicator.

**3.4.3: Comparison of major indicators of Purpose-3**

This section describes 03 major indicators of Purpose-3. The following graph clearly depicts that there is a significant improvement in all these 03 indicators. The red points (FY'17) are at the top for all the 03 indicators.



**3.4.4: % of households reporting the understanding of elements of disaster preparedness in project defined criteria:**

This indicator refers to the people who have an understanding of the local hazards that may cause disasters, how to get prepared and respond to that disaster/shock. SHOUHARDO III is exercising this indicator to get the percent/extent of people who are oriented on disaster preparedness and planning because it gives an idea about people's capacity to respond to a shock. The findings from the above graph revealed that there is a clear indication of improvement in understanding the disaster preparedness elements --- in FY'16, only 11.29% households had a good understanding on disaster preparedness elements; whereas, it is 28.3% in FY'17. Like other indicators, the households of char region reported better understanding than that of haor region.



***3.4.5: Percentage of household reporting receiving risk and early warning information:***

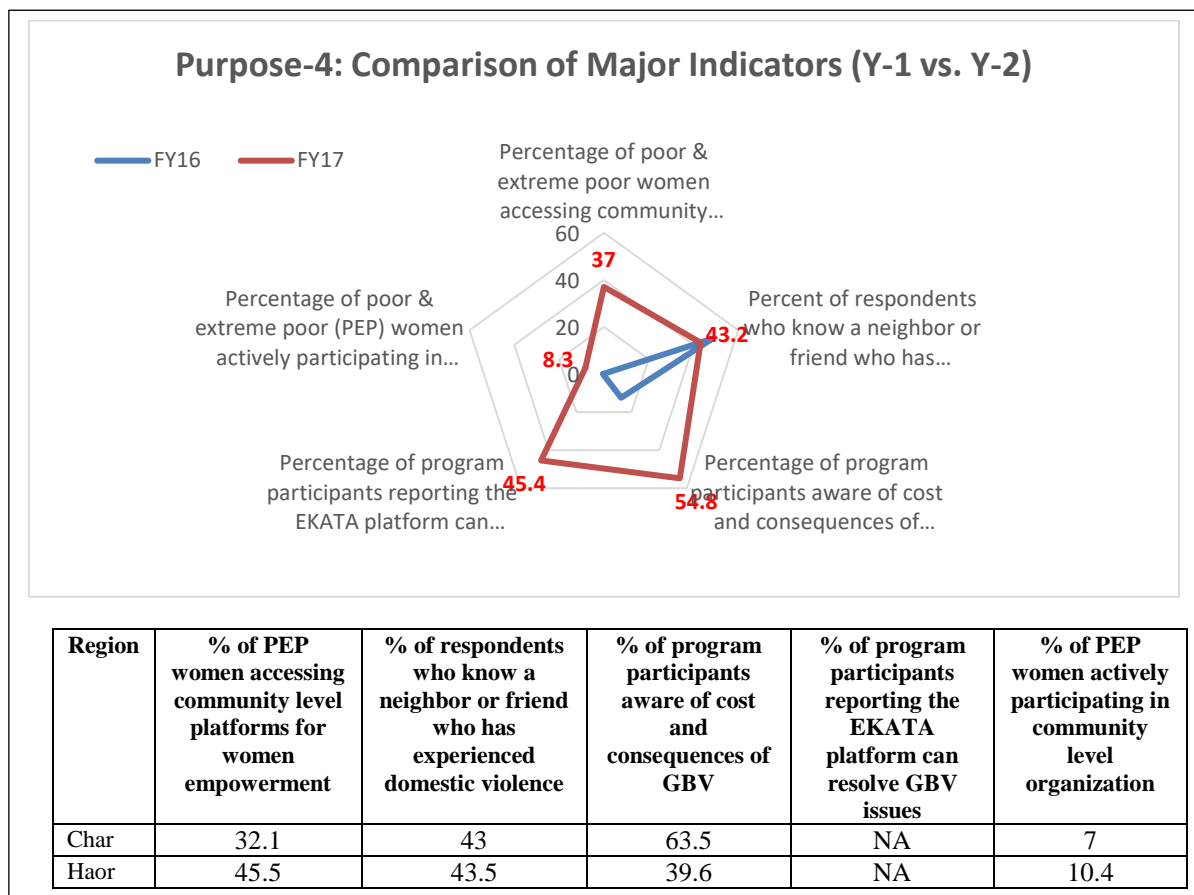
This indicator refers to the percentage of households receiving risk and early warning information. SHOUHARDO III follows the Bangladesh Meteorological Department (BMD) and Flood Forecasting and Warning Center (FFWC) generated indicator. This helps to indicate how people in disaster-prone areas and who rely on weather data for production are getting the risk and early warning information that helps them get prepared and respond to disasters/shocks. From the graph, it is revealed that only 27.7% households received risk and early warning information in FY'16, which is almost double in FY'17 (55.9%); so, there is a clear incremental trend of receiving the information of risk and early warning system.

***3.4.6: % of households that report that health, gender, and disaster preparedness by actors build on each other are well coordinated and focus on most critical needs:***

This indicator refers to the people living at the household level who have an understanding of the coordination mechanism among actors (local, international non-governmental organizations, government departments such as health, youth, and sports, social welfare, public health engineering, relief and rehabilitation etc.) on response or preparedness to local hazards. SHOUHARDO III attempts to get the percent/extent of people who are aware of the organization working/responding to shocks/disasters. As like other resilience indicators, there is also positive improvements in understanding about the coordination mechanism on disaster preparedness --- in FY'16, this was only 1.12% and it becomes 15.3% in FY'17. Achieving the understanding of the project participants on coordination mechanism is not a tranquil task and keeping behind that 15.3% achievement at the end of 2<sup>nd</sup> year of a program is not a brutal progress.

### 3.5: Women Empowerment

Purpose-4 is a strong one among other purposes of SHOUHARDO III and it ensures the gender diversity, equity and at the end talks about women empowerment. This year, a total of 06



indicators were used under Purpose-4 and the above spider diagram depicts the results of 05 indicators, which are narrated below:

#### ***3.5.1: Percentage of poor & extreme poor women accessing community level platforms for women empowerment***

This indicator measures the extent of women’s access to community platforms i.e. Village Development Committee (VDC), Empowering Knowledge and Transformative Action (EKATA), Ending Violence against Women (EVAW) Forum or any other local institution as a community level platform. This reflects and demonstrates evidence pertained to women’s rights. Not only that, it helped to raise the voice, in particular of women at the institutional level. In FY’16, women’s access towards community-level platforms was almost zero, which is 37% in FY’17; so, it is clear that women have got better accessibility towards different platforms (e.g. EKATA, VDC, etc). The progress of haor region exceptionally seems better than char region for this particular indicator and probably, this indicator may encourage others in the haor region.

#### ***3.5.2: Percent of respondents who know a neighbor or friend who has experienced domestic violence***

The main objective is to measure the extent of Gender Based Violence (GBV) at the community level. Basically, the indicator helps to understand extends of Gender-based

Violence within community-level and also whether Gender-Based Violence is reduced or not over the period as an impact of the project awareness activities. The findings revealed that the incidence of domestic violence has slightly been reduced from 48.38% (FY'16) to 43.2% (FY'17) and this trend is similar for both the regions. From the findings it seems that that people's perception towards domestic violence is started to change as in earlier they felt defame to report domestic violence.

### ***3.5.3: Percentage of program participants aware of cost and consequences of Gender Based Violence***

This indicator refers to community participants' knowledge on both the costs and consequences of violence against women. Costs of violence generally analyze three categories: economic/financial costs, physical costs (e.g. permanent disability) and time costs (e.g. time spent at arbitration or for medical treatment and recovery). The ability of the community to relate cost of different types of physical, psychological and sexual violence helps to understand the trauma a woman experiences from violence. Therefore, tracking this indicator helps to increase community understanding and to break the culture of silence when violence occurs. The findings revealed that the awareness of the cost and consequences of Gender-Based Violence is significantly increased as in FY'16 this rate was only 12.5% and in FY'17 it has been increased up to 54.82%. Alike other indicators, the awareness among the program participants of char region is higher than that of haor region. The progress shows a positive trend of changes in the attitudes and behaviors of both men and women to reduce Gender-Based Violence against women.

### ***3.5.4: Percentage of program participants reporting the EKATA platform can resolve Gender Based Violence issues***

This indicator provides the information about credibility of Empowering Knowledge and Transformative Action (EKATA) group to dealing Gender-Based Violence. The higher level changes at household livelihoods and economic conditions are directly correlated with women empowerment and their relation with support structures, like EKATA platform. The credibility of EKATA group is gradually increasing, which is clearly observed from the findings --- in FY'17, 45.4% program participants reported that the EKATA platform are performing to resolve Gender-Based Violence, which was almost zero in FY'16. The reason behind the poor figure in FY'16 is probably that it was the very starting stage just after the formation of the EKATA forum.

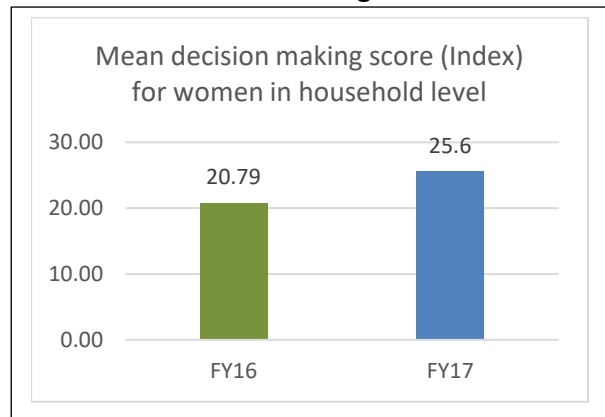
### ***3.5.5: Percentage of poor & extreme poor (PEP) women actively participating in community level organization***

This indicator is designed to find women from Poor & Extreme Poor households actively participate in community level organizations, e.g. Village Development Committee, EKATA and CBO that directly influence their livelihoods and basic rights. The aim of this indicator is to increase participation of women in the decision domain, which ultimately will help in

building of a more equitable relation between men and women, and the change in both formal and informal institutions. Still only 8.3% poor and extreme women are participating community level organizations, which is not a good progress at all as the target of FY'17 was 20%. So, it is recommended to emphasize in this area for the rest of the project period.

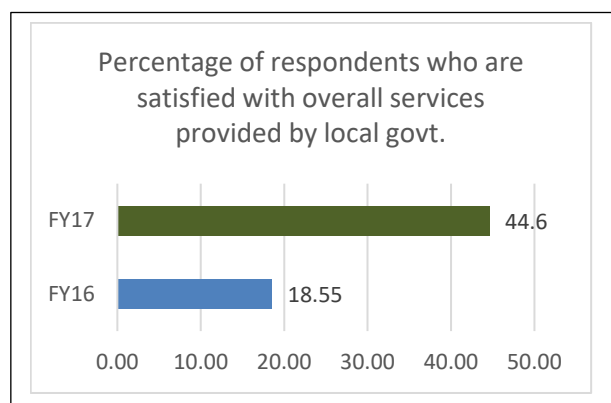
**3.5.6: Mean decision making score (Index) for women in household level**

This indicator provides the information about women’s decision-making choice between a number of options. Women’s participation in household level decision making includes being involved in spending money, selling or buying decision, use of income/savings/loans, etc. The plan to take this indicator is that it will help the project to facilitate to grow women’s ability (agency) to exercise choice by engaging in and influencing the outcome of household-level decision-making processes as it is an important element for bringing about positive changes in the status quo of gender relations. The scenario of decision-making capacity of women in household level should not be changed radically. The mean score of decision making capacity of women in FY'17 is 25.6, which was 20.79 in FY'16. Though the trend shows the positivity of decision-making capacity of women in household level, but still there is huge space to have more progress in this area for the rest of the project period.



**3.6: Governance**

This is the only governance indicator which SHOHARDO III is applying. During FY'17, SHOUHARDO III works with the indicator, 'Percentage of respondents who are satisfied with overall services provided by local govt.'. The objective of this indicator is to track performance of Union Parishad in terms of providing quality services with required quantity and in turn assess rationality of project support to the Local Elected Body. There is a significant improvement regarding this indicator as 44.6% respondents replied that they are satisfied with overall services provided by the local government; whereas, it was only 18.55% in FY'16.



## 4. Conclusions

It was a rigorous effort to collect the FY'17 Annual Monitoring Information for SHOUHARDO III program. Data were collected for a total of 27 indicators under 05 Purposes of SHOUHARDO III. From the findings, it is clearly observed that there are some good achievements in FY'17 and on the contrary, there are few indicators, which showed moderate/low progress. This year, there were some good attempts to collect information as a first attempt at some indicators. Very few straight-cut recommendations could be drawn from the overall findings and observations:

- It is distinctly observed that achievements/progress for the haor region is quite below than the char region and it happens for almost all indicators (with the exception for 1-2 indicators). So, undoubtedly it could be recommended that program should give more emphasize in haor region. On the other-hand, this is a fact that, working in haor region is not as easy as in char. Almost half of the period of a year, the communities are inundated or surrounded by water in haor region. So, different planning and a different set of strategies could be applied to haor region.
- Target resetting is applicable for few IPTT indicators, Like-Percent of physically improved sanitation facilities with feces visibly present on the floor, wall, or area immediately surrounding the facility. It is recommended to set the FY'18 target in a right way.
- This year, data collection under Governance theme is done for only one indicator. It's really tough to comment on governance with only one indicator. Other governance indicators, like participation and providing feedback to the poor and extreme poor (PEP) participants in an open budget, co-opting PEP participants in UP standing committee might increase the accountability and transparency of local government.
- Articulating indicators according to farmers' understandable format is really important ---- some attempts were taken this year (e.g. per decimal gross margin, per farmer income, etc.).
- According to the national data, there is a good coverage on children immunization (more than 80% children had been covered under EPI program); whereas the progress of Beneficiary Based Sample Survey 2017 is only 58.5%. So, there is still ample spaces to work in this area.
- Domestic violence still exists as a big problem as 43.2% household are experiencing with domestic violence according to the findings of FY'17. So, platforms like EKATA has a good role over the period.
- Needs to emphasize on few other indicators, like mothers understanding and feeling of washing hands at 05 critical times (13.5%), receiving iron supplements by the pregnant and lactating mothers (28.5%), mean decision score for women in household level (25.6%), etc.

Measuring annual progress of different program indicators is an appreciative effort. SHOUHARDO III attempts to collect field level data in each year with a view to know the status/progresses of the set indicators, this helps program people to take any corrective measures if required.