EEP/Shiree is a Government of Bangladesh programme (www.shiree.org) that aims to help one million extreme poor people take enduring steps [Shiree] out of extreme poverty by 2015. Shiree (the Bengali word for steps) also stands for “Stimulating Household Improvements Resulting in Economic Empowerment”).

EEP/Shiree works with the Bangladeshi authorities to ensure the needs of the extreme poor are recognised in policy and practice.

The programme is worth £84 million (around USD $131M) disbursed over eight years (2008-2015). It operates as a challenge fund supported by UK aid from the Department for International Development (DFID) and the Swiss Agency for Development Cooperation (SDC).

EEP/Shiree disseminates lessons learned and key findings from its work to help transform the way in development partners approach extreme poverty. EEP/Shiree seeks to increase understanding of the distinct experiences of extreme poverty in Bangladesh, and to raise awareness of extreme poverty in an international context.

EEP/Shiree has a high-quality research component known as the Change Monitoring System. One component is an annual panel survey called CMS3 (http://bit.ly/cms-3)

**Methodology**

The results presented here are from 6 NGOs, and provide a representative sample of extreme poor households in Bangladesh. Two NGOs (CARE and PAB) work in the far north-west, NETZ in the north-west, DSK in two urban slums in Dhaka and SCF and UTTARAN in the south-west.
A pre-tested structured questionnaire was completed by the head of the household or if he was absent, by his/her spouse.

Nutritional status was measured in adults based on Body Mass Index (weight/height²) and haemoglobin concentration and in children by height-for-age (stunting), weight-for-age (underweight), weight-for-height (wasting) and haemoglobin concentration.

**Findings**

1. Background

In March 2010 64 households from each of the 6 NGOs were randomly selected for regular follow-up. These households have completed their income generating activities (IGA) with EEP/Shiree and surveys from 2013 (survey 7) onwards reflect post-EEP/Shiree follow-ups. So far 9 surveys (numbered 1 to 9) have been conducted (March, July, October 2010, March, July and November 2011, March 2012, March 2013 and March 2014). Nutritional status was only measured annually in March each year (i.e. surveys 1, 4, 7 and 9). 294 households have participated in all 9 surveys. Attrition is primarily due to temporary absence on the day of the survey and only 7% of households had permanently moved away or the family members had died. There was no significant variation between households participating in all surveys and households that did not participate in one or more surveys, suggesting the findings are representative of the sample.

2. Demographic profile

42.7% of the sample were female headed and mean family size increased from 3.32 in March 2010 to 3.50 in March 2014. Female headed households (FHH) were smaller by, on average, 1.7 family members. FHH were primarily widowed or divorced while nearly all male heads (MHH) were married.

3. Chronic Illness and Morbidity

Chronic illness fell from 14% in March 2010 to under 1% in March 2014. Morbidity of family members also improved with prevalences of diarrhoea, fever, cough, skin and eye infection and passing worms all falling between 2010 and 2014.

4. Schooling

Less than 30% of MHH had attended school compared with only 16% of FHH. However there was improvement in their school-aged children with attendance rising by 12% in MHH and 20% in FHH between 2010 and 2014. More children from MHH than FHH attended school but by March 2014 the difference was only 4% (92% vs 88% attendance, respectively).

5. Employment

Between 2010 and 2014 MHH unemployment fell as did those working in agriculture and as a day labourer with concomitant increases in petty trade. In FHH unemployment fell to zero and begging reduced from 14% to 5% between 2010 and 2014 while livestock ownership increased substantially.

6. Land, housing, sanitation and electricity

Households with access to cultivable land increased from 19% in March 2010 to over 50% by March 2014. House size increased from 14 sqm, on average, in March 2010 to over 18 sqm, on average, by March 2014. MHH were on average 3 sqm larger than FHH. Use of grass for wall construction fell from 28% in March 2010 to 15% by

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**Key Findings of changes between 2010 and 2014**

- School attendance increased by 14% to 90% in school-aged children
- Access to cultivable land rose from 19% to over 50%
- Open defecation fell from 33% to 6%
- Households with Cash savings increased from 35% to 97%
- Number and worth of assets increased substantially as did the number of household belongings
- Cash and in-kind income (per person per day) rose from 34 to 82 Taka in urban areas and from 21 to 61 Taka in rural areas
- Total expenditure increased from 20 to 38 Taka with food expenditure accounting for about 70% all spending
- Food diversity increased by 40% overall and consumption of eggs rose from 33% to 85% and poultry from 4% to 44%
- Food coping strategies improved and eating less than 3 meals a day fell from 73% to under 1%
- Gender empowerment improved and women had greater influence on decision making in the household
- Adult and child nutritional status Adult BMI increased but anaemia worsened especially in female headed households. Prevalence of stunting and anaemia both fell substantially in children but underweight and wasting worsened
March 2014 while use of tin sheet increased from 24% to 46%. A similar pattern was found for roof construction. Although there was some improvement in electrical supply in rural areas 84% of households did not have a mains supply in March 2014. There was increased usage of piped water over the surveys and a fall in use of pond water. By March 2014 all urban households obtained their water from piped supply or a tube well while over 80% of rural households obtained their water from a tube well. Open defecation in rural areas fell from 33% in March 2010 to 6% by March 2014. 77% of households attained the sanitation Millennium Development Goal in March 2014 and 94% of households had soap/ash close to the water supply or latrine.

7. Cash savings
The percentage of households with cash savings increased from 35% in 2010 to about 80% by March 2011 and increased further to 97% by March 2014.

8. Assets
There were marked increases in ownership of animals, work-related equipment and household belongings between 2010 and 2014. Animal ownership increased from 31% to 75% primarily due to greater ownership of cattle, calves and goats. Ownership of working equipment increased from 59% to 87% over the same period. The number of household belongings increased from just over 3 (maximum 13) to 6 by March 2014. The value of assets (including shop) also rose sharply from 2,300 Taka in 2010 to 23,000 Taka in 2014 although by March 2014 MHH assets were worth about 10,000 Taka more than FHH.

9. Cash and in-kind income
Urban household mean cash income increased from about 30 Taka per person per day (pppd) in March 2010 to 71 Taka pppd by 2014. The equivalent rural values were 17 and 51 Taka pppd. MHH mean was slightly higher than FHH in both urban and rural areas but the differences were not significant. Mean in-kind income tended to increase over the 9 surveys and was consistently higher in FHH by about 5 Taka pppd. Overall in-kind income contributed about 20% to total income. Total income increased from 34 to 82 Taka pppd in urban areas and from 21 to 61 Taka pppd in rural areas.

10. Expenditure
Total expenditure was broken down into spending on food, household goods and work-related costs. Expenditure on food remained at 16 to 18 Taka pppd until March 2014 when it rose to 25 Taka pppd. Spending on food was highest in March 2010 (80%) and then fell to about 70% thereafter. Spending on household items rose modestly from 5 Taka pppd in March 2010 to 9 Taka pppd by March 2014. Work-related expenditure remained low throughout. Total expenditure increased significantly from a low of 20 Taka pppd in survey 2 to a high of 38 Taka pppd in March 2014. MHH and FHH had very similar expenditures but urban areas had the greatest mean expenditure in all surveys and the gap between urban and rural households increased from about 20 Taka pppd in March 2010 to 45 Taka pppd by March 2014.

11. Difference between household income and expenditure
The difference between household income (cash and in-kind) and expenditure per month was calculated for each household. Households tended to move from debt in March 2010 to credit from survey 2 onwards. MHH had greater net income than FHH from survey 5 onwards with the gap increasing to over 2000 Taka per month by March 2014.

12. Household food intake
Households were asked how often family members had eaten 13 food items in the 7 days prior to the survey. Consumption of meat, poultry and eggs increased by 30%, 40% and 55%, respectively, between 2010 and 2014. The mean number of different foods consumed in the last 7 days increased significantly from under 6 in March 2010 to over 9 by March 2014.
13. Household food coping strategies

Households were asked about 10 food coping strategies used as a result of financial hardship. There were significant improvements in all 10 strategies. For example, households having to borrow money to buy food fell from 20% to 0% between 2010 and 2014, while eating smaller portions of food fell from 82% to under 1%. In March 2010 households, on average, were using between 3 and 4 strategies, but by March 2014 hardly any households had to use them.

14. Social and gender empowerment

There were improvements in confidence about the future, awareness of government programmes designed for the poor and people outside the family who could be relied upon to help. Females were less frightened about moving alone outside their village. There were significant changes in all areas of household decision making in March 2014 with males less likely and females more likely to be the main decision maker.

15. Adult and child nutritional status

Mean adult BMI increased significantly by about 0.3 kgm-2 between 2010 and 2014. However anemia worsened and increased by 3% in MHH and by 15% in FHH between 2010 and 2014. Adult females who were not heads had better nutritional status than FHH, with higher average BMI (average +0.67 kgm-2) and lower anemia (49%). Part of these differences could be explained by the negative association of adult BMI and haemoglobin concentration with age, as FHH were 17 years older, on average, than female non-heads. In children the prevalence of stunting (chronic undernutrition) fell from about 50% in March 2010 to 36% by March 2014 and the prevalence of anemia fell from 36% to 29% over the same period. However wasting (acute undernutrition) worsened from 24% to 33% as did underweight (acute and chronic undernutrition) from 53% to 67%.

Fieldwork

The fieldwork for the surveys was carried out by trained staff supervised by Mr Jufry Abdul Jabber and aided by Ms Lucky Mahbuba Islam and Mr Arafat Khaled Ahmed. The training, quality control, data analyses and report writing was undertaken by Professor Nick Mascie-Taylor and Dr Rie Goto (both University of Cambridge, UK).