

## ANALYSIS OF THE EFFECT OF CHANGES TO THE CHILD MONEY PROGRAMME ON CHILDREN'S INCOME POVERTY

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### Хураангуй

“Хүүхдийн мөнгө хөтөлбөр”-т өөрчлөлт хийхэд хүүхдийн орлогын ядууралд ямар нөлөө үзүүлэх боломжтойг Өрхийн Нийгэм-Эдийн засгийн судалгааны 2014 оны тоон мэдээллийг ашиглан микросимуляцийн аргаар судалсан шинжилгээний үр дүнг энэхүү өгүүллээр танилцуулж байна. Хүүхдийн мөнгө олгогдохгүй бол ядууралд ямар өөрчлөлт гарах, хүүхдийн мөнгийг дөрвөн өөр хувилбараар олговол ядуурлын хамралт хэрхэн өөрчлөгдөхийг судлав. Хүүхдийн мөнгийг (1) 0-14 насны хүүхдүүдэд, (2) 0-5 насны хүүхдүүдэд, (3) Гурав болон түүнээс дээш хүүхэдтэй өрхийн бүх хүүхдүүдэд, (4) Гурваас дээш хүүхэдтэй өрхийн 3 дах хүүхдээс нь эхлэн бусад хүүхдэд нь олгох гэсэн дөрвөн өөр хувибарыг авч үзсэн. Шинжилгээний үр дүнгээс харахад ядууралд гарах сөрөг өөрчлөлт нь бага, төсвийн хувьд боломжтой байгаа учраас 3 дах хувилбар нь хэрэгжүүлж болохуйц харагдаж байна.

**Түлхүүр үгс:** Микросимуляци, Хүүхдийн мөнгө хөтөлбөр, Өрхийн нийгэм, эдийн засгийн судалгаа, Ядуурлын үзүүлэлтүүд

### Abstract

This paper presents the results of the analysis of the effect of changes to the Child Money Programme (CMP) on children's income poverty through microsimulations of Household Socio-Economic Survey 2014. The analysis described the sensitivity of the poverty to the absence of the CMP and assessed the effect on poverty of changes to CMP through microsimulations of four different scenarios: (1) child money is targeted at children aged 0–14; (2) the benefit is targeted at children aged 0–5; (3) the benefit is provided for children from households with three or more children; (4) the benefit is provided only for the third child and any subsequent children in a household. The overall findings seem to imply that Scenario #3 would be acceptable for the CMP, with a less negative impact on child poverty and a reasonable budget.

**Key words:** Microsimulation, Child Money Programme, Household Socio-Economic Survey, Poverty estimates

## 1. INTRODUCTION

Mongolia's universal Child Money Programme (CMP) is one of the country's flagship programmes and an essential part of its social protection system, one of the most progressive and comprehensive in Asia. It is a universal benefit, a mark of the Government's commitment to its children. It began in 2005 as a poverty-targeted and conditional programme, when increased tax revenues as a result of climbing copper prices gave Mongolia its first budget surplus. The transfer consisted of a monthly payment of 3,000 Mongolian Tugrug (MNT) (about US\$2.60) per child from families with three or more children and covered 350,000 children. The programme was expanded in June 2005 to cover all poor households regardless of the number of children, increasing the coverage to 650,000 children. In

September 2012, following the election, the new Government issued a resolution to re-implement CMP, effective from 1 October 2012, to provide all children under 18 with a cash transfer of 20,000 MNT per month from the Human Development Fund. Building on previous experience, 'child money' is unconditional and universal, with a far more simplified procedure for implementation.

Evidence shows that child money contributes significantly to the consumption of poor households, as poor households in Mongolia tend to have a large number of children. The 2014 Household Socio-Economic Survey (HSES) confirms that 28.9 per cent of all children live in poor households. Therefore, though not poverty-targeted, it is anticipated that the universal CMP will have a



progressive impact on reducing income poverty in households with many children.

Due to the current fiscal deficit and subsequent constraints, the Government is seriously considering making the CMP targeted.

UNICEF Mongolia conducted a research project that will contribute to the evidence base for debates around CMP, as in the past, decisions have been driven by political parties rather than informed by evidence. The aim is to analyze different CMP scenarios in terms of its impact on children's income poverty. This paper presents the some results of the research conducted using the HSES 2014.

The main objectives of this nationally representative and permanent survey-HSES 2014, carried out by the National Statistical Office of Mongolia (NSO), are to evaluate and monitor household income, expenditure and poverty. The HSES

2014 sampling frame was developed by NSO based on population figures for 2013 from local registration offices. The survey design recognizes three explicit strata: Ulaanbaatar (the capital), *aimag*/provincial centres, and rural areas and small towns/villages. A two-stage random sampling method was used. To obtain representative statistics for each stratum and for the whole country, household weights have been used.

This analysis focuses on monetary poverty estimates, and more specifically, on consumption poverty, hence the chosen welfare indicator is per capita consumption.<sup>37</sup>

The paper is structured as follows: Section 1 discusses poverty in the absence of child money, and Section 2 presents a simulation of alternative targeting criteria, followed by the Conclusion. Appendix A presents poverty estimates and the number of eligible children in the scenarios.

## 2. WELFARE PROFILE IN THE ABSENE OF THE “CHILD MONEY PROGRAMME”

The objective of this section is to describe the sensitivity of the welfare profile to the absence of the CMP. An assumption is that a household spends child money completely on expenses; therefore household consumption is reduced by the amount of child money the household re-

ceives. The re-estimation of poverty indicators in the absence of the CMP is shown in Table 1 and changes are shown in Table 2. It concerns a simulation and as such the findings are only an indication of what would happen in the absence of the CMP.

**Table 1: Poverty rates in the absence of the CMP, by analytical domain and region**

	Poverty indicators			Child Poverty indicators			Number of poor children
	Headcount	Gap	Severity	Headcount	Gap	Severity	
National	24.6	6.6	2.7	33.4	9.5	3.9	335 261
Urban	21.3	6.1	2.5	29.4	8.9	3.9	179 864
Rural	30.3	7.6	2.9	39.6	10.5	4.0	155 397
Ulaanbaatar	18.6	5.5	2.3	26.3	8.2	3.7	106 844
Aimag centers	26.9	7.3	2.9	35.5	10.2	4.3	73 020
Soum centers	28.4	7.4	2.9	37.5	10.2	4.1	67 583
Countryside	32.0	7.9	2.9	41.4	10.7	4.0	87 815
West	30.1	7.2	2.6	39.5	9.9	3.7	67 640
Highlands	28.8	7.1	2.5	38.8	10.0	3.7	75 082
Central a/	25.6	6.9	2.9	33.6	9.6	4.1	53 688
East	34.9	10.4	4.4	43.6	13.9	6.1	32 007

a/ Excludes Ulaanbaatar.

Source: Author's estimation based on HSES 2014

<sup>37</sup> For details on methodology, see NSO, *Poverty Profile* (2015).



In the absence of the CMP, poverty rates at the national level would have been 33.4 per cent instead of 28.9 per cent. In other words, due to CMP, the incidence of child poverty reduces from 33.4 per cent to 28.9 per cent and the number of poor children reduces by 45,000. However, this masks significant changes across different areas. In rural domains there is a clear reduction in poverty (from 39.6 per cent to 33.9 per cent). Across analytical domains, the incidence of poverty in *aimag* centres is reduced by 15 per cent, but in Ulaanbaatar poverty decreases only slightly. On the other hand, *soum* centres and the countryside experience a considerable decrease

in poverty, at around 17 per cent. Poverty changes across all regions. The incidence of poverty decreases in the Central region by 19 per cent, in the West by 17.4 per cent, in the Highlands by 14.8 per cent and in the East by 12.8 per cent. Both the poverty gap and the severity of poverty move in the same direction as poverty incidence, and poverty reduction is even larger.

The poverty gap is reduced by almost a third thanks to the CMP. In the countryside in general, the reduction is 36 per cent and in the Western region almost 40 per cent. This means that the money is actually going to the poor.

**Table 2: Poverty rates and changes**

	With CMP			Without CMP			Relative change, %		
	Headcount	Gap	Severity	Headcount	Gap	Severity	Headcount	Gap	Severity
National	28.9	7.3	2.7	33.4	9.5	3.9	15.6	30.2	44.9
Urban	25.7	7.0	2.7	29.4	8.9	3.9	14.6	27.0	41.0
Rural	33.9	7.8	2.7	39.6	10.5	4.0	16.9	34.8	51.2
Ulaanbaatar	23.1	6.5	2.6	26.3	8.2	3.7	14.2	25.7	39.7
Aimag centers	30.9	7.9	3.0	35.5	10.2	4.3	15.0	29.1	43.4
Soum centers	31.9	7.7	2.8	37.5	10.2	4.1	17.6	32.8	47.2
Countryside	35.6	7.8	2.6	41.4	10.7	4.0	16.3	36.4	54.9
West	33.6	7.2	2.4	39.5	9.9	3.7	17.4	38.5	57.4
Highlands	33.8	7.4	2.4	38.8	10.0	3.7	14.8	35.2	53.7
Central a/	28.2	7.4	2.9	33.6	9.6	4.1	19.0	29.1	41.4
East	38.6	11.1	4.4	43.6	13.9	6.1	12.8	25.4	39.0

a/ Excludes Ulaanbaatar.

Source: Author's estimation based on HSES 2014

The next table shows how poverty changes in terms of the number of children in households. The child poverty rate decreases monotonically with the number of children. This is not surprising, given that the child money indicator is per

child. The decrease in poverty seems to reduce dramatically in households with three or more children, accounting for six or more percentage points. In rural areas changes are greater than in urban areas.



**Table 3: Poverty rates in the absence of the CMP and its change, by number of household child members**

	Poverty rate (%)	Number of poor children	Share of poor children	Absolute change in percentage point	Change in number of poor children
National	33.4	335 261	100.0	4.5	45 278
1	13.1	28 260	8.4	1.5	3 236
2	26.5	100 527	30.0	3.9	14 766
3	42.4	110 533	33.0	6.1	15 784
4	58.8	63 293	18.9	8.2	8 845
5+	79.0	32 647	9.7	6.4	2 647
Urban	29.4	179 864	53.7	3.7	22 854
1	11.2	16 311	4.9	1.5	2 178
2	23.3	56 098	16.7	3.4	8 196
3	40.2	60 336	18.0	4.9	7 393
4	58.0	30 996	9.2	7.7	4 112
5+	77.3	16 124	4.8	4.7	975
Rural	39.6	155 397	46.4	5.7	22 424
1	17.3	11 950	3.6	1.5	1 059
2	32.2	44 429	13.3	4.8	6 569
3	45.4	50 198	15.0	7.6	8 391
4	59.6	32 298	9.6	8.7	4 732
5+	80.8	16 523	4.9	8.2	1 673

Source: Author's estimation based on HSES 2014

### 3. SIMULATION ANALYSIS

This section reports the poverty situation when it is re-estimated based on simulated household consumption. There are simulations for four different scenarios:

1. the benefit (child money) is targeted at children aged 0–14
2. the benefit is targeted at children aged 0–5
3. the benefit is provided for children from households with three or more children
4. the benefit is provided only for the third child and any subsequent children in a household.

The number of children eligible in each scenario is displayed in Appendix Table A.5.

The poverty estimate in Scenario #1 is shown in Appendix Table A.1; the second half of the table shows changes in the poverty situation that would result if child money is given only to children aged 0–14. The results show that living standards worsen slightly in Scenario #1, with all three poverty indicators showing a modest increase for the entire country. For instance, the incidence of child poverty rises from 28.9 to 29.2 per cent, an increase of 0.3 percentage points, and the number of poor children at the national level increases by 3,000. An increase can be seen across almost all analytical domains and

regions, although rural areas experience larger increases than urban.

Table A.2 shows poverty indicators in Scenario #2 and changes in the poverty situation that would result if child money is given only to children aged 0–5. In Scenario #2, the incidence of child poverty increases by 2.4 percentage points and the number of poor children by more than 5,000. Changes in rural areas are more pronounced than in urban areas.

Table A.3 presents poverty indicators in Scenario #3 and changes in the poverty situation that would result if child money is given only to children in households with three or more children. In Scenario #3, the incidence of child poverty increases by 1.6 percentage points and the number of poor children by more than 15,000. This, however, masks significant changes across different areas. In rural domains there is a clear increase in poverty (from 33.9 to 37.3 per cent), and in urban domains from 25.7 to 27.4 per cent.

Table A.4 reports poverty indicators in Scenario #4 and changes in the poverty situation that would result if child money is given only to the third child and any subsequent children. Poverty worsens significantly in Scenario #4. All three es-



timates show a considerable increase in poverty; for instance, the incidence of poverty rose from 28.9 per cent to 32.1 per cent.

The simulations show that poverty increases the most in Scenario #4, where child money is given only to the third child and any subsequent children.

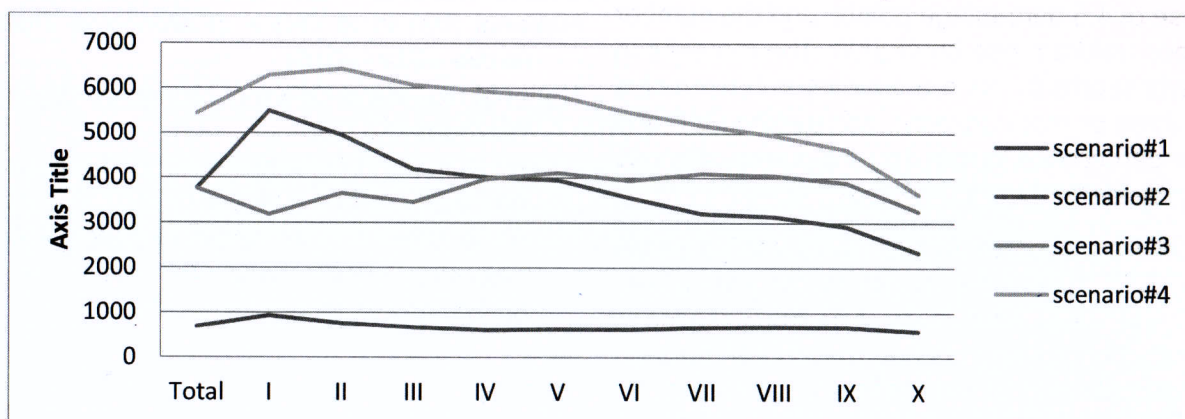
What is the impact of these simulations on the distribution of child money? Table 2.1 shows per capita child money in the four scenarios. In Scenario #1, child money is 5,907 MNT; the lowest level is in Scenario #4 where child money decreases by 83 per cent compared to the status quo.

**Table 4: Per capita monthly child money, MNT**

	National	Urban	Rural	Ulaanbaatar	Aimag centers	Soum centers	Countryside
The status quo	6590.0	6232.7	7215.3	6103.6	6497.2	6920.9	7481.6
scenario#1	5907.0	5716.6	6240.3	5691.9	5767.0	6065.5	6398.5
scenario#2	2814.7	2848.8	2755.1	2939.3	2663.3	2721.5	2785.5
scenario#3	2829.2	2435.4	3518.4	2387.1	2534.4	3111.6	3886.6
scenario#4	1150.5	976.7	1454.7	950.7	1029.9	1249.0	1640.8

Changes in the amount of child money by deciles are shown in Figure 2.1.

**Figure 1: Changes in the amount of child money, MNT**



Results show that very similar changes can be observed across the deciles in Scenario #1, while Scenario #4 and Scenario #2 show a steep decline in child money in poorer households and a small decrease in richer households. These results seem to imply that Scenario #3 would be the best option because poorer households would be less affected from the decline of child money.

#### 4. CONCLUSION

According to HSES 2014, the incidence of poverty among children is 28.9 per cent, which means that around 290,000 children live in poor households. Child poverty in urban areas is slightly lower than in rural areas, at 25.7 per cent and 33.9 per cent respectively. Among urban domains,

children in Ulaanbaatar are less poor than those in *aimag* centres. In rural areas, children in *soum* centres are less poor than those in the countryside. Urban areas comprise 61 per cent of children but only 54 per cent of poor children, a more share stands for to the capital than *aimag* centres. Around a fifth of poor children live in *soum* centres and slightly more than a quarter live in the countryside.

Poverty is quite high among single parent households, where one third of children are below the poverty line. However, they represent only 8 per cent of the total number of children and 10 per cent of poor children. The incidence of poverty and child poverty increases monotonically with household size as well as with the number of children. Poverty is extremely high among



households with five or more children children, where seven out of ten children are below the poverty line. These households account for just 4 per cent of the total number of children but 10 per cent of poor children.

According to the survey, monthly per capita child money during 2014 was 6,590 MNT. Average income from child money in rural households is higher than in urban, by 16 percentage points. Poor household also received child money that is higher than non-poor households, accounting for 47 percentage points. Child money seems to be an important source of income for poor households compared to non-poor, and accounts for 9 per cent in rural poor households and 6.3 per cent in urban poor. In terms of total income, the rural share of child money is twice as high as the urban share.

The re-estimation of poverty indicators in the absence of the CMP shows an increase in poverty. For instance, the incidence of child poverty grew from 28.9 per cent to 33.4 per cent, an increase of 4.5 percentage points, and the number of poor children rose by 45,000. The increase in poverty seems to rise dramatically in households with three or more children, accounting for 6 and more percentage points. In rural areas changes are greater than in urban areas.

All children aged 0–18 are eligible for a benefit of MNT 20,000 per month under the current universal CMP. This study, however, assesses the effect on poverty of changes to CMP through microsimulations of four different scenarios: (1) child money is targeted at children aged 0–14; (2) the benefit is targeted at children aged 0–5; (3) the benefit is provided for children from households with three or more children; (4) the benefit is provided only for the third child and any subsequent children in a household.

The poverty estimates are re-estimated based on simulated household consumption. The findings from all four scenarios show that poverty increases more (by 3.2 percentage point) in Scenario #4. Scenario #2 (at 2.4 percentage point) ranks second and Scenario #3 (1.6 percentage point) ranks third. Scenario #1 has a modest increase, accounting for 0.3 percentage points. In other words, if child money was only given to the third child and any subsequent children in each household, the poverty situation would worsen considerably compared to the other scenarios.

Analysis of the impact of these simulations on the distribution of child money reveals that the lowest level of child money is in Scenario #4, where it decreased by 83 per cent compared to the status quo. Analysis of the distribution of child money across deciles shows similar changes in Scenario #1, while Scenario #4 and Scenario #2 show a steep decline in child money in poorer households and a small decrease in richer ones. By contrast, Scenario #3 shows a slightly steeper decline in richer households and a slightly smaller decrease in poorer households.

In terms of cost estimates, Scenario #1 would cost 205 billion MNT; Scenario #2, 97.8 billion MNT; Scenario #3, 98.3 billion MNT; and Scenario #4, 40 billion MNT.

The overall findings seem to imply that Scenario #3 would be acceptable for the CMP, with a less negative impact on child poverty and a reasonable budget.

## REFERENCES

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## Appendix A: POVERTY ESTIMATIS

Table A1.1: Poverty in Scenario #1

Domain and region	Poverty indicators			Child Poverty indicators			Poor children	
	Headcount	Gap	Severity	Headcount	Gap	Severity	Number	Share
National	21.8	5.4	2.0	29.2	7.5	2.8	293 297	100.0
Urban	19.0	5.0	1.9	25.9	7.1	2.8	158 489	54.0
Rural	26.7	6.0	2.1	34.4	8.0	2.8	134 808	46.0
Capital	16.5	4.5	1.8	23.1	6.6	2.7	93 825	32.0
Aimag centers	24.2	5.9	2.2	31.4	8.1	3.1	64 664	22.0
Soum centers	25.1	5.9	2.1	32.6	7.9	2.9	58 726	20.0
Countryside	28.2	6.2	2.1	35.9	8.1	2.7	76 082	25.9
Absolute change/ in percentage point and number:								
National	0.2	0.1	0.1	0.3	0.2	0.1	3 314	0.0
Urban	0.2	0.1	0.0	0.2	0.1	0.1	1 480	-0.1
Rural	0.3	0.2	0.1	0.5	0.3	0.2	1 834	0.1
Capital	0.1	0.1	0.0	0.1	0.1	0.1	305	-0.3
Aimag centers	0.4	0.1	0.1	0.6	0.2	0.1	1 175	0.2
Soum centers	0.4	0.2	0.1	0.7	0.2	0.1	1 281	0.2
Countryside	0.3	0.2	0.1	0.3	0.3	0.2	553	-0.1

Source: Author's estimation based on HSES 2014

Table A1.2: Poverty in Scenario #2

Domain and region	Poverty indicators			Child Poverty indicators			Poor children	
	Headcount	Gap	Severity	Headcount	Gap	Severity	Number	Share
National	23.1	6.0	2.3	31.3	8.6	3.4	314 031	100.0
Urban	20.0	5.5	2.2	27.4	8.0	3.4	167 566	53.4
Rural	28.7	6.9	2.5	37.3	9.4	3.5	146 465	46.6
Capital	17.3	5.0	2.0	24.4	7.4	3.2	98 938	31.5
Aimag centers	25.5	6.7	2.5	33.4	9.2	3.7	68 628	21.9
Soum centers	26.7	6.7	2.5	35.0	9.2	3.6	63 094	20.1
Countryside	30.5	7.1	2.5	39.3	9.6	3.4	83 371	26.5
Absolute change/ in percentage point and number:								
National	1.6	0.8	0.4	2.4	1.3	0.7	24 048	0.0
Urban	1.1	0.6	0.4	1.7	1.0	0.6	10 556	-0.8
Rural	2.3	1.1	0.5	3.4	1.6	0.8	13 491	0.8
Capital	0.9	0.5	0.3	1.3	0.9	0.5	5 417	-0.7
Aimag centers	1.7	0.8	0.4	2.5	1.3	0.7	5 139	0.0
Soum centers	2.0	1.0	0.5	3.1	1.5	0.8	5 649	0.3
Countryside	2.6	1.2	0.6	3.7	1.7	0.9	7 843	0.5

Source: Author's estimation based on HSES 2014



Table A1.3: Poverty in Scenario #3

Domain and region	Poverty indicators			Child Poverty indicators			Poor children	
	Headcount	Gap	Severity	Headcount	Gap	Severity	Number	Share
National	22.9	5.7	2.1	30.5	7.9	3.0	305 754	100.0
Urban	20.2	5.3	2.0	27.3	7.5	3.0	166 661	54.5
Rural	27.8	6.5	2.3	35.5	8.5	3.0	139 093	45.5
Capital	17.5	4.8	1.9	24.3	7.0	2.8	98 717	32.3
Aimag centers	25.6	6.4	2.4	33.0	8.6	3.3	67 944	22.2
Soum centers	26.4	6.3	2.3	34.1	8.4	3.1	61 486	20.1
Countryside	29.1	6.6	2.2	36.6	8.6	2.9	77 607	25.4
Absolute change/ in percentage point and number:								
National	1.4	0.5	0.2	1.6	0.6	0.3	15 771	0.0
Urban	1.3	0.4	0.2	1.6	0.5	0.2	9 651	0.4
Rural	1.4	0.6	0.3	1.6	0.7	0.3	6 119	-0.4
Capital	1.1	0.3	0.2	1.3	0.4	0.2	5 197	0.0
Aimag centers	1.7	0.6	0.3	2.2	0.7	0.3	4 455	0.3
Soum centers	1.7	0.6	0.2	2.2	0.7	0.3	4 041	0.3
Countryside	1.2	0.7	0.3	1.0	0.7	0.3	2 079	-0.7

Source: Author's estimation based on HSES 2014

Table A1.4: Poverty in Scenario #4

Domain and region	Poverty indicators			Child Poverty indicators			Poor children	
	Headcount	Gap	Severity	Headcount	Gap	Severity	Number	Share
National	23.9	6.2	2.4	32.1	8.8	3.5	322 124	100.0
Urban	20.8	5.7	2.3	28.4	8.3	3.4	173 773	53.9
Rural	29.2	7.1	2.6	37.8	9.5	3.5	148 352	46.1
Capital	18.1	5.2	2.1	25.4	7.7	3.3	102 867	31.9
Aimag centers	26.4	6.9	2.7	34.5	9.5	3.8	70 906	22.0
Soum centers	27.7	6.9	2.6	36.3	9.4	3.6	65 431	20.3
Countryside	30.6	7.3	2.6	39.1	9.7	3.4	82 921	25.7
Absolute change/ in percentage point and number:								
National	2.3	1.0	0.5	3.2	1.5	0.8	32 141	0.0
Urban	1.9	0.8	0.4	2.7	1.3	0.7	16 763	-0.2
Rural	2.8	1.3	0.6	3.9	1.8	0.8	15 378	0.2
Capital	1.7	0.7	0.4	2.3	1.1	0.6	9 347	-0.3
Aimag centers	2.5	1.1	0.5	3.6	1.6	0.8	7 416	0.1
Soum centers	3.0	1.2	0.6	4.4	1.7	0.8	7 986	0.5
Countryside	2.7	1.4	0.6	3.5	1.9	0.9	7 392	-0.3

Source: Author's estimation based on HSES 2014



**Table A1.5: The number of children eligible in each scenario (and the current situation)**

	Universal option	Scenario#1	Scenario#2	Scenario#3	Scenario#4
Total	1 003 473	854 964	407 394	409 496	166 518
Urban	611 316	526 539	262 393	224 322	89 958
Rural	392 156	328 425	145 000	185 174	76 561
Capital	405 629	352 352	181 951	147 773	58 851
Aimag centers	205 688	174 187	80 442	76 549	31 106
Soum centers	180 261	151 643	68 040	77 793	31 226
Countryside	211 895	176 782	76 960	107 381	45 334

*Note: Number of children was estimated based on HSES 2014.*

*Source: Author's estimation based on HSES 2014*