

36018

Working Paper Series on

MONGOLIA

**ASSESSMENT OF THE CHILD MONEY PROGRAM AND PROPERTIES OF ITS
TARGETING METHODOLOGY**

Paper No. 2006-1

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**THE WORLD BANK
WASHINGTON DC, USA**

April 2006

CURRENCY EQUIVALENTS

(Exchange Rate Effective April 7, 2006)

Currency Unit	=	Mongolian Tugriks
1 MNT	=	US\$0.008926
US\$1	=	1120.37 MNT

FISCAL YEAR

January 1 to December 31

ABBREVIATIONS AND ACRONYMS

CCT	Conditional Cash Transfer
CMP	Child Money Program
GOM	Government of Mongolia
HSGIQ	Household Subsistence General Information Questionnaire
IBLIP	Index-Based Livestock Insurance Program
IMF	International Monetary Fund
LSMS	Living Standards Measurement Study
MSWL	Ministry of Social Welfare and Labor
PRR	Poverty Risk Ratio
SLP	Sustainable Livelihood Project
UB	Ulaanbaatar
UNDP	United Nations Development Programme
WB	World Bank

This document was prepared by the East Asia and Pacific Region's Human Development Sector Unit team of the World Bank. Any comments or questions can be submitted to M. Caridad Araujo, caraujo@worldbank.org. The team is grateful for the inputs and valuable discussions with the staff from the Mongolian Ministry of Social Welfare and Labor as well as our colleagues from the Asian Development Bank and UNDP that have informed this document. Sabrina Terry provided assistance with the production of the report.

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1. Introduction

The Mongolian system of social assistance is undergoing a process of transformation. The 2003 sector Master Plan identified the need to improve the targeting of benefits and to rationalize them. As part of this initiative, the Child Money Program (CMP) was launched in 2005. This program incorporated in its design elements that were very innovative, such as the use of proxy means testing for targeting. The CMP was implemented nationally and, within a year, it became the largest social assistance program in the country. The absence of piloting of the program and its operation makes it very relevant to assess its qualities and evaluate those aspects where — both from a design as well as from an implementation perspective — this program could be refined.

The main purpose of this document is to contribute to the policy discussion around the CMP. Many have raised concerns that the rapid growth and large coverage of the CMP have implications in terms of its fiscal sustainability. This note explores the targeting of the CMP to assess its potential and actual effectiveness in reaching the poor. This exercise serves multiple objectives: (a) to understand the implications of the *design* of the current targeting formula in terms of program size and their profile; (b) to open a discussion on how this instrument can be refined to simplify its implementation; and (c) to examine some of the operational aspects of the CMP that could be improved and aligned with the program's objectives.

This note is organized in four parts. It first presents a background description of the institutional setting and the involvement of the World Bank (WB) in the sector. The second section looks at provincial administrative data from the CMP and assesses the current geographic distribution of the program's coverage. The third part presents simulations that evaluate the properties of the current formula to determine eligibility into the CMP. The last section discusses the main recommendations for reform in terms of the design and implementation of the CMP that could enhance the program's effectiveness in reaching the poor.

2. Background: Mongolia's Social Assistance Sector and the Child Money Program

The Mongolian public safety net system consists of a range of programs of two types: (a) social insurance (retirement, unemployment, or sickness); and (b) social assistance (specific benefits to protect vulnerable groups, including the disabled and child allowances). The Child Money Program falls within the latter.

The main legal framework that regulates the eligibility for social assistance benefits comprises the 1995 Social Welfare Law and the 2001 Employment Promotion Law. Additionally, in November 2003, the Government of Mongolia (GOM) approved the Social Security Sector Master Plan. The main areas of reform of social assistance identified in the master plan were: (a) to rationalize the number and type of benefits; (b) to clarify the eligibility criteria of the different benefits to improve quality and accessibility of the sector's services; (c) to decentralize the management of social assistance services; (d) to professionalize the social welfare officers in charge of implementing social assistance; and (e) to promote community participation in particular the care-provider institutions.

The implementation of these reforms has been slow. In 2006, the World Bank Mongolia Poverty Assessment dedicated one of its chapters to the social assistance sector. Using the most recent household data, this report analyzed the targeting of the main social assistance programs and simulated their poverty-reduction effects. There were three major findings from the poverty assessment. First, a significant portion of social assistance goes to the non-poor. In fact, 70% of all non-poor households receive some form of social assistance. Second, a substantial portion of

the poor are excluded from these programs. Specifically, 40% of the country's poor do not receive any form of social assistance. Third, and as a direct consequence of poor targeting, in the absence of social assistance, the incidence of poverty would increase by 10%, from 36% to 40%.

In line with the new social assistance system emerging from it, the GOM introduced the CMP in January 2005.

The CMP

The CMP was the social flagship program of the government coalition in power until February 2006. In its design, the CMP introduced elements that were a dramatic move away from the old system of social assistance and into a new generation of targeted programs towards the poor.

The CMP was originally designed as a targeted conditional cash transfer (CCT) program. It aimed to reach poor households with children of ages 0-18. Cash transfers were conditioned on following mandatory immunizations, living with parents, and not being engaged in intolerable forms of child labor. In addition, for those with children ages 8-18, the transfer was conditioned on school enrollment.

The CMP was the first of a new generation of social assistance interventions targeted to the poor. It had two elements that differed from the traditional safety nets in Mongolia: (a) it conditioned the benefit receipt to specific behaviors on the part of the households; and (b) it introduced a proxy-means test for the identification of the poor. These two characteristics distinguish the CMP from other poverty alleviation strategies in place in the country. On the one hand, the CMP introduced the principle of beneficiaries being selected on the basis of need through an objective set of indicators and the possibility of abandoning the old system of subjective prescreening in the hands of local authorities. On the other hand, the CMP introduced an incentive scheme through which households would invest in human capital accumulation — reducing structural long-term poverty — while receiving a monetary transfer to assist in covering the more transitory needs.

The transfer consists of a monthly payment of MNT 3,000 (about US\$2.60) per child. Among those households incorporated in the program until December 2005, the average monthly payment was US\$5.20, or 25% of the *per capita* monthly poverty line from the 2002 Living Standards Measurement Study (LSMS).

Examining the processes of eligibility into the CMP and the program's actual implementation are of key importance to understand the main challenges it faces. Application and eligibility into the CMP are managed in a decentralized manner and consist of the following steps:

- a. Bagh or urban khoroo¹ governors must fill a "Household Subsistence General Information Questionnaire" (HSGIQ) for each of the poor households in their community. After filling out this questionnaire, the governor must determine the poverty status of the household based on income. This screening had been characteristic of the traditional Mongolian social assistance programs. There is large anecdotal evidence that documents the subjectivity of the process. In practice, this is the first one of a two-stage eligibility process for the CMP.

¹ Bagh or urban khorooos are the smallest administrative units in Mongolia.

- b. Poor families that are deemed to be poor by their governor can approach the local social welfare officers who are the ones in charge of managing the CMP². This officer administers a survey. All of the information in this survey is entered to compute their proxy-means score. The scoring is done manually by the program officers on the spot. Where computers are available, the officers use Excel.
- c. To register into the CMP, families must also provide the program officer with the following documents: (i) national identification of the parents; (ii) birth certificates of all children; (iii) marriage certificate of the parents; (iv) vaccination certificates of all children; (v) certificates of school enrollment of all children ages 8-18; and (vi) the HSGIQ.
- d. Once the household is registered in the program, the program officer provides the family member that is registered as beneficiary with a passport-size notebook. Every month, the beneficiary brings this notebook to the program officer for his/her signature. With this, the beneficiary goes to the local Agricultural Bank³ to collect his/her money. Families do not have to collect their payment every month and can opt to do it less frequently and let their allowance accumulate, but they gain no interest on it.
- e. Banks report on a monthly basis to the program officers on the total amount paid to beneficiaries of the CMP. No systematic monitoring of the program conditions is in place.

In a matter of months, the CMP became the largest social assistance intervention in terms of its share in budget. The rapid expansion of the program grew concerns because of its fiscal implications for the program's sustainability, but also because it suggested there could be problems with the targeting scheme. In less than a year, the program had reached more than twice as many as the total number of poor households in the country. For that reason, this document focuses on the issue of targeting. In terms of the CMP's fiscal implications, it is worth noting that the program started in January 2005; and by December of that year, it had reached 609,000 children from 303,000 households. Even with no further increases in the number of beneficiaries, the total size of program transfers was expected to account for about 1.4% of GDP in 2006. This is a particularly large figure when compared to the percentage of 2004 GDP that went to other social transfers such as social insurance (6.4%) and all other social assistance programs (1.3%).

From a fiscal standpoint, the size of the CMP raises a number of considerations. An analysis of debt sustainability in Mongolia carried out by the International Monetary Fund (IMF) and the WB in 2005 highlighted Mongolia's vulnerable position. One of the main sources of vulnerability for the country's fiscal sustainability is the rigidity of public expenditure. Already, between 2000 and 2004 (before the CMP was created), the percentage of current government expenditure that

² This note defines the program officer as the staff of the governor's office who, at the district level, is in charge of the registration of beneficiaries and their monthly certification of payments. Mongolia is divided into 22 provinces (aimags) and each of them is divided into districts (soums). The country has 340 districts (including both rural soums and urban districts) and below them, there are 1,671 rural baghs and urban khoros.

³ The Agricultural Bank charges the Government a per transaction fee of 2.3% of the value of the cash transfer (3.3% in rural soums).

went into social assistance programs increased from 3.7% to 4.3%. The IMF-WB report stressed the importance of avoiding fast increases in untargeted social welfare without the respective increases on the side of revenues. Expenditures can rapidly become “entitlements” and are difficult to cut in the future. The creation and fast growth and expansion of the CMP are an example of this type of process.

World Bank Involvement in the Social Protection Sector in Mongolia

In the last two years, the WB has been involved in the social protection sector through policy dialogue with the GOM. The WB has no operations in the sector, but has done analytical work to inform the policy dialogue. Some of the most recent pieces are the policy notes on targeting of social assistance programs and rural vulnerability that were disseminated in June 2005 as part of the preparatory work for the Poverty Assessment. Through its operations in other sectors such as education, energy, or rural development, the WB has also contributed to programs with direct welfare implications. For example, the Sustainable Livelihood Project (SLP) has offered support to vulnerable herders through a package of initiatives including participatory grazing and pasture management, support to herder groups, and support to the hay and fodder enterprise development. And complementing the SLP, the Index-Based Livestock Insurance Program (IBLIP) combines self-insurance, market-based insurance, and social insurance to help to mitigate the poverty impact of livestock losses.

Finally, and central to this piece, in the Spring of 2005, the WB engaged into a more active dialogue with the Ministry of Social Welfare and Labor (MSWL) around the CMP and, in particular, to provide technical assistance to improve the design and implementation of the program. As part of this initiative, the following activities are taking place:

- a. In July 2005, the WB provided the government with an analysis of the properties of the proxy-means test used for the identification of the beneficiaries of the CMP.
- b. In November 2005, a presentation was organized to disseminate the findings on the targeting of the current proxy-means formula and comparing it to other alternatives. This is the exercise that is presented in the current document.
- c. In close coordination with MSWL, the WB has funded the pilot creation of a CMP beneficiary database that could be used by the government to monitor the program and to evaluate eligibility and rationalize access to different government programs.
- d. In collaboration with MSWL, National Statistical Office (NSO), and UNDP, the WB is collecting nationally representative household-level data to evaluate the targeting of the CMP and its impact on households’ expenditure and schooling choices. Together with an institutional assessment of the operations of the CMP, this activity is part of the planned AAA work for FY07.

Involvement of Other Donors in the Sector

The only agency with a large involvement in the social protection sector is the Asian Development Bank (ADB) through their Social Security Sector Development Program. This program encompasses a policy loan and an investment loan for a total of US\$12 million dollars as well as a technical assistance grant for US\$720,000. The main components of ADB's program in the area of social assistance focus in supporting the reform of the sector to enhance community participation and targeting. The investment project also funds the upgrading and renovation of social welfare facilities. Additionally, ADB provides support in labor market policies (training, employment promotion, and improvement of working conditions) and social insurance, including support in information technology and database management.

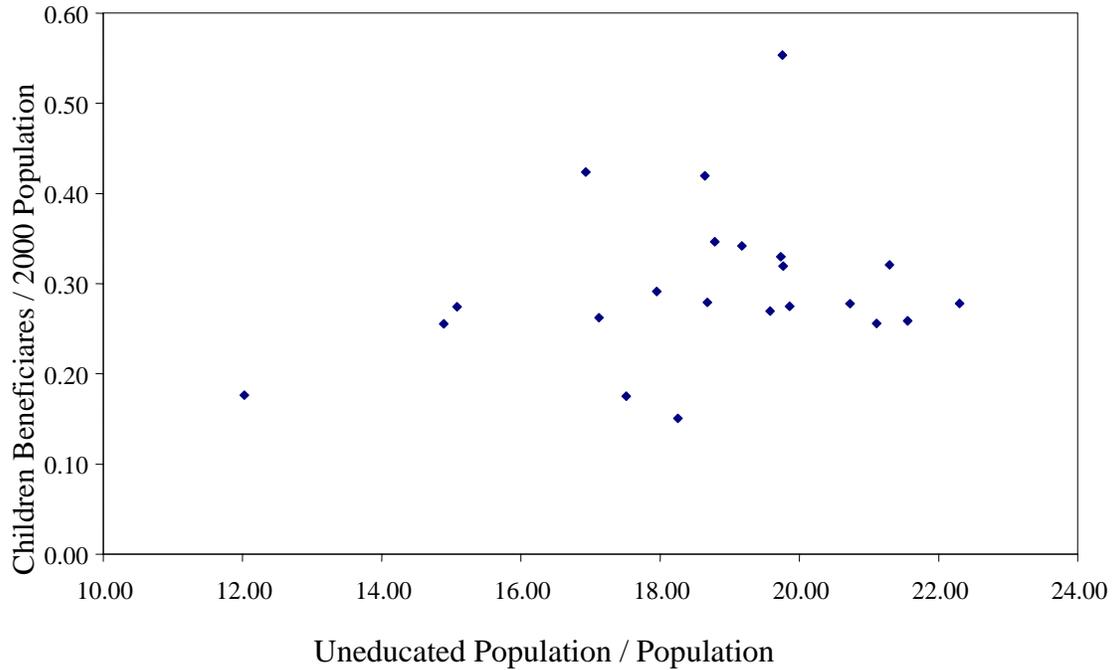
3. Aimag-level Coverage of the CMP and Correlates of Welfare

The only administrative data currently available to monitor the national growth of the CMP are the aimag-level (i.e., provincial) records of the number of program beneficiaries: households and children. While Mongolia does not have a poverty map or any other source of provincial socioeconomic data to contrast how the program geographic coverage compares to the distribution of well-being, it is possible to overlay the CMP coverage data to the 2000 census. These comparisons are discussed in this section.

Figures 1-4 depict a series of scatter plots that correlate the coverage of the CMP at the provincial level to a number of characteristics of the provinces. Due to data availability, we use an imperfect measure of coverage, defined as the ratio between the number of children beneficiaries and the total population of the province. This variable is an underestimate of the actual number of persons that are in fact covered by the program. Still, based on this measure, there is considerable variation in program coverage across provinces, as it ranges between 15% and 55%, with a median of 25%. Annex 1 presents the data that is illustrated in Figures 1-4.

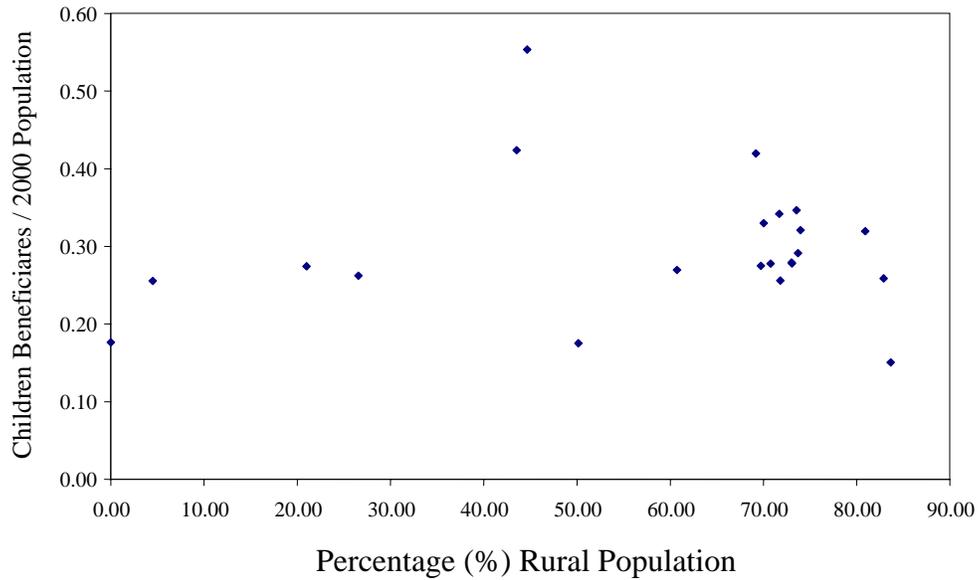
Interestingly, Mongolian provinces are also heterogeneous along other dimensions that are likely to be correlated to their average welfare. Figure 1 represents the correlation between CMP program coverage and the percentage of uneducated population. The census defines uneducated population as those who did not complete primary education. Since the cutoff age is 10 and above, it is an overestimate in that it includes children who are attending grades 1-4. The underlying assumption is that provinces with a larger share of uneducated population are likely to be worse off and should therefore exhibit a larger coverage of the CMP. While the figure does reveal a positive association between coverage of the CMP and low educational levels, the association between the two variables is weak and largely driven by an outlier. In fact, the correlation coefficient between the two variables is 0.25 and if Ulaanbaatar (UB) is excluded, it goes down to 0.09.

Figure 1: CMP Coverage and Uneducated Population



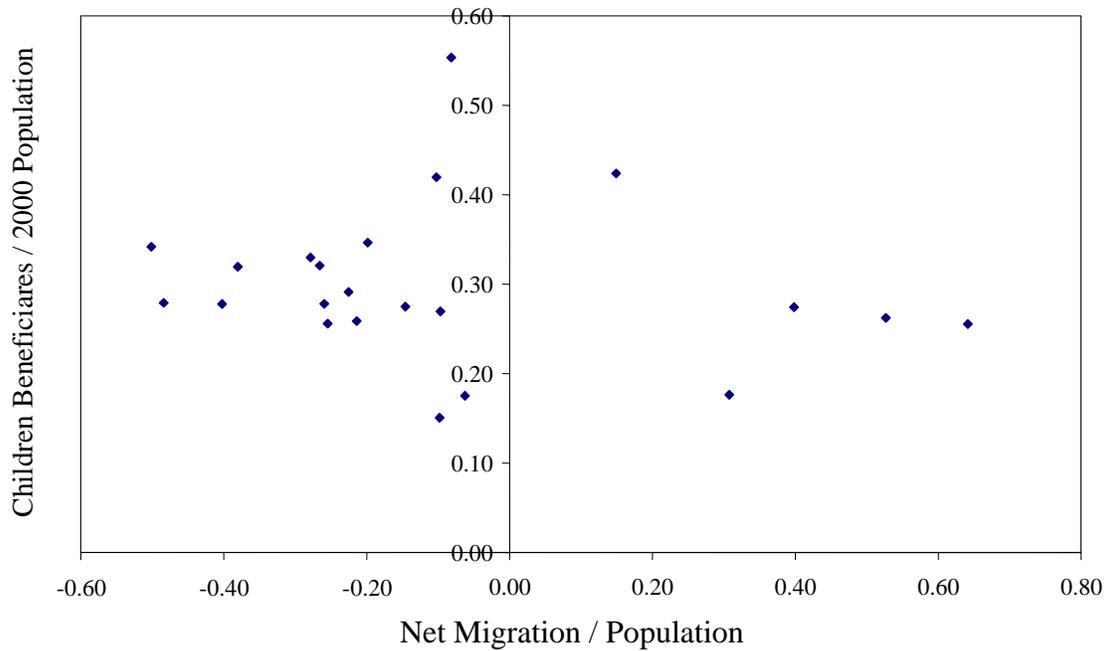
Similar trends to the one in Figure 1 are observed when comparing the CMP coverage to other socioeconomic variables that are likely to be associated to well-being, such as the percentage of population in rural areas (Figure 2), or the provincial net migration (Figure 3). The assumptions underlying these two figures are that — consistent with the national spatial distribution of poverty — provinces with a larger share of rural population are also likely to be poorer. At the same time, provinces that are more likely to attract migrants are those with better economic opportunities and well-being.

Figure 2: CMP Coverage and Rural Population



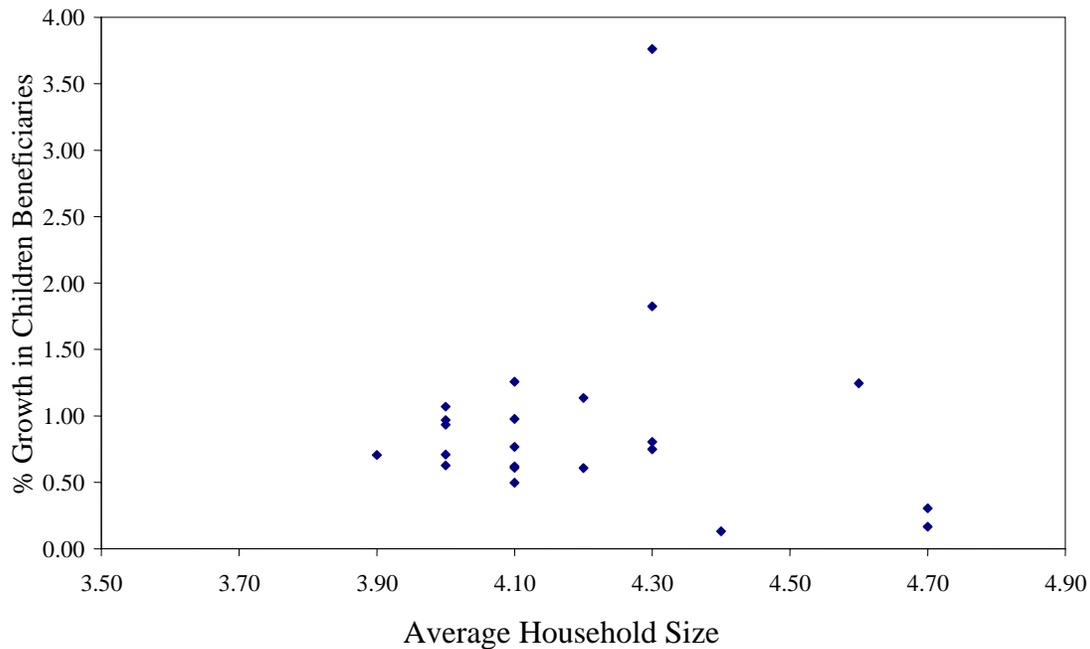
Figures 2 and 3 also illustrate a very weak association between the CMP coverage and these provincial attributes. The correlation between CMP coverage and the share of population in rural areas is only 0.10. Moreover, if UB is excluded, this correlation becomes negative (-0.08), meaning that places with larger rural populations are likely to have a *smaller* coverage of the CMP. Finally, while the association between net migration and CMP coverage has the expected negative sign, it is also weak and largely driven by UB (-0.16 and -0.08 if UB is excluded).

Figure 3: CMP Coverage and Net Migration



While Figures 1-3 use data for November 1, 2005 to estimate the coverage of the CMP, administrative records have monthly series. It is particularly interesting to compare the expansion of the program between June and November, since it was only after July 1 that the program incorporated *all* households with children (until then, it had been restricted to households with three or more children). One would expect that the largest expansion of the program between June and November would occur in provinces where the average household size is smaller. The figure is not at all supportive of any association between these two variables suggesting that the program expansion was not particularly focused towards the new eligible population that had been identified.

Figure 4: December-June Expansion and Average Household Size



Despite all of the limitations the administrative data and the census may have, these four figures seem to flag that there could be problems with the targeting of the CMP. It is clear that the provincial coverage of the program appears only very weakly associated to socioeconomic variables that are strong correlates of welfare. While one of the most outstanding attributes of the CMP as a new generation of interventions in social assistance in particular is the fact that it is targeted based on an objective assessment of well-being. This evidence supports the need to explore the design and implementation of the targeting formula of the CMP to identify what are the obstacles that are reducing its effectiveness.

4. Assessment of the Targeting Formula Based on Simulations

This section describes the methodology used for the analysis of the targeting properties of the CMP proxy-means formula. The formula is known as the poverty risk ratio (PRR) and was developed as part of a collaborative effort between UNDP and the Poverty Research Group of the Ministry of Finance⁴.

The PRR was derived from bivariate relationships between poverty and a series of its correlates. The PRR is ultimately a weighted sum of a number of household level variables (asset ownership, dwelling conditions, income earners, and access to social assistance). Annex 2 describes the variables in the PRR. Intuitively, the weights of each of these variables aim to detect along which of these dimensions of welfare are the poor “over represented”. The weights are directly derived by taking the ratio of share of poor of characteristic *i* to the share of the total population of that

⁴ Details on this methodology can be found in Ministry of Finance Poverty Research Group and UNDP — Mongolia, “Study of the Current Methodology for Identifying Living Standard of Households and Citizens and Its Comparison with Some Countries at Similar Level of Development — Survey Report”, 2005.

same characteristic $\left(\frac{\text{Share of poor of type } i}{\text{Share of } i \text{ in population}} \right)$. Weights are computed nationally, although

variables such as livestock ownership were added to the rural areas PRR. A household is eligible for the CMP if the weighted sum of these household characteristics divided by the number of variables in the formula is larger than 1. This means that — along a majority of dimensions — the profile of the household was similar to that of the average poor household in the country.

Moving to a proxy-means targeting system was an outstanding improvement from the Mongolian social assistance system. However, methodologically, the main weakness of the PRR is that it is constructed based on bivariate and not multivariate relationships between poverty and other household characteristics.

At the request of MSWL, the WB committed to provide results on alternative methodologies that determine indicators and their weights simultaneously, and compute the weight associated to each indicator taking into account the other indicators. This analysis is discussed in the next section. However, it is important to stress that before adopting any alternative targeting formula, it is fundamental to subject it to a qualitative validation with wide participation of social workers from different regions of the country. As has been documented so far, the costs of implementing the CMP nationally and without a proper piloting seem substantial. The lessons learned from this experience suggest the value of piloting and gradually moving with reforms in the program's design and implementation.

This exercise presented in this section is based on simulations done using the 2002 LSMS. No LSMS-type survey has been collected since January 2005 when the CMP was first implemented; and therefore, the 2002 survey is the best nationally representative source of information on poverty and household-level variables. However, and since this note attempts to assess the design of a 2005 targeting effort based on 2002 data, it is important to document some of the changes that occurred in Mongolia between 2002 and 2005. It is particularly important to mention that GDP has grown substantially since 2002. In fact, real GDP growth was 5.6% in 2003 and 10.6% in 2004. While some of the economic growth reflects the recovery of the livestock sector from large losses due to weather shocks, the more substantial increase comes from high mineral prices and the development of new mines. Over the same period, the unemployment rate changed little and — if anything — it experienced a slight increase. Given the nature of recent growth, it is unlikely that its benefits have been strongly pro-poor. However, if anything, an analysis based on 2002 data is likely to be biased in that it over-estimates poverty and the size of the eligible population for social benefits like the CMP. Given the country's context of recent prosperity, it becomes even more important to identify mechanisms to properly redistribute this new wealth towards the poor. A well-targeted safety net system would certainly serve this purpose. This is an additional motivation for the analysis in this note.

It is also important to stress the implications of the fact that the analysis is purely based on simulations and not on actual observed data about the program's beneficiaries. Given the information available, these figures show how the CMP ought to have been targeted according to program design. However, the empirical analysis is unable to quantify whether there have been any problems during program implementation that resulted in a different distribution of beneficiaries than the one described here.

The logic of this exercise is the following. First, using the household survey, the PRR is reproduced. Then, alternative targeting measures are constructed and compared to the properties of the PRR. The “gold standard” against which all these targeting tools are assessed is household consumption (and poverty) as measured by the LSMS.

It is not possible to do a perfect replication of the PRR using the LSMS because some of the variables in the PRR are either not in the survey or are included in a slightly modified version. Annex 2 documents the variables that were not included in the simulation exercise with an “X” in the last column of the table. The same column details any modifications to variable definitions in cases where they were necessary. Given that adjustments to the list of variables had to be made, the actual weights for the variables in the PRR were re-estimated using the LSMS. Following the design of the PRR used for targeting the CMP, weights were computed nationally for most variables. For those where an urban/rural differentiation is made in the PRR, this distinction was respected in computing their weights for the simulation exercise as well.

Table 1 summarizes the alternative targeting tools that were produced using the LSMS and whose targeting properties are compared to those of the PRR. Models C and C1 are ordinary least-squares regressions on the logarithm of per capita consumption. As explanatory variables, they both select a subset of household-level variables that best explain consumption⁵.

There are two main differences between the two models. First, that model C draws the best-fit variables from the same set of indicators that enter into the PRR while model C1 incorporates some additional variables that are usually good proxies of household welfare⁶. Second, that model C estimates two separate models (one for urban areas — UB and aimag centers — and another one for rural areas — soum centers and the countryside), while model C1 estimates four separate models, one for each of the survey strata (UB, aimag centers, soum centers and the countryside). Estimating separate equations for different geographic regions allows for more flexibility in modeling the association between wellbeing and household characteristics.

Finally, model PC computes an index of poverty using principal components⁷. While it is a second-best alternative when consumption data is available, it constitutes a methodology frequently used in poverty targeted programs. It limits the variables to the best-fit of consumption chosen for model C1 and focuses on one specification at the national level⁸.

⁵ This is done using a backwards step-wise estimation procedure, where the significance level for removal from the model is pre-defined at 0.2 and the significance level for addition to the model is pre-defined at 0.1.

⁶ Specifically, the additional candidate variables incorporated in model C1 are: (i) information on the household head (age, age squared, gender); (ii) information on the spouse of the household head (presence of one, level of education); (iii) availability of public utilities (type of water supply, waste disposal, sewage, phone, and electricity); (iv) housing characteristics (type of toilet, kitchen, bathtub, and heating fuel); and (v) other polynomials (livestock size squared, number of children and its square, household size and its squared). The model selected a subset of these variables that best explained consumption.

⁷ Principal components are frequently used to construct welfare measures when income or consumption data are not available. Principal components analysis is part of factor analysis and combines statistical techniques that allow “summarizing” the correlation between a set of variables into one factor.

⁸ Separate regional models were also tried, but results differed little.

Table 1: Alternative Targeting Tools

	C: Predicted consumption	C1: Predicted consumption 1	PC: Principal components
Method	OLS regression on consumption		Principal components
Correlates	Same as PRR	Same as PRR + other	
Criteria for variable selection	Best fit	Best fit	Same as C1
Level of estimation	Urban Rural	UB, aimag center, soum center, countryside	National

The LSMS survey is used to compute each of these proxies of welfare for the households in the survey. The next step is to evaluate how good a job they do in predicting well-being and ranking households in the survey, compared to observed household consumption.

Number of Beneficiaries

The first question is how many families would be eligible for the program if one was to use these alternative methodologies to proxy poverty. As a reference and based on the LSMS, there are a total of 434,000 households with children ages 0-18 in Mongolia. Of them, 146,000 households are below the consumption poverty line.

Among all those defined as poor, only those with children ages 0-18 (even if out of school) are counted in simulating the number of program beneficiaries. Table 2 summarizes the results.

The table clearly shows that — compared to the regression models based on consumption poverty — the PRR results in a significantly larger definition of who would be classified as poor. Model PC offer a less interesting comparison, as poverty was exogenously established at the two bottom quintiles and therefore is — by construction — 40% percent of the population. The last row of the table computes what the total cost of program transfers would be, assuming a monthly transfer of 3,000 MNT per child. Although it is just a proportional transformation of the number of children, it illustrates the large differences in the implications in terms of budget across each of these alternative formulas.

Table 2: Predicted Number of Beneficiaries by each Targeting Methodology

	PRR	C	C1	PC⁹
Number of families	223,842	106,346	119,188	212,787
Number of children	600,515	359,281	394,892	671,447
Annual transfers (millions of MNT)	21,619	12,934	14,216	24,172

Classification of Households and Implications for Program Design

The second question is how many of those who are actually predicted to be poor according to the methodologies described in Table 2 are poor based on their observed level of consumption. This question is answered in Figure 5, which combines a number of graphs. Each graph refers to one particular targeting indicator. In the horizontal axis, the figures illustrate observed consumption, while in the vertical axis they depict the welfare measure predicted through each of these targeting methods. All measures were normalized so that welfare increases while moving away from the origin. In addition, a vertical line was drawn at the consumption poverty line and a horizontal line was drawn at the threshold between those households predicted to be poor based on each of the alternative targeting methodologies. Each household in the survey is represented by one dot and counted equally, i.e., no survey weights are applied. Households that fall in the NE and SW quadrants (colored in blue) are those whose welfare status was predicted correctly by the targeting formula. Those households in the SE quadrant (colored in red) are non-poor households classified as poor by the targeting methodology. Throughout this document, the percentage of households deemed eligible by the program but who are not poor based on observed consumption will be referred to as the formula’s inclusion error. Finally the green dots in the NW quadrant are poor households that were classified as non-poor by the targeting methodology. In turn, the percentage of all poor people who are — incorrectly — deemed ineligible for the program is the exclusion error of the targeting formula.

A visual inspection of the figure suggests that all methodologies have inclusion and exclusion errors. This is perhaps not surprising under the presence of some measurement error in consumption which is impossible to avoid in any survey. It suggests that many of the households in the region of the distribution around the poverty line look alike. If this is the case, targeting is bound to make mistakes especially around this particular region. However, the magnitude of these mistakes is likely to depend on the targeting formula. Moreover, errors are also expected to be more severe if eligibility is not revised frequently as is the case in the CMP. In a situation of this sort, it may be difficult to improve the targeting only by altering the tool used to identify who the poor are and/or by modifying the frequency of poverty assessments. As an alternative, the program could set a bracket around the poverty line around which some inclusion error is acceptable. This bracket could be reflective of the inability of the program administrators to observe the “true” poverty status of households at all points in time-based on any proxy-means targeting formula. Another option would be to focus only on a different segment of the

⁹ Beneficiaries were defined to be the bottom two quintiles of the principal components index like in other programs such as Oportunidades in Mexico. Therefore, the total number is fixed by construction.

distribution, for instance, the extreme poor. However, this may imply other tradeoffs in terms of the political economy behind the program.

While there seem to be differences across methodologies in the magnitude of the inclusion errors, all methods produce similar exclusion errors. In order to understand who — among the poor — are left out of the program, Figure 6 reproduces the targeting quadrants using both the poverty line and the extreme poverty line (and applying the consumption model C1). Interestingly enough, it is clear that with this targeting method, the large majority of the exclusion problem refers to households that are poor but not extreme poor. In fact, the median level of consumption among excluded households is at 80% of the poverty line. This reinforces the idea that a formula like C1 would be good at capturing the extreme poor but does a less satisfactory job in distinguishing between poor and near poor. In looking at how those excluded differ from the rest of the poor in their observable characteristics, one finds that they are more likely to live in urban settings and be better off in different dimensions (e.g., better housing, more education and assets, better access to public utilities, fewer members, and others). While the data is not informative enough to test this hypothesis rigorously, a possible explanation is that a large number of the households in this region are transitory¹⁰ poor. If this is the case, a policy question that needs to be answered is if a program like the CMP should aim to reach both transitory and structural poor, and whether there could be other forms of social assistance more effective in reaching the former.

To make a relevant comparison across methodologies, Table 3 fixes the target number of program beneficiaries at 146,000 households, or the number of poor households with children of ages 0-18 based on the LSMS. The question to be answered is: if one wanted to reach the poorest households with children in the country, which of these methodologies would be most effective?

The criteria established to judge the targeting properties of each methodology are the following: (a) the percentage of beneficiaries who are poor; (b) the percentage of beneficiaries who are non-poor; (c) the percentage of poor who are non-beneficiaries; (d) the percentage of beneficiaries who are extremely poor; and (e) the percentage of extremely poor who are non-beneficiaries.

Table 3 summarizes the results of this exercise (applying population weights). In bold, it presents the cells corresponding to the method that does better than the others for each indicator (or row). It is clear from the table that the consumption-based methodologies (C and C1) reach more of the extreme poor than the other two¹¹ methods. Moreover, inclusion and exclusion errors appear smaller when using these methods.

¹⁰ The transitory poor are those who may be going through a temporary spell of poverty due to an adverse shock of which they can eventually recover. This group differs from the structural poor, or those with such small wealth an assets, that have a very small probability of not being poor in the future.

¹¹ As a reference, the evaluation of the Oportunidades Program done in 2000 by Skoufias et al. found that this program had an exclusion error of 25% and an inclusion error of 40%. (Skoufias, E. and others, *Evaluation of Household Beneficiary Selection in Progresá*, in “Progresá: Más Oportunidades par las Familias Pobres”, Mexico, 2000).

Figure 5: Comparison of Households' Classification according to Different Targeting Methodologies

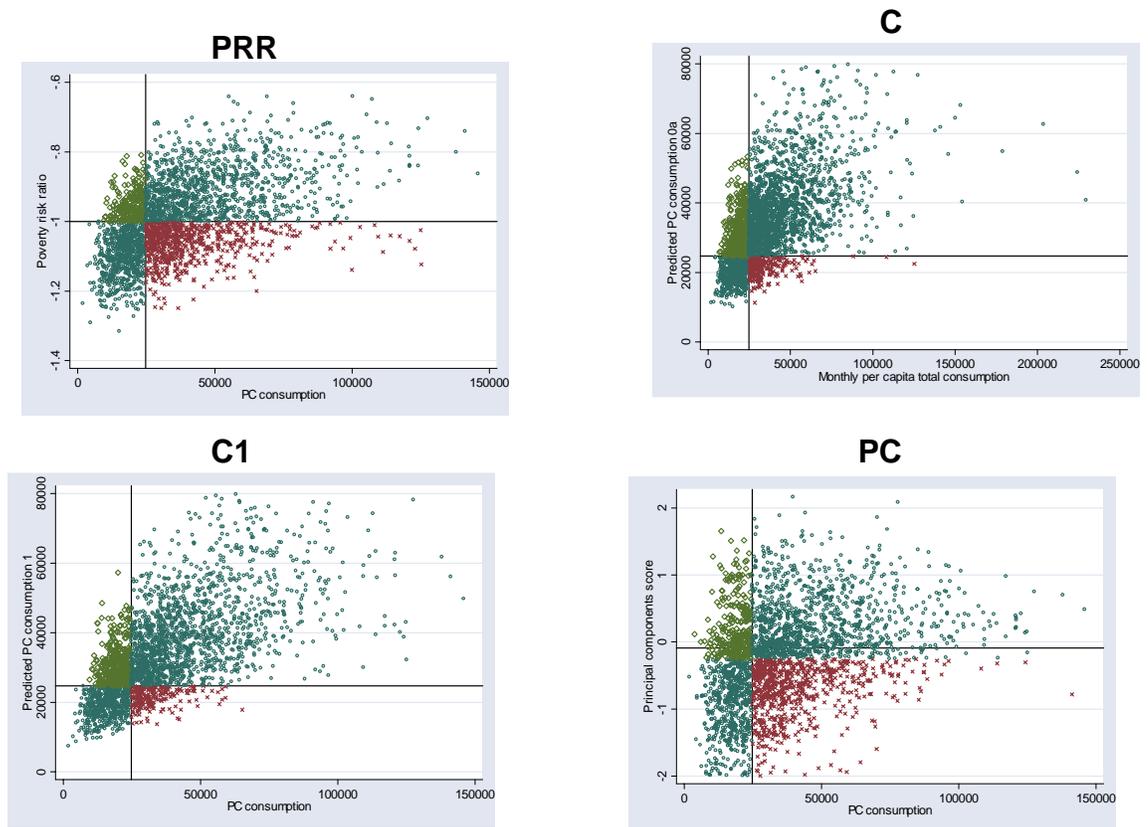
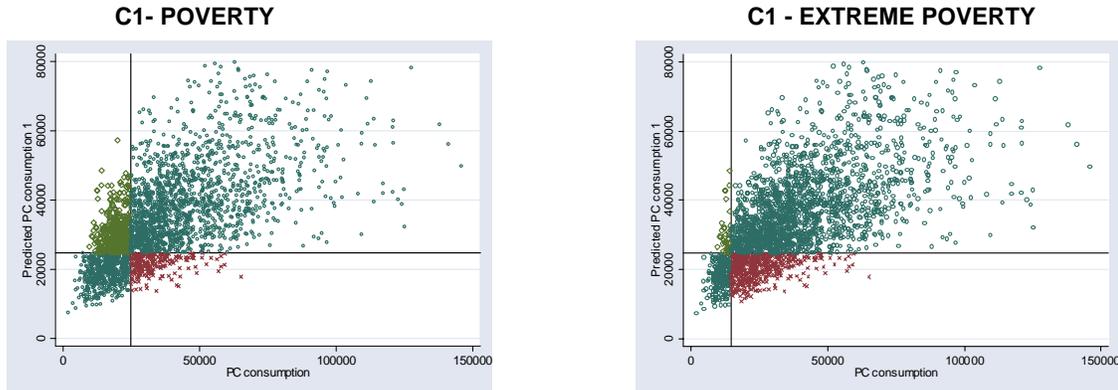


Figure 6: Misclassification of Poor and Extremely Poor Households based on Consumption Model C1



**Table 3: Simulated Program Design
(Poorest 146,000 Households with Children)**

	PRR	C	C1	PC
Poverty				
Beneficiaries who are poor	85,500	90,0000	95,000	79,000
% who are poor	62%	64%	67%	54%
% who are not poor	38%	36%	33%	46%
% of poor without benefit	42%	38%	35%	45%
Extreme poverty				
Beneficiaries who are extreme poor	28,000	32,0000	33,900	25,000
% who are extreme poor	20%	23%	23.7%	17%
% of extreme poor without benefit	27%	17%	11.7%	34%

Given the fact that any targeting formula will make some errors in predicting welfare status, it is important to take a more in-depth look into the inclusion and exclusion errors. Table 4 explores further where in the distribution of expenditure are those that appear to be misclassified by the targeting formulas. It illustrates that a large majority of the inclusion error favors households that are right above the poverty line. This is particularly clear in the consumption model C1. The table also shows that this method minimizes the percentage of excluded that are poorest, or farthest away from the poverty line. Again, the performance of the PRR is less satisfactory in this respect and closer to that of PC. Thus, if one was to acknowledge the limitations of targeting and establish a bracket within which some errors are acceptable, it still seems that model C1 is more effective than the rest and represent an improvement relative to the PRR.

**Table 4: Distribution of Inclusion and Exclusion Errors
(Poorest 146,000 Households with Children)**

	PRR	C	C1	PC
INCLUSION	38%	36%	33%	46%
Of those who are non-poor and benefit...				
up to 20% above poverty line	29%	33%	39%	27%
>20-50% above poverty line	34%	34%	33%	32%
>50-100% above poverty line	21%	22%	21%	23%
>100% above poverty line	16%	11%	7%	17%
EXCLUSION	42%	38%	35%	45%
Of those who are poor and don't benefit...				
up to 10% below poverty line	24%	28%	31%	23%
>10-20% below poverty line	22%	21%	24%	21%
>20-30% below poverty line	19%	22%	21%	19%
>30% below poverty line	35%	29%	24%	37%

5. Recommendations

Improving the Targeting Formula

Administrative data reveal in its first year of life, the CMP incorporated 35% more families than what the simulation predicts there should be had the PRR been applied flawlessly. While there is not enough data available to decompose this number between implementation errors and design errors, these figures give a sense of the order of magnitude of the program's problems. If implementation had been done without a mistake, there are 35% more household beneficiaries than there ought to be and this would be due to implementation problems. What is even more important, given the limitations in the targeting properties of the current formula even if implementation was perfect, it is likely that between 36% and up to 62% of the current beneficiary households are not poor. This confirms the urgency to fix targeting problems of the CMP in the short term.

The analysis above suggests that the targeting formula for the CMP could be improved. First, there is room to simplify the formula itself, making implementation easier. Second, the formula can be substituted with one that — by construction — produces fewer beneficiaries, thus ensuring fiscal sustainability of the program as well as the capacity to maintain the monetary benefit at a meaningful level in real terms in the future. Third, an alternative formula could do better in terms of minimizing inclusion and exclusion errors. Finally, an alternative targeting criterion could ensure that more of the extreme poor are eligible for the program. But specifically, what could be done to improve the formula?

- a. With the available data, it could be substituted with a consumption equation that selects a subset of the variables that currently enter into the formula. This subset of variables would be the one that produces the best regression explaining variations in consumption. Annex 3 illustrates how such a formula could look like if based on the specification of the consumption model C used for this analysis. It is important to note that the table is about half of the size of the one that is currently being applied

and that is presented in Annex 2, suggesting a considerable simplification. The coefficients in a table like the one in Annex 3 would be applied to determine a level of predicted consumption, and the poverty line (or a bracket around it) would be the cutoff criteria. This represents an improvement from the current methodology (it would reduce the base of beneficiaries considerably, improve the targeting, and simplify the implementation) and could be implemented at a relatively low operational cost.

- b. Although the CMP is a relatively new program, it is likely that a certain sense of entitlement to it has already developed among the beneficiaries. For this reason, any adjustments in the targeting that require revising the eligibility of a considerable number of families may be unpopular. International experience suggests that the political feasibility of such a reform depends to a great extent on the transparency and credibility of the targeting criteria reaching the poorest. A gradual implementation of targeting reforms has also proven to facilitate the process.
- c. This exercise has demonstrated that with additional data — such as the one used in model C1 — the targeting properties of the CMP could even be refined and improved. Collecting additional data on current program beneficiaries should not impose a very large cost, as it could be done when beneficiaries come to the program offices to collect their benefits. Examples of the type of data one would want to collect to complement the one that is currently available are: (i) more information on the household head and his/her spouse; (ii) household availability of public utilities; (iii) other housing characteristics; and (iv) asset ownership. Annex 4 details the type of information that is collected to qualify for the Oportunidades Program in Mexico. The fact that all this information is collected about the beneficiaries does not imply that all of these variables enter in the proxy means formula. Thus, collecting more information does not imply making the targeting formula more complex, as all of these variables do not have to enter into the targeting formula (as it is in Mexico, where only a subset of these variables enters in the index). However, having this information could allow more flexibility for regional adjustments in the targeting formula. Moreover, the more information is collected, the more difficult it is for beneficiaries to strategically fix their answers to qualify for the program.

Refining the Design and Implementation of the CMP

The evidence presented so far has documented that the rapid expansion of the CMP beneficiary base could be jeopardizing the program's fiscal sustainability. Moreover, it seems that the design of the targeting formula could be improved to ensure that the program reaches the poor and the extreme poor and minimize the errors of inclusion and exclusion. In fact, the results from the simulations model how the PRR would perform if it was applied flawlessly. Moreover, they assume that program take-up would be high and they do not look into other behavioral responses that can affect program participation on the side of households. However, it can not be stressed enough that — no matter how much the targeting formula is improved — the program's success relies on the availability of a flexible and effective operational structure that is supported by a strong system of monitoring and evaluation. Through its policy dialogue with the GOM, the WB raised a number of issues that could be improved to refine the design and the operations of the CMP. These issues are discussed in this section.

On the one hand, two issues related to the program's design have a space for improvement. The first aspect is that -given that school enrollment in Mongolia remains at levels above 90% for children ages 8-13 years old, the CMP has limited potential to affect school enrollment. For this reason, if the CMP aims at having any impact on households' investments in education, it must incorporate and monitor a condition on school attendance, which is not currently in place. Alternatively, the program could focus on the transition grades (to lower secondary and upper secondary school) which are the ones where most of the dropouts occur.

One issue that is of particular relevance is to what extent the CMP's main objective is to reach the poor vis-à-vis whether it aims mainly at improving school enrollment. In the later case, other considerations would have to be made in terms of the most effective criteria for eligibility. For example, if enrollment rates are already high in elementary school, the problem could be targeted towards older children. However, these considerations have distributional implications as to who the program will impact and to what extent the poor will be covered. All of these aspects are important and have not been explored in this note. Once the data on actual program beneficiaries and their behavior is available, it will be possible to produce more meaningful answers to some of these questions.

A second issue is related to the size of the transfer and whether it represents a substantial amount that can actually produce behavioral changes in families' preferences for education and health. This still remains an open question. Moreover, the CMP was introduced nation-wide without any piloting, monitoring and evaluation strategies that could inform issues like this one.

A different set of matters with direct implications on the CMP effectiveness in reaching the poor and achieving its objectives are related to its operations and institutional features. One of the main issues that was raised had to do with revising the need of a two-stage eligibility process, especially since it gives governors and program officers a lot of discretion in their decisions. Moreover, the process excludes those who fail to obtain the certification from their local governor from obtaining their proxy-means score. While the involvement of governors in eligibility decisions should be eliminated, this does not exclude the possibility of establishing an appeals mechanism to ensure there is a process in place to review exceptional cases or to update applicants' status based on changes in households' welfare to shocks.

Another operational problem of the CMP identified by the WB is the lack of monitoring of the correct application of the proxy-means methodology. In fact, anecdotal evidence and field visits suggested that households and program officers — who are well informed about the indicators and weights used in the proxy means test — influence the outcome of the targeting formula. Other evidence supports that the targeting mistakes could also be a result of the limited capacity and training for the program officers who apply the proxy-means tests. The lack of accountability and a system to verify the correct application of program rules can hurt the effectiveness of the targeting methodology. Additionally, there is no monitoring that program officers keep the records of unsuccessful applicants on file.

Other operational problems related to lack of adequate instruments for program monitoring were identified. For example, there are no individual-level registers to track who collected their transfer and when they did it. All the data available to the government is aggregate data. Additionally, there is no systematic formal mechanism to monitor that parents comply the conditions that the CMP expects them to fulfill. Nor is there in places any periodic monitoring of school enrollment to identify children who dropout of school in the middle of the school year or periodic follow-up of immunizations for young children. Furthermore, there are no procedures in place to update the beneficiaries' eligibility status.

An additional aspect related to program operations has to do with reducing the beneficiaries' transaction costs. The poor are likely to be more isolated and have higher costs for registration and periodic collection of the transfer. For that reason, it is important to provide flexibility in the collection mechanisms that can allow them to find the logistical arrangements that best fit their needs. At the moment, the transfer is handed out directly by the staff from the Agricultural Bank. However, the CMP could use a similar procedure to the one established for pensioners, in which money is deposited into individual bank accounts. That way, beneficiaries can gain interest on their transfer if they chose to collect it less frequently. Moreover, this would give families an incentive to save some of this money and could potentially give them access to other services from the formal financial sector.

Lastly, and this is an issue that was highlighted in the Poverty Assessment, the documentation that is required for program registration (especially an up-to-date National Identity Card) is not readily available, especially among specific groups of poor Mongolians such as migrants or families living in isolated regions. These two groups are less likely to have registered in their district of residence as they face higher transaction costs to do it. The report's recommendation was to launch a national campaign with mobile registration stations to rural areas that could reach the poor in isolated locations and provide them with National Identity Cards free-of-charge.

Annex 1: CMP Administrative Data and 2000 Census Variables

	Children Beneficiaries / 2000 Population	November-June % Growth		Average Household Size	Net Migration / Population	% of Uneducated Population	% Rural Population
		Households	Children				
Arkhangai	0.32	1.47	0.63	4.00	-0.38	19.77	80.93
Bayan-Olgii	0.42	0.56	0.30	4.70	-0.10	18.64	69.19
Bayankhongor	0.32	1.57	0.62	4.10	-0.27	21.30	73.97
Bulgan	0.29	2.64	1.07	4.00	-0.23	17.95	73.71
Gobi-Altai	0.34	1.71	0.75	4.30	-0.50	19.17	71.69
Govisumber	0.26	2.40	0.93	4.00	0.53	17.12	26.55
Darkhan	0.27	4.21	1.14	4.20	0.40	15.08	20.99
Dornogovi	0.18	1.61	0.71	4.00	-0.06	17.51	50.15
Dornod	0.55	2.37	3.76	4.30	-0.08	19.76	44.66
Dundgovi	0.26	1.40	0.61	4.20	-0.25	21.11	71.82
Zavkhan	0.28	1.84	0.77	4.10	-0.48	18.68	73.03
Orhon	0.26	2.46	1.26	4.10	0.64	14.89	4.49
Ovorkhangai	0.26	6.31	0.50	4.10	-0.21	21.55	82.90
Omnogovi	0.28	1.50	0.71	3.90	-0.15	19.86	69.73
Sukhbaatar	0.28	1.84	0.80	4.30	-0.26	22.30	73.06
Selenge	0.42	4.91	1.82	4.30	0.15	16.93	43.53
Tov	0.15	1.20	0.61	4.10	-0.10	18.26	83.65
Uvs	0.28	0.84	0.13	4.40	-0.40	20.73	70.77
Khovd	0.33	0.66	0.17	4.70	-0.28	19.73	70.03
Khovsgol	0.35	2.12	0.98	4.10	-0.20	18.78	73.55
Khentii	0.27	2.10	0.97	4.00	-0.10	19.58	60.74
Ulaanbaatar	0.18	2.52	1.25	4.60	0.31	12.03	0.00

Annex 2: Variables included in PRR Simulation

Variables in CMP PRR – Urban and Rural		Not included in Simulation
1	Location	
	<i>Ulaanbaatar</i>	
	<i>Aimag¹² center</i>	
	<i>Soum center</i>	
	<i>Countryside</i>	
2	Number of household members	
	<i>1</i>	
	<i>2</i>	
	<i>3</i>	
	<i>4</i>	
	<i>5</i>	
	<i>6</i>	
	<i>7</i>	
	<i>8 or more</i>	
3	Education level	
	<i>Tertiary</i>	
	<i>Diploma level higher education (technical college)</i>	
	<i>Vocational</i>	
	<i>Complete secondary (10th grade)</i>	
	<i>Incomplete secondary (8th grade)</i>	
	<i>Primary</i>	
<i>No education</i>		
4	Employment status	
	<i>State-budget organization</i>	<i>State organization or enterprise</i>
	<i>State-owned enterprise</i>	
	<i>Owner of private business or company</i>	
	<i>Employee at private company</i>	
	<i>Herder</i>	
	<i>Farmer, agricultural laborer</i>	
	<i>Informal sector worker</i>	X
	<i>International organizations</i>	X
	<i>NGOs</i>	X
	<i>Temporary or seasonal worker</i>	X
	<i>Military person</i>	X
	<i>Pensioner</i>	
	<i>Unemployed</i>	
	<i>Incapable of working</i>	X
	<i>Out of labor force</i>	

¹² Aimag is an administrative unit equivalent to a prefecture.

Annex 2 continued

Variables in CMP PRR – Urban and Rural		Not included in Simulation
5	Housing condition	
	<i>Ger</i>	
	<i>Comfortable residence</i>	<i>House</i>
	<i>Apartment</i>	
	<i>Public house</i>	X
	<i>Renting</i>	X
	<i>Places not for inhabitation purposes</i>	X
	<i>Manholes, entrance halls of apartment</i>	X
		<i>Other</i>
6	Assets	
	<i>Monetary asset</i>	<i>Has savings/stocks</i>
	<i>Livestock - (more than 4 livestock measured in large animal)</i>	X
	<i>Land /(income generating)</i>	X
	<i>Shop, Kiosk</i>	X
	<i>Restaurant, cafeteria</i>	X
	<i>Private company</i>	X
	<i>2 of the above</i>	X
	<i>More than 3 of the above</i>	X
	<i>None of the above</i>	X
7	Number of members with income	
	<i>1</i>	
	<i>2</i>	
	<i>3</i>	
	<i>More than 4</i>	
	<i>No member with income</i>	
	Livestock	
	<i>less than 4</i>	
	<i>5-10</i>	
	<i>11-20</i>	
	<i>21-30</i>	
	<i>30-50</i>	
	<i>More than 50</i>	
	<i>No livestock</i>	
	8	Vehicle ownership
<i>Car</i>		
<i>Motorcycle</i>		
<i>Tractor</i>		
<i>Carriage (horse pulled, ox pulled, camel pulled)</i>		X
<i>No vehicle</i>		
9	Social assistance and benefits	
	<i>Receives assistance from Social Assistance Fund</i>	X
	<i>Receives assistance from NGOs</i>	X
	<i>Receives assistance from relatives and other individuals</i>	X
	<i>Receives assistance from abroad</i>	X
<i>No assistance</i>	X	

Annex 2 continued

Variables in CMP PRR – Urban and Rural		Not included in Simulation
10	Members with disability or development difficulty	
	<i>Speech or hearing impaired</i>	X
	<i>Sight-impaired /blind/</i>	X
	<i>Physically-handicapped /on wheel-chair or walks with crutches/</i>	X
	<i>Mentally- handicapped</i>	X
	<i>Bedridden /requires nursing/</i>	X
	<i>2 of the above</i>	X
	<i>3 of the above</i>	X
	<i>None of the above</i>	
11	Household vulnerability	
	<i>Alcoholic</i>	X
	<i>Elderly (70 years and older)</i>	X
	<i>Orphan</i>	X
	<i>Single household head with 4 or more children</i>	X
	<i>Single elderly</i>	X
	<i>2 of the above</i>	X
	<i>3 of the above</i>	X
	<i>None of the above</i>	X

Annex 3: Simplifying the targeting formula – an example

	Urban Index	Rural Index
Location		
<i>Ulaanbaatar</i>	.0950	-
<i>Soum center</i>	-	.1290
Age of household head		
<i>25-34</i>	-.0537	-.0946
<i>45-54</i>	.0969	-
<i>55 and more</i>	.0877	-
Number of Household members		
<i>2</i>	-.4111	-.5703
<i>3</i>	-.7571	-.8022
<i>4</i>	-.9196	-1.002
<i>5</i>	-1.072	-1.211
<i>6</i>	-1.259	-1.335
<i>7</i>	-1.378	-1.495
<i>8 or more</i>	-1.618	-1.620
Education level		
<i>Tertiary</i>	.5326	.2613
<i>Diploma level higher education (technical college)</i>	.4127	.0943
<i>Vocational</i>	.3132	-
<i>Complete secondary (10th grade)</i>	.3790	.0934
<i>Incomplete secondary (8th grade)</i>	.1911	.0679
<i>Primary</i>	.1627	-
Employment status		
<i>State-budget organization or state-owned enterprise</i>	.0999	.1666
<i>Owner of private business or company or self-employed</i>	.1553	.0993
<i>Employee at private company</i>	.0682	-
<i>Farmer, agricultural laborer</i>	-	-.1326
<i>Pensioner</i>	-	.0631
<i>Unemployed</i>	.1158	.1362
<i>Out of labor force</i>	.0631	-

Annex 3 continued

	Urban Index	Rural Index
Housing condition		
<i>House</i>	.0865	-
<i>Apartment</i>	.1974	.1200
<i>Other (excluding house, apartment, ger)</i>	-	.4610
Assets		
<i>Savings</i>	-.1259	-
Number of members with income		
<i>1</i>	.0927	-
<i>2</i>	.2529	.1565
<i>3</i>	.2434	.0964
<i>More than 4</i>	.4058	.0989
Livestock		
<i>less than 4</i>	-	-.1035
<i>5-10</i>	-	.0655
<i>11-20</i>	-	-.2804
<i>21-30</i>	-	.2651
<i>30-50</i>	-	.3395
<i>More than 50</i>	-	.4923
Vehicle ownership		
<i>Motorcycle</i>	-.2173	-.1904
<i>No vehicle</i>	-.3594	-.2804
Members with disability or development difficulty		
<i>No members with disabilities</i>	-.0692	.0529

Annex 4: Information Collected by the Oportunidades Program in Mexico from each Program Applicant (from these Variables, the Best Correlates of Consumption are Selected)¹³

Household composition

- Number of members
- Relationship to household head
- Household head attributes (main income earner, decision-making, care-giver)
- Age and gender of each member
- Identification of parents or partners of all members living in household
- Marital status

Individual level variables for all members 5 and older

- Literacy
- Schooling
- Languages spoken (ethnicity)

Employment variables for all members 8 and older

- Employment status
- Occupation

Income

- Total labor income from main occupation
- Other incomes (pensions, subsidies, rents, and others)

Social assistance benefits and programs

Migration

- Age and gender of household members who migrated permanently in the last 5 years
- Place where they migrated and remittances received by household
- Temporary migration of household members (8 and older) in the last 12 months: place, remittances, duration of absence

Health

- Access and coverage of health services
- Identification of any disabled members, by type of disability.

Dwelling

- Material of floor, walls, and roof
- Number of rooms (total and used to sleep)
- Public utilities (water, electricity)
- Ownership
- Ownership of household assets (appliances, cars, and others)

Land and animals

- Number and size of plots
- Use of land (agriculture, forestry or livestock)
- Irrigation
- Number and type of animals owned

¹³ Taken from Skoufias, E. and others, *Evaluation of Household Beneficiary Selection in Progresá*, in “Progresá: Más Oportunidades par las Familias Pobres”, Mexico, 2000.

Bibliography

Ministry of Finance Poverty Research Group and UNDP — Mongolia, “Study of the Current Methodology for Identifying Living Standard of Households and Citizens and Its Comparison with Some Countries at Similar Level of Development — Survey Report”, 2005.

Skoufias, E. and others, *Evaluation of Household Beneficiary Selection in Progresa*, in “Progresa: Más Oportunidades par las Familias Pobres”, Mexico, 2000.

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