



## PHILIPPINE SOCIAL PROTECTION NOTE

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# Design and Implementation Features of the National Household Targeting System in the Philippines

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### 1. Introduction

This note describes the main design and implementation features of the National Household Targeting System for Poverty Reduction (NHTS-PR) of the Philippines. The system consists of a set of uniform and objective criteria to identify the poor. An objective criterion to select those that need help the most was seen by the Department of Social Welfare and Development (DSWD) as the main tool to improve delivery of social services. This was one of the main objectives defined by the social welfare reform, initiated by DSWD, since 2006. The targeting system uses a proxy means test (PMT) methodology to estimate the level of economic welfare of a household based on its socioeconomic and demographic characteristics. The system was centrally designed and implemented by DSWD. The design incorporated a set of three sequential steps such as geographic targeting, household assessment and validation to produce best results. The implementation was carried out in phases over a three-year period, which allowed for the incorporation of lessons from early to subsequent phases.

NHTS-PR can be considered as a cost-efficient tool since it has reached a great share of the poor at a low cost. A benefit incidence analysis shows that about 71 percent of beneficiaries of the Conditional Cash Transfer (CCT) program—the Pantawid Pamilya—belong to the poorest 20 percent of national income distribution in the country. The CCT program has been the main user of the national targeting system since its early stages of implementation. The cost of building NHTS-PR has been small, at about 3 percent of total resources allotted for the poor.<sup>2</sup> By 2012 the national poverty database of the NHTS-PR consists of about 5.2 million poor households located in 1,630 municipalities and cities nationwide. Although the NHTS-PR is being implemented by DSWD, it is also being used by several government programs with the aim of reducing the overall cost of targeting, improving coordination, and enhancing the efficiency and effectiveness of social protection programs. The development of the NHTS-PR has been considered as a major step in targeting the poor, replacing the variety of ineffective targeting instruments used by the government agencies both at central and local levels. The design and implementation of NHTS-PR can be considered as best practice, since it incorporated lessons from international experience as well as from its own pilot experience.

This note contains five sections. After this introduction, the next section describes the background and rationale behind the design of the NHTS-PR. The third section describes the main design features of NHTS-PR. The fourth section presents the implementation phases. Finally, the fifth section presents the main conclusions and lessons.

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<sup>2</sup>See Fernandez and Velarde (2012) for the poverty impact of the CCT program using the latest Family Income and Expenditure Survey (FIES 2009).

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## 2. Background

### 2.1 Means testing and the delivery of social services

**Prior to 2007, targeting mechanisms used in the Philippines were not effective in reaching the poor.** DSWD had been using program specific targeting mechanisms. These methods were varied and consequently lack the uniformity and objectivity characteristics of good targeting systems. Among the methods used was a self-declaration of income made by individuals applying for social assistance and others not dependent on the self-declared income such as geographic targeting. However, as most of the prospective beneficiaries belong to the informal sector whose incomes could not be verified, there was room to provide inaccurate information to be eligible for assistance.<sup>3</sup> Other agencies also used different targeting approaches with wide discretion in the selection process and each was spending significant resources in such systems. The proliferation of several targeting approaches in the past resulted in the inclusion of non poor beneficiaries and exclusion of those that need it the most.<sup>4</sup>

**In 2007, DSWD embarked on a social welfare reform agenda to put into place the main building blocks for a sound social protection system.**<sup>5</sup> One of the main objectives of the reform was to improve the delivery of social services. To achieve this objective, DSWD defined two priorities: (1) design a better targeting system to identify those that need help the most; and (2) design a CCT program, which would serve as a model program for improving services delivery hence increasing the amount of resources going to poor households. CCT was the chosen safety net program as it provides incentives to parents to invest in their children's education and health. In order to test the feasibility of a targeting system and a CCT program in the Philippines, DSWD decided to pilot both in parallel, wherein the targeting system will be used to select beneficiaries of the CCT program.

### 2.2 Advantages of a PMT-based targeting system

**In mid-2007, DSWD started to pilot the PMT-based targeting system after evaluating different alternatives, including those used in several Latin American countries.** Before considering this type of targeting system, DSWD evaluated different targeting alternatives from local and international experience. However, given the successful implementation of national targeting systems and CCT programs in several Latin American countries, DSWD was prompted to pilot a PMT-based targeting system. The main reasons considered by DSWD to use this methodology were the following:

- **A PMT-based targeting system incorporates a standardized non-discretionary assessment.** It makes use of standard information and observable socioeconomic indicators, collected from households to create a mechanism that allows for assessing welfare.
- **It is a multi-dimensional index.** A PMT model allows inclusion of multiple dimensions that affect welfare such as education, household demographics, occupation, housing conditions, assets, and access to basic services.
- **It allows evidence-based policy-making.** The information collected for PMT estimations could be used to profile the poor and diagnose their main needs. The data can also be used to conduct a more in-depth analysis of vulnerability over time. By using this data, policy-makers can substantially improve the design of financial assistance and other social protection programs aimed at preventing households from falling into poverty, or assisting them if they do.

<sup>3</sup> It is estimated that about 42 percent of household heads worked in informal sector in 2009. According to the Labor Force Survey (LFS) in 2009 conducted by National Statistics office (NSO), informal sector workers include the following: (i) informal sector operators who are either self-employed without any paid employee or employer in own-family operated farm or business; and (ii) workers who do not receive wages from their own family-operated farm or business.

<sup>4</sup> Manasan and Cuenca (2007).

<sup>5</sup> Since 2006, the World Bank has been supporting DSWD to undertake this reform. Meanwhile, the AusAID started providing financial support and technical assistance to DSWD in 2008.

- **It is an effective targeting tool in areas where the informal sector is large.** The PMT methodology is useful to predict incomes or expenditures of households in countries where informality is high like in the Philippines. Incomes of informal sector workers can be highly volatile and difficult to measure. In this case, scoring on the basis of education, socioeconomic conditions, access to basic services, and other household variables as proxies of income provide a more reliable indicator.
- **It allows different cut-offs depending on the assistance programs.** Once the poverty database has been created, organizing households according to their estimated level of income is possible. This gives flexibility to policy-makers to adapt specific programs to different policy objectives.<sup>6</sup>
- **It is cost-efficient.** Relevant variables to estimate income can be included in a short questionnaire. Based on international experience, a two-page questionnaire with only relevant variables takes an average of about 30 minutes (for a household with 4 members) to fill during a home interview. The cost could range from between \$3 to \$10 per household depending on the specific country conditions.<sup>7</sup>

### 2.3 Expansion of the targeting system

**In April 2008, after assessing the pilot results, the government decided to expand the targeting system and the CCT program.** Due to the encouraging results of the pilot programs, the government expanded for the first time the coverage of both the targeting system and the CCT program, to include the poorest provinces in the country. After this first expansion, there was an expansion plan to complete the targeting system nationwide until 2010. The CCT program has been expanded since then, to many municipalities in the country. Every new expansion has incorporated lessons from previous ones, allowing both programs to learn from their own experiences.

**The main lessons learned were related to field operation and management information system (MIS) design.** In the first phase of implementation of NHTS-PR, policy makers planned to cover big cities. However the first results of enumeration in big cities of the National Capital Region (NCR) reflected that improvements were needed in definition of pockets of poverty or poor areas. The enumeration of big cities was postponed to the second phase until further refinement of methodology to select poor areas and pockets of poverty. In terms of field operation the procedures for random supervision were improved allowing to incorporating feedback from random supervision immediately. In terms of MIS design, low operation was experimented due to most of the validation routines initially incorporated in the system. This was improved applying validations after encoding process and not at the time of encoding to make processing faster. A process of supervising encoding process and do random checking of it was included. This allowed for monitoring better performance of encoders.

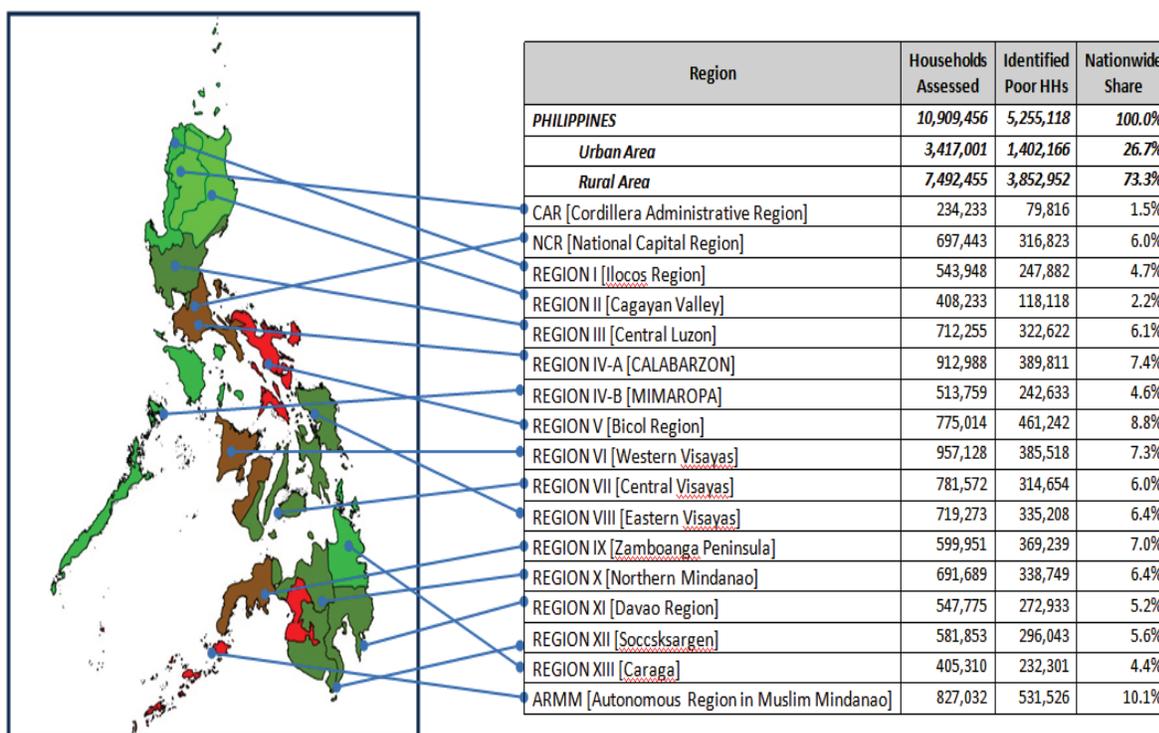
**By March 2012, the NHTS-PR had assessed about 11 million households across the country, where about 5.2 million were identified as poor.** The number of assessed households was equivalent to about 55 million individuals located in 1,630 municipalities and cities. After applying the PMT scoring to all of them, about 5.2 million households, equivalent to about 25 million people, were identified as poor. About 73 percent of the identified poor households live in rural areas while 27 percent live in urban areas. The distribution of poor households in the NHTS-PR by regions is shown in Figure 1.

<sup>6</sup> For instance, in Colombia, the CCT program, “Familias en Accion” targets SISBEN 1 households, which is the poorest level out of 6 levels defined by the PMT scoring system (SISBEN); while the health subsidized program targets SISBEN 1 and 2 households. In Chile, the CCT program, “Chile Solidario” targets the poorest level out of 10 levels defined by the PMT scoring system (Ficha de Proteccion Social-FPS), while the social pensions program covers 60 percent poorest.

<sup>7</sup> This cost estimate includes all costs of a validated assessment of a household, from gathering data to registration in the database.



Figure 1. Distribution of Poor Households in the NHTS-PR, by Regions



Source: DSWD-NHTS-PR database. Note: HHs: households.

By March 2012, the national poverty database of the NHTS-PR has been used to enroll many poor households into different social programs. DSWD has enrolled about 3 million poor households with children 0 to 14 years old and/or pregnant women in the CCT program, Pantawid Pamilya. This program, which provides cash to beneficiary households subject to compliance with program conditions, is central to the Philippine government’s poverty reduction and social protection strategy.<sup>8</sup> DSWD also put in place a convergence strategy to provide the Pantawid Pamilya beneficiaries with other complementary social programs to help them overcome poverty. DSWD also enrolled poor elderly individuals in a small social pensions program. Currently, the Philippine Health Insurance Corporation (PhilHealth) is in the process of enrolling about 5.2 million poor households in its subsidized health insurance program for the indigents. In addition to the national government agencies, several provinces and local government units (LGUs) have requested to use the national poverty database of the NHTS-PR to identify prospective beneficiaries of their locally-financed programs. All agencies, provinces and LGUs using the NHTS-PR entered into a Memorandum of Agreement (MOA) with DSWD under the specified protocols for data-sharing for feedback and data protection. This experience is very much aligned with experiences from other countries—where after having a common data—then government efforts are concentrated on the identified poor.

### 3. Design features

The design of NHTS-PR incorporated lessons from international experience. Critical aspects of the design such as a centralized or decentralized management of the targeting system were decided based on empirical evidence from other countries. Evidence suggested that centralized approach tends to produce better results. That evidence was at the same time in line with what the government wanted, so the centralized approach was incorporated. The design of the questionnaire and the methodology used were also based on international best practice on designing targeting systems.

<sup>8</sup> See Fernandez and Olfindo (2011) for more details.

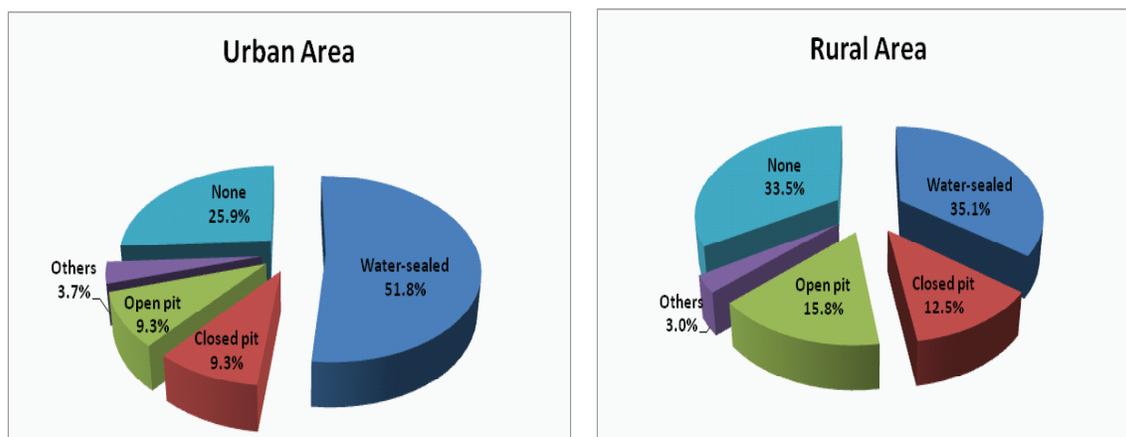
### 3.1 Proxy Means Test

The NHTS-PR estimates the level of economic welfare of a household, complementing the Philippines' income-based poverty statistics. In theory, income would be a suitable indicator of purchase capacity of a household. However, income is volatile during a given year and even over a long period of time. Moreover, in countries with a large informal sector such as the Philippines, the underreporting of income is an issue, even more so in the absence of national aggregated databases to cross check with. Mainly because of the informality issue most countries use consumption instead of income to assess economic well-being of a household. In the Philippines, the PMT model estimations were generated using both consumption and income as proxies of welfare. Although using either had a good fit,<sup>9</sup> DSWD decided to use income, mainly because the Philippines' official poverty statistics are income-based.<sup>10</sup>

The PMT model seeks to predict the household's welfare through variables highly correlated with household income. The selection of the relevant or proxy variables for the PMT model was based on analysis done with two main household surveys in the Philippines, the Family Income and Expenditure (FIES) and Labor Force Survey (LFS) of 2003.<sup>11</sup> The variables that were considered as good proxies of income included household demographics, education and occupation of household members,<sup>12</sup> housing conditions, access to basic services, ownership of assets, tenure status and regional variables. These variables cannot be easily manipulated by respondents since most of them are observable and verifiable by enumerators during a home interview. A household is classified as poor if the predicted income of the PMT model is below the official provincial poverty threshold and is considered non-poor otherwise.

Two PMT models were estimated for the NHTS-PR: one for households in urban areas and another one for those in rural areas. The PMT model estimations considered different equations that would be appropriate for households residing in urban and rural areas to best capture their respective socioeconomic conditions. According to data from household surveys in the Philippines, socio-economic and living conditions differ for households residing in urban and rural areas. The main differences include education levels and access to basic services. For instance, data from NHTS-PR show differences in the type of toilet facilities used by poor households in urban and rural areas (Figure 2).

Figure 2. Distribution of Poor Households in Urban and Rural Areas, by Type of Toilet Facilities Used (%)



Source: NHTS-PR database.

<sup>9</sup> The fit of a PMT model is determined by a combination of factors: R-squared of the regression, prediction power, and sensitivity analysis, which includes assessment of predicted exclusion and inclusion errors.

<sup>10</sup> When a country has income-based poverty statistics and a PMT model to predict welfare that is consumption based, an equivalence rule needs to be defined. Equivalence is usually done using statistical analysis to either convert the income poverty thresholds to consumption values or to convert the consumption results to income. Usually that conversion poses additional problems on implementation, in addition to not being easily understandable for policy-makers.

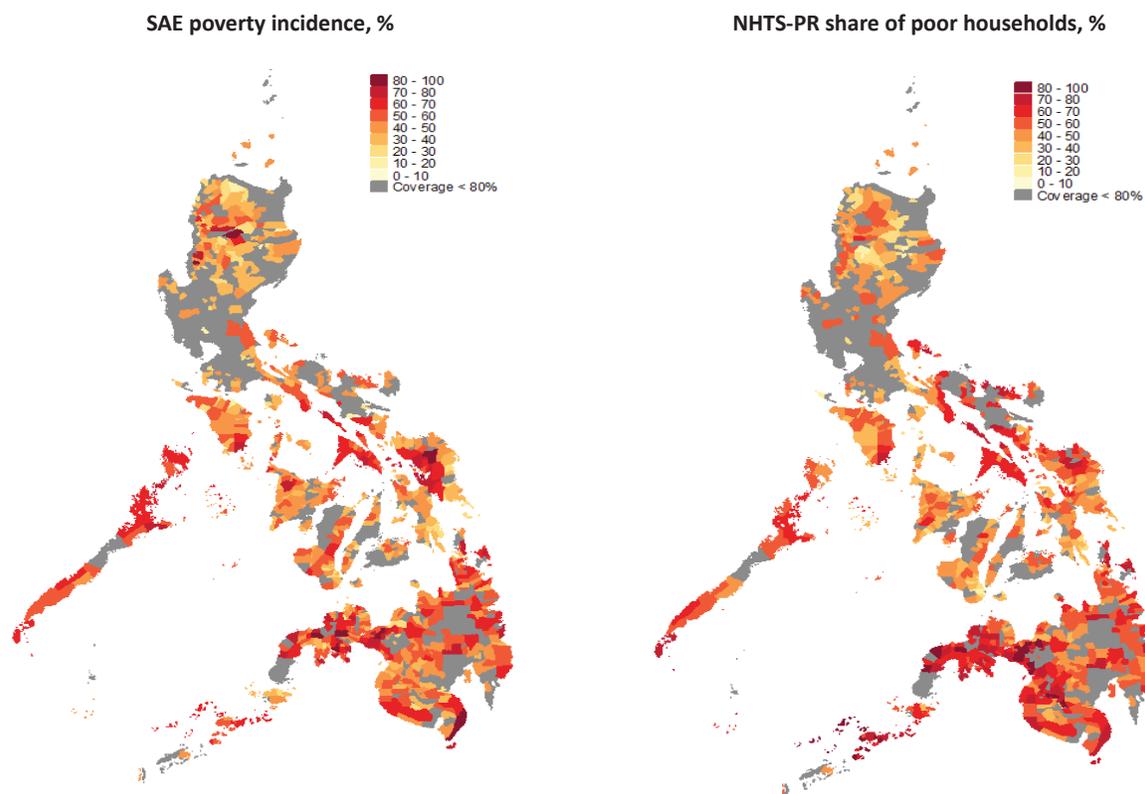
<sup>11</sup> Both are produced by National Statistics Office (NSO).

<sup>12</sup> These variables are very important in determining income level of households according to the human capital theory (Becker, 1993) or wage model (Mincer, 1974).



The PMT model was designed to complement local poverty statistics produced by Small Area Estimates (SAEs).<sup>13</sup> Experience from other countries implementing PMT-based targeting systems has shown that the PMT methodology works best when complemented with geographic selection of poor areas. This combination was also possible in the Philippines. Poverty incidence at provincial and municipal levels was used to define enumeration strategy for household assessment and to define target households to be assessed. In addition, the PMT model of NHTS-PR incorporated several variables used in the estimations of the PMT model of the SAEs.<sup>14</sup> Analysis shows that for about 927 (out of 1,630) municipalities with high coverage in NHTS-PR,<sup>15</sup> the average poverty incidence based on SAEs is 48 percent and the average share of poor households based on NHTS-PR is 51 percent.<sup>16</sup> Figure 3 presents a map comparing these ratios for municipalities with high coverage rate of NHTS-PR.

Figure 3. Comparison of SAEs 2003 and NHTS-PR Statistics



Source: NHTS-PR dataset as of July 2011

<sup>13</sup>In 2007, when the pilot testing of the targeting system started, the report on the Estimation of Local Poverty in the Philippines was just released by the National Statistical Coordination Board (NSCB, 2005). The report presents a methodology also known as poverty maps, which includes household survey information to estimate a PMT model that is applied to the census information. This method allows to produce local poverty estimates.

<sup>14</sup>The SAEs PMT model explained about 71 percent of the variation in income. This was considered as a very good model to be complemented to producing welfare estimations down to the household level.

<sup>15</sup>High coverage in this case is considered as those municipalities where more than 80 percent of households (according to Census 2007) were assessed by NHTS-PR.

<sup>16</sup>The correlation between poverty incidence estimates using SAE and NHTS-PR among municipalities with at least 80 percent NHTS-PR coverage is 61.2 percent. The rank correlation for the same set of municipalities is 62.2 percent. Restricting the comparison to areas where coverage is at least 80 percent is important to avoid bias arising from insufficient representation of poor and non-poor households alike.

**The PMT assessment form was designed to include only relevant variables.** To collect the household information necessary to estimate the PMT score, DSWD designed a questionnaire to be filled in by enumerators during a home interview. The questionnaire was designed after the PMT model was ready for use to ensure that only the relevant variables needed to predict welfare would be collected. The questionnaire is known as the Household Assessment Form (HAF), which has 34 questions in one double-sided page. The variables are verifiable during the home interview hence are not easy to be manipulated by the household respondents.

### 3.2 Institutional arrangements

**While the NHTS-PR was designed by DSWD central office, its implementation was carried out by the regional offices.** Based on international experience, the whole system was centrally designed and managed.<sup>17</sup> The central office of DSWD designed the system, defined the operation rules, and determined the implementation phases and target households. DSWD delegated to its 17 regional offices the hiring of additional personnel needed to implement the targeting system based on centrally defined parameters.<sup>18</sup> The additional new hardware required for processing data was purchased centrally and distributed to all regions proportional to the target households. The field work, supervision and processing of HAFs were done by regional DSWD offices. At the municipal level there was coordination with Local Government Units (LGUs) for the logistics of collection of information and for coordination with barangays.<sup>19</sup> The PMT scoring was applied by DSWD at central level to all households assessed once the database was created. This good combination of division of responsibilities and specialization of work allowed to building a national central poverty database in an efficient way and record time, in less than two years.

### 3.3 Combination of targeting mechanisms

**NHTS-PR was designed to have a three-step process to guarantee better targeting outcomes.** Based on international good practices, a combination of different targeting mechanisms has produced better results. First, geographic targeting contributes to increase coverage of the poor through the outreach of poor areas. Second, household assessment with a standard methodology guarantees good quality of information and standard results of welfare status of households. Third, the validation process guarantees transparency in the results and validates scientific econometric methods with the perception of local communities. The three sequential and complementary steps were as follows:

**First step: geographic targeting.** This step made use of poverty incidences at the provincial and municipal levels. Poverty incidence (PI) was the indicator used to identify the areas to be surveyed first and to define the enumeration strategy to be applied. Specifically, the selection of provinces was based on provincial PI<sup>20</sup> and selection of municipalities was based on municipal PI.<sup>21</sup> Based on municipalities PI, two enumeration strategies were defined, as follows:

- *for very poor municipalities* (more than 50 percent of PI municipalities), the strategy was to assess all households (census approach); and
- *for moderate poor* (less than 50 percent PI municipalities), the strategy was a combination of two things:
  - full assessment in poor areas (or pockets of poverty) within a city or a district; and
  - on-demand applications (ODA) in non-poor areas.

In the areas where ODA was applied, households were actively invited to submit applications for assessment. If a household was found not to have been assessed previously, an enumerator was sent to the household to conduct an interview.

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<sup>17</sup> International experience is varied with some systems centrally designed and centrally operated (Mexico), some are centrally designed with decentralized operation (Colombia, Chile), as well as completely decentralized design and operation. Assessments of these systems have shown advantages of having a centralized design and operation, in terms of having a central database, economies of scale in implementation, etc.

<sup>18</sup>This included hiring of enumerators, supervisors, area coordinators and encoders.

<sup>19</sup>Barangay is the smallest administrative unit in the Philippines, next to municipalities.

<sup>20</sup>Data taken from FIES 2006.

<sup>21</sup>Data taken from SAEs 2003.



**Second step: household assessment.** This step included the actual gathering of information from the households through a home interview and the application of PMT model to assess the level of economic welfare of households. The information was collected following strict procedures to guarantee quality and the procedure was closely supervised daily. Supervision included random re-interviews every day to check the quality of information collected in the HAF. Once the information was gathered, it was encoded in an online data entry application at DSWD regional offices or in some municipalities with stable internet connections. DSWD central office developed a data entry application which included validation routines that reject inconsistent or wrong information encoded from the HAF. The incorrect information was verified back in the field. For the correct ones, that is, those that passed the validation routines, a PMT model was applied to estimate the income of the household. The estimated income was compared with the respective provincial poverty thresholds to determine whether the household was poor (below the threshold) or non-poor (above the threshold).

**Third step: validation.** This step included the process of validating the list of poor households nationwide in a given period of time. The validation was meant to compare and contrast the PMT scores with the perceptions of the community. This was conducted in all areas regardless of the enumeration strategy applied once the list of poor households was completed. During validation, the preliminary list of poor households was posted in a conspicuous place in the communities. DSWD local offices facilitated the availability of space and helped with the logistics to establish a process for reception of complaints. People were allowed to present complaints under standard guidelines. The validation process was complemented with the following two parallel processes:

- **Complaints resolution system.** The purpose of the complaints resolution system was to establish a standard, clear, and transparent mechanism for dealing with complaints with regards to a household's poverty classification as determined by the PMT. Some of the misclassifications could be due to real estimations errors of the PMT model or implementation errors. Estimation errors refer to inclusion of households with better socioeconomic conditions and exclusion of those with worse socioeconomic conditions. These errors are expected in a PMT-based targeting system because it uses only proxy variables to produce estimations of income, as in the case of Philippines.<sup>22</sup> Implementation errors refer to errors produced by implementation mistakes.<sup>23</sup> There was a standard procedure to deal with the complaints depending on their nature. A Local Verification Committee (LVC)<sup>24</sup> was created to address or act to all complaints/appeals received during the validation period. Under the leadership of the municipal focal person who chaired the LVC, this fact-finding body gathered facts and clarified information in order to have a clear picture of the circumstances surrounding the filing of the complaint. A final decision was taken by the LVC and it was communicated to the complainants in a defined period of time.
- **Social marketing campaign.** This involved informing the LGUs and individuals of the process surrounding the NHTS-PR and providing options to apply and present complaints in the validation process. This included designing flyers and posters, and using a variety of media (e.g., radio, TV) to inform communities about the validation process. The strategy and tools were designed by the NHTS-PR social marketing team at DSWD central office. The tools were distributed to the NHTS regional focal persons, who implemented the communications campaign.

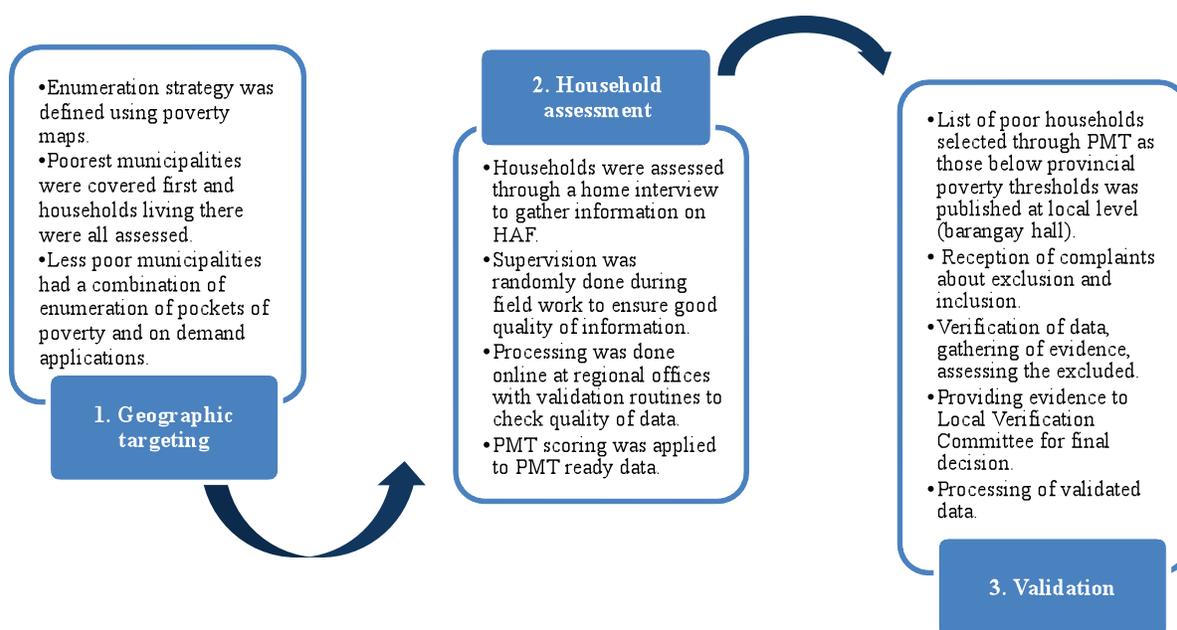
Figure 4 presents the three steps of NHTS-PR implementation.

<sup>22</sup> Based on international experience, estimation errors between 20 to 30 percent are acceptable. See Fernandez and Velarde (2012) for estimation errors of the NHTS-PR.

<sup>23</sup> Examples of this are households that were excluded from being assessed or when household information was not properly taken.

<sup>24</sup> Members of the committee were local representatives of social welfare and planning, members of Non Government Organizations (NGO) and civil society groups.

Figure 4. Operational Flow of the NHTS-PR



A general updating of the NHTS-PR is conducted every four years. This is in time for the availability of a new household survey.<sup>25</sup> The next update is planned for 2013. The agencies using NHTS-PR data will be responsible for updating the information of their beneficiaries. Experience of countries that have undertaken continuous updates, have shown that after conducting the massive national operation and after the list has been published, people have started guessing about variables used in the model. This has created incentives to request updates, trying to modify information previously reported to change initial score. Having a long term update instead of continuous updates seeks to minimize that risk.

### 3.4 Systems, monitoring and oversight mechanisms

The Management Information System (MIS) was a fundamental part of the design of the NHTS-PR. The MIS was designed in-house by the MIS team in DSWD central office using open source software (OSS)<sup>26</sup> to follow the Government's Information and Communications Technology (ICT) policy. The MIS was designed on a web-based platform connected online through a Virtual Private Network (VPN) between DSWD's central office and its 17 regional offices. The design of the MIS included the following main modules:

- **data entry application** to encode household information with consistency checks to guarantee information encoded had good quality;
- **PMT module** to automatically calculate the PMT algorithm, which was designed with all necessary security measures to encrypt information and the auditing records of PMT processing;
- **on demand application module** to receive applications and verify that households or individuals applying had not been previously surveyed; and
- **duplicity checker module** to detect duplicates in the database, which was particularly important as there is no unique ID number yet for each individual in the Philippines. This module had special matching rules to detect households and individuals duplicated in the database.

<sup>25</sup> Per Executive Order No. 867 of 2010, the DSWD shall update its database every four years.

<sup>26</sup> Open-source software (OSS) is computer software where the source code and certain other rights normally reserved for copyright holders are provided under a free software license that permits users to study, change, improve and at times also to distribute the software. [http://en.wikipedia.org/wiki/Open-source\\_software](http://en.wikipedia.org/wiki/Open-source_software)



### **NHTS-PR had monitoring and oversight mechanisms to ensure transparency, enhance credibility, and minimize fraud.**

Strong mechanisms for monitoring and oversight are crucial for all systems, especially with a decentralized data collection. While no system is completely immune from fraud or leakages, a variety of tools were used to minimize them. Multiple mechanisms such as random supervision of interviews, verification of information, automated checks, comparison of registries with other data, random-sample quality control reviews, spot checks, and citizen oversight, were used in the implementation of the NHTS-PR. These mechanisms helped ensure good quality of information collected. Using multiple instruments for data collection also helped strengthen the system.

**DSWD also assessed and designed measures to address two major risks of PMT-based systems.** The two risks are the following: (1) the presence of estimation errors such as the inclusion and exclusion errors; and (2) the procedure to effectively update and include new households. As for the first risk, DSWD chose PMT models that presented the lowest exclusion error (as the purpose was to make sure that the poor were not excluded) and put in place a community-based validation system. For the second, DSWD put in place complaints resolution system (as discussed above) to address individual as well as aggregate complaints presented by different stakeholders including prospective beneficiaries, LGUs, civil society organizations, among others.

**NHTS-PR has a National Technical Advisory Group (NTAG) to oversee the design and implementation.** This group is composed of representatives from NSO, National Statistics Coordination Board, University of the Philippines, Ateneo de Manila University, and the Philippine Institute for Development Studies. The NTAG conducts regular meetings wherein DSWD reports the progress of NHTS-PR implementation and seeks guidance in key implementation issues. This advisory body has played a very important role in creating consensus and support around the targeting system.

## 4. Implementation phases

**NHTS-PR was implemented in two phases over a three-year period.** The first phase covered the pilot-testing of the PMT model, questionnaire, logistics, and implementation procedures. The second phase covered the nationwide implementation from 2009 to 2010.

### 4.1 Pilot

**In June 2007, DSWD started the pilot-testing of the PMT-based targeting system to select beneficiaries for the CCT program.** The pilot test was conducted in four municipalities in the provinces of Misamis Occidental and Agusan del Sur and two districts of the National Capital Region (NCR), covering about 6,000 households. The pilot experience was very useful to test the logistics, the software developed, and the operation and performance of the PMT model in rural and urban areas. The main lessons learned were as follows:

- the questionnaire (i.e., the HAF) was a cost-efficient instrument to gather information as it facilitated the assessment of many households in a short period of time at a reasonable cost;<sup>27</sup>
- having two PMT models—one for urban and another one for rural areas—produced more satisfactory results;<sup>28</sup>
- including poverty thresholds at the provincial level and differentiating them by rural and urban areas was relevant;<sup>29</sup> as it allowed PMT estimations to adjust to different geographic socioeconomic and living conditions of households in these areas; and
- outsourcing of the household assessment to private firms had some implementation issues such as poor training and supervision of enumerators.<sup>30</sup>

<sup>27</sup> The average cost per assessment was about \$2 to \$3 and the average time per interview for a household size of 4 was about 30 minutes.

<sup>28</sup> The PMT model for rural areas performed well, selecting in average between 70 to 80 percent of households as poor out of the total households assessed in high poverty incidence (more than 60 percent) areas. The urban PMT model selected between 50 to 60 percent of households as poor out of total households assessed in pockets of poverty in urban areas.

<sup>29</sup> When the PMT model was first estimated there were urban and rural provincial poverty thresholds published by National Statistical Coordination Board (NSCB). Subsequent publications of provincial poverty thresholds have not had the urban rural classification.

<sup>30</sup> Because of this, DSWD decided to carry out future assessments directly-through hiring of personnel at the regional offices.

**In March 2008, the Government decided to expand the CCT program and the targeting system to cover the poorest provinces.** Due to the encouraging pilot results of the NHTS-PR and the need to establish a program that could address immediate needs of the poor particularly during the food crisis in 2008, the government decided to accelerate the roll-out of the CCT program to cover 350,000 beneficiaries. The expansion of the CCT program implied an expansion of the targeting mechanism as well, which was undertaken by DSWD's National Project Office for the CCT. The areas selected for expansion were the poorest provinces in the country.<sup>31</sup> By March 2009, DSWD assessed about 750,000 households in the poorest provinces where about 431,000 (57 percent) were identified as poor. During this time, the poor and eligible households enrolled in the CCT program had already reached about 370,000.

## 4.2 Nationwide implementation

**In March 2009, after testing and assessing results of the first phase of implementation, the government decided to implement the NHTS-PR nationwide.** As a first step to creating a national targeting system, DSWD did a consultation process with all relevant central agencies to gain consensus on what was considered to be a major undertaking. During this process, the HAF was shared with all government agencies to seek feedback on the relevance of information with respect to their specific sectors and social programs. After a careful review, DSWD revised the HAF to include the most important variables requested by other agencies. Most of variables included were related to vulnerability and additional information about household characteristics. Some information included was related to displacement causes, disability and migrant members in the household, among others. The HAF was updated as well as the MIS. After this review process, the nationwide implementation of the NHTS-PR commenced.

**In April 2009, DSWD created a national Program Management Office (PMO) to manage the nationwide implementation of the NHTS-PR.**<sup>32</sup> DSWD hired a team consisting of about 110 people to implement NHTS-PR. At the central office, there was a composite team of about 25 staff including personnel assigned for targeting, training, social marketing as well as finance specialists, statisticians, data analysts, MIS systems engineers, and regional coordinators. The regional offices hired a team consisting of about 85 project management staff. For the field work operation, a total of about 21,100 staff were hired including enumerators, supervisors, coordinators, and encoders. All these teams were working in parallel to undertake the massive operation nationwide. Because different staff had specialized functions, DSWD conducted intensive training programs specific to their functions. The regional coordinators who sit in the central office also trained the regional staff, who also conducted training to the staff working in the provincial and municipal levels.

**From May 2009 to August 2010, the NHTS-PR was implemented nationwide. The implementation was carried out in three sequential phases.** The poverty incidence was the main indicator that was used to identify areas that would be covered in each of the implementation phases, where priority was given to the poorest areas.

- **First phase:** 20 poorest provinces and municipalities whose poverty incidences were above 60 percent. All households residing in these areas were assessed.
- **Second phase:** municipalities whose poverty incidences were between 50 and 59 percent and those identified as having pockets of poverty in highly urbanized cities and component cities.<sup>33</sup> While all households residing in these municipalities were assessed, there was a combination of full enumeration in areas with pockets of poverty plus ODA in non-pockets areas in the case of cities.
- **Third phase:** municipalities whose poverty incidences were less than 50 of percent. The barangays within these municipalities were ranked based on a set of social indicators. Full enumeration was conducted in the poorest barangays while ODA was conducted in the less poor ones.

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<sup>31</sup> Selection included the twenty poorest provinces according to FIES 2006 classification, as well as the poorest provinces in the regions not represented in the twenty poorest.

<sup>32</sup> Previous implementation for pilot and initial expansion of the targeting was conducted by the national project office in charge of the CCT program within DSWD.

<sup>33</sup> There is a classification of cities based on population size.



**DSWD closely monitored the implementation of the NHTS-PR during the nationwide expansion.** The national PMO in DSWD central office conducted daily monitoring of the encoding process on a 24/7 basis. In addition, the aggregated results were monitored after the processing of PMT results. A very important tool that compared the PMT results with poverty incidence numbers at municipal level was put into place.<sup>34</sup> In cases of inconsistencies, or when the PMT results were very different from the expected numbers, DSWD conducted spot checks. The spot checks were very useful to detect errors early on and correct implementation issues or bottle necks during the course of implementation.

**From September to November 2010, ODA was conducted. As part of the third phase of implementation, ODA was conducted in urban areas and in municipalities with less than 50 percent poverty incidence.** This process provided opportunity for households who were not assessed during the regular enumeration, but whose residence was identified as within the target areas, to apply for an assessment and be included in the database of poor households. As a pre-requisite to undertake ODA process, a software application was developed by NHTS-PR MIS team to check if applicants were not previously surveyed. This was a key tool to avoid generating duplicates in the database. About 1 million applications were received nationwide and about 60 percent of those were approved to be assessed.

**From December 2010 to January 2011, validation of the PMT results was conducted.** The list of poor households was published in conspicuous places in municipalities to be validated by local communities. This process was undertaken across the country for about two months. The results of the process indicated a small number of total complaints. The reported complaints were mainly about households that were not assessed and hence not included in the database. The reported complaints about inclusion were a small share of the total poor households. Given that there was a social marketing campaign to inform communities at local level about the validation process, the small number of complaints presented could be interpreted as a good acceptance by the communities about the ranking of households as estimated by the PMT.

**In February 2011, final cleaning up was done.** Once the database was validated and consolidated at the central level, a process of checking duplicates nationwide was undertaken. Duplicates in household information may happen as individuals move from one place to another and because some individuals may be declared as members of more than one household. Because of this, a duplicity checker application was developed by the NHTS-PR MIS team. A set of algorithms were defined to combine information of household members and detect possible duplicates. Moreover, guidelines were developed for each type of duplicate and the rules to solve them without the need to repeat the survey or validate information back in the field. Only cases subject to verification were sent back to regional offices for checking. The final cleaning up was very important before the dissemination of NHTS-PR data.

**In October 2011, NHTS-PR data was officially launched during the National Statistics month.** A poverty profile of poor households registered in NHTS-PR was available and distributed to all participants of the event. Since the official launching, DSWD has a webpage where information can be consulted (<http://nhtspr.dswd.gov.ph/>). It has also interactive maps to see main information from NHTS-PR by provinces, municipalities and barangays.

## 5. Conclusions and Lessons

**The NHTS-PR can be considered as a best practice experience in design and implementation of PMT targeting systems.**

The process described in this note reflects the important things.

- **First**, the Philippines learned from local and international experiences to be able to put in place its own targeting system that was appropriate for their needs and conditions;
- **second**, DSWD tested the design and implementation procedures of the targeting system before scaling it up to check if it was a good and feasible alternative for the country; and
- **third**, and most importantly, the high political commitment and ownership made it possible for Philippines to establish the targeting system, which was through bigger allocation of budget and mobilization of massive human and technological resources to undertake the task.

<sup>34</sup> SAEs poverty incidence numbers were considered as benchmark to monitor progress and performance of PMT model at municipal level. Data from the Census 2007 was used to monitor coverage of areas fully enumerated.

**NHTS-PR has shown to be a cost-effective targeting instrument.** The cost of covering about 11 million households was about US\$28 million.<sup>35</sup> This cost represents only about 3 percent of the budget of the CCT program.<sup>36</sup> If the budget of other social programs using the data such as the PhilHealth can be added, the targeting cost would be smaller.

**NHTS-PR has also been an effective tool to reach the poor.** The targeting performance of the NHTS-PR appears to be good as about 71 percent of the Pantawid Pamilya beneficiaries belong to the poorest 20 percent of the national income distribution in the country, according to benefit incidence analysis done with the latest household survey FIES 2009. Pantawid Pamilya has been the main user of NHTS-PR data to select its beneficiaries.

**NHTS-PR is an example of a targeting system that is applicable for a country with wide regional disparities.** In a country like Philippines with diverse regions and provinces, establishing a national household targeting system and identifying the poor households across the country were possible. Such diversity was incorporated in the NHTS-PR through the inclusion of geographic variables in PMT model, having separate models for urban and rural areas, and the use of provincial poverty thresholds for selecting the poor households.

**NHTS-PR design and implementation required a strong institutional leadership.** DSWD leadership and capacity to manage the entire nationwide implementation was instrumental to the success of the NHTS-PR. This was an operation intensive in human resources and technological capacity. Through the course of its implementation, DSWD built the internal capacity required to undertake it.

**DSWD built a national targeting system that has been instrumental to concentrate resources on the poor.** The NHTS-PR improved coordination of different agencies undertaking social programs as it enabled them to use the same poverty data. It also facilitated efforts that aim to provide basic assistance to the poorest. Through the CCT program, health insurance for the poor, livelihood programs, and social pensions, which use the national poverty database, the Government's objective is to help the poor has become evidence-based.

**The Philippines experience shows that it is possible for a middle-income country with relatively low institutional capacity to build a national targeting system.** Some of the main lessons from this experience are the following:

- Strong commitment of implementing agency for securing budget is critical to develop systematic design and implementation procedures.
- Learning from other countries experiences and direct exposure to their targeting systems helped to motivate and to improve design and implementation.
- Constant technical assistance and capacity building was embedded in the whole design and implementation process.
- Pilot-test and assessment of its results are important for successful implementation nationwide.
- Consultation with prospective user agencies to make the targeting system more relevant to their needs is necessary.
- The flexibility of the implementing agency to adapt to the emerging needs of the targeting system is important. For instance, DSWD created a new Program Management Office (PMO) to manage task and train/hire/supervise thousands of enumerators/supervisors and coordinators.
- Constant development of in-house technical staff is necessary to undertake and sustain the effort of building the targeting database.
- A well-designed standard procedures and guidelines can facilitate the massive training required for the parallel nationwide implementation.
- The results of a PMT-based targeting system could be improved if household assessment is complemented with geographic selection of poor areas before the field work and with community validation at the end of the process.
- The complaints resolution system and the social marketing campaign are key complementary processes to guarantee transparency in the implementation process.
- Supervision at the central level is critical to proper monitoring and early detection of possible bottlenecks in the implementation. This allowed for proactive corrections to improve implementation.

<sup>35</sup> Using an average cost/survey of about US\$2.5.

<sup>36</sup> *Pantawid Pamilya* budget is about US\$939 million for 2012.



**A major challenge of the targeting system is to keep it free from manipulation and/or misuse.** Breaking the tradition of selecting beneficiaries on the basis of patronage and other subjective considerations is never an easy process and there will be constant pressures on the NHTS-PR. The NHTS-PR has presented an alternative and objective manner of identifying the poor. While it helps reduce the politicization of development programs and manipulation of the electoral base, it understandably triggered a strong political interest especially when applied to major programs, as in the case of the CCT beneficiaries. Keeping it objective and transparent is a continuous task.

**The NHTS-PR data could be used more extensively to produce poverty profiles.** The national poverty database can be used for a diagnostic exercise of the main needs of the poor. In fact, the database could be used to design a basic safety net that addresses the main needs of the poor household based on their profile. Further dissemination of the information among Government agencies will contribute to the convergence of actions and resources to improve delivery of services to the poor.

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