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Who Benefits from the Food-for-School Program and Tindahan Natin Program: Lessons in Targeting

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Who Benefits from the Food-for-School Program and Tindahan Natin Program: Lessons in Targeting

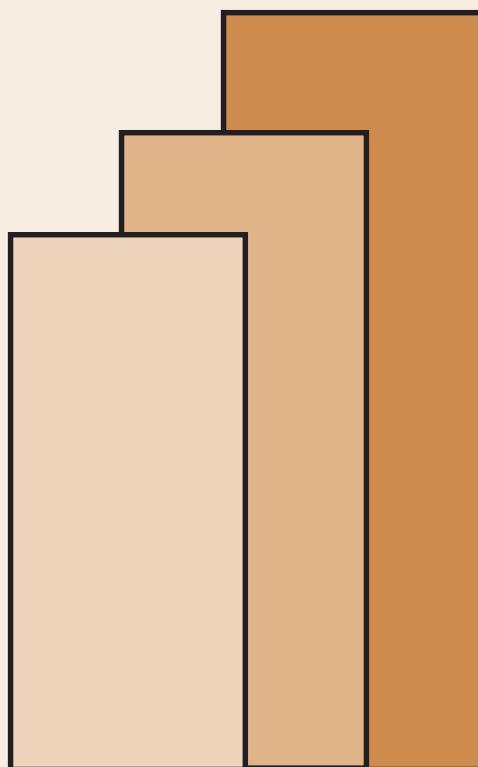
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**WHO BENEFITS FROM THE FOOD-
FOR-SCHOOL PROGRAM AND
TINDAHAN NATIN PROGRAM:
*Lessons in Targeting***

*Rosario G. Manasan
with Janet S. Cuenca*

8 August 2007

Abstract

The prevalence of hunger in the Philippines prompted the government to launch its hunger mitigation initiative in November 2005. The initiative consisted of two programs: the Food-for-School Program (FSP) and the Tindahan Natin Program (TNP). The FSP belongs to a class of social safety nets called conditional cash or in-kind transfers. There is a growing interest on these instruments worldwide because of evidence that they have not only been useful in providing assistance to poor families but more so because they have been found effective in securing investments in human capital among the poor. On the other hand, the TNP is a targeted food price subsidy program. Like other food price subsidy programs, it operates by lowering the price of certain food items. The lower food price effectively results in increased purchasing power that translates into an increase in the real income of beneficiaries.

The budget allocation for these programs has been increasing in recent years. One interesting question to ask now is: Who benefits from the government's hunger mitigation program? The answer to this question has a large bearing on both the effectiveness and efficiency of the program. Given this perspective, the paper assesses the 1) distribution of the benefits from the FSP and TNP in 2006, and 2) implications on targeting of the use of public schools and day care centers as distribution points. In the process, it also draws some lessons in targeting.

Keywords: *Food-for-School Program, Tindahan Natin Program, hunger mitigation, conditional cash transfers, in-kind transfers, food price subsidy, targeting, leakage rate, undercoverage rate*

WHO BENEFITS FROM THE FOOD-FOR-SCHOOL PROGRAM AND TINDAHAN NATIN PROGRAM: *LESSONS IN TARGETING**

Rosario G. Manasan with Janet Cuenca

1. INTRODUCTION

1.1. Context

Amid rising concerns about the prevalence of hunger, the government launched its hunger mitigation initiative in November 2005. The initiative consisted of two programs: the Food-for-School Program (FSP) and the Tindahan Natin Program (TNP). The FSP is a conditional food transfer program while the TNP is a targeted food price subsidy program. The Food for School Program provides a kilo of rice to families who suffer from severe hunger through their children in day care centers and in preschool and Grade 1 in schools operated by the Department of Education (DepEd). On the other hand, the TNP aims to ensure the availability of low-priced basic food commodities (rice and instant noodles) to poor families through the Tindahan Natin outlets. Under this program, only eligible households may purchase from the Tindahan Natin.

The budget allocation for these programs has been on an uptrend in recent years. The total budget allocation of the FSP is PhP2.9 billion (PhP2.665 billion for the DepEd component and PhP270 million for the DSWD component) in 2006 and PhP5.098 billion (PhP4.013 billion for the DepEd component and PhP1.085 for the DSWD component) in 2007. On the other hand, the budget allocation for the TNP is PhP181 million in 2006 and PhP160.8 million in 2007.

The FSP belongs to a class of social safety nets called conditional cash or in-kind transfers. There is a growing interest on these instruments worldwide owing to evidence that they have not only been useful in providing assistance to poor families but more so because they have been found to be effective in securing investments in human capital among the poor.

Conditional cash or in-kind transfers are transfers to qualifying households that require a specified action on the part of the beneficiaries for them to receive the benefit. The typical condition is increased investment on children's human capital (e.g., school attendance, regular use of preventive health care and nutrition services) but it can also involve changes in other aspects of their behavior. This approach assumes that the income effect of an unconditional transfer is not enough to stimulate demand for human capital investments (de Janvry and Sadoulet 2005). Thus, there is a need for the

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condition to boost demand for education and child/maternal health services. They work best when the supply of these basic social services is strong.

On the other hand, the TNP is a food price subsidy program. Like other food price subsidy programs, it operates by lowering the price of certain food items. The lower food price effectively results in increased purchasing power that translates into an increase in the real income of beneficiaries.

In general, food subsidies may either be untargeted or targeted to specific groups. Also, food subsidies may or may not be subject to quota restrictions on the quantity of food that beneficiaries can purchase at the discounted price. If the subsidy is applied on inferior foods (i.e., food items whose consumption declines as income increases so that they tend to be consumed more by the poor relative to nonpoor households) then the subsidy will be self-targeting.

1.2. Objectives

Who benefits from the government's hunger mitigation program? The answer to this question has a large bearing on both the effectiveness and efficiency of this program.

Given this perspective, the objectives of this study are straightforward. This paper aims to assess:

- the distribution of the benefits from the FSP and the TNP in 2006; and
- the implications on targeting of the use of public schools and day care centers as distribution points

The government's accelerated hunger mitigation program (AHMP) seeks to introduce programs that address both the supply side (i.e., the insufficiency of food supply), and the demand side (i.e., the inability to buy food) of the hunger problem. On the supply side, measures to mitigate hunger include the expansion of production capacity, enhancement of agricultural productivity, and improvements in food distribution and logistics. On the demand side, the measures include education and skills training to improve the employment situation and productivity of labor, provision of income generating activities, and outright food transfers to the poor. This study, however, limits its focus solely on the FSP and the TNP.

1.3. Basic Concepts in Targeting

Who benefits from the FSP and the TNP is largely dependent on the targeting mechanism used to identify the beneficiaries of the program. Targeting is a tool that is meant to concentrate the benefits of transfer program to the poorest segments of the population. All targeting mechanisms have the same objective: to correctly identify which households are poor and which are not.

Targeting is a means of increasing the efficiency of the program by increasing the benefits that the poor can get with a fixed program budget (Coady, Grosh and Hoddinott

2004). Conversely, it is a means that will allow the government to reduce the budget requirement of the program while still delivering the same level of benefits to the poor (**Box 1**).

Box 1. Why targeting matters	
Illustrative example	
Total Population	100
Poor Population	50
<i>Higher per capita transfer with fixed budget (say, PhP 1,000)</i>	
With perfect targeting :	PhP 20 benefit per beneficiary
With no targeting:	PhP 10 benefit per beneficiary
<i>Smaller budget with fixed per capita transfer to the poor (say, PhP 10)</i>	
With perfect targeting:	PhP 500 (or 50% budget savings)
With no targeting:	PhP 1,000

Targeting mechanisms may be classified into: administrative targeting or self-targeting (Hoddinott 1999) depending on who implements the targeting method. Self-targeted programs are technically open to all but designed in such a way that the benefit provided is preferred by the needy but not by the better-off households. Thus, only the poor households self-select into participating in the program, which makes screening procedures irrelevant and minimizing leakage to the nonpoor. Common self-targeting features of transfers include the use of low-quality foodstuff, queuing to receive transfers, or work requirement that carries a high opportunity cost of time for the relatively better off (Barrett 2002).

On the other hand, administratively targeted interventions are those in which project staff determine who will be eligible to participate or receive the benefit on the basis of a set of criteria. Administrative targeting may be further classified according to the method or approach used to reach the target group: means testing, proxy means testing, community-based targeting and categorical or indicator-based targeting.¹ It should be emphasized that these methods need not be used on a mutually exclusive basis. In fact, in many countries they are used in combination with one another.

- A verified means test is the gold standard of targeting. It seeks to collect complete information on household income and/or wealth and verifies the information collected against independent sources. When implemented to the letter, verified means testing is accurate. However, this approach is very costly and administratively demanding. Also, being based on household income, it may discourage work effort.
- Proxy means tests generate a score for applicant households based on fairly easy-to-observe household characteristics like location and quality of dwelling,

¹ This classification scheme is based on the World Bank Safety Nets website.

ownership of durable goods, demographic structure of household, and education/occupation of household members. The indicators and the weights used to generate a score are derived from statistical analysis (typically principal component analysis) of data from detailed household surveys. Eligibility is then determined by comparing the household's score against a pre-determined cut-off. Because it does not measure income itself, proxy means testing may discourage work effort less. This approach also requires less information than the true means testing but is still objective. However, the formula used may track chronic poverty well but not transient poverty.

- Community-based targeting uses a group of community members/leaders to decide who in the community should benefit. This approach is based on the assumption that local knowledge of individual household's circumstances is more accurate than the results of a means test conducted by a government field worker. However, this approach has the following drawbacks: (i) local actors may have other objectives other than good targeting of the program; (ii) it may lower cohesion of local actors; (iii) it may exacerbate existing patterns of exclusion; and (iv) it makes comparability across communities difficult because local definitions of welfare are used.
- Categorical or indicator targeting refers to a method in which all individuals in a specified category automatically become eligible to receive program benefit. In these programs, eligibility is typically based on individual or household characteristics that are easy to identify like age, gender, ethnicity, demographic composition or geographic location. Age and geographic location are the most commonly used criteria. Categorical targeting is fairly simple to administer. It works best when poverty differs across categories but is similar within categories, i.e., there is within-category homogeneity.

Any targeting method will most likely fail to include some of the poor while including some of the nonpoor households. Targeting performance may be better appreciated by referring to **Table 1**. Good targeting is one which minimizes both errors of exclusion and errors of inclusion. An error of inclusion is one in which an intervention reaches individuals who are not intended to be beneficiaries. On the other hand, an error of exclusion occurs when intended beneficiaries are not able or permitted to participate in intervention. It should be emphasized that the exclusion error is defined relative to the total population and may, therefore, be difficult to measure when evaluating different programs.

In assessing the performance of alternative targeting mechanisms, one may estimate leakage rates and undercoverage rates. The leakage rate is the ratio of number of nonpoor beneficiaries to the total number of beneficiaries (e.g., 20/65 in example in **Table 1**). Thus, it is a measure of the inclusion error. On the other hand, the undercoverage rate is the ratio of the number of poor households who do not participate in the program to the total number of poor households (e.g., 15/60 in example in **Table 1**). It is a measure of how effective the program is in reaching the poor and is related to the exclusion error. Still another measure of targeting performance is the progressivity index or the ratio of

the share of the benefits received by the poor to the proportion of the total population that is poor.

Table 1. Errors of Inclusion and Exclusion

	Poor	Non poor	
Participate in program	Success (45)	Inclusion error (20)	65
Do not participate	Exclusion error (15)	Success (20)	35
Total	60	40	100

Source: Coady et al 2004

Targeting involves costs: administrative costs (e.g., costs of collecting information), private costs (i.e., cost households incur in order to participate in the program), social costs (refers to stigma involved in being publicly identified as poor or needy), and incentive costs (including negative incentive effects like reduced work effort and crowding out of private transfers). The higher these costs are, the smaller will be the portion of the program budget that will be available for distribution as benefits to the beneficiaries. Thus, in evaluating which targeting method is appropriate, one has to weigh the benefits from reduced leakage against the cost of implementing finer targeting methods.

2. FOOD-FOR-SCHOOL PROGRAM

2.1. Features of Food-for-School Program

First and foremost, the Food-for-School program is an intervention that is meant to address hunger among poor families. It is also meant to improve school attendance of the children of these households by providing one kilo of rice to families who suffer from severe hunger for every day that their children continue to attend school. In practical terms, the rice ration is provided to each eligible pupil after class.² Thus, eligible households are assured of having rice on their tables every day as long as their children go to school or the day care centers.

The FSP may, thus, be categorized as a conditional in-kind transfer. Eligible households may only receive the program benefit if they actually send their children to school. As such, the FSP has dual objectives: (i) address hunger, and (ii) improve school attendance by reducing the dropout rate.

The beneficiaries of the program are households in selected geographic areas who have children who are preschool or Grade 1 pupils in public elementary schools or who attend

² When two or more siblings are enrolled in Grade 1 and/or preschool in public elementary schools or in identified day care centers only one child will receive the rice ration.

day care centers (DCCs). The DepEd implements the preschool/ Grade1 component of the FSP while the DSWD manages the DCC component of the FSP.

The geographic areas covered by the FSP includes the 17 cities and municipalities of the National Capital Region (NCR) and the 49 provinces that have been identified by the Food Insecurity and Vulnerability Information Mapping System (FIVIMS) as either very, very vulnerable (VVV), very vulnerable (VV) or vulnerable (V). Thus, the FSP provides the rice ration to all eligible schoolchildren in all public elementary schools and DSWD-supervised day care centers in the NCR and selected municipalities in the 49 FIVIMS provinces.

Under the FSP, the DSWD organizes the parents of DCC children into Day Care Parents Group to encourage their participation and sustain their support and commitment to the program. In like manner, the DepEd mobilizes the Parents-Teachers-Community Associations (PTCAs) to assist the selected schools in the implementation of the program.

In addition to the distribution of rice to eligible children in selected schools, other complementary activities are also put in place to help ensure improvements in the nutrition status of children. First, the height and weight of children are measured by the school nurse/or teacher-in-charge at the start of the school year while another assessment is done in November to determine their progress from the baseline. On the other hand, the day care worker prepares a permanent growth monitoring record for each child enrolled in the day care program. Second, deworming of the children beneficiaries is undertaken at the start of the program. Third, parents/caregivers are given training on effective parenting and home care, the adoption of desirable food, health and nutrition practices, sustainable food production/gardening technologies and livelihood/self-sufficiency projects by the LGUs in collaboration with NGOs and other government agencies in order to sustain family food security, increase school retention, and improve nutritional status of children in the long term. Fourth, school/home/community food production is encouraged by:

- having the schools allot an area for selective production of nutrient-rich fruits and vegetables for feeding of underweight children,
- having the Barangay Councils designate an area in the community where parents of the children beneficiaries could establish a communal vegetable garden, and
- having the LGU agriculture office provide initial planting materials to the selected schools and the communities.

The inclusion of these complementary activities in the design of the FSP is commendable. International experience suggests that the positive effects of food-based transfer programs (which can reasonably be provided only for a fixed period of time) may not be sustainable in the longer term if they are not used as a way to provide maternal education on good nutrition/ health practices (Rogers and Coates 2002).

2.2. Coverage, Targeting and Leakage of Food-for-School Program

The target number of beneficiaries of the FSP in November 2005–March 2006 was 380,553 households with children in the preschool and Grade 1 in public elementary schools and 74,261 households with children attending DSWD-supervised day care centers or a total of 454,814 households. The program actually reached 97.6% of its target during this period (**Table 2**).

**Table 2. Target Beneficiaries and Outreach of Food for School Program
SY 2005-2006 and SY 2006-2007**

Region	Actual No. of Beneficiaries SY 2006-2007			Actual No. of Beneficiaries SY 2005-2006		
	Grad 1 & PS	DCC	Total	Grade 1 & PS	DCC	Total
NCR	294,997	123,311	418,308	272,459	30,820	303,279
I	2,313	1,200	3,513	9,850	n.a	9,850
II	9,136	n.a.	9,136	7,768	2,446	10,214
IV-A and B	14,569	11,312	25,881	8,433	n.a	8,433
V	60,461	36,772	97,233	6,337	7,423	13,760
VI	30,081	19,848	49,929	6,640	2,349	8,989
VII	14,900	8,340	23,240	7,100	9,756	16,856
VIII	40,783	29,294	70,077	6,078	8,335	14,413
IX	11,274	6,777	18,051	9,010	2,750	11,760
X	16,592	10,153	26,745	5,387	2,335	7,722
CARAGA	17,447	10,500	27,947	6,748	460	7,208
XI	2,011	1,195	3,206	3,752	n.a	3,752
XII	20,060	11,771	31,831	5,364	4,884	10,248
ARMM	52,595	10,269	62,864	12,581	741	13,322
CAR	9,720	9,135	18,855	2,333	1,962	4,295
Total	596,939	289,877	886,816	369,840	74,261	444,101
% to target	66.2	121.0	77.7	97.2	100.0	97.6
Memo item:						
Target no. of beneficiaries	902,000	239,483	1,141,483	380,553	74,261	454,814

a/ includes additional target family-beneficiaries resulting from Pres. Gloria Macapagal-Arroyo's provincial visits.
n.a. - not targeted in the bringing year program of DSWD

Source: National Food Authority and Department of Social Welfare and Development

In school year (SY) 2006-2007, the target number of beneficiaries is programmed to increase to a total of 902,000 households with children in preschool and Grade 1 in public elementary schools and some 239,483 households with children in DSWD-supervised DCCs. The actual number of beneficiaries in the DepED-managed preschool/Grade 1 component reached 596,939 households in SY 2006-2007 while that of the DSWD-managed DCC component reached 289,877 (**Table 2**). It is notable that the DepEd-implemented component of the FSP failed to reach the target number of beneficiaries for

SY 2006-2007 while the DSWD exceeded the program target. This point is discussed in some detail below relative to the consistency of the program size as per the plan with the targeting rules that are being followed.

If the target beneficiaries of the FSP were all poor, then the 1.14 million households that are targeted under the program as planned will account for about 64% of the total number of poor households as per the food threshold. On the other hand, if the *actual* number of FSP beneficiaries were all poor, then they would account for 50% of the total number of poor households as per the food threshold. The effectiveness of the FSP to actually reach poor households depends on the targeting mechanism used as well as the way it is implemented.

Targeting mechanism

To identify the geographic areas that are covered by the program, the FSP makes use of the Food Insecurity and Vulnerability Information Mapping System. The FIVIMS is designed to identify food insecure and vulnerable provinces in the country. The FIVIMS is anchored on an index that is composed of 12 core indicators (Valientes et al. 2006). These indicators are:

- ratio of per capita income to per capita expenditure
- poverty incidence
- median family income
- ratio of food expenditure to total household expenditure
- ratio of cereal food expenditure to total food expenditure
- unemployment rate
- cohort survival rate at the elementary level
- percentage of families with working children
- percentage of households with safe water
- percentage of underweight children
- percentage of underweight adults
- percentage of agricultural land under tenancy

The FSP is targeted to include *all* the preschool/Grade 1 pupils in *all* the public schools as well as *all* the children enrolled in *all* the DSWD-supervised day care centers in the following areas:

- All the municipalities and cities (17) in the National Capital Region (NCR);
- All the municipalities (49) of the provinces classified as very, very vulnerable (VVV) in the FIVIMS;
- All the 5th and 6th class municipalities (283) of the provinces classified as very vulnerable (VV) and vulnerable (V) in the FIVIMS;
- All the 4th class municipalities (27) in the very vulnerable and vulnerable provinces where there are no 5th and 6th class municipalities; and
- All the 3rd class municipalities (3) in the very vulnerable and vulnerable municipalities where there are no 4th, 5th, and 6th class municipalities (**Annex Table 1**).

Thus, the FSP combines geographic targeting with institutional targeting at the level of the public school or day care center. Geographic targeting under the FSP occurs at two levels. First, the most food insecure and vulnerable (i.e., poorest) provinces are identified and selected. Second, because of an implicit recognition that the province is too big a unit to be homogeneous in terms of food insecurity/poverty, the FSP deems it appropriate to identify and select the relatively more food-insecure (i.e., poorer) municipalities within each of the poorest provinces. Once a municipality is selected to be part of the FSP, however, all preschool and Grade 1 pupils in all the identified public schools (and all children enrolled in the DSWD-supervised day care centers) in the municipality automatically become eligible to receive the benefits of the program.

Weaknesses of targeting rule

The FSP share the advantages of most other geographically targeted social transfer programs. It is administratively simple and inexpensive to implement. However, the evidence available to date suggests that FSP's brand of geographic targeting can still be improved to increase the program's efficiency and effectiveness. Potential efficiency gains may come from three sources and may be better appreciated by considering three counterfactual scenarios.

First, international experience suggests geographically targeting works best when poverty differs across regions but is similar within regions, i.e., there is within-region homogeneity (Hoddinott 1999). In the Philippines, evidence indicates that the within-province variation is more important than the between-province variation in explaining the total variation in the poverty incidence across municipalities. In particular, the analysis of variance of the small area estimates (SAE)³ of municipal level poverty incidence shows that between-province variation accounts for a mere 32% of the total variation in municipal level poverty incidence. It is perhaps the implicit recognition of this result that prompted the FSP implementers to differentiate municipalities within the different target provinces according to the LGU income classification.

Second, the ranking of municipalities according to their income class does not correlate well with their ranking according to small area estimate of poverty incidence. This is true whether one is looking at the ranking of municipalities within a province or the ranking of municipalities across the nation. For instance, 155 (or 50%) of the 313 municipalities in the VV and V provinces are found not to be among the poorest municipalities even within each of these provinces under the FIVIMS. Also, the rank correlation between the ranking of municipalities according to the NSCB's small area estimates of poverty incidence and the ranking of municipalities derived from the application of the FIVIMS classification of provinces according to their vulnerability and the income class of municipalities is found to be weak as indicated by a rank correlation coefficient of 0.46.

³ The National Statistical Coordination Board (NSCB 2005) estimated small area estimates of municipal-level poverty incidence by combining data from the 2000 Family Income and Expenditure Survey (FIES), the 2000 Census of Population and Households (CPH) and the 2000 Labor Force Survey (LFS).

In order to gain a better appreciation of these issues, the leakage rates, the undercoverage rates, the share of the poor in program benefits and the index of progressivity are estimated for the existing targeting rule and for the two counterfactual scenarios. The first counterfactual scenario refers to the application of an alternative targeting rule whereby the FSP is targeted to the SAE poorest municipalities in each of the VV and V provinces under FIVIMS rather than to the 5th and 6th income class municipalities in the same provinces.⁴ On the other hand, the second counterfactual scenario refers to the application of another alternative targeting rule whereby the FSP is targeted directly to the SAE poorest municipalities overall instead of targeting first the poorest provinces then selecting the target municipalities within each of the target provinces.⁵

The results of the counterfactual simulations show that both the leakage rate and the undercoverage rates are reduced while both share of the benefits going to the poor and index of progressivity are increased when these alternative targeting rules are applied (**Table 3** and **Table 4**). To wit, the leakage rate in the DepEd component declines from 62% under the existing targeting rule to 55% if alternative targeting rule #1 were applied. In like manner, the leakage rate in the DSWD component drops from 59% under the existing targeting rule to 53% if alternative targeting rule #1 were adopted. Conversely, these figures indicate that the share of the poor in total program benefits increases correspondingly from 38% to 45% for the DepEd component while the share of the poor in total program benefits improves from 41% to 47% for the DSWD component.

Under alternative targeting rule #2, 230 (or 61%) out of the 379 cities/municipalities that were originally targeted under the FSP would not be eligible to receive FSP benefits under the DepEd component. On the other hand, 200 (or 53%) of the 379 target cities/municipalities under the FSP would not be eligible to receive FSP benefits under the DSWD component. In other words, 61% of the municipalities/cities targeted under the DepEd component while 53% of the municipalities/cities targeted under the DSWD component of the FSP at present are not the poorest municipalities/cities from a global perspective. This number includes all the cities and municipalities in the NCR.

Thus, it is not surprising that the resulting reduction in the leakage rate if alternative targeting rule # 2 were applied is dramatic. The leakage rate in the DepEd component is estimated to drop to 24% if the actual number of beneficiaries reached to date is maintained (**Table 3**). That is, 76% of total program benefits in the DepEd component would have been received by poor households if the said alternative targeting rule were adopted.

⁴ From hereon, said targeting rule will be referred to as “alternative targeting rule #1.”

⁵ From hereon, said targeting rule will be referred to as “alternative targeting rule #2.”

**Table 3. Leakage Rate and Undercoverage Rate
Under Alternative Targeting Rules for DepEd Component of FSP, 2006**

Targeting rule	Leakage Rate	Under-coverage rate	Share of the poor in total transfers	Index of progressivity a/
FIVIMS priority provinces & municipalities according to income class	62%	80%	38%	1.38
FIVIMS priority provinces & municipalities according to SAE	55%	72%	45%	1.64
Directly to municipalities according to SAE; same no. of actual beneficiaries as now	24%	53%	76%	2.76
Directly to municipalities according to SAE; no. of municipalities increased to reach ex ante target number of beneficiaries	28%	43%	72%	2.62

a/ ratio of share of benefits going to the poor divided by the proportion of households which are poor;
percentage of poor HH is 27.5% in 2000

**Table 4. Leakage Rate and Undercoverage Rate
Under Alternative Targeting Rules for DSWD Component of FSP, 2006**

Targeting rule	Leakage Rate	Under-coverage rate	Share of the poor in total transfers	Index of progressivity a/
FIVIMS priority provinces & municipalities according to income class	59%	75%	41%	1.49
FIVIMS priority provinces & municipalities according to SAE	53%	69%	47%	1.71
Directly to municipalities according to SAE; same no. of actual beneficiaries as now	44%	56%	56%	2.04
Directly to municipalities according to SAE; no. of municipalities increased to reach ex ante target number of beneficiaries	46%	59%	54%	1.96

a/ ratio of share of benefits going to the poor divided by the proportion of households which are poor;
percentage of poor HH is 27.5% in 2000

In like manner, the leakage rate in the DSWD component is estimated to decrease to 44% if alternative targeting rule #2 were applied while maintaining the same actual number of beneficiaries (**Table 4**). Conversely, 56% of total program benefits in the DSWD component would have been received by poor households if the said alternative targeting rule were used.

The inclusion of all the cities and municipalities in the NCR in the FSP results in a substantial leakage of FSP benefits to nonpoor beneficiaries. The NCR accounts for 49% of the total number of beneficiaries under the DepEd component of the FSP, yet it has the lowest poverty incidence (6.9%) among all provinces/ regions in the country. Consequently, it accounts for 71% of the total number of nonpoor households who benefits from the program. One may argue from a political economy perspective like Pritchett (2005) that the cost of this leakage is the price government has to pay to gain political support from a more visible and vocal constituency thereby better ensuring budget support for the program. Nonetheless, it is important for policymakers to be made aware of the relative magnitude of the trade-off involved between benefit leakage and political consolidation.

On the other hand, the program's ability to reach poor households is found to improve with the adoption of either one of the two alternative targeting rules. The undercoverage rate in the DepEd component improves by 8 percentage points with the application of alternative targeting rule #1 while that of the DSWD component improves by 6 percentage points. Thus, the undercoverage rate of the DepEd component decreases from 80% under the existing targeting rule to 72% if alternative targeting rule #1 were applied. Similarly, the undercoverage rate of the DSWD component goes down from 75% to 69%. If alternative targeting rule #2 were followed, the undercoverage declines further to 53% in the DepEd component and 56% in the DSWD component.

Program size

It has been a cause of concern to DepEd FSP implementers that they are unable to come up with 902,000 pupil-beneficiaries that they have originally targeted to reach (i.e., planned program size). Closer scrutiny of the data reveals that the *ex ante* target number of beneficiaries was not reached not because of poor implementation but precisely because the planned program size is not consistent with the maximum number of pupils that can be reached in the target areas of the FSP given current enrollment rates. Note that the actual number of beneficiaries represents very close to 100% of the current school enrollment in the priority areas under the FSP. Thus, the targeting rule would have to be changed if the *ex ante* target number of beneficiaries were to be attained. There are several ways of achieving this. Perhaps the most efficient way (without resorting to means testing) would be to target a total of 653 municipalities out of the poorest municipalities ranked according to the small area estimate of municipal level poverty incidence. If this were done, the leakage rate would be 28% and the undercoverage rate would be 43%.

As indicated earlier, the total budget allocation of the FSP is PhP2.9 billion (PhP2.665 billion for the DepEd component and PhP270 million for the DSWD component) in 2006

and PhP5.098 billion (PhP4.013 billion for the DepEd component and PhP1.085 for the DSWD component) in 2007. If the actual number of beneficiaries reached as of end of August 2006 is maintained, then the budget allocation for the FSP will exceed the requirements of the program by PhP0.8 billion in 2006 and PhP1.2 billion in 2007 (**Table 5**). On the other hand, if the original target number of beneficiaries is reached, then the budget allocation for the FSP will exceed the program requirements by PhP195 million in 2006 and PhP75 million in 2007.⁶

**Table 5. Comparison of Budget Allocation and Program Requirements,
2006 and 2007
(in million pesos)**

	2006	2007
Budget allocation		
DepEd component	2,665.00	4,013.00
DSWD component	269.50	1,085.00
Total	2,934.50	5,098.00
Budget requirement with same actual number of beneficiaries		
DepEd component	1,432.65	2,626.53
DSWD component	695.70	1,275.46
Total	2,128.36	3,901.99
Budget requirement with original target number of beneficiaries		
DepEd component	2,164.80	3,968.80
DSWD component	574.76	1,053.73
Total	2,739.56	5,022.53
Excess allocation with same actual number of beneficiaries		
DepEd component	1,232.35	1,386.47
DSWD component	(426.20)	(190.46)
Total	806.14	1,196.01
Excess allocation with original target number of beneficiaries		
DepEd component	500.20	44.20
DSWD component	(305.26)	31.27
Total	194.94	75.47

2.3. Implications on Targeting of the Use of Public Schools and DCCs as Distribution Points

The choice of the distribution point is one of the key issues in program design which significantly influences program effectiveness of conditional in-kind transfers. In this section, we consider the ramifications of distributing program benefits at public schools and DCCs.

⁶ These figures assume that the FSP will run for 120 days in 2006 and 220 days in 2007.

The School as Distribution Point

The FSP makes use of the school as the point of distribution. International experience suggests a number of benchmarks pertinent to this design feature against which the FSP can be assessed. First, the implementation of similar programs in other countries indicates that the effectiveness of schools as distribution channel depends on the ability of the school network to reach the poorest areas as well as the ability of implementing agency to handle the logistics of storing, transporting, and distributing the food commodity (Rogers and Coates 2002). This situation appears to be present in the Philippines where there is a public elementary school in almost every barangay and where the National Food Authority (NFA), which is tasked to deliver the rice to schools in a timely manner, has a well-established regional/ provincial network in place.

Second, delivering food transfers through public schools may serve some self-targeting function when the relatively well-off households use private schools (Rogers and Coates 2002). This is true in the Philippines where the share of the poor in total public school enrollment has been found to be greater than their share in the total population (Manasan, et. al 2007). However, this tendency is weakened by the fact that the share of the private school system in total enrollment at the elementary level is low (7% in SY 2003-2004).

Third, experience in other countries suggests that targeting poor children within the school or class should be avoided because it creates a stigma that is likely to discourage the needy children from taking advantage of the program. In turn, this finding highlights the importance of targeting schools that serve low-income populations (Roger and Coates 2002). This lesson resonates well in the Philippines where high participation rates tend to result in a high leakage rate with universal targeting (i.e., no targeting) at the level of the school.

Fourth, studies (e.g., Glewwe, Jacoby and King 2001) show that better nutrition of children brought about by cash/food transfer programs (whether conditional or not) tend to result in higher school participation rates. However, experience in a number of countries (e.g., Bangladesh and Mexico) also suggests that rapid expansion in access can undermine service quality unless there is also an improvement in service provision (Chapman 2006). Given the already high participation rates in the public elementary school system in the Philippines, the potential improvement in school attendance and the reduction in the dropout rate that are expected to result from the FSP accentuate the need to address the input deficits in the basic education sector (i.e., the need to strengthen the supply side).

The DCC as Distribution Point

The use of the DCC as a distribution point may be justified on two grounds. First, delivering food transfers through the DCC may be self-targeting (even more so than through public elementary schools) precisely because there is a greater tendency for the DCCs to be patronized by poorer households. Second, DCCs serve younger children who are subject to the greatest nutritional risk (Chapman 2006).

On the other hand, the use of the DCC as a distribution point may not be appropriate considering that the distribution of day care centers across the country is not as extensive as that of public elementary schools. Also, since DCCs are largely funded by LGUs, they may not be present in poorer areas. Note that 16% of the total number of barangays have no DCCs while only 68% of the total number of DCCs are accredited by the DSWD.

2.4. Other FSP Issues

Size of the Transfer

The FSP provides eligible beneficiaries one kilo of rice daily five days a week. There are indications that the transfer is not large enough. An informal survey conducted by the DepEd in February-March 2006 found that:

- 80% of HH reported that one kilo of rice is not enough to provide their family with three meals a day
- Only 33% of HH reported not having missed a meal in the last 3 months

These numbers are consistent with the fact that the FSP's daily rice ration during schooldays is just enough to cover about 41% of the average rice consumption of a family with six members.⁷ Moreover, if the rice transfer were converted to cash (PhP440 per month), the transfer is estimated to be equal to 39% of the income gap based on the food threshold and 26% of the income gap based on the overall poverty threshold.

Program Benefits

It is not possible to have a scientific assessment of the outcomes of the FSP because of lack of information. However, the output of National Nutrition Council (NNC) monitoring of the FSP implementation conducted in February/March 2006 and March 2007 does appear to validate experience in other countries that social transfers can act as effective incentives to increase poor people's demand for services and improve their education outcomes. In fact, transfers do not need to be conditional on school attendance to impact children's education (Chapman 2006). It shows that the program has some positive impact on both the school attendance and nutrition status of the pupils who benefited from the FSP (**Table 6**).⁸ In particular, 62% of the respondents said that the number of school days missed declined while 44% of the children weighed gained weight. On the other hand, 20% of the respondents reported that they gained enhanced knowledge on basic nutrition from the program.

⁷ This figure is estimated based on a 0.32 kg allocation per member per day which is, in turn, based on the national average rice consumption.

⁸ Seventeen out of the 49 provinces included in the program were visited as part of the monitoring. Fifty-two elementary schools and day care centers were visited, 401 children were weighed and 412 parents/caregivers were interviewed.

Table 6. Perceived Gain from FSP

Gains	Feb/Mar 2006 Percent*	Mar 2007 Percent*
1. No missed meals in the past 3 months	33.7	6.7
2. Decreased number of schooldays missed	62.1	55.2
3. Increased weight of child	44.4	49.3
4. Additional food for the family	89.6	86.8
5. Enhanced knowledge on basic nutrition	20.1	22.5

* Total is not equal to 100% due to multiple answers.

Source: DepEd powerpoint obtained from Director Thelma Santos and Asst. Director Thelma Navarrez of the School Health and Nutrition Center of the DepEd

3. TINDAHAN NATIN PROGRAM

3.1. Features of Tindahan Natin Program

The TNP has two components. On the one hand, SEA-K Kabayan, SEA-K Association, or SEA-K individual beneficiaries with retail store business in strategically located sites that are accessible to intended beneficiaries of the TNP may apply for DSWD loan assistance. As such, the program provides credit to the store owner for livelihood. The identification of the target provinces for the TNP stores is based on FIVIMS. The DSWD, NFA, LGU and the barangay council are tasked to ensure that there are adequate TNP stores in the identified target areas. The number of stores that will be designated in each area is determined based on the following:

- Number of household beneficiaries to be served; one TNP store is meant to serve at least 250 households
- Geographical location of target areas and clustering of beneficiaries
- Viability of store operation
- Accessibility
- Necessity of rice in the area
- Purchasing capability

On the other hand, as originally designed only eligible TNP household beneficiaries may purchase food items at the NFA's prescribed selling price from the TNP store. Eligible beneficiaries can only purchase 14 kg. of rice at the maximum per week.⁹ A Family ID cum Passbook is issued by the LGU-P/C/MSWDOs to the beneficiaries for identification and monitoring purposes. The beneficiary presents the ID/ Passbook when purchasing the rice allocation at the TN stores.

⁹ The weekly allocation per family is based on the average per capita rice consumption of 115 kg. per year.

The selection/identification of TNP household beneficiaries is the responsibility of the DSWD in coordination with the LGU-P/C/MSWDOs and the barangay councils. In principle, the target beneficiaries of the TNP are families who have income below the food threshold. However, it is not clear exactly how the individual household assessments are made and what the basis of such assessments.

At present, however, there are no longer any restrictions placed on who may buy the subsidized rice/noodles from the TNP stores. As such, all households within the catchment area of the TNP store are allowed to purchase the subsidized food items. The ID card/passbook issued to families is only used as a means of ensuring that households do not buy more rice than is allowed.

Meanwhile, the DSWD sources the rice/noodles that will be sold in the TNP stores from the NFA. The NFA delivers the commodities to the stores upon receipt of a guarantee letter for the delivery of rice/noodles to the TNP stores. Subsequently, the DSWD field office pays the NFA the total cost of the commodities.

Size of the transfer

As with other food price subsidy programs, the effective transfer benefit, b , to eligible beneficiaries from the TNP is equal to $q \cdot (p_m - p_s)$, where q is the quantity beneficiaries are allowed to purchase, p_m is the market price of the rice and p_s is the subsidized price. At present, this translates to PhP280 per month, representing 25% of the income gap based on the food threshold and 16% of the income gap based on the overall poverty threshold.

The effectiveness of the TNP to mitigate hunger and to reach the poor is limited by the fact that it simply provides a discount on the price of rice/noodles. To access the transfer, eligible beneficiaries are required to have the cash to pay for the food items, albeit at a subsidized price. This may deter the very poor from accessing the program.

3.2. Coverage, Targeting and Leakage of Tindahan Natin Program

The TNP aims to set up a total target number of 7,052 stores in NCR and the VVV, VV, and V provinces under FIVIMS (**Table 7**). As of August 30, 2006, the TNP has reached 1.7 million households (**Table 8**). If the beneficiaries of the TNP are all poor, they would account for about 100% of the total number of poor households as per the food threshold. The effectiveness of the FSP to actually reach poor households depends on the targeting mechanism used as well as the way it is implemented.

The TNP like the FSP employs the FIVIMS to implement geographic targeting at the level of the province. To this extent, the TNP shares the same problems related to the use of the FIVIMS.

Table 7. Target number of TNP stores by area

	Target no. of TNP stores	% Distribution
NCR	619	9
VVV provinces	310	4
VV provinces	1,078	15
V provinces	4,975	71
other expansion areas	70	1
military camps		
Total	7,052	100

The availability of the rice price subsidy to all residents in the catchment area of the TNP store underscores the importance of implementing geographic targeting well below the level of the province (i.e., municipal and barangay level). Targeting for the TNP below the level of the province is done at the regional level jointly by the NNC, DSWD, NFA, LGUs and the local SWDOs. The TNP targets the actual location of TNP stores below the level of the municipality (i.e., at the barangay level) on the basis of a rapid poverty mapping that was conducted by the DSWD just prior to the start of the TNP.¹⁰ Said poverty appraisal focused on prevalence of malnutrition and lack of rice supply. Such an approach has the potential advantage of the fieldworker being able to detect the special circumstances of the different areas in a more timely manner. For instance, the TNP stores in the NCR are located in the more depressed areas of the region. Also, the inclusion of Bulacan in the TNP is said to be justified because the stores are located in areas where informal settlers have been re-located. However, the main drawback of this approach is the difficulty maintaining uniformity and consistency across municipalities (barangays) within and, most especially, across provinces (municipalities). Such an approach may also be perceived as open to favoritism and/or political interference.

¹⁰ This information was based on a telephone interview with an official of Region IV-A.

**Table 8. Status of Tindahan Natin Project per Province/Municipality/District
As of August 30, 2006**

Region	Province City Municipality	Total Population	Number of Households	Identified Outlet/Operator	Operational TNO
NCR		5,088,790	1,209,309	567	518
	Priority areas	1,116,755	247,093	320	314
	Expansion areas	3,972,035	962,216	247	204
CAR		0	0	56	42
	Abra	0	0	15	13
	Apayao	0	0	13	6
	Ifugao	0	0	13	6
	Mt. Province	0	0	13	12
	Baguio City	0	0	6	6
CARAGA		153,681	30,397	67	65
	Agusan del Norte	21,690	4,466	14	14
	Agusan del Sur	43,826	8,695	16	14
	Surigao del Norte	52,335	10,430	22	22
	Surigao del Sur	35,830	6,806	15	15
I		0	4,500	18	18
	La Union	0	4,500	18	18
III		0	11,066	16	16
	Bulacan	0	11,066	16	16
IV-A		182,408	37,808	70	50
	Quezon	182,408	37,808	70	50
IV-B		166,081	33,280	53	49
	Occ. Mindoro	51,277	10,828	9	7
	Marinduque	19,612	3,953	11	10
	Romblon	20,796	4,494	11	10
	Palawan	74,396	14,005	22	22
V		427,547	72,145	202	112
	Albay	55,283	12,862	27	25
	Camarines Norte	34,567	5,731	14	8
	Camarines Sur	133,103	14,190	35	3
	Catanduanes	30,714	6,001	16	16
	Masbate	118,139	22,459	83	33
	Sorsogon	55,741	10,902	27	27
VI		848,608	155,464	141	104
	Aklan	56,658	10,767	13	8
	Antique	31,502	7,078	8	3
	Capiz	144,213	26,924	35	21
	Iloilo	392,199	74,550	57	55
	Negros	224,036	36,145	28	17
VII		40,994	24,579	103	80
	Bohol	0	13,461	54	38
	Negros Oriental	40,994	9,868	41	39
	Cebu	0	1,250	8	3
VIII		268,482	51,000	133	58
	Eastern Samar	11,104	1,969	7	7
	Western Samar	49,289	10,209	23	15
	Northern Samar	82,319	13,097	31	18
	Southern Leyte	10,856	2,138	13	5
	Leyte	114,914	23,587	59	13
IX		0	16,314	75	60
	Zamboanga Del Sur	0	10,300	22	16
	Zamboanga Del Norte	0	6,014	53	44
X		0	0	100	93
	Lanao del Norte	0	0	24	22
	Misamis Occidental	0	0	24	22
	Camiguin	0	0	6	3
	Bukidnon	0	0	46	46
XI		171,012	32,429	49	40
	Davao del Norte	96,073	18,074	13	13
	Davao del Sur	74,939	14,355	36	27
XII		294,773	57,573	119	13
	Sultan Kudarat	143,201	27,299	58	0
	South Cotabato	13,981	2,960	6	2
	North Cotabato	83,127	16,245	44	3
	Sarangani	44,084	8,985	10	7
	General Santos City	10,380	2,084	1	1
Grand Total without NCR		7,642,376	1,735,864	1,769	1,318
		2,553,586	526,555	1,202	800

Closer scrutiny of the actual location of the TNP stores and the corresponding number of beneficiaries served reveals the unevenness in the quality of the targeting below the level of the province. For instance, some target provinces appeared to have made use of the LGU income classification in targeting municipalities (e.g., Abra, La Union, Surigao del Norte).¹¹ Other provinces (e.g., Agusan provinces, Surigao del Norte, and Palawan) seem to have a good sense of which municipalities are SAE poor. Still other provinces appear to have no discernable targeting pattern (e.g. Surigao del Sur, Ifugao, Romblon, Albay, Camarines Norte) and have excluded many poor municipalities while including many nonpoor municipalities. Many provinces tended to err on the side of including more municipalities than can be justified as poor by whatever basis (e.g., Quezon;¹² Marinduque, Camarines Sur).

The location of TNP stores also appears to have been constrained by their accessibility from major road networks since the TNP store operator shoulders the hauling cost of transporting the commodities to the store. This may explain why TNP tends to have a greater presence in the more urbanized areas. To wit, there is a preponderance of TNP stores in poblacion barangays. Note that 180 (or 40%) of the 452 target LGUs have TNP stores that are in poblacion barangays. Also, a number of cities have also been targeted by the TNP. The coverage of the TNP is low as indicated by the fact that only 11% of the total number of barangays in the target municipalities is served by the TNP.

Given the geographic distribution of the TNP stores across the country as well the number of beneficiaries served by these stores, the leakage rate of the TNP is estimated to be equal to 66% for the entire program and 59% if NCR stores are not included.¹³ This implies that 66% of the program benefits accrue to nonpoor households. Conversely, 34% of program benefits are received by poor households. These estimates of the leakage may be on the high side if one takes into account that the rice/noodles sold by the TNP stores are inferior goods (i.e., goods that tend not to be included in the consumption basket of better-off households) and thus, some self-targeting might be at play.

Also, with only 11% of the total number of barangays in the target municipalities being served by the TNP, it matters a lot where the TNP stores are located within the municipality or city. It is critical that some well-defined and measurable indicator is used to target the TNP below the level of the municipality. In this context, it is worthwhile to explore possible efficiency gains that might be forthcoming with the use of a mechanism like the Community-Based Monitoring System (CBMS) to improve targeting below the level of the municipality. Prospectively, it is important that a more systematic assessment of the costs and benefits of the adoption of this approach should be undertaken.

¹¹ However, not all of its 5th and 6th class municipalities of Abra are targeted. The same is true of Surigao del Norte but it is notable that those included are also those which are SAE poor.

¹² Quezon did target all but 1 of the 13 SAE poorest municipalities.

¹³ These figures are computed based on the small area estimates of poverty incidence at the municipal level.

4. CONCLUSIONS AND RECOMMENDATIONS

The results of the assessment of the targeting rules used to implement both the FSP and the TNP highlight the pitfalls of geographic targeting based on provincial-level poverty incidence and the income class of municipalities:

- ranking of municipalities according to their income class does not correlate well with ranking according to small area estimate of poverty incidence
- within province variation is more important than the between-province variation in explaining the total variation in the poverty incidence across municipalities

These results suggest that significant improvements in targeting can be achieved if one targets municipalities directly using small area estimates of poverty incidence which have recently become available.

International experience suggests that combining household targeting (using verified means test or proxy means test) with geographic targeting can improve accuracy (Coady et al. 2004). Prospectively, it would also be useful to assess the gains, if any, if geographic targeting (using small area estimates) is complemented by direct household targeting (using some variant of community-based monitoring systems, perhaps). These potential gains would then have to be evaluated vis-à-vis the cost of direct household targeting. Such an assessment would require firm estimates of:

- *full* cost of installation and maintenance, and
- potential gains from household targeting in terms of exclusion rates and leakage rates

At the same time, the experience of the FSP and the TNP underscores importance of thinking more carefully about the appropriate role in targeting of the central government and local government units. On the one hand, the FSP experience points to the possibility of the central government getting it wrong, i.e., central government failure occurring. On the other hand, the TNP accentuates the opportunities and risks involved in allowing LGUs to play a major role in targeting. It demonstrates how some provinces are able to perform better than others in identifying the poor within their jurisdictions. While some provinces seem to have a good sense of which municipalities are SAE poor, the actual targeting done by other provinces reveal no discernable pattern. Said provinces have excluded many poor municipalities while including many nonpoor municipalities. At the same time, many provinces tended to err on the side of including more municipalities than can be justified as poor by whatever basis.

Given this perspective, it is important to balance the lower transactions and information costs of a greater local role in targeting and the suboptimal outcomes from local rent-seeking and local capture. In principle, the proximity of local governments to the people enables them to deliver services more efficiently than the more remote central government. However, the decentralization of targeting decisions may tempt local officials to manipulate and exploit local information, especially when the gains from program are perceived to be large.

In this regard, international experience reveals important advantages of a system involving centralized design and database management but where local governments are tasked with actual collection of data. Such an approach engenders greater transparency and lower risk of manipulation by local authorities even as local empowerment is promoted (Castaneda, Lindert et al. 2005). Under such a set up, it is important that mechanisms (like NG-LGU cost sharing arrangements and financial incentives to LGUs if they are to be charged with implementing data collection) be put in place to ensure quality at all levels.

Lastly, the need for up-to-date and more dis-aggregated statistics (at the very least at the level of the municipalities) cannot be over-emphasized

5. EPILOGUE: FSP IMPLEMENTATION IN 2007

The analysis done above refers to the implementation of the FSP and the TNP in 2006. However, targeting of the FSP in 2007 made use of the 2003 Family Income and Expenditure Survey (FIES) following its official release in October 2006.

Thus, the FSP in 2007 targets *all* eligible pupils¹⁴ in *all* the public schools:

- All the municipalities and cities in the National Capital Region (NCR);
- All the municipalities in the priority 1 provinces (i.e., the 10 poorest provinces based on the 2003 subsistence incidence)
- All the 5th and 6th class municipalities of the provinces classified as priority 2 provinces (i.e., the 20 poorest provinces based on the 2003 poverty incidence but not including those classified as priority 1 provinces) and priority 3 provinces (i.e., 24 provinces with existing hunger mitigation programs).
- All the 4th class municipalities in the priority 2 and priority 3 provinces where there are no 5th and 6th class municipalities; and
- All the 3rd class municipalities in the priority 2 and priority 3 provinces where there are no 4th, 5th and 6th class municipalities.

The priority provinces are as follows: ¹⁵

- **Priority 1** – Agusan del Sur, Camarines Norte, Lanao del Norte, Maguindanao, Masbate, Mountain Province, Sarangani, Surigao del Norte, Zamboanga del Norte, Zamboanga Sibugay and NCR
- **Priority 2** – Abra, Antique, Biliran, Bukidnon, Camarines Sur, Davao Oriental, Lanao del Sur, Kalinga, Marinduque, Misamis Occidental, Oriental Negros, Occidental Mindoro, Oriental Mindoro, Palawan, Romblon, Samar, Sultan Kudarat, Sulu, Surigao del Sur, Tawi-Tawi

¹⁴ In NCR and the priority 1 provinces, all preschool to Grade 6 pupils in all the public schools are considered eligible under the FSP. In the priority 2 and priority 3 provinces, only preschool and Grade 1 pupils in all the public schools in the target municipalities are eligible for FSP benefits.

¹⁵ This is based on the presentation of Maria-Bernadita Flores in the PIDS-UNICEF forum held at the Romulo Hall, NEDA sa Makati Bldg, Makati on 28 June 2007.

- **Priority 3** - Agusan del Norte, Aklan, Albay, Apayao, Basilan, Bohol, Camiguin, Capiz, Catanduanes, Cotabato, Davao del Norte, Davao del Sur, Eastern Samar, Ifugao, Iloilo, Leyte, La Union, Negros Occidental, Northern Samar, Quezon, Sorsogon, Southern Leyte, South Cotabato, Zamboanga del Sur

The application of the same counterfactual analysis that was done in **Section 2.2** to the 2007 FSP yields similar results (**Table 9**). The leakage rate of the program is reduced if the program were targeted to the SAE poorest municipalities in each of the priority 2 and priority 3 provinces instead of being targeted to the 5th and 6th municipalities (i.e., if alternative rule #1 were adopted). Furthermore, the leakage rate is reduced some more if the FSP were targeted to the SAE poorest municipalities in a global sense (i.e., if alternative rule #2 were applied). At the same coverage rate improves progressively as one shifts from the existing targeting rule to alternative rule #1 and alternative targeting rule #2.

Table 9. Leakage Rate and Undercoverage Rate Under Alternative Targeting Rules for DepEd Component of FSP, 2007

Targeting rule	Leakage rate	Under-coverage rate	Share of the poor in total transfers	Index of progressivity a/
FIVIMS priority provinces & municipalities according to income class	54%	69%	46%	1.89
FIVIMS priority provinces & municipalities according to SAE	50%	62%	50%	2.05
Directly to municipalities according to SAE; same no. of actual beneficiaries as now	41%	52%	59%	2.42

a/ ratio of share of benefits going to the poor divided by the proportion of households which are poor; percentage of poor HH is 24.4% in 2003

More recent or more dis-aggregated data?

The small area estimates of poverty incidence at the municipal level that are used to arrive at the estimates of the leakage and undercoverage rates presented above are based on the 2000 FIES and 2000 population census. On the other hand, the data used to construct the FIVIMS index as it is currently measured are at least six years old. To wit, the ratio of per capita income to per capita expenditure, poverty incidence, median family income, the ratio of food expenditure to total household expenditure and the ratio of cereal food expenditure to total food expenditure (i.e., all the income/ expenditure-based indicators) are all based on the 2000 Family Income and Expenditure (FIES). Similarly, the unemployment rate is based on the 2000 Labor Force Survey while the cohort survival rate is based on the 2000 Basic Education Information System. On the other

hand, the data for 2 indicators (namely, percentage of families with working children and the percentage of households with safe water) is seven years old. The former indicator is based on the 1999 Survey of Children while the latter indicator is based on the 1999 Annual Poverty Indicator Survey (APIS). Meanwhile, the percentage of underweight children and the percentage of underweight adults are based on the 1998 National Nutrition Survey while the percentage of agricultural land under tenancy is based on the 1990 Agriculture Census.

The average rate of change in the provincial-level poverty incidence between 2000 and 2003 is fairly modest at 3%. While the poverty incidence ranking of a few provinces changed significantly, those of many others did not (**Annex Table 1**). For instance, the poverty incidence ranking of Sulu dropped from 5 in 2000 to 12 in 2003. Similarly, the poverty incidence ranking of Tawi-tawi fell from 10 in 2000 to 40 in 2003. In contrast, the poverty incidence ranking of Zamboanga del Norte rose from 17 in 2000 to 1 in 2003 while that of Kalinga went up from 37 to 13 and that of Biliran shot up from 38 to 8.

It is not possible to update the FIVIMS index nor the small area estimates of municipal level poverty incidence for this study. However, a comparison of the estimate of the leakage rate and undercoverage rate based on the provincial-level poverty incidence estimates from the 2000 FIES against the estimates based on the provincial-level poverty incidence estimates from the 2003 FIES indicates the impact of using more recent data. The estimate of the leakage rate for the DepEd component that is derived when the 2003 FIES data is used is equal to 60%, i.e., 3 percentage points lower than the estimate that is derived when the 2000 FIES data is used. In contrast, the undercoverage rate when 2003 FIES data is used is estimated at 75%, i.e., 4 percentage points lower than the corresponding estimate when the 2000 FIES data is used. *Thus, it appears that the difference in leakage/undercoverage rates arising from the use of more recent data is dwarfed by the difference that results when the small area estimates of poverty incidence are used.*

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Annex Table 1. List of FSP Target Areas Under Alternative Targeting Rules

Provinces		Total No. of Muns	FIVIMS Prov 5th/ 6th cl Muns Target No. of Muns	Direct Targeting of Munis as per SAE Target No. of Muns	2003 FIES Prov 5th/ 6th cl Muns Target No. of Munis	Remarks
NCR	NCR	17	17	0	17	
VVV = 3	Masbate	21	21	20	21	Poverty incidence ranking fell from 5 in 2000 to 12 in 2003 a/ Poverty incidence rank fell from 10 to 40
	Sulu	18	18	17	10	
	Tawi-Tawi	10	10	7	1	
	Total	49	49	44	32	
VV = 8	Apayao	7	1	3	0	Poverty incidence rank fell from 56 to 66
	Capiz	16	13	11	0	Poverty incidence rank fell from 30 to 60
	Negros Oriental	20	2	14	1	
	Zamboanga del Norte	25	2	17	25	Poverty incidence rank rose from 17 to 1
	Bukidnon	20	1	10	1	
	Basilan	6	2	4	2	
	Maguindanao	19	4	18	19	Poverty incidence rank is 2 in 2003
	Lanao del Sur	38	5	25	14	
	Total	151	30	102	62	
V = 38	La Union	19	4	5	0	Poverty incidence rank fell from 47 to 58
	Abra	27	24	11	24	
	Ifugao	11	4	7	0	Poverty incidence rank fell from 4 to 51
	Mountain Province	10	5	5	5	
	Quezon	40	14	15	14	
	Palawan	23	6	19	6	
	Marinduque	6	3	2	4	
	Occidental Mindoro	11	1	7	1	
	Romblon	17	8	10	8	
	Albay	15	1	7	1	
	Camarines Norte	12	3	1	3	
	Camarines Sur	35	9	19	7	
	Catanduanes	11	7	4	7	
	Sorsogon	15	4	8	4	
	Aklan	17	3	7	4	
	Antique	18	5	10	4	
	Iloilo	43	8	22	3	
	Negros Occidental	19	2	12	2	
	Bohol	47	26	16	0	Poverty incidence rank fell from 13 to 52
	Eastern Samar	23	15	7	15	
	Leyte	41	12	14	11	
	Northern Samar	24	15	14	14	
	Southern Leyte	18	12	0	10	
	Samar	25	15	20	12	
	Zamboanga del Sur & Zamboanga Sibugay	42	11	35	6	
	Camiguin	5	4	3	4	
	Lanao del Norte	22	14	21	14	
	Misamis Occidental	14	6	6	4	
	Davao del Norte	7	1	1	1	
	Davao del Sur	14	1	6	0	Poverty incidence rank is 69 in 2000 and 62 in 2003
	Cotabato	17	2	15	1	Poverty incidence rank fell from 26 to 54
	South Cotabato	10	3	3	0	Poverty incidence rank fell from 45 to 55
	Sarangani	7	3	7	2	
	Sultan Kudarat	11	2	10	1	
	Agusan del Sur	14	1	13	1	
	Agusan del Norte	11	3	7	1	
	Surigao del Sur	18	4	12	3	
	Surigao del Norte	27	23	20	16	
	Total	746	283	401	213	

Annex Table 1 (cont.)

Provinces		FIVIMS Prov 5th/ 6th cl Munis	Direct Targeting of Munis as per SAE	2003 FIES Prov 5th/ 6th cl Munis	Remarks
		Total No. of Munis	Target No. of Munis	Target No. of Munis	
LV or NV	Aurora	8	0	0	Poverty incidence rank rose from 57 to 45
	Kalinga	8	0	6	Poverty incidence rank rose from 37 to 13
	Oriental Mindoro	14	0	13	Poverty incidence rank is 28 in 2000 and 27 in 2003
	Guimaras	5	0	2	Poverty incidence rank rose from 63 to 19
	Biliran	8	0	2	Poverty incidence rank rose from 38 to 8
	Siquijor	6	0	0	Poverty incidence rank rose from 59 to 48
	Davao Oriental	11	0	8	Poverty incidence rank is 42 in 2000 and 22 in 2003
	Compostela Valley	11	0	3	Poverty incidence rank is 35 in 2003
	Misamis Oriental	24	0	3	
	Cebu	64	0	28	
	Batangas	31	0	5	
	Nueva Ecija	27	0	1	
	Bulacan	22	0	1	
	Tarlac	17	0	1	
	Nueva Vizcaya	15	0	4	
	Isabela	34	0	5	
	Cagayan	28	0	6	
	Ilocos Sur	32	0	8	
	Ilocos Norte	23	0	2	
	Pangasinan	45	0	3	
	Benguet	13	0	5	
Total		446	0	106	23
Grand Total		1409	379	653	347

a/ Poverty incidence of provinces are ranked from highest to lowest. Province with the highest poverty incidence gets a rank of 1.