14 Food Subsidies in the Philippines: Preliminary Results

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Evidence from countries like Sri Lanka and Egypt has shown that the fiscal costs of food price subsidy programs may be high, and once introduced, their termination may be politically difficult (Gavan and Sri Chandrasekera, 1979; Alderman, von Braun, and Sakr, 1982). On the other hand, if they are carefully designed and properly targeted, their effect on food consumption and nutrition may be significant. Although a food price subsidy scheme may sometimes present the most cost-effective approach to calorie or protein deficiencies, the introduction of such a program should be based on solid evidence regarding its cost effectiveness both in absolute terms and relative to alternative programs.

The results from analyses of similar programs elsewhere, such as Sri Lanka, Egypt, Pakistan, Bangladesh, and Kerala, India, provide useful guidelines (Rogers, 1978; R. Ahmed, 1979; and Kumar, 1979). But a more solid information base can be obtained if these results are supplemented by a pilot study of the proposed program design in the particular administrative, socioeconomic, and cultural environment for which the program is intended. This chapter presents some preliminary results from an experiment on consumer food price discounts testing the program's technical and administrative feasibility in the context of the Philippine environment. Three provinces, representing three prevalent ecological settings, were selected for the pilot study, which involved a combined experimental and control population of 15,729. The results presented are focused on the evaluation of the process, particularly the administrative experience. The program's effects on the recipients are presented in Garcia and Pinstrup-Andersen, 1987.

Design and Scope of the Pilot Food Discount Program

Administrative Setting

The proposal for a food price discount scheme targeted to low-income households was developed by the Philippine National Nutrition Council

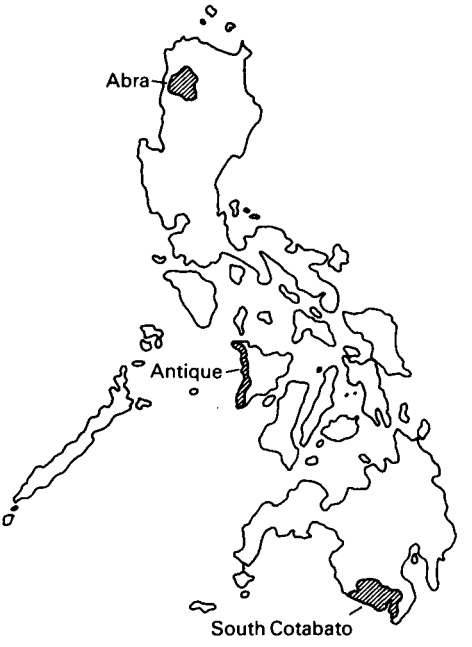
and the Ministry of Agriculture as one of the main thrusts of the Food and Nutrition Plan, which is a strategy for combating hunger and malnutrition in the Philippines in the 1980s. If implemented, the scheme would utilize and build upon the existing human infrastructure of the Philippine Nutrition Program, the Ministry of Agriculture, and other programs at the community level. In order to assess the feasibility of such a scheme, it was decided to first implement a one-year pilot project.

Pilot Areas and Coverage

The pilot villages were selected from three provinces with different socioeconomic and ecological environments. As the map shows (figure 14.1), one group is located in the northern Philippines (Abra), one in the central part (Antique), and the third in the south (South Cotabato). The first group of villages is located in an upland area where tobacco and subsistence corn are the main crops. The second group is situated along the coast, and these villages are dependent on fishing and marginal rice farming for livelihood. The third group is spread over a rich river basin that is planted mainly with corn.

Three pairs of villages in each of the three provinces were selected as samples: one pair for testing the effects of a rice and oil subsidy, one pair

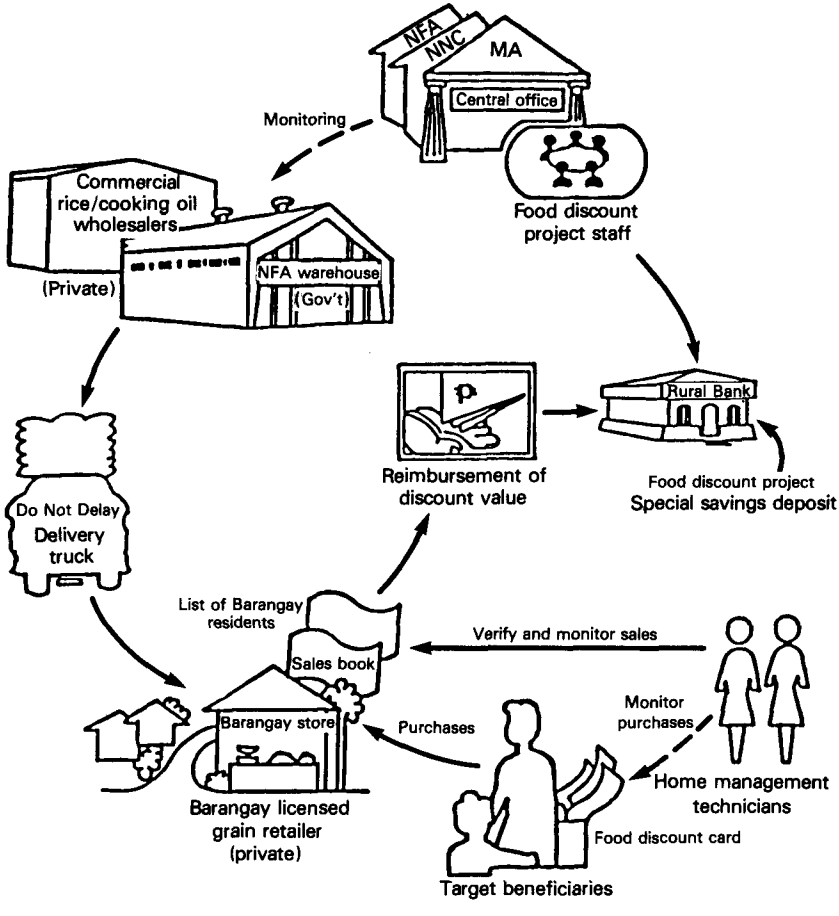
FIGURE 14.1 Map of the Philippines indicating study areas



as control villages, and a third pair to test the effects of subsidizing only cooking oil. In one of each of the pairs of villages, nutrition education was introduced as an additional program to test its effectiveness as a supporting intervention. The total population of the pilot subsidy areas was estimated at 15,729, spread over fourteen villages.

The principal element of the food discount scheme is a reduction in the price of selected food commodities offered for sale in selected areas. A simplified flow chart of the operation of the pilot food discount system is given in figure 14.2. Each household in the project area is issued a ration

FIGURE 14.2 Delivery system for the Philippine pilot food discount project



Note: NFA is the National Food Administration, NNC is the National Nutrition Council, and MA is the Ministry of Agriculture.

(discount) card, which guarantees a monthly quota of rice and cooking oil at a subsidized price. The coded, nontransferable card, which shows the monthly quota of the household based on household size, provides space to record the purchases and signature of the store owner. The local office of the Ministry of Agriculture issues the cards every month through its home management technicians.

Small privately owned village stores are accredited by the project as marketing outlets for the subsidized food. The outlets are typical neighborhood variety stores, usually located at the center of each village. They are family run and normally operate with a small revolving capital. The food distribution mechanism of the program is primarily in the hands of the private sector. This encompasses procurement, transportation, handling, and ultimate distribution. The government's role is to monitor the program and to audit the store accounts to determine the actual amounts of the subsidy.

Retailers are reimbursed for the subsidy only after sales are made. In return, the program provides an incentive to retailers of 3 percent of the gross sales of the subsidized commodities. Subsidy accounting, which is done every week by the extension officer, is based on the discount cards. They are all redeemed every month, along with the retailers' sales books. The program uses local banks to reimburse the participating retailers. A special savings deposit account is opened in each area, which is jointly held by the program and the retailer. An accounting form, called a discount reimbursement voucher, is required for the twice-a-month withdrawal from the bank subsidy account. The use and certification of these vouchers helps to control the accounts.

Method of Targeting

The fourteen sample villages were selected from villages where malnutrition is most prevalent. The National Nutrition Council keeps track of these nutritionally worse-off villages through Operation Timbang, a nationwide annual weighing of preschool children done in the majority of municipalities in the country. All bona fide residents of these targeted villages are automatically eligible for participation in the program; hence no household-level screening is done.

Subsidized Food Commodities

Two energy-rich commodities, rice and vegetable oil, are subsidized in the pilot program. These foods, which contribute nearly two-thirds of the calorie intake of an average Filipino, were selected on the basis of both nutritional and economic considerations.

Rice was selected for the program because it is a universally available food in the Philippines, comprising 56 percent of the calorie consumption

of the average Filipino; it is the main and preferred staple food in the country (Philippines, 1982). In addition, the marketing system for rice in the Philippines is efficient and reaches the most widely dispersed populations. Rice has a high price elasticity of demand among low-income households (Bouis, 1982).

Vegetable oil from coconuts, on the other hand, is nutritionally important because of its caloric density. This is particularly so in the case of infants and small children, whose digestive systems cannot absorb the necessary energy from diets based on a high bulk food such as rice. The present annual consumption of 2.9 kilograms of vegetable oil per capita is considered to be inadequate by the Food and Nutrition Research Institute.

Size of Subsidies

The amount of rice that target households may obtain under the pilot scheme is inframarginal for most households, that is, the subsidized quantity is smaller than the amount previously consumed by the family. Under the program, each household member irrespective of age is entitled to five kilograms of subsidized rice per month. Hence the total household quota depends on household size. Per capita rice consumption of these households before the start of the project was about ten kilograms per month on the average.

In the case of cooking oil, the amount that each household member may obtain at discounted prices is higher than the average consumption prior to implementation of the project: 2.5 cups (160 grams per cup) versus 1.75 cups. The higher discounted volume on vegetable oil is a deliberate effort to promote its use in the diet.

The project design calls for a 32 percent discount on rice and a 50 percent discount on cooking oil, estimated initially on the basis of consumption elasticities for the low-income groups (Philippines, 1978).

Administrative and Operating Experience: The First Six Months

Results from the first six months of the pilot experiment have exposed a number of implementation problems not foreseen in the initial program design. These problems and constraints are discussed relative to their implications for a larger-scale program, so that the eventual design will be sensitive to local realities and needs.

Geographic Targeting

Administrative procedures adopted to screen program participants using the village census of population have proven to be relatively accurate in targeting the intended beneficiaries of the program. During the initial

listing of program participants, several households were observed padding household membership. This seemed to be a logical behavior, because the amount of the subsidized ration is determined by household size. In the majority of the villages, the village head was the final arbiter in cases where there was conflicting information on household membership. It is estimated that 20 percent of all households had conflicting claims of membership.

Although the area-targeting method of screening was relatively easier to administer than other forms of screening, such as income criteria (Sri Lanka and the U.S. food stamp programs) or sex and age criteria (Colombia), some unintended effects were observed in its implementation. A number of households invited relatives from neighboring nontarget villages into the targeted villages to share with them the benefits from the subsidy. As a consequence, a net decline in the food available for each number of these households was observed, apparently because the total amount of food—including the subsidy—was shared by more people.

Program Leakages

Several forms of leakages were observed in the initial six months of the pilot project. First, because the program does not discriminate among target households within a village, nondeficit (mostly higher income) households in these villages are included in the program. Leakages are low if the large majority of the households are calorie deficit. The efficiency of targeting is therefore a function of the national agency's ability in identifying poverty areas. From the food consumption survey conducted just prior to the discount enforcement, it was found that on the average about 10 percent of the households were considered nondeficit; thus the targeting is relatively efficient.

In two villages in the south, moreover, a number of economically well-off households were observed to have shared their ration with their poorer neighbors, thus reducing leakages. Some richer households allowed their poor neighbors the use of their food discount cards, although discount cards, strictly speaking, are not transferable. These transactions, which were done with the knowledge of the store owners, involved no monetary compensation.

During the first six-month monitoring period, some cases of subsidized food reselling were observed. All of these cases involved the reselling of cooking oil, which was attractive for the very poor families because the product commands a good price in the open market. For instance, a family of six with a monthly allocation of fifteen cups of cooking oil (one cup = 160 grams) stands to gain about fifteen pesos if it sells all its quota, an amount that is almost equal to half a day's wage. There was practically no

resale observed in the case of rice, mainly because rice is a staple food and the ration for each family was only about half of what a typical household consumes.

In two villages in the north, several enterprising households used all of their cooking oil ration in their small native delicacy business and not for home consumption. In a number of instances, some retailers preempted the rations of households that did not consume all of their quota for the month. These practices were particularly difficult to check, because the retailers could forge signatures in the sales book records, and monitoring by the extension officers could be done only once a week.

The leakage as a percentage of the volume of food distributed was estimated from the monitoring reports of field extension workers: reselling, 3 percent for cooking oil only; leakage to nondeficit households, 10 percent; and leakage at the source (the store), 5 percent.

Use of Food Discount Cards

Certain problems were encountered in the use of the ration cards in the retail stores. Two signatures were needed for every sales transaction in the store: the retail store owner had to sign the ration card and the cardholder had to sign the store sales book. This procedure delayed the time it took to complete a sales transaction, especially in stores serving large populations.

Another administrative problem in the procedure was traced to illiterate beneficiaries who could not sign the sales book. For this group, about 8 percent of the target households, a thumb mark was used to carry out the transaction.

In the first two months of the experiment a number of the participants deliberately changed the ration amount stated in the discount cards by tampering with the figures on the cards. These were easily detected in the monitoring of the stores.

Accountability and Controls

In the first six months of the experiment, the plan to have local banks reimburse retail store owners proved to be practical. The special savings deposit provided a convenient procedure for the redemption of the subsidies by the store owners. Because the size of the subsidy was predetermined from the potential number of beneficiaries, the amount transferred every month by the program into the deposit accounts was accurate to within 94 percent of the actual subsidies.

The weekly auditing of the books in the store presented some difficulties at the start of the project, but once the extension officer and the retailer became familiar with the procedures, the accounting tasks pro-

gressed without exceptional problems. Part of the difficulty in the auditing procedure could be traced to the small quantities purchased by households at a time, which entailed several entries in the discount cards and which were therefore not easy to reconcile with records from the sales book.

To prevent fraudulent use, each discount ration card was coded, which proved to be an efficient system of control. Mothers were made aware that their ration cards were nontransferable.

Administration of Food Outlets

The procurement and selling performance of the accredited neighborhood stores varied by area. The differences in the efficiency in servicing the program recipients were dependent on a number of factors.

SIZE OF POPULATION SERVED. The outlets in Antique, which served a larger clientele, experienced more difficulty than those in the other two provinces. The queuing and crowding in the stores, especially during heavy buying days, resulted in several bookkeeping errors in these larger villages. From an interview with all the owners of the retail outlets in the experiment, it was concluded that, given the frequent purchasing habits of households, the optimum number of households each storekeeper can efficiently handle is about 120. This assumes that the store is attended by the store owner and an assistant, usually a member of the family or a relative.

FREQUENCY OF PURCHASE. In most areas it was observed that poor households tend to make frequent purchases but in small quantities. Many households, for example, buy cooking oil as frequently as two times a day, and the purchase may be as small as a half cup. Store records indicate that 28 percent of all households make daily purchases. These practices often increase the transaction time in the stores. Most stores report heavier selling late in the afternoons when mothers have arrived home from work or when the day's fish catch has been sold.

REVOLVING CAPITAL AND SUPPLY OF CREDIT. Stores that had more than P10,000 (U.S. $900 in 1983 prices) of revolving capital were found to be effective in maintaining uninterrupted day-to-day selling operations. On the other hand, smaller stores were observed to experience intermittent shortages in the supply of the commodities. Although a weekly credit line was available from commercial rice wholesalers, the amount allowed depended on the initial capital of the store. Hence, smaller stores were not really assured of sufficient credit to meet the demand. On the basis of six-month store records, it is estimated that a retail outlet needs an initial revolving capital of about P10,000 to support a client base of 120 families.

CREDIT TO CONSUMERS. It was a common practice in neighborhood stores to give weekly credit to regular clients. Larger stores offered credit on the subsidized food, but smaller stores did not because of limited revolving capital.

LOCATION OF THE STORE. Families located on the fringes of the subsidized villages experienced difficulty in obtaining subsidized food from the stores because of physical distance. These families usually made one-time (bulk) purchases to save on transport cost. Transport costs increased the total food acquisition cost of these beneficiaries. Geographical dispersion of target households should therefore play a crucial role in the choice of outlets for the program.

CHARACTER AND COMMUNITY ACCEPTANCE OF RETAILERS. In some instances, neighborhood politics hindered the program's delivery mechanism. In Abra, for example, one retailer refused to sell subsidized rice to constituents not belonging to her political party. Another store owner refused to sell to people who had a long-standing feud with her family. Some ethnic groups were not properly attended to in the stores in South Cotabato and were effectively denied their subsidized rations. However, most of the retailers were observed to be quite sensitive to community needs, even opening their stores late at night in order to serve their clients. Based on this experience, it is apparent that one of the important considerations in selecting an outlet is community acceptance of the retailers.

Household Food Purchasing Behavior

Records compiled at the stores for the initial months of the experiment indicate a take-out rate of only 85 percent of all rations. Households that did not get all of their subsidized food rations were observed to be those that (1) had insufficient available cash during the month; (2) were growing rice; or (3) were too far from the stores to be able to take advantage of the lower price.

The rate of ration utilization, however, varied by commodity. In the first month, approximately 92 percent of all rice rations were bought, but only about 80 percent of cooking oil rations. The reason for this difference probably lies in the amount of the commodity consumed prior to the subsidy. As mentioned earlier, less rice is included in the subsidy than a household typically consumes, whereas the cooking oil ration is larger than the amount consumed before the program. Under these conditions, households can be expected to consume all of their rice allocations, but they may decide to buy only as much cooking oil as they used before, unless they intend to resell the product. Cooking oil is an occasional food among the poor, and its acceptance as a program commodity is expected to be quite slow.

Program Administration and Monitoring

The pilot study clearly demonstrated that attainment of program objectives depends on adequate understanding by program participants of

the program's objectives, mechanics, and benefits, as well as retail store owners' understanding of program procedures.

Substantial social preparation activities were conducted by the home management technicians of the local Ministry of Agriculture, assisted by the paraprofessional village-based workers called Barangay Nutrition Scholars. Monitoring of retail stores and program participants was done by the home management technicians during their regular visits to the project areas. Prior to implementation, village assemblies were held to explain the program's mechanics and objectives. These assemblies were undertaken with the cooperation of local councils in the project areas.

Nutrition education classes were conducted regularly for mothers in the program areas where nutrition education was included as a companion intervention to the subsidy program, mainly to promote the use of cooking oil.

The home management technicians devoted two to three days out of their five working days in a week to the project. The project monitoring therefore subtracted from the time the home management technicians normally spent on villages.

Program Cost

The financial cost of the program consists of three main components: food subsidy cost, cost of the incentive paid to the retailers, and administrative overhead.

The food subsidy cost represents the difference between the wholesale price of the commodities and their corresponding discounted price under the program. The variation in the food subsidy cost from outlet to outlet is due mainly to the differences in transport cost. Outlets closer to marketing centers had lower procurement costs. The administrative overhead covers part of the salaries of the extension workers, who devote 50 percent of their time to the project, salaries of paraprofessional extension workers, travel costs for monitoring officers, salaries of central office project administration, printing costs for the discount cards, and costs of supplies.

The cost per beneficiary of the program is calculated at P8.69 per month (U.S. $0.79 in 1983 prices). About 83 percent of this is food cost, and about 17 percent is accounted for by the cost of administration (9.4 percent) and retailers' incentive (7.2 percent). (Garcia and Pinstrup-Andersen, 1987).

Among the factors that contribute to the relatively lower cost of delivery of the program, the commodity mix is quite important, because rice and oil are the cheapest source of calories in the country. Besides being locally produced, these commodities are available in almost all parts of the country. These foods are also bought in raw form (unlike the processed weaning foods of the Colombia food subsidy program).

Another crucial factor is the substantially lower percentage of administrative costs—about 14 percent of the total cost. These costs are relatively low because targeting by geographical area eliminates the burdensome and costly procedure of screening beneficiaries. The subsidy program in Colombia, for example, is narrowly targeted to preschoolers and pregnant or lactating mothers. In addition, the administrative costs in the Philippine program are an add-on cost, because the delivery system is built upon an existing infrastructure of extension officers, who typically devote part of their working week to the project without substantial diversion from their normal duties.

Income Transfer and Nutrition Effects

Preliminary estimates from a survey of the program areas after two months of operation indicate that the implicit income transfer embodied in the food discounts amounts to about 9.1 percent of the incomes of households earning less than P5,000. The implicit income transfer is equivalent to the difference between the opportunity cost of the commodities and the price of the subsidized rations multiplied by the respective ration quantities.

The transfer in percentage of total household income was highest among the lowest income class in all the project areas, as shown in table 14.1. In area 2 of Antique, the subsidy was limited to cooking oil; hence the contribution to total income was estimated at only 3 percent in families earning below P5,000 per year.

The importance of consumer food subsidies is pronounced among

TABLE 14.1 Share of income contributed by the subsidy, by income group, the Philippines

Income Group (pesos)	Abra	Antique		South Cotabato
		Area 1	Area 2[a]	
<5,000	7.6	9.3	3.0	10.3
5,000-5,900	5.8	7.8	2.2	9.2
6,000-6,900	5.2	7.7	2.0	8.7
7,000-8,900	5.2	6.5	1.7	7.4
9,000	2.9	4.7	1.1	4.5

SOURCE: Data from the International Food Policy Research Institute and the National Nutrition Council, Philippines, Subsidy Project Monitoring Office, Food Consumption and Nutrition Survey, 1983.

[a]Only cooking oil is subsidized.

households that depend on seasonal incomes from agriculture or fishing, inasmuch as their available cash income is not constant from week to week. For the sustenance fishermen in Antique, for instance, the value of the subsidies accounts for more than 30 percent of their available cash income during off-season days, but may be as low as 3 percent of their available cash income during the good fishing season.

The income transfers, which amount to P7.50 per person per month, are estimated to contribute about 8 percent of the total calories consumed by the households, or approximately 140 calories per adult equivalent per day.

Conclusions and Policy Implications

The pilot study provided valuable insights, which could be useful in designing and administering a larger scale consumer food subsidy program, at least in an environment similar to that of rural areas in the Philippines.

Selecting impoverished areas to receive food subsidies appears to be a logistically feasible and low-cost form of targeting. The administrative cost of this pilot program is estimated to be less than half that of similar subsidy programs in Colombia, Brazil, and Indonesia. The viability and replicability of the area targeting scheme, however, hinge on the precise identification of poverty areas or villages and a high concentration of poor households in these areas.

There were three other crucial elements that helped to keep the cost of the program low: first, the choice of commodities (rice and cooking oil) providing the cheapest source of calories; second, the use of an existing administrative infrastructure to monitor the program; and third, the mobilization of the private sector in the procurement and ultimate distribution of the subsidized food.

Leakages of benefits to nondeficit households were not totally eliminated, although these were kept low through supporting programs like monitoring, nutrition education, and adequate social preparation. The estimate of food leakage to those not in need is placed at about 18 percent of all food transferred.

The privately owned neighborhood variety stores, present in almost all villages, were found to be viable outlets for the subsidized food. For successful and uninterrupted operation, however, it is necessary for these stores to maintain a minimum operating capital, which was determined to be P10,000 (U.S. $900 in 1983 prices) in the pilot program. It was also determined that one outlet is necessary for every 120 families. Local idiosyncrasies and neighborhood politics should be considered in the selection

of these stores. The store owners' character is crucial to the success of a consumer food subsidy. Location of the stores also needs to be considered.

The program appears to be an effective means of immediately benefiting the poorest households. The subsidy is estimated to have contributed 8 percent to the daily calorie consumption of the households in the pilot program.