

# FOOD SECURITY OF HOUSEHOLDS IN MARGINALIZED PHILIPPINE COMMUNITIES

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## *Abstract*

*The study was conducted to characterize the households in marginalized communities, which are at-risk to household food insecurity; to explore and analyze the coping behavior towards food security of households, and to determine the association of selected socio-economic characteristics with coping responses of households. A total of 210 households in two selected marginalized communities each in the Cities of Baguio, Damaged, and Davao were randomly selected, interviewed and observed on their coping behaviors towards household food security. Results revealed that low household income and unemployment were the main threats to food security. Age and number of years of schooling of mother, and the household income were significantly associated with food security. In order to offset the economic shortfalls, the household displayed a variety of food-related and non-food related coping behaviors. Food related coping behaviors included elimination of some food items that were ordinarily served by the households, reduction on the quantity of food served to the members, or skipping of meals by one or all members of the households. Households spent first on food before non-food items. Even if the household did not have regular income, they still spent Php 679.00 for food, which is obtained through borrowing. Non-food coping responses included reduction on household expenses for new clothes, cut-down on electric consumption, and decrease in children's school expenses. Although seeking alternative ways to cut spending assured food on the table among the poor, the presence of nutritional and psychological problems associated with either parent working overseas were also reported. Household income was found to be negatively associated with the coping behaviors of the households. The results of the study depict the resilient character of the Filipino households in times of social and economic difficulties, particularly towards ensuring food is available on the table for consumption of household members. The data, particularly on the characteristics of the households likely to be at-risk to food insecurity, should be useful to social workers and nutritionists in the communities in identifying target households for nutrition and any relevant socio-economic intervention programs to protect them from against food insecurity and its consequences. The coping strategies mentioned in the study were not different from those that have been identified from previous studies. There is an urgent need for research on the health and nutritional consequences of coping behavior, by type of households, to serve as basis for promoting positive coping behaviors among target households.*

**Keywords:** coping responses, food insecurity, meal patterns, purchasing patterns, poor households, food behavior

## *Introduction*

In this period of social and economic difficulties, the concern for the problem of food security becomes more apparent especially among the marginalized households comprised of the landless lowland and upland farmers, small fishermen and the urban wage earners. Ensuring the household food security entails the physical access to food, which may be through one's own production or availability in the local markets or stores. However, it is not enough that the foods are available. The more important factor is the capability of the household to acquire such foods through own production or presence of some form of income. The sustainability in accessing food towards food security during times of severe difficulties remains a challenge to these marginalized households. They need to cope up through various alternatives and adjustments.

With the increasing cost of basic commodities and the alarming rate of malnutrition that affect the majority of the Filipino population, food security has become a political issue. As one of the centerpiece programs of the current administration, food sufficiency programs and related projects are prioritized to ensure food security and reduce malnutrition especially among the poor households.

Despite the efforts of the past and present administrations and non-government organizations to address the issue of food security, the problem persists. This report describes the coping behavior towards food security among marginalized Philippine communities.

### *Objectives of the Study*

The study was conducted with the following objectives:

- 1) to characterize the households in marginalized communities which are at-risked to household food insecurity;
- 2) to explore and analyze the coping behavior towards food security of households; and
- 3) to determine the association of selected socio-economic characteristics with threats to food security and coping responses of households.

### *Methods*

In-depth interviews, focus group discussions, and systematic observation technique were the methods used in the collection of data where a total of 210 households from the cities of Baguio, Damaged and Davao were randomly chosen for the study. The mothers in each household served as the respondents.

The mother-respondents were chosen based on the following criteria: 1) those who had both a preschooler and a school child; and 2) those who had resided in the area for at least five (5) years.

### *Results*

Food insecurity of the household in marginalized communities seemed to be rooted in poverty. The households reported a continuous inability to acquire the needed food due to lack of money as a result of one or a multiple of economic related shocks or threats to food security. The wide range of these shocks (from one to as many as ten) resulted to economic imbalance within the household. Almost half (48.8%) of the households cited low household income as the reason why they experienced inadequate food on the table. Unemployment ranked second (33.2%). Other reasons cited were sickness/death of family members, high cost of food, natural calamity, increasing expenses on education/school for children, and repayment of loans. Five of the 210 households reported that they have not experienced threats to food security (Table 1).

Table 1. Percentage distribution of households by experiences on threats to food security\*

Threats to food security	% (n=205)
Low household income	48.8
Unemployment	33.2
Sickness/death of family member	24.4
High cost of food	18.5
Natural calamities	13.2
Inadequate food supply	4.4
Irregular employment	3.9
Repayment of loan	3.9
School expenses	3.4
Others	2.9

\* multiple responses

## *Coping Responses to Food Security*

Households during times of economic shortfalls adopted a variety of foods and non-food coping strategies to offset the effect of economic short falls.

### *Food-related Coping Responses*

Food related coping responses included changes in household meals, eating pattern, purchasing pattern, and in other economic decisions (Table 2). More than four-fifths (86.8%) of the households missed or eliminated foods that they ordinarily were serving/eating, 54.6% and 32.2% of households cut down the number of in-between meals or snacks and skipped meals, respectively. Although the mothers usually practiced skipping of meals, some fathers also did skipping a meal or two during the day. Fruits and/or beverages were the foods usually eliminated by the households. Reduction on the quantity of foods or on the number of major meals served to the members were also done by about 70.4% and 32.2% of the households, respectively, as coping strategy. Such reduction affected mostly the mother in 81.9% of the households, father in 56.3%, children and other members in 34.0% and 26.4% of the households, respectively. Some mothers is trying their best to provide the household's daily meals also resorted to substitution in food purchases and serving of foods. Sixty two percent of the mothers bought vegetables to replace meat or fish. When asked if ever they will buy meat, about 8% can buy cheaper cuts of meat or cheaper types of fish (Table 3). Viand of protein or vegetable source were replaced with either salt, sugar, soy sauce, or cooking oil by 16.4% of the households.

Table 2. Percentage of households by meal pattern changes during period of food insecurity\*

<b>Meal pattern changes</b>	<b>% (n=205)</b>
Eliminate/sacrificed some food items	86.6
Reduce quantity of food served	70.2
Members skip meals	57.6
Cut-down on number of snacks	54.6
Cut-down on number of meals	32.2

\* multiple response

Table 3. Percentage of households by type of members of households who skipped meals\*

<b>Member</b>	<b>% (n=149)</b>
Mother	57.0
Father	31.6
Both mother and father	27.6
Children	11.4

\* multiple response

Adjustments in purchasing pattern in terms of volume and quality were also observed among these households. Buying cheaper brands of food and buying in smaller packages (in carton box or repacked in small plastic bags) were resorted to by close to 30% \*29.8%) of the households. Other households who normally bought groceries/foodstuffs in bulk have generally reduced the volume to retail quantity. Non-food items in the groceries stores like appliances, clothes, or kitchen needs are not a priority. For those who have ready cash, only the basic foods they will need in the immediate future are the priority items. On the other hand, those with measly income resorted to buying by credit. Settling of debts was pre-arranged with the storeowner so that payment was made as soon as salaries were collected come payday.

### *Other Food-related Coping Responses*

Improving food security of the family was the concern of every household in the study. It was always a challenge to every mother and father of each household to ensure that all members have something to eat every mealtime. With this concern, the households employed other food-related coping responses like borrowing money or foods to ensure food availability on the table. Close to two-fifths (38.4%) of the households borrowed money from relatives. Neighbors were also the sought after personalities for the needed money. A little over one-tenth (13.6%) of them were able to borrow from friends.

The relatives remained the sought-after figure among some of the households who borrowed food, 20.0% of the households borrowed from the nearby stores, and 16.5% borrowed from their neighbors. Rice, sardines, fish/meat, and condiments were common food items borrowed by the households. Only a small percentage (2.9%) tried borrowing foods from other people.

### *Non-Food Related Coping Responses*

The households also employed non-food related coping strategies to cope up with food insecurity. These included cutting down on their electric consumption (63%); reduction on children's school expenses (60%); and by not buying new clothes anytime during the period of food insecurity (72%) (Table 5). Some households have postponed house repairs (34.5%), while others have engaged in odd jobs (22.4%) like tending sari-sari stores; peddling foods; crocheting and basket weaving during dry season. Noticeably, the husbands also engaged in upholstery repair works, construction work and scavenging activities in Baguio; selling of fish in Damaged; engaging in the tricycle business, or working as delivery boy in the market or as paddlers in Davao.

Table 5. Percentage of households by non-food coping responses during period of food insecurity\*

Non-food coping responses	% (n=205)
No new clothes bought	71.8
Reduce electric consumption	63.1
Decrease school allowance	60.2
Postpone house repair	34.5
Engage in odd jobs	22.4
Borrow money for business	14.6
Cut recreation expenses	7.8
Reduce fuel consumption	7.3
Walk instead of riding in vehicle	5.4

\* multiple response

Taking odd jobs by 18% of the total respondents was primarily done to augment household income. Vending fish ball, barbeque, fruits, vegetables, peanut brittle, fresh fish, dried fish, cooked foods and native delicacies were some of the food items more preferred than vending non-food items. With this type of business, the households were more assured of ready foods for the members. Costs of the foods eaten by them were often viewed as imputed income for the household. While engaging in food-based business, the household admitted that sustaining a business was difficult, thus employed cost-cutting measures to reduce operating expenses. Many of the entrepreneurs no longer hired paid workers but sought the services of other households members. During lean season when sales were low, any excess perishable goods for sale was sold at bargain prices. At times, their children were made to do a house-to-house selling of perishable foods at cost so as to avoid losses. Unsold items were cooked for household consumption. Basically, the industriousness and patience of the households during the ups and downs of business worked effectively. For others, they hold on to their business because they believed it is the only livelihood they know. "No-debt" policy was even employed by a few so as not to drain their capital.

Another strategy that the entrepreneurs employed to sustain the business was to sell goods that were considered popular in the neighborhood. These included snack items, candies, liquor, and common condiments like vinegar, salt, processed fish and mono sodium glutamate (MSG). Few households resorted to backyard gardening; appliance sharing; gambling; buying ready-to-eat cooked foods instead of cooking; and joining cooperatives, women's associations, farm coops, and Rural Improvement Clubs (RICs) to establish contacts from which they can borrow money.

### *Association Between Variables and Threats to Food Security and Coping Responses*

Results showed that the age of the mother is significantly associated with food insecurity due to death or sickness of a family member (Table 6). The association was established because most of the mothers that belonged to 25-35 years old bracket had more children of younger age than those mothers of older age group. The younger children had medical expenses that brought imbalance to household daily financial resources. Year of schooling of mothers was also found to be significantly associated with high cost of food and natural calamities. In this case, it is very likely that those without formal education had lesser employment opportunities that gives higher income, thus due to high cost of foods, food purchasing is at stake. With less income, the households were left with no option but to live in calamity-prone areas like squatters communities. These findings revealed that there were socio-demographic and economic factors that were definitely associated with threats experienced by the households as far as food security is concern.

Table 6. Summary of association between some selected socio-demographic and economic characteristics and experiences on threats to food security.

Experiences on threats to food security	Age of Mother	Socio-demographic and economic characteristics			
		Years of schooling of mother	Years in the area	Household size	Household incomes
Low household income					
X <sup>2</sup> - value	0.000	1.936	0.000	0.298	3.437
P - value	1.000	0.164	2.987	0.585	0.064
Unemployment					
X <sup>2</sup> - value	1.611	0.221	0.097	2.470	0.001
P - value	0.204	0.638	0.756	0.116	0.973
Sickness/death of family member					
X <sup>2</sup> - value	4.255	0.001	1.715	0.576	0.062
P - value	0.039	0.971	0.190	0.448	0.804
High cost of food					
X <sup>2</sup> - value	1.050	4.110	0.008	1.799	4.544
P - value	0.306	0.043	0.929	0.180	0.033
Natural calamities					
X <sup>2</sup> - value	0.857	6.207	2.180	1.588	0.700
P - value	0.355	0.013	0.140	0.208	0.403
Inadequate food supply					
X <sup>2</sup> - value	2.786	0.226	0.125	2.196	0.280
P - value	0.095	0.635	0.724	0.138	0.597
Irregular employment					
X <sup>2</sup> - value	2.029	2.111	1.282	1.489	1.928
P - value	0.154	0.146	0.257	0.222	0.165
Repayment of loan					
X <sup>2</sup> - value	1.830	1.506	0.079	0.823	1.157
P - value	0.176	0.220	0.779	0.364	0.282
School expenses					
X <sup>2</sup> - value	0.780	0.041	1.962	0.233	0.105
P - value	0.377	0.840	0.161	0.630	0.746
Others					
X <sup>2</sup> - value	0.056	0.033	1.933	0.000	1.313
P - value	0.812	0.787	0.164	0.986	0.252

It is interesting to note the results of regression analysis between income as independent variable and food expenditure and non-food expenditure as two (2) separate dependent variables. Results revealed that income is a significant factor in affecting food and non-food expenditure. The two regression models are:

$$\begin{array}{lcl} Y_1 & = & 697 + 0.438 X; \text{ and} \\ Y_2 & = & -697 + 0.562 X \\ \text{Where } Y_1 & = & \text{food expenditure;} \\ Y_2 & = & \text{non-food expenditure} \\ X & = & \text{income} \end{array}$$

The findings showed that even if the household does not have income, they still spent Php 697.00 in a month for food, which is obtained through borrowing. The households needed at least Php 1,235.00 monthly income, before they can spend on non-food items.

Correlation analysis between the five selected variables (age of the mother, years of schooling of mother, years of stay of the household in the area, household size, and household income) and coping responses revealed that only the household income was significantly associated with the coping responses. Table 7 presents the variables on coping responses that were found to be associated with the household income. Changes in household income do change the coping responses of households towards food security. The coping responses of the households were grouped according to changes in meal pattern, purchasing, and other coping responses.

Table 7. Summary results of association between income and coping responses

Coping responses	Chi-square value	P - value
<b>Meal Pattern</b>		
Reduce number of meals eaten	12.974	0.044
Skip meals	24.871	0.000
Head skip meals	22.395	0.001
Wife skip meals	20.261	0.002
Children skip meals	22.564	0.001
Others skip meals	23.344	0.001
Skip breakfast	20.531	0.002
Skip lunch	21.736	0.001
Skip dinner	20.153	0.003
Skip snacks	22.423	0.001
Reduce quantity food served	9.230	0.026
Miss desserts	16.740	0.010
<b>Purchasing Pattern</b>		
Change meat to beans	14.865	0.021
Change rice to corn	13.354	0.038
<b>Other coping responses</b>		
Borrow food	14.023	0.029
Borrow food from friends	14.859	0.021
Borrow food from store	12.754	0.047
Borrow food from other sources	18.569	0.005
Limit use of electricity and water	9.953	0.023
Refrain from buying clothes	9.320	0.025
Decrease allowance of school children	15.231	0.019

## *Discussion*

This study dealt on the coping responses of households in marginalized urban communities in Baguio, Damaged and Davao Citites. Coping responses that wre extensively presented touched on food (i.e. meal pattern changes, purchasing pattern changes) and non-food strategies. Analysis of the coping responses of the households revealed that many of the households in thestudy communities took coping as a daily reality. The positive outcome of coping behavior was the household's ability to become resourceful and practical despite the limited resources. The Filipino is ingenious and to a large extent, the Filipino's human resourcefulness ("kung may gusot, may lusot") has worked effectively for his survival and may be contributory to his general attitude of "Makakaahon din tayo" and "Bahala Na". With regard to food purchases, rice was considered a priority and a security. As long as a household had rice, they felt secured. Viands were getting sparser in terms of condiments and seasoning ingredients like salt, soy sauce and vinegar. Buying by credit was commonplace in depressed communities. Most mothers borrowed money to pay their bills of borrowed from the sari-sari store when household income nil. Borrowing was in fact very rampant and the salary received on payday was just enough to pay for debts incurred the whole month. This continued period of indebttness had led towards greater deprivation of the basic necessities of life, including food. In trying to cope up with food insecurity, there is an increasing tendency to depend on other relatives for the needed food or money.

Many households have accepted the fact that life gets more difficult, year after year, and the unemployment problem is worsening, its effect on food security cannot be ignored. Due to economic difficulty the children are always the one usually affected. The scenario that more mothers and fathers skipped meals to provide more for their children provs the Filipino concern for the young vulnerable group. These Filipino marginalized households have succeeded in "securing" practically all forms of coping behavior that they have become "experts" in making both ends meet, not on a limited scale, but as the order of the day. With limited resources, households have become innovative and practical so that food will be available on the table. In remote cases, some women earned income from engaging in prostitution or in working as Guest Relation Officers (GROs) in entertainment establishments.

Drinking liquor, smoking and gambling is also a form of coping response in these depressed communities. Drinking and gambling have remained a favorite pastime of the poor people who have dreams of instant riches or securing "income" the easy way.

As a result of coping, a number of problems had cropped up. When parents worked, older children in the households missed and dropped-out their classes either to take care of younger children, thus their education was sacrificed or oftentimes neglected, which left them vulnerable to joining "barkadas" and became street children. For those children with no breakfast at home, they were observed to be irritable in school.

Misunderstanding between couples arose when the mother or father sold household appliances without the other's consent just to augment daily food needs. Delay in payment of debts created a domino effect on computation of loan interest that ultimately drained existing finances. Mothers spent longer waking hours thinking where to get money to buy food for the household, thus led to insomnia. On the whole, the children's health suffered due to lack of food; they often got sick and mothers who resorted to other income-generating schemes tend to neglect their children, thus less time was allotted to childcare. The challenge for the government agencies and non-government organizations to provide or strengthen programs for the poor in the area of livelihood, nutrition, and health remains. Such programs should also consider the reduction of exposure of the poor to threats to food security.

## *Conclusion*

Low household income and unemployment were considered the main threats to food security experienced by the households in three marginalized communities. The households in these communities employed food-related and non-food related coping responses to defy food insecurity. They made changes in meal patterns, purchasing pattern, and introduce other food-related coping responses i.e., recycling of leftover and engaging in food vending. Elder members of the household tend to engage in multiple coping strategies to improve quality of life of their children. Although the mothers usually employed a variety of coping strategies to improve the food situation of the household, the husbands also skipped meals in favor of the children to increase food available to the children. When a household was in need, their fall back for the needed food or money to buy food was the external support from relatives, neighbors, friends or institutions. Assistance was usually extended in the form of credit either in kind or in cash. Through credit, the household's food consumption stabilized for sometime and improved household security for a short time.

In consonance, these households also employed one or a combination of non-food related coping strategies. Postponement of purchase of new clothes and house repair; decrease consumption of electricity; and reduction of school allowances topped the list of their non-food related coping strategies. Household food insecurity can deteriorate into hunger if affected households will not introduce changes to improve their situation. Employing one or more coping strategies may not be a guarantee to food security if betting or gambling come into picture. The money set aside for gambling may mean a reduction of available money for food. Likewise, time spent in gambling activities decreases opportunity cost of the person to find other productive coping strategies that will increase the food security of the household. Consequences of seeking sources of household income resulted to more favorable nutritional and psychosocial problems. On the other hand, seeking alternative sources of income caused nutritional and psychosocial problems. Absence of working mothers at home seeking income here and abroad resulted to reduce childcare activities rendering the child unattended thus became lethargic, malnourished, and vulnerable to other health and psychosocial problems.

Households' diet with no protein source deprived the members of growing age important nutrients for normal growth and development.

## *Recommendations*

Nutrition education campaign of the government with focus on low cost but nutritious foods should be strengthened in schools and in local radio stations. The nutrition education should also cover advocacy on concrete adjustments in purchasing of foods and eating patterns that the poor households can do during times of economic problem with considerations of not sacrificing the quality (in terms of nutrient content) and quantity (especially for growing children) of foods. Emphasis of the message must be biased towards purchasing cheaper but nutritious substitute for meat, fish, and poultry like nuts, beans and legumes.

The local government units (LGUs) and non-government organizations (NGOs) could extend small-scale credit assistance to households who will be engaged in small cottage industries or food-vending business without collateral. This is to allay the households to engage in usurious deals (borrowing through 5:6), that usually put these households to credit situation that is difficult to curb.



Gambling, smoking and drinking are vices that results to household economic imbalance that are difficult to remove as households rely on these served as emotional outlets when they unwind. Households should then be made to realize that these could aggravate imbalance of household economy. Social workers and other respectable leaders in the community must encourage and organized alternative ways of enjoying life, even when one is poor. Changes should therefore mean increasing access to food by increasing the available income or engaging in food production.

The Non-Government Organizations (NGOs), congressman, local government executives, civic organizations, other government agencies, and philanthropic individuals may be tapped to provide projects and programs that will harness the skills and creativity of the people. These people can be gainfully employed, thus, earn income to purchase the needed food for the household members.

Cooperatives and other cost-saving measures like putting-up GMA stores that sell affordable basic food necessities should be encouraged as these have been viewed to be effective. There must be innovative approaches to sustain such measures.

On the whole, all efforts in helping the poor household must consider seriously the sustainability angle of "pro-poor" projects so as to keep people's respect and faith in the credibility of government programs.

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## *References Cited*

- Anonymous. 1999, December 3. Coping Strategies. Philippine Daily Inquirer.
- Anonymous. 2000, April 3. Government sets benchmark of family living wage. Philippine Star.
- Barba, C. and Pedro, Ma. R. 2001. Household Food Security and Nutrition of Selected Vulnerable Groups. Food and Nutrition Research Institute. Manila, Philippines.
- Department of Social Welfare and Development. 1997. Guidelines in the pilot testing of food subsidy in selected CIDSS municipalities. Department Order No. 23, series of 1997. Department of Social Welfare and Development: Quezon City.
- Department of Social Welfare and Development. 1998. Guidelines on the implementation of rice subsidy program. Department Order No. 02, series of 1998. Department of Social Welfare and Development: Quezon City.
- Eusebio, J., Kusin, J., Sacdalan, L., Barba, C., and Renqvist, U. 2000. Food security in lowland and coastal villages in the Philippines. Journal of Nutritionist-Dietitians of the Philippines, 14, 4.
- Haddad, L., Kennedy, E., Sullivan, J. 1994. Choice of indicators for food security and nutrition monitoring. Food Policy, 21, 3.
- Maxwell, D.G. 1996. Measuring food insecurity, the frequency and severity of coping strategies. Food Policy, 19,3.
- National Anti-Poverty Commission. 1999. Program summary. Manila: National Department of Social Welfare and Development.
- National Food authority. 1998. SOP on enhanced retail access for the poor (ERAP) sari-sari store, MSD Ref. No. 98-10-09: Quezon City, National Food Authority.
- National Food Authority. 2000. ERAP accomplishment report. Quezon City: National Food Authority.
- The National CIDSS Secretariat. 1997. The comprehensive and integrated delivery of social services (CIDSS). Quezon City: The National CIDSS Secretariat.
- Valdez, A. 1990. Poverty, food intake, and malnutrition in developing countries. American Journal of Agricultural Economics, 72,5.
- Zeller, M., Schrieder, G., Braun, J., Heidhues, F. 1997. Rural finances for food security for the poor. Food Policy, Review 4.