RESETTLERS IN PAMPANGA: ARE THEY FINALLY SETTLED?

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ABSTRACT

Pampanga, the hardest hit province during the catastrophic 1991 Mount Pinatubo eruption, has remained the fragile center/area constantly threatened by the recurrence of lahar flows. This situation has forced many people to leave their homes and seek refuge in resettlement areas - the most immediate solution to their problem. Mount Pinatubo Commission, Government Agencies and Non-Government Organizations have in fact established 19 resettlement sites to accommodate the victims.

The process of relocating such displaced population of Pampanga is definitely difficult and costly. To grapple with the reality of complex human needs and nature is inevitable. Now that a great number of victims are resettled, several questions relative to the current stains of both resettlers and their sites may still linger in the minds of many. A significant concern may be posed: Are the resettlers finally settled?

This research project entitled "Resettlement System in Pampanga" is a rich data source to address the question at hand. It aims to provide both an extensive and an intensive description of each resettlement site, particularly the resettlers' profile (socio-demographic aspects, livelihood and individual household characteristics) and their satisfaction level (to be derived from the data regarding the resettlers' "quality of life" before and after resettlement). In addition, the study also evaluates the economic viability and "total quality management" of each sites.

A closer look into the condition/situation of both the resettlers and their sites can be of productive consequence. For one thing, through the available data, insights may be drawn relative to the assessment of the resettlement projects, at least in Pampanga. Major concerns, therefore, including the question previously posed may be dealt with accordingly. For another, conventional answers, particularly by government agencies, which do not really provide exact solutions to problems

being encountered in the sites may be re-evaluated, assuming accuracy of the general data and soundness of the analytical framework being followed. Finally, disaster management practice may also be improved as facts and figures gathered can be used to generate systematic and coordinated response among concerned agencies and individuals.

The project highlights the strengths and weaknesses of the resettlement program in Pampanga from which policy recommendations regarding resettlement planning may be drawn.

The study is an assessment of the past and present conditions of the lowland and upland Mount Pinatubo victims presently residing in the nineteen (19) resettlement sites in Pampanga, Philippines. These resettlement sites were established either by the Philippine government and managed through the Mount Pinatubo Commission (MPC) or by the non-governmental organizations (NGOs). The living conditions before and after resettlement were compared to approximate the satisfaction of the resettlers in the four resettlement categories. The assessment of the "quality of life" of the resettlers before and after their resettlement was found to be an important factor in deciding to stay permanently in the site. An estimated test of mean difference of the populations between the present residence (resettlement sites) and their previous residence (hometown) showed highly significant ($P<.001$) difference for all the variables tested in all the resettlement groups. Compared to the previous residence of the resettlers, the houses and homelots are smaller in the resettlement sites. However, in spite of the seemingly lack of space it was found out that both upland and lowland resettlers now have more relatives living with them in their households than before resettlement. In addition, significantly higher participation in community activities in the resettlement could be observed as compared to prior resettlement. However, data show that as a result of dislocation, the unemployed have proportionately increased.

Mean comparisons between permanent and temporary stayers form the lowland and upland significantly showed that temporary resettlers were found to be significantly older, and have lived in previous residence longer, are less satisfied with facilities and services (part of the packaged benefits) in the resettlement sites than the permanent stayers. Comparative findings on income, status of employment, proximity of relatives, organizational membership significantly vary according to the resettlers' type of resettlement.

Based on the variables used in the study, the resettlers housed in the 4 resettlement categories have satisfactorily met their shelter needs (housing, water, light, school buildings and health and recreational services) but the resettlers have yet to satisfy their other basic needs. Poverty is still predominant due to lack of means of livelihood coupled with insufficient income. Partly because of insufficient means and perhaps lack of trade skills, at least a quarter of the resettlement population did not see the resettlement sited as their home in the future.

1. Resettlement Sites
2. Forced Migration

3. Pampanga
4. Mount Pinatubo Victims
5. Philippines
6. Satisfaction
7. Mount Pinatubo Commission (MPC)
8. Non-Government Organizations (NGOs)
9. Quality of Life
10. Lahar, "Mudflows"

BACKGROUND OF THE STUDY

Since the eruption of Mount Pinatubo 1991, more than a quarter of a million families (384,161) in the province of Pampanga alone have been affected by lahar. This involves some three and a half million persons or 3,538,049 to be exact (Note: the number of families per person may not be mutually exclusive populations). Thus, the figures confirm the claim that the Mount Pinatubo eruption is the "disaster of the century". Table 1 shows the massive loss of property and displaced population in Pampanga and, at the same time reflects the reality of overwhelming rehabilitation problems. In 1991 alone a total of 695,767 people were hit, the figure representing more than half of Pampanga's population in 1990 (1,532,682) (see table 1).

It may be noted that the most number of families affected occurred in 1991 (150,219 – which is 39% of the total number of affected families so far), followed by 1993 (117,609 or 31% of the total number of families affected). The years 1991 and 1993 could therefore be considered as Pampanga's worst based on the large number of population hit by lahar and floods during that period.

Significantly, in the province's only city, Angeles, some 17,305 families have been affected from 1991 to 1995. It was in 1991 when most of these families, involving about 15,864 or 92% of the total number of families during the past four years, were badly hit by the first lahar flow.

In 1995, typhoons Karing to Rosing (a total of eight typhoons) added 20,305 families to the list of mudflow "lahar" victims – mainly coming from barrio Cabalantian, the last barangay in Bacolor to be hit by lahar. Also, during the five years (1991 to 1995), a total of 1,092 deaths, 228 injured and 85 missing have been reported (DSWD, Region III, 1995).

A glance at the data is all that is necessary to pinpoint the Herculean task of both government organizations (GOs) and non-government organizations (NGOs) in addressing the rehabilitation needs of the disaster victims in Pampanga.

It is a common knowledge that the first agency involved in rescuing and caring for the victims is the Department of Social Welfare and Development (DSWD). In the case of Pinatubo affected families, the agency, makes certain that they are first housed in evacuation centers – usually public school buildings or bunk houses and, in some cases, tents.

Table 1. Number of Affected Families in Pampanga, Philippines

Province/City	1991		1992		1993		1994		1995		TOTAL	
	families	*persons*	*families*	*persons*	*families*	*persons*	*families*	*persons*	*families*	*persons*	*families*	*persons*
Pampanga	114,355	632,252	88,284	404,669	114,588	62,804	114.629		57.425		604,276	
Angeles	16,864	63,515	141	3,210	25	113			607		16.537	
TOTAL	159,219	905,767	98,425	407,879	117,808	629,197	114,629		57,922		628,813	

Source: Department of Social Welfare and Development, Region III

THE PROVINCE OF PAMPANGA: PRIOR TO THE 1991 MOUNT PINATUBO ERUPTION

Pampanga – 60 kilometers north of Manila – has always been considered as a leading growth center in Central Luzon. The Kapampangans are known for their affluence as well as rich in culture. As such, they tenaciously cling to their roots and feel very strongly that they are never "a society of tumbleweeds." This rootedness both in their soil and in their culture, in fact, is an investment that has yielded them profitable results. To mention some notable places: there is Bacolor, the Athens of Pampanga (as it has produced literary giants), there is Betis, which is known for its artisans, there is Santa Rita, the home of the best pastries and sweets, there is Porac, famous of its Class-A sand. The whole of Pampanga is beautifully symbolized by Mount Arayat: an imposing and enchanting landmark reflecting the proud heritage of the Kapampangans.

REVIEW OF RELATED LITERATURE/CONCEPTUAL FRAMEWORK

A. Issues of Land Settlement Program

Land settlement in the Philippines is perceived as a solution to the social and economic problems of the country. Sparsely populated areas like Mindanao, Palawan and Cagayan Valley had been recipients of settlers from the densely populated areas in the Philippines. The government initiated the movement of population for the purpose of alleviating agricultural production. It cannot be denied that people are important in converting idle lands to productive lands. Human resource, however, may be considered as only one of the main ingredients, the government needs to invest in technology and infrastructure as well (Paderanga in Oberai, 1988). Taking the road to economic prosperity through the land settlement programs has not been smooth sailing. In the past several difficulties were encountered since settlers were looking for non-farm employment opportunities. Settlers and the government set different objectives. There was also the problem of inadequate infrastructure, lack of comprehensive planning in the settlement sites (Arndt in Oberai, 1988). Social tension between settlers and the indegenous population was also an integration problem with no easy solution (Oberai, 1988).

The latest large-scale displacement of human population in the Philippines has been caused by the Mount Pinatubo disaster. The government has already spent P10 billion billion for immediate assistance to the victims, and according to the Mount Pinatubo Commission (MPC) report for 1991-1992, P4.6 billion of the P10 billion spent was expended for infrastructure related to resettlement projects. In addition to the government sponsored resettlement, the NGOs through their collaborated network, have similar resettlement projects.

Corruption has been noted, however, in the development of government resettlement projects. Banzon-Bautista, (1993) has categorically cited in her book complaints among the settlers. She classifies these complaints into two: First, those

related to the pre-planning stage. Resettlers complained that roads and buildings were constructed before the resettlers' houses. Second, resettlers also complained against the nature of planning and decision-making regarding their resettlement, specifically, their non-participation and non-involvement. This complaint is important considering that popular participation made for successful resettlement (despite insufficient design and material inputs) as experienced in Turkey, Iran and Peru, with cases cited by Oliver-Smith (1991). B. Forced Migration.

The occurrence of unpredictable events, such as war, natural calamities, political upheaval etc. leaves the affected population with no choice but to abandon their abode. Such forced migration has been studied and reviewed in places like Poland (Kostrubeic, 1992), in Central Europe (Stoka, 1992), in Slovakia (Ochovyski, 1989), in the Soviet Union during the Stalinist era (Zeniskov, 1990) and in Ethiopia (Pankhurst-Alulal, 1991).

In forced migration, decision not to resettle is not an option. The forced migrants are given little alternatives. Majority of the above cited studies found that full development of the resettlement sites for these compelled population depends on the willingness of the government to increase the supply of services to the resettlement centers without necessarily increasing the population. Similarly the Pampanga-Pinatubo resettlers never in their lifetime ever dreamed of leaving the comfort of their homes (Nelson, 1995, unpubl.). Moreover, Pampangos, like all Filipinos, have close kin ties and rarely change residence during their lifetime. Filipino mobility, if ever it occurs, is often linked to marriage or job. In contrast, mobility, particularly internal migration is a phenomenon associated with Americans who are obsessed to change residence three to four times during their lifetime (Hansen and Boertbeleen, 1981).

Furthermore, spontaneous resettlers may have to adapt to a new way of life that brings them into direct conflict with some of their most cherished cultural traditions (Turton and Turton, 1984). Also, during this process of rebuilding and relocating, the majority living in several temporary homes, move frequently because of dissatisfaction (Bjorklund, 1981). However, even twenty-one years after the 1964 great Alaskan Earthquake, few alterations – despite material, technological, political and attitudinal changes – in the social structure occurred beyond pre-disaster trends.

The literature cited is far form complete, but it shows that resettlement in the Philippines has occurred in the past through government initiative to relocate the victims of natural hazards but that this relocation is mainly for shelter provisions rather than economic production.

Also the corpus of literature mentioned distinguishes two types of mass migration. The first type is voluntary migration where the migrants themselves decide whether to resettle or not. In this case, the government and the migrants have no high hopes and expectations in making their decisions to resettle. It ought to be pointed out, however, that the resettlement programs in this type are not successful. On the other hand, the second type of mass migration is involuntary where migrants are forced to resettle. Thus, instead of having expectations or hopes for a better future, the resettlers are in most cases, bitter, having suffered stress and strain and may have

aspirations buried in the depths of lahar (Nelson, 1995, unpubl.). Forced migration or forced movement of whole communities from one place to another is difficult to understand and to accept, most especially by affected individuals. A recent study in the Arab Middle East countries focused on the social implications of population displacement and the process of resettlement (Shami, 1993). However, because of its narrow focus, the study failed to provide analytical synthesis nor generalizations based on comparative data. It has also been observed in another study (Pankhurst, 1991) that an increasing number of Ethiopians have been leaving the resettlement areas. One reason is that the collectivized life in the resettlement is not nearly similar to their homeland. For this type of migrants, adjustments can be extremely difficult.

Furthermore, the literature reviewed indicated firstly, that settling or resettling is a slow process and is bound to fail rather than succeed. Success depends upon ways by which the resettled sites are made to be livable, sustainable, that is, in terms of water, education, health services etc. Secondly, it has been noted that people are by nature hard to please. The level of satisfaction depends on the cost in answering their needs or expectations. Thirdly, the cost in putting up infrastructure is bound to have inevitable losses. And there is always a question that remains to be answered: Can one government continue to increase the supply of services?

THE PRESENT STUDY

Pampanga, the hardest hit province during the catastrophic 1991 Mount Pinatubo eruption, has remained the fragile center/area constantly threatened by the recurrence of mudflow (commonly known in this area as "lahar flows"). This calamitous situation has forced many people to leave their homes and seek refuge in resettlement areas – the most immediate solution to their problem.

The process of relocating such displaced populations of Pampanga is definitely difficult and costly. To grapple with the reality of complex human needs and nature is – inevitable. Now that a great number of victims are resettled, several questions relative to the current status of both resettlers and their sites may still linger in the minds of many. A significant concern may be posed: Are the resettlers satisfied?

This paper underscores the idea that calamity victims go through the dark corridors of loss and grief. For them to recover easily is definitely a matter of perspective. Generally speaking, however, human nature dictates that the ultimate goal after the experience of loss is usually to regain as quickly as possible the lost objects. As victims most of them witnessed the bubble-like disappearance of their houses, occupations, or worse still, loved ones in so short a time. Thus, the socio-psychological disturbance has intensely jarred these people and to restore their equilibrium, so to speak, is what they need most. The cost is, in fact, much greater: "socio-psychological cost" on the part of the resettlers and burdensome "economic cost" on the side of the government.

The success or failure of a resettlement program is primarily indicated by the satisfaction of its beneficiaries – the resettlers. Considering that the beneficiaries are

"forced" by circumstances to resettle in the sites, their level of satisfaction in their new environment tells a lot about how the resettlement program rates.

Being in resettlement areas involved primarily a re-conditioning of the minds of the resettlers to the possible replacement of losses. Their satisfaction level vis-à-vis their present lot is the most important point of consideration in their decision to remain where they are now. A favorable situation will most likely help them get settled easily. To put it metaphorically, the condition of the soil usually determines the success of the planting.

The basic premise is the inverse relationship between the level of comfort experienced by the resettlers before and after their resettlement. In other words, people who had "more" or used to have "much" would never be easily satisfied. Necessarily, those who had "less" will be more open to the acceptance of their fate or will easily reach a particular level of satisfaction and, consequently, take resettlement as a favorable option. A premise, in fact, supported in the case study conducted by NEDA, 1996, 4.1.1,

> "Those who were owners of large houses and lots before, were the least satisfied with the resettlement houses. Those with modest property before, if any, expressed general satisfaction. It seems that socio-economic status and prior living conditions combined to determine levels of satisfaction with resettlement housing."

Ultimately, the question is: How effective are the resettlements in terms of replacing the losses? Specifically, do these resettlements provide an approximation of the amenities, physical comfort and social support of the places of origin of the victims?

SIGNIFICANCE OF THE STUDY

A closer look into the condition/situation of both resettlers and their sites can be of productive consequence. For one thing, through the available data, insights may be drawn relative to the assessment of the resettlement projects, at least in Pampanga. Major concerns, therefore, including the question previously posed may be dealt with accordingly. For another, conventional answers, particularly by government agencies, which do not really provided exact solutions to problems being encountered in the sites maybe re-evaluated, assuming accuracy of the given data and soundness of the analytical framework being followed.

This paper provides an overview of a salient feature of the research project, viz, the socio-demographic profile of resettlers in Pampanga. It is assumed that an assessment of the "quality of life" of the resettlers before and after their resettlement is an important factor in deciding to stay permanently in the sites.

METHODOLOGY

Phase I

A preliminary study was done to assess magnitude of the damage caused by the eruption of Mount Pinatubo as well as the extent of population displacement. Secondary data furnished by various government agencies such as the Department of Social Welfare and Development, Mount Pinatubo Commission, and other bodies were examined closely. The available data show that only five percent of the totally affected families are found in the resettlement areas. Moreover, as reflected in the socio-demographic profile in each of the resettlement communities, only the poorest of the poor, the low-income earners, those lacking in marketable skills or human capital such as education are found in these very costly constructed sites. In other words, it may be safe to assume that the rest, 95% of the affected population, have chosen to swim in the vast sea of opportunities rather than wade in pools of government assistance or even patronage.

Phase II

The revelation that the least productive members of the Pampanga community, a minuscule five percent of affected families, opted to be resettled (a tentative conclusion, at this point), has necessitated the second phase of the research – an actual field research – so that an empirical data base may be established. This phase took two months and used a 17-page interview instrument.

There are currently 19 resettlement sites in Pampanga accommodating the victims. These resettlement sites were built by the Mount Pinatubo Commission (MPC) of the Philippine Government and by the Non-MPC (established by non-governmental organizations). There are separate resettlement sites for the lowlanders and the uplanders hence there are four resettlement areas namely, Lowland MPC, Lowland non-MPC, Upland MPC and Upland Non-MPC. The lowland Non-MPC are 7 in all. There are 3 upland MPC and one Upland Non-MPC. These resettlement sites were established on a staggered basis in the last five years (categorized into Lahar I established in 1992 to Lahar V established in 1996).

Parameters which are deemed critical in determining the approximated satisfaction of resettlers were identified, scaled and validated. With the use of these parameters, the resettlers in 19 resettlement sites were classified according to the sponsoring agencies (the government agencies represented by the Mount Pinatubo Commission [MPC] and non-governmental organizations [NGOs]) and according to location (lowland vs. upland). Thus, the statistical analysis is in reference to the resettlers in these four resettlement categories, namely: a lowland MPC, b. lowland non-MPC, c. upland MPC, and d. upland non-MPC.

The study focused on the resettlers prior to their resettlement and their conditions in the present resettlement sites, their amenities, facilities, services etc. as well as the relevant features of resettlement such as community facilities and services, social attachment and social support. These aspects of resettlement are deemed to be

the significant indicators that determine the satisfaction of the resettlers. A test of difference of means before (their residence prior to resettlement) and after (in the resettlement sites) was computed for the following variables: lot area, floor area, number of rooms, travel time, distance of residence from the town proper, distance of residence from place of work, relatives living in the same household, membership in community organizations and number of organizations. Significant differences in the means using t-test and Chi-square (X2) Mc Nemar on these variables would indicate relative satisfaction of the resettlers. Estimation on the differences of means was done separately for each of the four resettlement categories. Furthermore, test of difference of means was likewise computed for the work status (employed and unemployed) over the past 7 years since 1990-1996. Similarly, test of differences of means was computed using Chi-square, (Friedman) for the monthly income of the resettlers over the same 7 year period (1990-1996). Again, a separate estimation of differences of means was computed for each of the 4 resettlement categories.

Resettlement may be perceived in so many ways. For the resettlers, it may either be a temporary shelter and good only as long as there is a perceived eminent danger in the places of origin or it may be a place to settle down permanently regardless of whatever the future is in their places of origin. Using a one way classification of variance, an attempt was made to differentiate the resettlers' perception on their plans to either stay permanently or not with the following characteristics: age, educational attainment, income, work status, length of stay in previous residence, relatives living with them or nearby, membership in organizations and their perception with regard to the facilities and services rendered to them by the management of their respective resettlement sites.

RESULTS AND DISCUSSIONS

A. Socio-Demographic Characteristics of the Resettlers

All data reported are based on estimated population.

Ninety-two percent of the resettlers are the original recipients of the home units which they presently occupy. However, a negligible number (2 out of 439 respondents) indicated that they bought the home unit from a previous awardee.

The computed mean or average age of the resettlers is 25.6 which reflects a young population. Uplanders show a much younger age composition (19.7 for upland non-MPC) as compared to the lowlanders (26.4 for lowland non-MPC).

As to the educational attainment of household heads, the predominant, among lowland resettlers, is high school, followed by those with elementary education. For upland resettlers, most of whom are Aetas (upland minorities in Central Luzon), the highest educational attainment attained by the household heads is grade six. And, in terms of all household members, the most frequent level of education attained is grade six and high school.

When it comes to work status, the upland resettlers have a higher percentage of employment. At least 33% of lowland resettlers are currently unemployed.

In monthly income, forty percent of lowland resettlers have an average income between P2,001 and P3,000. Resettlers from the lowland non-MPC sites have the highest percentage (25%) of household heads earning between P4,001 to 5,000 making them the most well-provided among sites. Income is mostly derived from wages earned from services, production work, and transport equipment operation.

For the household head, the monthly income of all working household members reflected largely similar results. When asked on the sufficiency of their income, regardless of site category, household heads see their incomes as ranging from insufficient to fair. Very few resettlers reported an income that is either very sufficient or highly sufficient.

From 1991 to 1996, there has hardly been any change in the employment status of resettlers. This working sector seem to have retained the same jobs during the five-year period which indicated no improvement in their economic status since their resettlement.

In terms of living conditions, some 10 to 15% of lowland resettlers did not have toilet facilities before being resettled. However, at present, all housing units are provided with private toilet facilities.

For educational institutions, the most predominant is the elementary school Meanwhile most of the service facilities that the resettlers enjoyed moving are also present in the resettlement sites. Basketball courts, on the other hand, are usually found in lowland sites.

Findings show that the upland non-MPC resettlement sites are the most secure against the threat of mudflows or "lahar".

Compared with the situation before resettlement, a slightly higher percentage of relatives were found living with the family unit after resettlement. This is especially true for resettler families in lowland non-MPC sites and upland MPC sites. However, hardly any difference exists with regard to proximity of relatives to the family unit before and during resettlement.

When it comes to personal or family problems, almost three quarters or 75% of the respondents said they do not have personal or family problems since the time they were resettled.

Seventy-seven percent of respondents indicated that they intend to stay permanently in the site since they have no other choice.

The remaining 23% said that they did not intend to stay permanently and indicated a desire to return to their previous residence as the strongest reason.

B. Tests of Significant Differences

The preliminary data on the composition and perception of the resettlers on various aspects of the resettlement sites show how these conditions compare to the places of origin prior to resettlement. The results, as summarized in Tables 2a to 2e. show highly significant differences ($p<001$) in all the 10 variables without any exception regardless of resettlement categories.

A negative mean value difference between the after (present resettlement) and before (places of origin) was found in the following: lot area, floor area, number of rooms. The present resettlement houses have an average size of homelots of 94 square meters, uniformly built out of galvanized iron roofing and concrete walls with two bedrooms, a small living room and a bathroom/toilet area (see pictures on the next pages). There is no kitchen but most resettlers have added this room at their own cost. It seems that the physical structure of the house and the homelot areas are relatively smaller than their previous residences, thus, discomfort in terms of little physical space may result to some form of dissatisfaction. The variables on the distance of the resettlement sites from their place of work and relative to the nearest town proper and travel time (in Third World countries such as the Philippines, the time spent in travelling is a significant variable since it is affected by the road conditions and the availability of transportation.) There seems to be a big difference between the distance of the present resettlement sites to the town proper compared to their places of origin (see tables). This suggests that most resettlers find the present resettlement areas conveniently closer to the town proper as compared to where they were previously residing. The proximity of relatives, that is whether relatives are staying in their present abode indicated the presence of socio-psychological support, an important aspect during times of crises. In other words, on the top of the physical comfort, resettlers satisfaction also entails psychological support. In a country like the Philippines where close family ties are of great value, proximity of relatives in times of crisis is an indispensable consideration for satisfaction. Information on the composition of the household also indicates that it has become extended which suggests that it has become a mechanism for coping. It also likely indicates that the families have relatives who are also victims of disaster. Results showed significant differences between the after and before conditions of resettlement in this phychosocial variable. The lowlanders have become more extended in their household structure (increased in the number of relatives living in the same household and nearby). The uplanders likewise became more extended although they have always been traditionally larger in terms of their household composition. The family unit is the most basic coping mechanism and is likely to operate in most if not all disaster situations (Kieffer, 1956). Disaster victims do not act as independent individuals but their responses are to a high extent influenced by the families to which they belong. The larger household composition after resettlement may not only be due to coping mechanism strategy but may be attributed to the fact that available home units are much fewer in proportion to those who were rendered homeless and as result those who were awarded home units simply accommodated relatives who are still in queue or are not eligible to be resettled.

One of the more viable programs in the resettlement sites is organizing people to meet their special needs as a group. Resettlers have their own block leaders and cluster leaders who also act as spokepersons and represent them in several occasions during meetings. To be a resettler is almost synonymous to active participation in the self-help programs of the sites. These organizations deal with various projects

Table 2a. Statistics of variables after and before resettlement (lowland, MPC)

Variables	N	Means	Standard Deviation	t-values	Chi-Square
Lot Area	16000	-181.27	246.35	-93.077 ***	
Floor Area	18050	-33.1	31.37	-141.8***	
Number of Rooms	19800	-0.9	0.91	-138.1***	
Length of Time of Travel	19500	4.20	19.03	32.31***	
Distance of Residence (from town proper)	17850	1639.5	4065.11	53.68***	
Distance of Residence (from place of work)	19890	21.71	45.87	66.18***	
Relatives living the same household	19749				503.63***
Relatives living near the household	19749				106.59***
Membership in community organizations	19749				40.33***
Number of organizations	19550	0	0.65	1.09	

*** p< .001

Table 2b. Statistics of Variables after and before resettlement (lowland, non-MPC)

Variables	N	Means	Standard Deviation	t-values	Chi-Square
Lot Area	1058	-95	117.46	-26.3***	
Floor Area	1242	-36.7	27.78	-46.54***	
Number of Rooms	1380	-0.86	0.84	-38.04***	
Length of Time of Travel	1380	1.36	11.81	4.29***	
Distance of Residence (from town proper)	1380	533.3	2395.07	8.27***	
Distance of Residence (from place of work)	1380	27.33	45.49	22.63***	
Relatives living the same household	1400				92.33***
Relatives living near the household	1400				44.68***
Membership in community organizations	1400				59.14***
Number of organizations	1380	0.23	0.71	12.1***	

*** p< .001

Table 2c. Statistics of Variables after and before resettlement (upland, mpc)

Variables	N	Means	Standard Deviation	t-values	Chi-Square
Lot Area	47	-95			
Floor Area	235	-17.2	6.22	-42.37***	
Number of Rooms	611	-0.07	0.26	-7.12***	
Length of Time of Travel	611	1.36			
Distance of Residence (from town proper)	564	4583.33	16428.28	6.62***	
Distance of Residence (from place of work)	611	36.92	41.29	22.1***	
Relatives living the same household	612				45.09***
Relatives living near the household				ns	
Membership in community organizations	612				245.75***
Number of organizations	611	0.61	0.73	20.59***	

*** p< .001

Table 2d. Statistics of Variables after and before resettlement (upland, non-MPC)

Variables	N	Means	Standard Deviation	t-values	Chi-Square
Length of Time of Travel	170	17	32.28	6.88***	
Distance of Residence (from town proper)	170	700	1169.83	7.8***	
Distance of Residence (from place of work)	170	27.2	42.34	8.37***	
Membership in community organizations	173				0.01
Number of Organizations	170	0	0.63	0	

*** p< .001

Table 2e. Statistics of variables after and before resettlement (all resettlement sites)

Variables	N	Means	Standard Deviation	t-values	Chi-Square
Lot Area	17105	-175.44	241.12	-95.16***	
Floor Area	19527	-33.14	31.03	-149.21***	
Number of Rooms	21661	-0.86	0.9	-141.18***	
Length of Time of Travel	21711	4.18	18.58	33.14***	
Distance of Residence (from town proper)	19654	1638.18	48.16	47.81***	
Distance of Residence (from place of work)	21711	22.6	45.86	72.64***	
Relatives living the same household	21934				620.52***
Relatives living near the household	21934				131.9***
Membership in community organizations	21934				0.03
Number of organizations	21711	0.03	0.68	8.1***	

*** p< .001

that are either self-initiated or established by various sectors. Thus, resettlers are shown to be more actively involved in many organizations than before. This shows a significant difference in the membership and number of organizations of resettlers especially among the lowlanders. Organizations can also act as support groups to augment kin and family relations.

C. Findings on Income and Work Status of Resettlers

Table 3 shows the proportion of employed resettlers in various resettlement categories form 1990 to 1996.

A decrease in the proportion of those employed is evident in all categories except for upland non-MPC. In 1990 prior to the Mr. Pinatubo eruption, 80% of the lowlanders were employed. The proportion of those employed in 1991 immediately after the Mt. Pinatubo eruption was lowered remarkably to 66% and 70% for lowland MPC and lowland non-MPC respectively. This proportion has been maintained until 1996 which only attests to the fact that a good proportion of the resettlers did not only lose their houses but their means of livelihood as well. The computed Chi-square showed significant differences in employment status experienced by the resettlers during the 7-year period. Moreover, the unemployed settlers are not even qualified in many training programs for livelihood purposes. Examples of which are the "Victims Training Scholarship Program" and the "NGOs and Cooperative Capability Build-up Program" which requires trainees to be at least high school graduates and require an age limit of 32 years old and younger. The unemployed settlers are ineligible for livelihood training program mainly because they are mostly 35 years old and over and have not even reached high school education.

Differences in the mean monthly income of the resettlers during the period prior to resettlement in 1990 and the succeeding 6 years after the eruption is shown in Table 4.

Highly significant differences may be observed among all the resettlers in various resettlement sites. An increase in monthly income was found solely for the

Table 3. Work Status of Resettlers from 1990-1996

	Proportion of Employed				
Year	all	lowland mpc	lowland non-mpc	upland mpc	upland non-mpc
1990	80.34	80.05	76.67	92.31	100
1991	67.41	66.24	70	92.31	100
1992	64.7	62.92	73.33	92.31	100
1993	65.21	64.19	63.33	92.31	100
1994	65.67	66.75	70	92.31	100
1995	67.94	66.5	66.67	84.62	100
Chi-Square	4213.82	4907.63***	244.75***	282.00**	n.s.

*** p<.001

uplanders in the non-MPC sites. The rest of the resettlers experienced a decrease in income although the difference is just slightly over P200.00. The devaluation that has occurred during the last 7 years in fact meant that the income of the resettlers in 1990 had far more value compared to the income earned in 1996. Thus, the resettlers suffered from loss of income as a result of their dislocation and have not reached the income level they had in 1990 prior to the eruption of Mount Pinatubo.

D. Permanently Stayers vs. Temporary Stayers

Perception of the resettlers with respect to their plans of staying permanently was asked. As reported earlier, some 23% did not see the resettlement as a permanent place of residence. The ANOVA was computed to test differences in means of some relevant variables on their plans (permanent and temporary stayers). Findings are shown in Tables 5a to 5e.

The older the resettlers, the longer they have lived in the previous residence the less likely for them to favor staying permanently in the resettlement sites. The temporary stayers as shown in the tables have also consistently given lower ratings on the different facilities and services in their respective resettlement sites. This stems from the attachment, including sentiments they have had in their places of origin. Additional findings vary by resettlers' resettlement categories. For example, in terms of income, the high income earners from the lowland MPC are not looking forward to staying permanently in the resettlement sites whereas it is the high income earners in the lowland non-MPC who desire to stay permanently. A high earner as in the case of the lowlanders in the MPC may have the resources to afford to move elsewhere or to reestablish in their respective places of origin. The high income earners among the lowlanders in non-MPC who desire to stay permanently is a sign of stability and perhaps perceived themselves fortunate and therefore are less likely to move elsewhere. It can also be noted that there is a high proportion of the employed in lowland non-MPC resettlement category who are permanent stayers. Relative to other resettlers, the lowlanders in the non-MPC resettlement sites are better-off. This finding is also true to the uplanders in the MPC managed resettlement sites.

Table 4. Mean Monthly Income of Resettlers from 1990-1996

Year	All	lowland mpc	lowland non-mpc	upland mpc	upland non-mpc
1990	2315.18	2330.68	2913.2	907	739.4
1991	2045.86	2041.95	2766.53	907	739.4
1992	1993.65	1983.31	2803.2	683.76	1319.4
1993	2156.62	2186.24	2346.5	660.69	1319.4
1994	2218.25	2276.77	2518.83	660.69	1318.4
1995	2113.48	2154.28	2276.53	660.69	1319.4
1996	2112.78	2158.05	2263.2	545.3	1319.4
Chi-Square		251061.57***	816.46***	1470646.94**	191.61***

*** p<.001

The effect of the presence of relatives within and near the sites has varying results. Permanent stayers in the lowland MPC have few relatives living in the same household although 90% of their relatives are in the neighborhood. This is contrary

Table 5a. Comparison between permanent and temporary stayerson some variables (lowland MPC)

Independent Variable	Permanent Stayers	Temporary Stayers	F-value	Z-value
Socio-demographic Variables				
Age	45.75	46.45	133.5***	
Income	1974.94	2720.75	309.57**	
Work Status	57.45%	73/54%		5.01
Length of Stay in Previous Residence	19.91	26.41	420.01***	
Socio-psychological Variables				
Relatives living in the same household	13.59%	29.16%		24.90***
Relatives living in the near household	90.84%	95.83%		11.16***
Membership in community organizations	24.40%	28.12%		5.17
Number of organizations	0.29	0.41	113.29***	
Infrastructure, Facilities and Service Variables Perceived Ratings of Infrastructure, Facilities and Services	74.79	67.61	1358.76***	

*p<.05 **p<.01 ***p<.001 (one-talled test)
Note: Comparison are in means and proportions

Table 5b. Comparison between Permanent and Temporary Resettlers on some variables (lowland non-mpc)

Independent Variable	Permanent Stayers	Temporary Stayers	F-value	Z-value
Socio-demographic Variables				
Age	44.44	47.33	6.51**	
Income	2507.4	65.3	164.50***	
Work Status	70.37%	33.33%		8.81***
Length of Stay in Previous Residence	16.44	20	12.74***	
Socio-psychological Variables				
Relatives living in the same household	25.92	0	6.88	
Relatives living in the near household	55.55%	66.66%		2.51***
Membership in community organizations	33.33%	66.66%		7.76***
Number of organizations	0.88	0.33	66.25***	
Infrastructure, Facilities and Service Variables Perceived Ratings of Infrastructure, Facilities and Services	55.55	37	693.70**	

*p<.05 **p<.01 ***p<.001 (one-talled test)
Note: Comparison are in means and proportions

Table 5c. Comparison between Permanent and Temporary Stayers on some variables (upland mpc)

Independent Variable	Permanent Stayers	Temporary Stayers	F-value	Z-value
Socio-demographic Variables				
Age	33.91	50	66.80***	
Income	582.58	98	40.18***	
Work Status	16.66%	83.33%		3.04***
Length of Stay in Previous Residence	27.72	50	70.17***	
Socio-psychological Variables				
Relatives living in the same household	16.66%	16.66%		3.04***
Relatives living in the near household	n.a.	n.a.		
Membership in community organizations	66.67%	66.67%		9.03***
Number of organizations	75	0.06%	74.40***	
Infrastructure, Facilities and Service Variables Perceived Ratings of Infrastructure, Facilities and Services	49.16	58	71.95***	

*p<.05 **p<.01 ***p<.001 (one-talled test)
Note: Comparison are in means and proportions

Table 5d. Comparison between Permanent and Temporary Resettlers on some variables (upland non-mpc)

Independent Variable	Permanent Stayers	Temporary Stayers	F-value	Z-value
Socio-demographic Variables				
Age	na	na		
Income	na	na		
Work Status	na	na		
Length of Stay in Previous Residence	na	na		
Socio-psychological Variables				
Relatives living in the same household	na	na		
Relatives living in the near household	na	na		
Membership in community organizations	na	na		
Number of organizations	na	na		
Infrastructure, Facilities and Service Variables Perceived Ratings of Infrastructure, Facilities and Services	na	na		

*p<.05 **p<.01 ***p<.001 (one-talled test)
Note: Comparison are in means and proportions

Table 5e. Comparison between Permanent and Temporary Resettlers on some Variables (all sites)

Independent Variable	Permanent Stayers	Temporary Stayers	F-value	Z-value
Socio-demographic Variables				
Age	43.38	46.51	192.61***	
Income	1960.86	2622.51	267.40***	
Work Status	68.54%	63.04%		7.29
Length of Stay in Previous Residence	19.25	25.49	470.78***	
Socio-psychological Variables				
Relatives living in the same household	14.65%	28.03		21.90***
Relatives living in the near household	88.41%	95.06%		13.76***
Membership in community organizations	29.13%	28%		1.54
Number of organizations	0.41	35%	21.9	
Infrastructure, Facilities and Service Variables Perceived Ratings of Infrastructure, Facilities and Services	72.15	66.67	652.10***	

*p<.05 **p<.01 ***p<.001 (one-talled test)
Note: Comparison are in means and proportions

to the lowlander non-MPC where the permanent stayers have more relatives living in the same household but proportionately fewer relatives living in the neighborhood. Membership in organizations did not differ among the temporary stayers and permanent stayers in the lowland MPC but this variable is significant for lowlanders in the non-MPC and the uplanders in the MPC managed resettlement sites. The socio-psychological variables, as the presence of relatives and organizational membership ought to promote the well-being of the resettlers. It is assumed that community involvement factors for the resettlers to stay. The results are not consistent for all resettlers in various resettlement categories.

E. Categories

From the foregoing tentative data analysis, several conclusions may be drawn. At this point however, it will suffice to say that the various resettlement sites in the 4 categories have fulfilled their primary objective, that is to provide homes to the homeless victims of Mount Pinatubo. They have addressed the need for shelter and have provided the much-needed housing to those with little resources and have no other resource but to depend upon government and private agencies for assistance. The resettlers' little resources stem form inadequate skills as a consequence of limited education (most of them are elementary and high school graduates). Thus, with the resettlers' little income and chronic unemployment, poverty is a reality in the resettlement sites. It is this aspect of providing livelihood to the resettlers that is yet to be addressed by the resettlement organizers. Resettlement, therefore to be fully successful should have two-pronged objectives, that is provide housing and means of

livelihood. These are two aspects that a victim of a calamity has lost due to dislocation. The second aspect, which is providing livelihood is more complex for it entails providing skills for a certain trade. There are however some agencies who have answered the call for this particular need. But those who are most in need (unskilled, unemployed resettlers) are left out simply because they cannot meet the required qualifications of the trainors. Until this need is met, the desire of the resettlers to move will always be there. Only when resettlers are satisfied could resettlement be considered successful.

In ascertaining whether the Mount Pinatubo resettlers are satisfied, an important observation may be cited. Statistical data reveal that the "quality of life" of most resettlers at present is primarily the same, if not better than what they used to have. The strong significant positive difference (after-before) in the variables concerning accessibility of the resettlement sites and psycho-social support from kins given in the tables also suggests a strong reason for these displaced Kapampangans – who are mostly poor – to find their present homes a place of security.

Since their lack of other options forces the resettlers to stay in the sites permanently, perhaps, they are now prepared to begin driving their "tent pegs," so to speak, deeply into the ground and really begin reconstructing their lives.

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