

PN-ABT-464

Best available copy -- page 35 missing



This report was prepared under contract with USAID. However, it represents the views of the author and not necessarily the official view of USAID or of the United States government.

## TABLE OF CONTENTS

Executive Summary.....	1
I. Introduction.....	3
II. Disaster Victims and Helpers: General Issues.....	4
III. Situations of Massive and Long-Term Population Displacements: Resettlement as an Option.....	7
Principles of Effectiveness:	
Livelihood.....	7
Social/Political Involvement.....	8
Integration into Surrounding Economy/Community.....	8
Low Vulnerability to Disaster.....	8
Lessons Learned:	
Limited Capacities.....	8
Stress.....	9
Dependency Tendencies.....	11
First Importance: Livelihood.....	13
Second Importance: Physical Lay-Out.....	16
Changes in Gender Roles.....	17
Opportunity Attracts Better-Off.....	19
Integration Important.....	19
Environmental Impacts.....	20
Complexity.....	21
Summary of Lessons.....	21
IV. Options and Alternatives for the People Displaced by Mt. Pinatubo.....	22
Situation and Context.....	22
Goal of Rehabilitation.....	24
Options and Alternatives.....	24
Principles Underlying Options.....	26
Importance of Information.....	26
V. Policy Implications and Recommendations.....	29
Disaggregation.....	29
Decentralization.....	29
Livelihood as the Local Focus.....	29
Next Steps.....	29
Appendices.....	31

## EXECUTIVE SUMMARY

Drawing from resettlement experiences from around the world, the paper draws generalizable lessons about the difficulties of resettlement. These lessons include:

> Most people displaced by disasters can achieve their own resettlement without external help; thus those who need assistance are usually the people who have extremely limited capacities of their own.

> Resettlement programs have built-in characteristics which tend to increase dependency on outside assistance on the part of the people being resettled rather than supporting their achievement of self-sufficiency. These arise from the fact that resettlement communities are large, complex, costly to program and require the involvement of multiple layers of government so that top-down decision-making and planning usually prevail and the fact that the staff who work on resettlement often have more incentives to perpetuate their dependency than to work for their independence.

> The most important factor for recovery from a disaster is the re-establishment of a secure source of livelihood. Thus, any resettlement must provide jobs or it will inevitably fail. Opportunities for employment in settlements are found in construction of new facilities and in the development of myriad small businesses. The creation of new jobs in a settlement cannot be separated from the macro economic environment; if an economy is suffering a general slow-down, a settlement program will seldom be able to provide jobs. In addition, the creation of new employment in the industrial sphere is one of the most costly options for helping disaster victims.

> The physical arrangement of a settlement is the second most important factor in determining its effectiveness.

> The roles and responsibilities of men and women very often change under the circumstances of resettlement. This can result in difficulties or opportunities for either or both men and women.

> Integration of the economy and infrastructure of a new settlement into the economic and social systems of neighboring communities affects the success of any settlement.

> Settlements always have an impact on the environment of the areas in which they are placed, often increasing their disaster vulnerability .

## Options for Mt. Pinatubo Victims

The goal of rehabilitation of the Mt. Pinatubo victims is to ensure their achievement of self-sufficiency and independence from external assistance. Five principles apply to any aid option:

- > Never provide assistance that victims do not need.
- > Recipients should be involved in choosing among options for their rehabilitation.
- > Victims must be able to secure livelihood over the long run.
- > Different victims need different types of assistance; there is no single assistance approach which will work for all.
- > All assistance must be based in knowledge of the particular capacities and needs of the victims to be helped.

Governments and aid agencies may provide assistance in the rehabilitation of the Mt. Pinatubo victims in a variety of ways ranging from minimal, short-term help to maximum, multi-faceted aid over a long period of time. To support independence, minimal assistance is always preferable to maximal assistance. The type of aid that is most appropriate varies according to who is the recipient of the aid--individuals, family groups, other societal sub-groups such as business people, or to entire communities.

## Policy Implications/Recommendations

Given the major problems encountered by large resettlement schemes, the paper recommends:

1. Aid should be designed to build on the capacities and address the needs of particular groups to be helped; hence programs should be disaggregated and tailored to take account of differences among different groups.
2. Programs for rehabilitation should be decentralized and shared among various actors such as national, regional and local government, private business groups, NGOs and church groups.
3. In all cases, the focus of assistance should be on finding a way for victims to become self-sufficient in their own livelihood.

Three next steps are suggested including: analyzing existing data about the victims and gathering additional information where needed; developing an apparatus for decentralizing program efforts that also allows for full coordination; and documentation of experience with the rehabilitation effort in the Philippines for the benefits of other parts of the world which will face similar population displacements due to massive natural disasters.

LESSONS LEARNED IN THE REHABILITATION OR RESETTLEMENT  
OF POPULATIONS DISPLACED BY NATURAL DISASTERS  
AND POLICY IMPLICATIONS OF THESE LESSONS FOR  
PROGRAMS FOR MT. PINATUBO VICTIMS

I. INTRODUCTION

The physical damage caused by the initial eruption of Mt. Pinatubo in the Philippines in June 1991 and by the subsequent eruptions and lahars<sup>1</sup> during 1992 has been extensive. Hundreds of thousands of people have been temporarily and permanently displaced and thousands of hectares of forests, agricultural and grazing lands have been covered with an estimated seven cubic kilometers of pyroclastic materials. Though it is impossible to know exactly how much and in which directions the lahar will flow in the future, it is well established that there will be additional displacements of people, destruction of housing and alterations in land use over the next three to ten years. Hundreds of thousands more people will be affected.

While many of the families who have been or will be affected by Mt. Pinatubo have the ability to cope with this major disruption in their lives,<sup>2</sup> there are others who require assistance as they attempt to recover from the disaster. In the pages that follow, we shall examine the situation posed by the needs for assistance by the Mt. Pinatubo victims. The purpose of this paper is to examine the options and alternatives for assisting the Mt. Pinatubo victims and, specifically, to determine how best to help them without prolonging their disruption or their dependence on outside aid.

We begin in Section II below by reviewing what is known, in general, about the impacts of disasters on different groups of people and the possibilities--and dangers--of outside assistance in helping people recover from disasters. In Section III, we look specifically at situations where, as is the case in the Mt. Pinatubo area, large numbers of people have been temporarily or permanently displaced from their homes and sources of income. We review the experience with resettlement programs around the world and we identify the lessons which have been learned about what works, and does not work, in resettlement schemes. In Section IV,

---

<sup>1</sup> "Lahar" refers to the flow of pyroclastic materials (ash, pumice, sandy soil) mixed with rainwater. These mudflows in the Mt. Pinatubo area during the 1991 and 1992 monsoon seasons resulted in covering of agricultural land and housing to depths ranging from two centimeters to three meters or more.

<sup>2</sup> In later sections of this paper, we shall analyze why some people are better able to cope than others.

we turn to the situation in the Philippines, identifying the factors that should be considered in deciding among the rehabilitation assistance options for Mt. Pinatubo victims and suggesting a framework for understanding what should be done, and by whom, among different groups of victims. In Section V, we present three straightforward policy implications/recommendations and suggest the next steps for proceeding with programming for the rehabilitation of the Mt. Pinatubo victims. Three brief case studies are provided in the Appendices which illustrate both problems and successes in resettlement programs in other parts of the world.

## II. DISASTER VICTIMS AND HELPERS: GENERAL ISSUES

When a disaster strikes, governments, military and civil authorities, non-governmental organizations (NGOs), business groups, churches, and individuals want to help the victims. The motivation is a generous one, but experience shows that disaster assistance is often counterproductive. What begins from a desire to help too often ends by creating a long-term dependency of the aid recipients on the donors of assistance. Studies of relief and rehabilitation programs have produced several findings that provide an important backdrop to our examination of the Mt. Pinatubo rehabilitation efforts.

- > Most disaster victims handle both their short term needs and their long term recovery with little or no assistance from people or institutions outside their own communities. Those who require assistance are those with the fewest capacities and resources of their own.

The vast majority of early rescue and first-aid work is done by survivors in disaster-struck communities before any assistance can arrive from outside. Very soon after a disaster, everyone who can do so reassembles possessions and salvages lost materials. Neighbors, families and communities work together to clean up common areas and repair damaged infrastructure such as dikes along rivers or public thoroughfares that are important for transport of people and goods. Everyone who is able to do so reestablishes his or her economic base for survival. Sometimes this entails recovering damaged land, crops, tools or materials. Sometimes it involves moving to another location where jobs are available or family or friends can provide "sponsorship."

Within weeks or months after a disaster, the people who are still dependent on external assistance are those with the fewest alternatives. It is very important that planners of recovery assistance recognize this reality about the people whom they want to assist.

- > Differences in people's circumstances mean that there are differences in their suffering; assistance should take account of these differences, supporting and building on the

capacities that do exist and providing opportunities for new capacity-creation for people who have few resources.

Though disaster damage may be geographically widespread, not everyone in an affected area suffers equally. In part this is due to variations in direct damage caused by a disaster (such as the direction and severity of lahar flows, location and intensity of rains, location of houses in low places or on higher ground, etc.). However, the difference in the degree of suffering among individuals and groups also is a result of differences in economic status, the cohesiveness of social groupings, the levels of education and skills among victims and other conditions of the population prior to the disaster. The variations in the impacts of any natural crisis event arise from the interaction between the event and the living and working conditions of the people in the affected area.

Therefore, one can gain only a partial view of the extent and incidence of a catastrophe such as the Mt. Pinatubo eruption from data about physical destruction such as the numbers of hectares damaged, houses destroyed, and/or families displaced. Damage may also be done to social structures and systems. People's attitudes and efficacy may be affected. Social and psychological disruptions may be as significant as physical displacement.

On the other hand, strengths in social systems and individual coping mechanisms can offset physical damage. Whereas people who are wealthy are usually better able to recover from a disaster than people who are poor, when poor people are well organized in cohesive and caring social groups, they can often effect their own recovery from a disaster with no outside assistance. In fact, experience shows that wealthy people who live in situations of individualized isolation or of group conflict may have more difficulty overcoming the losses from a disaster without significant outside assistance than their poorer neighbors if the latter have formed systems for mutual sharing and assistance. Furthermore, people--no matter how rich or poor--who believe that they can make decisions and take actions to improve their lives are far more apt to recover quickly from a disaster than those who feel powerless or victimized. (Anderson and Woodrow, 1989).

When wealth, social cohesiveness and a sense of efficacy go together, people can recover from a disaster with little or no outside assistance. If poverty, social conflict and a sense of powerlessness all exist, a disaster can plunge people into long-term dependency on outside assistance from which it is extremely difficult to recover.

People who want to help disaster victims must take account of the differences among them. They should recognize the victims' own coping capacities and acknowledge these as the basis on which long-term, permanent recovery will occur. Planners of disaster responses should assess the interactions among physical, social and

psychological factors that are either affected by a disaster or called into play for coping with disasters (Anderson and Woodrow, 1989; Oliver-Smith, 1982). To treat disaster recovery as if it is a purely physical and/or technical process is to overlook the important non-physical factors and variables that also pertain and, thereby, to lessen the probability that recovery will succeed.

- > Aid to disaster victims may be harmful rather than helpful. To be effective, assistance must be designed so as to avoid creating structures that reinforce dependency or vulnerability of the recipients on donors. (Cuny, 1983; Hansen, 1982; Harrel-Bond, 1986; Anderson and Woodrow, 1989.)

Aid should be directed toward improving the circumstances of those who receive it rather than getting them "back to normal." If a fundamental change in victims' circumstances does not occur as a result of the assistance, the same group will continue to be vulnerable to future disaster events and will repeatedly require outside support. The goal of disaster recovery assistance is to increase people's capacities to cope (through skills, resources, social organization) and decrease their vulnerabilities (to natural hazards, social conflict, hopelessness, dependency).

Experience in many disasters around the world shows that relief and rehabilitation aid can lead to lasting dependencies among disaster sufferers who receive outside assistance. Basic life-sustaining support given by well-meaning relief managers can all too easily become an expected "entitlement" in the eyes of recipients who, as they receive food and shelter, become convinced that they are not able to manage their own lives. Very rapidly, they come to accept the role of dependents on the providers of aid.

However, when physical supplies are provided in ways that: 1) do not replace or substitute for whatever physical goods the recipients have or can obtain by themselves; 2) rely on recipients' existing social systems to handle decisions, distribution and other organizational aspects of the aid provision; and 3) rely on the skills, ideas, energies and planning capabilities of the recipients, then the recipients can be strengthened to achieve their own recovery so that outside assistance can be minimized. This is true even if the recipients of aid are poor, disorganized and feeling victimized at the time when the aid is first provided. That is, the processes by which assistance is provided after a disaster can either strengthen the abilities of peoples to undertake systemic development over the long term or it can undermine these abilities.

These three findings about disaster victims and helpers are important for planners and providers of disaster assistance because they:

- a. clarify who is most likely to require assistance;

b. identify why it is that some of the people whom the disaster affected are able to help themselves and, thereby, suggest strategies for assistance to those who continue to need help, and

c. give direction regarding how assistance should be provided to avoid long-term dependency and ensure that people will recover rapidly and effectively.

### III. SITUATIONS OF MASSIVE AND LONG-TERM POPULATION DISPLACEMENTS: RESETTLEMENT AS AN OPTION

In situations of massive and long-term population displacement such as that which has occurred as a result of the Mt. Pinatubo eruption and subsequent lahars, external assistance is needed by a significant number of people. For some, the assistance is only required for a short period, after which they find a way to reestablish themselves and move on. Others, however, need more extensive assistance both to help them find a place to live and to help them develop a new source of livelihood. Very often, when a large number of people need such extensive help, governments and other donors undertake large resettlement efforts. In our exploration of the options and alternatives available to the people who are displaced by Mt. Pinatubo, we shall begin by considering the resettlement option.

We shall review experience with resettlements in a variety of situations around the world and examine the lessons that can be learned from these experiences.<sup>3</sup> It is useful to begin this review by clarifying exactly what would constitute an effective resettlement effort. We suggest four basic criteria that must be met for a resettlement to be considered effective.

#### Livelihood

First, the resettlers must, within a specified period of time, be able to earn a stable and secure livelihood through their own production efforts and/or employment. The time required for economic self-reliance can vary among effective settlements. In areas where previously unfarmed land is opened for agriculture, support is usually required for two or three planting seasons before people can be expected to be self-sufficient. If people will be employed in existing and viable

---

<sup>3</sup> An appendix at the end of this paper presents several "case studies" of resettlement programs in different parts of the world. These are included to illustrate some of the difficulties encountered in establishing effective settlements as well as some of the approaches that have been found to work in overcoming these difficulties.

industrial or commercial enterprises, the time for additional income support could be minimal. Where industries are to be attracted to a new location specifically to provide employment to resettlers, direct support might more logically be given to the industries that employ the workers rather than directly to settlers. In all cases, the settlement plan should be based on a careful and reasonable estimate of economic viability.

#### **Social/Political Involvement**

Second, resettlers must be in full charge of their own social and political activities within a short and specified time. That is, in addition to the economic viability of a settlement, there must also be a viable community in which people participate in the management of their social and political life.

#### **Integration into Surrounding Economy/Community**

Third, an effective settlement is one that is integrated into the economies and political systems of the surrounding (host) communities so that there are no intergroup or inter-community tensions.

#### **Low Vulnerability to Disaster**

Fourth, an effective settlement is one in which there is minimal vulnerability to a new disaster. The site should be as safe as possible from the type of disaster that caused the initial dislocation and from any other natural disasters. The settlement should not, by its own existence, increase an area's vulnerability to environmental or ecological disasters.

The record of massive planned resettlement of displaced populations is, in general, poor (Scudder and Colson, 1982; Cernea, 1988; Oberai, 1988; and many others). Many settlement schemes that were designed and constructed at great expense now stand abandoned by their inhabitants because the groups they were intended to house never developed into viable and organic communities (Oberai, 1988). The reasons for this are covered in the ten lessons outlined below.

1. People who need assistance to resettle usually have limited capacities.

As noted above, when people have sufficient coping capacities, they usually undertake spontaneous resettlement with little or no external assistance. The two kinds of resources which allow for spontaneous self-resettlement are a) sufficient material wealth to start anew and/or b) a social network of relatives or friends who will "sponsor" the relocatees during the time they need for recovery (Hansen, 1982).

Those who do not self-resettle can be expected to be the people who lack material resources, social mechanisms or psychological strength for taking initiatives. Furthermore, as time passes, resettlement becomes more and more difficult for those who have been in evacuation centers depending on donors for shelter, food and other necessities over an extended period of time.

However, in all cases people do have some capacities and, even though they recognize the limitations facing those who remain in need of resettlement assistance, aid providers must be alert to the existing capabilities of the people with whom they work. The basic physical capacities are resettlers' labor and skills. In addition, most groups who are displaced by disasters still have family or neighborhood units, religion, culture and other attributes that they can rely on to strengthen them as they resettle. While programming must acknowledge the special circumstances that make these particular people more vulnerable than their co-victims who were able to take care of themselves, it must also acknowledge and build on the strengths and capacities that do exist.

**2. Resettlement is very stressful. (Scudder and Colson, 1982)**

Planners of resettlement schemes often overlook the difficulties of resettlement because they, themselves, are accustomed to moving. Quite often, they belong to a class of public servants who have adopted a mobile lifestyle, moving for promotions or job relocation.

Experience shows that there are two aspects to the difficulties of a resettlement that planners should recognize.

First, a move to a new settlement represents a loss of power to resettlers (see lesson #3 below). Because they have just experienced extreme powerlessness in relation to a cataclysmic event, any additional loss of control over their own lives,

planning and livelihood is particularly hard to face. For example, in Zambia, people avoided moving into government-sponsored settlements where they were to receive various types of economic and material support, instead resettling themselves in villages; which was both against the law in this circumstance and which entailed greater hardship with fewer supports. To explain their reluctance, they cited their concern about disease, death, restrictions on their mobility and restrictions on their social and residential patterns as reasons for avoiding the government settlements (Hansen, 1982). These objections were seen to be reflections of the settlers' fear of an additional loss of control and power.

But resettlement does not always represent a power loss. For example, in some cases, when whole communities have been dislocated by a disaster, the people who were better off and who formerly held positions of power chose to resettle themselves on their own (because they had sufficient resources or power to avoid evacuation camps). Under these circumstances when the old power structures were absent, the victims who ended up in camps and government-sponsored settlements were able to find new opportunities for assuming leadership formerly denied to them. Thus, the disruption of community life can open avenues for increased power and political involvement among groups who, under the static traditions of their former communities, held subordinate and marginal positions (Anderson and Woodrow, 1989). In some cases, disruption can create opportunities for women to assume new leadership, economic or social roles (see #6 below).

Experience also shows that, when whole communities are resettled together, there may be a strong tendency for the patterns of power and wealth that existed prior to the resettlement to reassert themselves. This has been true even when the arrangements for a new settlement involved the egalitarian provision of land, housing, access to education and employment in an explicit attempt to overcome pre-existing patterns of inequality. Attempts at "social engineering" through resettlement--attempts to form social structures and norms that promote equality and cooperation in the place of former hierarchical relations that existed in the relocated community--quite often are seen to fail.

The second issue that derives from the difficulties that disaster victims face when they have to move involves a tendency to adopt "conservative" rather than open-ended or adventuresome strategies immediately after a move. Experience shows (Scudder; Hansen, 1982) that settlers who are forced into resettlement because of deprivation and uncertainty and who have already experienced physical, social, political and economic losses, seek "conservative" solutions to their predicament. They avoid situations which are unfamiliar and which require significant adaptations in work and living styles. They cling "to old behavioral patterns, old institutions and old goals." (Scudder quoted

by Hansen, p.33, 1982.) When communities feel this need to conserve the familiar, then moving together as a whole community can provide a stronger base for reconstructing a social/political environment that supports the long-term success of the settlement.

It must be noted that these two implications of the difficulties of moving that resettlers experience contradict one another. On the one hand, there is the potential for a dynamic emergence of new political leadership when communities split up as they go into a new settlement. On the other hand, the cohesion of community structures can help to overcome conservatizing tendencies associated with moving when whole communities move together. The point is that some gains can be realized if communities move together and others may result from situations where they are split up. It is important for planners of resettlement programs to recognize the resistance to moving which most displaced people experience and to find ways to take into account of the potential for negative impacts this will have on the effectiveness of the resettlement. Even better, planners may be able to promote the positive changes which such moves may involve.

3. Resettlement programs have built-in characteristics which tend to increase dependency on outside assistance on the part of the people being resettled rather than supporting their independence and self-sufficiency.

Examples of these characteristics include:

#### **Planning Process and Power**

When many people require resettlement, certain decisions must be made by centralized authorities. For example, acquisition of large amounts of land requires an entity with sufficient power to marshal a broad (macro) overview to decide where a group may be moved, to commandeer either the land or the resources to buy the land and to arrange for the complex combination of infrastructure and services necessary to facilitate the integration of re-settlers into a new place.

However, such "command" decision-making and planning remove power and decision-making from those being settled. This can lead to dependency among those for whom the decisions, purchases and organizational arrangements are being made.

## **Scale and Complexity**

Resettlement communities are large-scale and complex operations. When few people need to find alternative living arrangements, governments can provide individualized family-by-family support services. The more people that need relocation, the more it becomes necessary to create new settings to absorb large numbers.

The creation of entirely new settlements, however, involves coordination of an enormous number of elements. Planning for housing, employment opportunities, sewerage, lighting, water, schools, transport, commerce, health services, etc., and for their establishment in an appropriate sequence is complex. People who have suffered displacement as a result of a disaster do not have the experience, skills or access to information and resources that would enable them to design such a complex system. Thus, they become dependent on the powers that do have these skills and access.

[A related point: Experience shows that even when significant resources are allocated to complex planning, this planning is seldom adequate for the smooth establishment of a resettlement. Very often, aspects of the infrastructural and social development get out of phase with each other, creating problems for settlers and undermining the likelihood of a successful settlement.]

## **Multiple Inputs and High Cost**

Because they are large-scale and complex, resettlements also involve very high costs. Settlers cannot help but become aware of their dependence upon the supplier(s) of the many things they need. Whatever resources they have seem insignificant by comparison, and they can quickly grow accustomed to undervaluing their own inputs relative to those supplied by the settlement authority.

## **Staffing**

Similarly, the creation and management of resettlements involve large staffs. A great number of individuals are required to carry out complex planning, to oversee the establishment of services and infrastructure, to handle large budgets and to manage the move and absorption of settlers. Settlers very often develop a dependency on the people who are hired to make their lives work, and the staff, who do not want to work themselves out of a job, have a tendency to perpetuate this dependency.

## **Negotiations with Government**

option for offering new sources of livelihood. Farmers need access to sufficient fertile land for survival. Others require employment or enterprise opportunities. However, often under conditions of resettlement, there is no possibility that the settlers can resume their traditional work and alternative employment possibilities have to be found. Solving the livelihood problem is the single most important factor in effective resettlement. Without meaningful, steady work and sufficient income or production for survival, all other inputs into a resettlement scheme will be wasted.

What has been learned about creation of employment and income-generating opportunities for displaced peoples?

#### **Imposing New Employment**

It is virtually impossible to impose nontraditional forms of work on disaster victims with any success. If employment options have been significantly altered by a disaster (i.e. herders no longer have access to grazing lands or there is not enough fertile land available for farmers), then the victims must be involved in exploring and choosing among alternatives. In addition, they will be more apt to become self-reliant if they have several options to choose from, so that they do not feel as if they have lost all power over their work. This holds true even if none of the options is really what they wish to do.

#### **Engaging in Construction**

When resettlements are being created for displaced groups, the first clear and reliable employment option for at least some family members is construction of the infrastructure and houses in the new area. However, because people may not have building skills, various classifications of jobs need to be offered ranging from unskilled labor through the building trades. In addition, opportunities for skills training and apprenticing can be extremely important to help people find continuing work even after the initial building boom is over.

#### **Development of Businesses**

All communities need a variety of small businesses such as tea shops and other food preparation enterprises, hairdressers and barbers, tailors and seamstresses, electricians, bricklayers, carpenters, leather workers, shop-keepers, etc. When people have access to income (as when they can earn wages through involvement in settlement construction efforts, for example), some of them will use this capital to set up such small enterprises. These activities offer an opportunity for self-sufficiency within a fairly short period of time.

In resettlements, such opportunities abound because: a) there are no previously established enterprises with which one has to compete and b) the numbers of families in a new settlement are often sufficient to support a range of such small businesses. However, such businesses offer limited scope for job creation. Thus, other types of enterprises also have to be developed if a resettlement scheme is to succeed and if settlers are to have enough income in circulation for these small enterprises to survive.

#### **Relation to Development Plans and Policies**

Creation of employment opportunities in resettlements cannot be separated from national or regional development plans and macro economic policies. If there is no market for agricultural produce or climatic circumstances make cropping unreliable, then a new settlement based on cash cropping cannot succeed. It is virtually impossible to create an effective industrially-based resettlement when the economy in general is sluggish. In circumstances of economic recession, it is unrealistic to expect industries to open new enterprises in newly established settlements. This is especially true given the unskilled nature of the labor force available in such settlements (see point #2 above about the capacities of those who require direct longer-term assistance for recovery).

#### **High Cost of Industrial Development**

The creation of an industrial base for the employment of settlers represents one of the most expensive options.<sup>4</sup> Governments have to provide extraordinary incentives and concessions, such as free infrastructural support and direct tax incentives, or the population has to be willing to work at below market wage rates to attract private investment to new settlements. Too often, resettlement job-creation plans have not been based on sufficiently careful and accurate appraisal of probable returns to investment.

---

<sup>4</sup> The World Bank Country Study of the transmigration program in Indonesia estimated that the cost per job of creating employment in industry was approximately US\$10,000-20,000, while the cost per job in rainfed agriculture was US\$3,000-4,000 and in tree crop settlements was US\$3,500-4,500. (World Bank, 1988)

5. The physical arrangement of a settlement is the second most important factor that determines the likelihood of its success.

#### P o o r

choice of site, unsatisfactory layout or design and housing designs and construction that do not meet the settlers' needs and expectations are three of the most often cited causes of failures of resettlement schemes (Oliver-Smith, 1991).

The choice of site affects the economic viability of a proposed resettlement. It also can affect the physical health of settlers (proximity/availability to clean water, prevalence of malaria or tse tse fly, drainage capabilities of the land, etc.) and the feelings that settlers have about moving into the area. In general, experience shows that people who must be resettled prefer to stay as close as possible to the area from which they are displaced. They prefer a familiar geography, and they want to maintain ties to their ancestral land or the area where loved ones have died and are buried. Familiar climate is also reassuring to people who have suffered dislocation.

The layout and design of resettlements have often reflected an urban bias for straight streets and uniform housing plots (Oliver-Smith, 1991). Rural people often find such layouts monotonous, sterile and foreign because they give no sense of an organic growth of community functions. Too often, designs and layouts limit people's ability to make additions to their homes, such as a shed, an extra cooking room, a tool room or more space for the extended family, in the traditional way (Oliver-Smith (1991)).

Early involvement of potential resettlers in the design and construction of space and buildings has been found to prevent mistakes related to the physical arrangements of resettlements. In addition, people who have designed their spaces and put their own sweat, effort and resources into them, soon develop a commitment to their maintenance and expansion. They also experience an important element of personal choice and power--a much needed capacity by those who have suffered dislocation as we discussed above.

6. The roles and responsibilities of men and women very often change under the circumstances of resettlement.

When communities are displaced, the economic activities that people were engaged in also change and this very often causes a shift in the gender-based division of labor and social roles. For example, when a farming family can no longer farm, the tasks that each family member did in planting, cultivating and harvesting the crops are no longer required. Under new circumstances, new tasks arise and are divided up in different ways. As this occurs, sometimes one set of roles becomes more burdensome while others disappear. For example, without land, a man who was responsible for clearing and ploughing land may not have this job any longer, but a woman, whose tasks involved household work, collecting water and fuel, cultivation of a home garden, etc., may find that she has more work to do than before because the new household requires more effort to run, the water and fuel are farther away, and the family relies even more than usual on her ability to grow food in the home garden. Also, when there are shifts in economic life, women often take on additional nonfermal economic activities (such as cooking and selling food as street vendors) to help the family survive. In addition to shifts in economic roles, family members may also be required to take on additional political or social functions. These may cause shifts of decision-making power within a family as well.

Several additional findings related to the change of roles of men and women among displaced and relocated peoples are cited by Scudder and Colson (1982). These include:

#### **Psychological/Attitudinal/Cultural Differences**

In some cases, it has been found that women assimilate into a new environment with fewer problems than men. This may be because they encounter more options, such as the possibility of marrying local men and being accepted, therefore, more quickly by local families. In other situations, their relative ease of assimilation has been due to the fact that they are often the carriers of culture. For example, in a resettlement situation in Zambia, women quickly revitalized a number of traditional rituals for which they were responsible there, gaining a greater sense of continuity with the past.

### Differences in Mobility

In some cases, women have been found to be severely disadvantaged relative to men (and relative to their past status) by the processes of relocation due to the fact that they have more limited mobility than men. Restrictions in mobility arise both from the home-based responsibilities that women in most cultures carry and, frequently, from cultural mores that assume women to be in danger if they travel too far from their homes or villages. Thus, when job opportunities are available only in a town or city at some distance requiring that people travel from their new resettlement in order to find employment, men are more able to take advantage of these jobs while women may be left behind in the resettlement. Sometimes, men actually take new families in the city area in order to avoid the lengthy commute; sometimes, they return only occasionally to the settlement area where their families are. In these cases, women become de facto heads of household with low income and few resources.

### Different Opportunities in the Settlement

Usually resettlement schemes are planned by men and this means that they are planned for men. The result is that the title to land may be given to men even if this were not the pattern of land acquisition or control in the former environment. It also means that job and skills training is usually provided to men while women are given "training" in home economics or home crafts through which there is virtually no opportunity to earn an income. As surveys are done of needs and capacities of displaced peoples, most interviews are conducted with male heads of households and little, if any, emphasis is put on the background of the wife. The dual and complementary roles of males and females in household survival strategies is overlooked by such approaches.

### Relative Status Before and After Resettlement

Experience also has shown that the impact of resettlement on women depends, to a large degree, on their status prior to dislocation. In situations where women's status was quite low and, as a result, they experienced extreme isolation and marginalization before the move, resettlement into a new environment with many disruptions may result in their gaining access to new experiences and opportunities.

7. When governments focus resources on the creation of a new settlement, groups who have significant material, social or psychological capacities may elect to join because they see it as a promising option for getting ahead (Palacio, 1982 for example).

This finding contradicts lesson #2 above--namely, that the people for whom resettlements must be planned are usually those with the fewest capacities and options. The contradiction occurs when sufficient resources are focussed on a settlement to make it look prestigious and desirable and when people have a free choice about whether or not to enter the settlement (i.e., they have other viable options as well). The potential for better-off people to take advantage of a highly-resourced settlement should not be seen as entirely negative since experience shows that the inclusion of people with more resources and skills may improve the chances of success for a settlement as a whole.

8. Integration of the physical infrastructure and the population of a new settlement into the economic and social systems of the neighboring communities affects the success of any settlement.

The arrival of large numbers of newcomers can be viewed either with suspicion or with eagerness by the people who live in the area where a resettlement is located. When language, ethnicity, mores and customs are similar between the host and arriving groups, tensions are less apt to emerge than when these are different and "strange." This presents another reason why resettlements are more apt to be successful if they are located in close proximity to the community that has been destroyed rather than at a distance.

However, even with familiar groups, host communities can fear a loss of jobs, overcrowding of limited space, overuse of natural resources, pressure on social services, and preferential treatment of settlers--all of which could undermine their economy, social structures, power base and life-styles.

On the other hand, if the placement of a settlement is well considered and if local receiving communities are kept well informed and involved throughout the decisions about location and lay-out, they may realize advantages that they share with the resettlers. For example, infrastructure (such as feeder roads, transport systems, water conservation and distribution systems, educational and health services) put in place to support a resettlement may serve the larger vicinity as well. New arrivals may represent needed labor (if labor is in short supply) or additional demand for consumer products.

Planners of resettlements must take account of the impact of the settlement on neighboring communities or, experience shows, they create or exacerbate social tensions and contribute to intergroup hostilities that may become difficult to contain.

An influx of new (and unemployed) people will always have a significant impact on existing labor markets. Again, the point made above about the importance of the macro context to the success of resettlements is relevant. If the employment and labor policies that exist do not enable new settlers to find jobs, this situation will have ramifications in terms of the relationships these people have with others who live--and work--in the resettlement area. If they begin to underbid the local people for wages, tensions will result. If they cannot find employment and continue to require full economic support, neighboring communities may resent the fact that they survive on welfare on "taxpayers" money.

9. Settlements always have an important impact on the environment and ecology of the areas in which they are placed (Cernea, 1988).

Too often, settlements have been located with little or no regard for their ecological impact. Where there is insufficient water or land, where fuel is in short supply or where there has been serious land or forest degradation, the addition of a large number of new people will only make the situation worse. In some

cases, settlements have been located in areas prone to disaster with little regard for disaster prevention or mitigation.

10. Settlements require a combination of community-based, cooperative actions and private, individualized actions.

Some resettlements have failed because planners intended for them to change people's social and economic interactions. Examples of this appeared in some of the government-sponsored resettlements in Ethiopia. Traditional small-holder farmers were organized into large collective farms on which they became wage workers (see FAO, 1980).<sup>5</sup> The unnaturalness of this type of farming organization caused many of the settlers severe anguish and meant that agricultural productivity was extremely low. In other cases, planners have expected that the process of moving to a resettlement should encourage cooperative behavior among settlers, but this form of organization has been alien to them. To prevent such "misfits" of organizational forms in resettlement schemes, settlers should themselves be involved in determining which activities should be organized cooperatively and which they would prefer to carry out on an individual basis. To date, there is very little analysis of the relationships between cooperative and private approaches to work.<sup>6</sup> Further research is needed in this area.

#### Summary of Lessons

Many of the lessons learned about resettlements are in the form of "cautionary tales." They point to the multitude and range of potential problems that planners and implementers of resettlement programs face. However, the experience also shows that the resettlements may be effective if:

> settlers are able to gain a livelihood in the resettlement context

---

<sup>5</sup> The case study of Sablaale, Somalia, which is included in the appendix also illustrates this kind of effect.

<sup>6</sup> Some advantages to be gained through cooperative associations are discussed in Pickett (1988), but little consideration is given of the negative outcomes of such arrangements when they do not "fit" the traditional or preferred modes of the settlers.

> settlers are involved in decisions to move and in the plans and operations of the resettlement

Both of these factors are of critical importance because they are related to the sense of power and control over their lives that is needed by those who have been displaced. Also, underlying both of these factors is a recognition that the settlers' capacities to work, to plan, to decide and to build must form the base for any effective, self-sufficient resettlement.

#### IV. OPTIONS AND ALTERNATIVES FOR THE PEOPLE DISPLACED BY THE MT. PINATUBO VOLCANO AND LAHARS

Given the lessons that have been learned from other resettlement experiences--and the cautions they raise--we turn now to consider what options and alternatives exist for the rehabilitation of the people who have been (and will be) displaced as a result of Mt. Pinatubo's eruption.

##### The Situation and Context

Approximately 1.2 million people were affected by Mt. Pinatubo and its subsequent lahars. At the height of the disaster operations in 1991, about 1.02 million people received assistance. After Pinatubo erupted, about 200,000 people entered evacuation centers. In May 1993, 72,335 were still residing in 54 evacuation centers. In addition, 38,000<sup>7</sup> others have relocated in official settlements. While some of these may be moving toward self-sufficiency, others still require external assistance in that several settlements do not yet have basic services such as potable water or electricity, several do not offer sufficient employment opportunities for those who live there, and a few have been built in areas now deemed vulnerable to future lahars.

These figures tell us that, even at the worst of times, 83 percent of the affected people did not require organized evacuation and almost 15 percent<sup>8</sup> did not require outside help at all. Now, fewer than 6 percent still depend entirely on relief assistance in evacuation centers and another 3 percent may need additional assistance because the resettlements where they have moved do not yet provide a secure environment. Most of the victims of this disaster have found solutions for their own rehabilitation and/or resettlement on their own or with temporary support from friends,

---

<sup>7</sup> Figures from the Department of Social Welfare and Development (DSWD) and the Philippine National Red Cross (PNRC).

<sup>8</sup> After the first crisis, Pinatubo I situation, about 15 percent did not require any direct assistance; after Pinatubo II, almost 45 percent did not need to be served by outside aid.

family or disaster relief/rehabilitation programs. In this respect, the experience of the displaced peoples in the Philippines has closely mirrored that of other parts of the world. Most victims take care of themselves within a fairly short period of time, but those who cannot do so require special programs if they are not to become permanently dependent on outside assistance.

Policy-makers and planners in the Philippines must, therefore, focus on the 70,000 to 100,000 individuals who remain dependent on aid in evacuation centers or in insecure resettlements as well as on the twenty-one additional municipalities and their surrounding areas that have been identified as facing high risk from lahar over the next five to eight years. The development of effective programs to rehabilitate those who remain in evacuation centers and in insecure resettlement areas will provide lessons and guidelines for preparing to handle the future victims who are displaced by lahars and floods in the future.

As noted above in the lessons-learned, rehabilitation and resettlement programs do not exist in a vacuum. They are directly affected by, and must take account of, the macro economies in which they occur. Current economic and demographic trends in the Philippines present a mixed picture. Indicators on infant mortality, life expectancy, literacy, and educational attainment are all quite good and show consistent improvements in recent decades. However, growth in GNP per capita (US\$710 in 1989), has been negative since 1980, and income distribution is such that the lowest 40 percent of the population enjoys only 14 percent of the total household income. With an annual rate of inflation of over 14% between 1980 and 1989, an overall budget deficit, and an increase in the debt service as a percent of exports of goods and services from only 7.5 percent in 1970 to 26.3 percent in 1989, the economy is experiencing real pressures. In 1990, over 36 million people (or over fifty-five percent of the population of approximately 63 million) lived below the poverty line, and 23 million of these lived in rural areas. These data indicate that making a secure livelihood is difficult, and perhaps becoming even more so, in rural areas of the Philippines. Thus, efforts to achieve an effective rehabilitation for the victims of the Mt. Pinatubo impacts are taking place in an adverse economic environment.<sup>10</sup>

When an economy is under strain, the impacts of a massive disaster such as Mt. Pinatubo are significant and far-reaching, and

---

<sup>9</sup> These data are from Human Development Report, 1992, UNDP, New York and The State of the World's Children 1990, UNICEF, New York.

<sup>10</sup> A major factor affecting the economy's ability to absorb lahar victims is the closure of Clark and Subic Bases. These had been directly responsible for providing up to 120,000 jobs.

planners must seek cost-effective solutions to the problems of the victims. As we saw above, resettlement programs around the world encounter numerous problems. Fully planned and managed resettlements are expensive in terms both of human and financial resources and too often, in spite of great effort, fail to provide secure living environments for those who are settled.

The economic environment in the Philippines at this time and the lessons derived from resettlement experiences worldwide together indicate that efforts to rehabilitate the Mt. Pinatubo victims who remain in the evacuation centers should not be focussed solely on resettlement. Rehabilitation of victims can take many forms. Let us look now at the range of options that exist and the factors that will determine choices among these options.

### The Goal of Rehabilitation

Let us begin by reiterating the goals of rehabilitation. The purpose of all programs to rehabilitate the Mt. Pinatubo victims should be to ensure their complete self-sufficiency and independence from external assistance at the earliest possible moment. Furthermore, the displaced peoples should be integrated into new communities in ways that avoid creation of inter-group tensions and allow their full participation in social/political activities of their communities, and they should be located in areas and employed in productive activities that are not liable to disruption by future natural disasters.<sup>11</sup> Because the economy of the rural Philippines is strained, programs for rehabilitation should also address the ways that they interact with and contribute to the overall development dynamic of the regions where victims are relocating.

Meeting this set of conditions is the objective of rehabilitation. How can this be done?

### Options and Alternatives

The diagram depicted below sets out a framework for thinking about the range of alternatives that those who provide assistance have for implementing effective rehabilitation programs for displaced populations. Varying levels of assistance may be given ranging from minimal, short-term support to maximal, multi-faceted and long-term programs. Furthermore, different recipients may

---

<sup>11</sup> These factors that define the goal of rehabilitation are identical to the four criteria for an effective resettlement program discussed on pp. 7-8.

benefit from different types of assistance.<sup>12</sup> For example, some aid may be designed to help individuals while other programs may be focussed on support to families. Special efforts may be tailored to meet the needs of other types of sub-groups, such as small business enterprises (credit or marketing assistance for example); women or female-headed households (with identifiable particular needs); or large businesses (facilities, tax rebates or access to transport and markets for example). Finally, in some cases, programs may be focussed on rehabilitation of entire communities such as particular ethnic or tribal groupings (whose customs make it important for them to be located together so that schooling can be provided in their language or religious ceremonies may follow traditional forms) or for groups whose economic activities determine that they may be moved as a group to a region where the resource base allows them to continue their traditional work (as, for example, families who for generations have been fishermen).

Figure 1: Range of Options for Assistance	
Units	Types of Assistance
Individuals Families Sub-groups Small business Large business Women Female Headed households Entire communities Tribal/ethnic Economic	Minimal/Short-term <-----  ----->Maximal/Long-Term

<sup>12</sup> For example, Cuny and Hill (1991) note that at least some of the people who have been displaced may be justifiably encouraged to continue to farm their lands, and some of the land and houses may be dug out and reclaimed for use. In fact, some people have done this already.

The question, now, is how do agencies involved in supporting the rehabilitation of the Mt. Pinatubo victims choose among the range of options? How do they decide what is appropriate and beneficial for the individuals and groups with whom they are involved? What information do they need to make judgments as to which types of programs will be most effective with which recipients?

### **Principles Underlying Options**

Five principles should underlie all of the options, whether minimal or maximal and whether offered to individuals or entire communities. These are:

1. Assistance providers should never offer help which the people can provide for themselves. Thus, minimalist options should always be considered before maximalist ones. If a choice is made to take a maximal/long-term approach, great care must be taken to ensure that it does not result in long-term dependency on the part of those it was intended to help.
2. Recipients should be fully involved in thinking through the options for assistance that best suit their future hopes. They should have at least a reasonable choice among options.
3. Because economic self-sufficiency is the most critical aspect of rehabilitation, all programs should be based on sound analysis of livelihood options.
4. Because different people have different capacities and needs, a rehabilitation program should offer different options to different groups. There should be variety in the package that addresses the variety of circumstances of these particular victims.
5. To offer the right set of options, a rehabilitation program must begin by learning about the group(s) of victims to be helped.

### **The Importance of Information**

Information must be gathered to allow comprehensive analysis of victims. Data should be disaggregated for distinct ethnic groups, men and women, farming and non-farming and urban and rural populations, and for poor, middle-class and wealthier families. This is because both capacities and needs will vary among groups, and programs to assist their rehabilitation cannot be well designed unless such variations are clarified.

The purpose of gathering accurate, disaggregated information about victims is to aid in the design of different assistance

packages for different groups and to ensure that, in each instance, the assistance offered will help that particular group gain a viable and self-sufficient new life.

Philippine Business for Social Progress (PBSP) has recently completed a major study entitled "In Search of Alternatives: Rehabilitation Options and Alternatives for the Mount Pinatubo Victims" to determine the possible program directions to assist these victims. Two parts of the study were focussed on gaining in-depth information about victims in the four severely affected provinces of Pampanga, Tarlac, Zambales and Bataan. A survey of 560 victims in the four provinces and a series of Focused Group Discussions (FGDs) among different upland and lowland communities were conducted to gather data on affected families who still remain in evacuation centers and those who had self-resettled. In addition, a number of case studies were done on individuals and groups who have successfully reestablished themselves since the disaster.

The data gained through this study will provide the necessary information for planners of rehabilitation assistance to design appropriate programs. The techniques used by PBSP to gather information may be used by other agencies involved in providing assistance as they seek to know more about the particular groups with whom they work in order to fine-tune their programming to improve its effectiveness.

The factors which the PBSP study will highlight that are essential for designing effective aid fall into three categories.

#### **Economic Sphere**

Information on pre-disaster levels and sources of income and on livelihood-earning skills will help planners identify capacities of victims that can be relied on in their future work. When skills types and levels are inappropriate for gaining their livelihoods under the new circumstances of displacement, this will become clear through such a survey, and programs can be planned to provide new skills training or apprenticeships.

In addition, information on the number of working adults in the sample households and the pre-disaster division of labor between men and women is of extreme importance to planners of assistance because it will help them identify: a) situations in which the relative work loads of family members have significantly changed and b) opportunities for providing skills training, or relying on existing skills in new employment arrangements, of different family members. This information can also enable planners to develop programs which make it possible for families to pursue multiple employment avenues

simultaneously, thus gaining enough income to reestablish their self-sufficiency.

### **Social/Ethnic Sphere**

The PBSP surveys have also gathered important information about the traditional or customary social and organizational structures of victim groups prior to the disaster. This information will be helpful in the design of rehabilitation programs because it will help planners identify victims' capacities for decision-making, leadership and cooperative work, and it will also help them understand various people's preferences for pursuing rehabilitation options that rely on cooperative and group-oriented approaches versus those that rely on individuals or the family unit to take initiative on their own.

### **Attitudes and Motivations**

The PBSP study has also gathered information on how people feel about what has happened to them and about what risks and actions they are willing to take to find new ways of surviving since the disaster.

This information is of great importance, also, to planners of assistance because it will help them identify the strengths of will and courage on which new actions can be built. It also will alert them to areas where particular groups may have been more deeply devastated than others so that they require program approaches that rebuild, first, their confidence and belief in a future before they can move on to rebuilding their homes and work environments.

In each of the above areas, it is important to examine the PBSP findings as these vary among different sub-groups of victims. For example, if one were to find that women, in general, were less devastated by the Mt. Pinatubo experience than men, one might be able to integrate this awareness into a program design. If, as the early results from the studies seem to indicate, lowlanders are on the whole more willing to move into strange areas in pursuit of employment while people from the highlands are extremely reluctant to relocate under any circumstances, then programs to help each would need to take account of these preferences. Where cultural mores of the Aetas influence their approaches to rehabilitation, these must be taken into account in efforts to assist them. A single program approach will simply not work for all the different groupings of people who have been affected by Mt. Pinatubo.

## V. POLICY IMPLICATIONS/RECOMMENDATIONS

The discussion and conclusions of the preceding sections of this paper have three important implications for policies regarding the rehabilitation of the Mt. Pinatubo victims.

### 1. Disaggregation

First, because the most effective rehabilitation assistance must be designed to build on the capacities and address the needs of multiple groups, programs must be tailored to take account of the characteristics of particular groups. Thus, many small and short-term activities need to be developed to address the variety of situations of the victims.

### 2. Decentralization/Many Actors

Second, programs for rehabilitation must be decentralized. A centralized decision-making and planning apparatus can neither gather sufficiently refined information about different groups nor manage the variety of small, short-term, minimal activities that will be called for to fine-tune rehabilitation assistance to the remaining groups who require it. This, furthermore, implies that many different agencies and actors should be encouraged to work with victims. NGOs, local government agencies, business enterprises, church groups and clubs can work in their own areas with people who have suffered dislocation or who are relocated there.

### 3. Livelihood Focus in Local Settings

Third, under the circumstances in which the Mt. Pinatubo victims must try to reestablish economically viable lives, the first priority of all programming must be on providing support to their ability to earn incomes, find employment or enter new productive areas. However, because of the problems facing the Philippine economy in general at this time, such programs will have to be localized and specific, rather than massive and general. As noted above, NGOs, private companies, local enterprises should be encouraged (and rewarded) to help groups of displaced peoples through small credit programs, skills training, on-the-job apprenticeships, enfranchisements and the like. Development of large-scale industrial complexes will probably continue to be difficult in the foreseeable future.

## NEXT STEPS

What then are the next steps in the rehabilitation of the remaining victims of the Mt. Pinatubo disaster? We suggest four actions which could be undertaken immediately to address the situation now facing the assistance agencies.

1. Analyze the information about the victims' differences in capacities and needs that is available from the PBSP study and other sources. Gather additional information in locales where it is needed.

2. Develop a new apparatus for decentralizing programmatic efforts and sharing responsibility among different agencies involved in working with rehabilitation of the victims.

3. At the same time, develop a system for coordination and information-sharing among the many actors and agencies (including among the victims), especially concerning their approaches that have been effective in helping victims achieve speedy self-sufficiency.

4. Document the experiences of the various agencies working with different groups, especially as regards:

a. information gathering;

b. involvement of victims in consideration of alternatives;

c. failures;

d. successes.

The last step is suggested because of its importance to the rest of the world. While the Philippines faces the special challenge and problems of rehabilitation of victims of a massive volcanic eruption, many areas of the world will face similar massive dislocations of their people in years to come. The effectiveness of the government, NGOs, private business, and the victims in the Philippines can aid not only those who have suffered from the Mt. Pinatubo disaster but also provide the basis for more effective work in other places with people who suffer the loss of their homes and their jobs in future catastrophes.

## APPENDIX A: CASE STUDIES OF RESETTLEMENT PROJECTS

The following cases have been selected because they illustrate both some of the generalizable problems that resettlement schemes encounter as well as some of the more creative solutions to such problems that are possible. Two, *Tin Aicha* and *Armero*, have been extracted from Anderson, Mary B. and Peter J. Woodrow, *Rising from the Ashes: Development Strategies in Times of Disaster*, Westview and UNESCO Presses, Boulder and Paris, 1989, and prepared for this report by Peter J. Woodrow. The third, *Sablaale*, was produced through the International Relief/Development Project at the Graduate School of Education, Harvard University, (co-directed by Anderson and Woodrow) and prepared for this report by Mary B. Anderson.

## CASE I: TIN AICHA: Nomad Adaptation and Resettlement

Kel Tamashek nomads in Northern Mali were rendered destitute by the drought years of the early 1970s. In cooperation with the Malian government, the American Friends Service Committee (AFSC) helped volunteer nomad families establish a new nomad village called Tin Aicha along the banks of a seasonal lake in the Goundam area. The people of Tin Aicha adapted to new circumstances forced on them by a catastrophic event, severe drought, first in the early 1970s, and then again in the 1980s.

During the drought years of the early 1970s, many families, both nomads and others, were displaced and many people died. When the rains finally came again, the sedentary farming populations returned to their lands to plant crops. The nomads, however, had lost their means of livelihood; their herds of camels, sheep, goats, and donkeys were not so easily replaced.

At the initiative of the local government, one hundred and fifty nomad families were offered land along the shore of a lake which filled each year during the rainy season. This represented a radical shift in nomad life, since animal herding was not only a means of livelihood, it was a matter of culture, pride and independence. The Tamashek nomads considered themselves superior to peoples who worked the land. In fact, traditionally, the richest Tamashek families held slaves who worked pieces of land for them, but no Tamashek man would consider working the soil himself. The fact that nomad families voluntarily accepted this government initiative is indication of how desperate they were.

### Capacities & Vulnerabilities Analysis of Nomads in Northern Mali

Prior to the drought of 1968-74, nomads in northern Mali followed traditional coping mechanisms in order to survive the harsh conditions in which they lived. The common culture and values of this lifestyle represent important nomadic capacities but also vulnerabilities in relation to catastrophic events. A major capacity of the nomads is their proven ability to cope with a harsh environment, including periodic drought. Strong family ties and loyalties extending to their nomad *fraction* and ethnic groups meant that they had strong networks for achieving broad community goals. They are noted for pride, independence, dignity and religious unity and strength. They were able to move flexibly according to needs of animals and people.

Traditionally, nomad groups have been vulnerable to the vagaries of weather. Entirely dependent on rainfall for good pasturage and water for animals and people, they have faced chronic water shortages since the early 1970s. Many have lost herds, first in the early 1970s and again in 1983-84, and it is increasingly

difficult to replenish these basic sources of livelihood under the conditions of territorial squeezes from the north by the encroachments of the Sahara dessert and from the south by the increasing claims on land by sedentary farmers. They have few alternative sources of income, and rainfall shortages make agricultural activities also risky. Few nomads have adequate access to education or regular health care.

While dedication to family independence and loyalty to fractions are assets in some ways, they also make it difficult to build cooperative structures for common benefit of the nomad community as a whole, or to build a political power base to influence government policies. Also, the caste system and nomad fractions divide people and place them in rigid roles. Similarly, nomadic values are strengths, but those values which deem any kind of work besides animal herding as taboo or shameful for higher castes limit options for livelihood.

In general terms, the Tamashek nomad groups of northern Mali are a population in forced transition--forced by both natural and human events. Twenty years after the major droughts of the early 1970s, it is still debated whether the Tamashek nomads can reestablish a viable pastoral system even if the rains return. Despite yearnings for traditional ways, some Tamashek leaders question whether a return to the old ways is desirable, if the group is to build greater capacity to function in the changed economic and political system of independent Mali. One of the main points of the Tin Aicha experiment was to see if a different mix of income-generating activities and new ways of living and moving could be successful.

### **Project Activities**

The government of Mali and the AFSC provided a number of resources to the new community at Tin Aicha. The government agreed to provide the new settlement with seeds, agricultural and veterinary extension agents, two teachers and a school, a nurse and dispensary, and a social worker. AFSC provided technical assistance and funds for community projects, a community development worker, livestock for herd reconstitution, seed grain, medicines, agricultural and educational materials, and a vehicle. The primary objective of both the Malian government and AFSC was the economic rehabilitation of Goundam's drought victims. The government tended as well to see project success as the sedentarization of nomads. AFSC, on the other hand, felt that improved health and education and new skills would stay with the nomads whether or not they remained settled.

Over the course of seven years, AFSC worked alongside community people to develop agricultural on the lakeside plots, to regenerate livestock herds, and to establish an educational system, including a secondary school. During this period permanent

buildings were constructed--the elementary and secondary school, clinic, government offices, and a cooperative store--and several wells were dug. AFSC hired skilled carpenters, masons and well diggers who trained workers from the community and employed them in these projects. Apart from the establishment of a fairly stable community, in itself a significant change for nomads, those who took part learned new skills in farming, well-digging and construction.

#### Results of the Project & Response to a Second Drought

Tin Aicha residents responded to the drought of 1982-85 in a number of ways. Thirty to forty families chose to stay in Tin Aicha throughout the drought, despite the lack of food for people or pasturage for animals and the fact there were few other options for earning income. The school and food assistance were major factors encouraging and enabling people to stay.

Some families, or parts of families, moved to urban centers. There they managed to find work using skills such as farming, masonry, well digging, etc. which they had acquired in Tin Aicha. Some stayed with relatives or found help in refugee centers. Many of those who went south left their children in Tin Aicha with friends or relatives so they could attend school. Some individuals and families went to neighboring countries such as Algeria, Mauritania, or Ivory Coast to find work. Again, they used the skills they gained in Tin Aicha, and they sent funds back to their relatives in Tin Aicha.

These responses were significantly different from those exercised during the drought of the early 1970s. Then, many families ended up in refugee camps, destitute and without options. This time, a significant portion were able to retain some control by pursuing employment options as farm workers or semiskilled laborers. These strategies were available to them largely because of the Tin Aicha experience.

Tin Aicha had become a home base, albeit a flexible one, for its permanent residents. People have developed systems that maintain something of their nomadic styles as well as a commitment to continuing life in Tin Aicha when conditions permit. Nomads have always shifted their base according to the demands of pasturage and water. This pattern remains, but the reasons for movement have changed as farming and other alternative income activities have increased.

The Tin Aicha school increased nomad children's access to education. By providing the possibility of continuing on at the regional high school, in some cases the project introduced other options for future employment for these children.

tunities for influence by such outside agencies are sometimes greatly expanded. AFSC found itself in a position to influence decision making in Mali about the placement of a secondary school in Tin Aicha. By facilitating the movement of the papers through the government bureaucracy and providing materials for the construction of the school, AFSC affected the decision process. As a result, the long term viability of Tin Aicha as a community was reinforced. (Note: since there is a limited number of schools that can be built, other communities without outside advocates were at a disadvantage relative to Tin Aicha in gaining government approval for schools. This is truly a dilemma for an NGO: how to become better informed about the situation, but then to use the information gained in ways that are effective in the long term for the people with whom they work, while not, at the same time, putting other groups at disadvantage. NGOs must be aware of the ramifications of the influence they exert on behalf of some groups as it affects other groups.)

3. Skills acquisition may be the most important capacity-building activity.

Through the Tin Aicha program, in building the school, cooperative, and dispensary, many people learned the skills of mason, carpenter, well digger, etc. The program also introduced new skills in agriculture. In the subsequent periods of drought and famine, a number of families survived, not due to the institutions of Tin Aicha, but due to these skills.

Through the specific skills taught to specific individuals, the entire community learned that there are occupations other than animal herding which are viable and dignified work. For a nomadic population whose survival has depended upon their ability to move with circumstances, these "portable" skills were of equal or greater importance than the village itself.

4. Efforts to increase the income options and to improve the economic stability of a group often have side effects in terms of the social fabric.

When an NGO is involved in any activity that affects the work people do, such as skill training or job creation, it should be aware of and careful in helping people deal with the impacts of these activities on access to, and control over, resources and on social and political power within families and across the society.

## CASE II: ARMERO: New Community after Volcanic Eruption in Colombia

By November 1985, the Nevado de Ruiz volcano in central Colombia had been active for over a year. On the night of November 13th, a large lake formed from melting snow, ash and mud gave way, resulting in a massive landslide which obliterated the town of Armero in a river valley at the foot of the mountain.

Armero had been totally destroyed twice before by volcano-caused mudslides: in 1595 and 1845. The most recent eruption of Nevado de Ruiz started with limited volcanic activity more than a year before the destruction of the town in 1985. Three months before the tragedy, a Colombian TV news program warned of impending disaster in the area and urged action, but neither government officials nor local residents took steps.

Volcanic activity prior to the disaster had caused a landslide which dammed the natural flow of water from the snowcap. As the volcanic heat and lava from continuing eruptions melted the snowcap, massive quantities of water, ash, and mud began to accumulate behind the dam. On the night of November 13, a strong eruption increased the volume of mud held back so much that the pressure broke the dam. When the immense wall of mud reached Armero, it slowly swept away all objects in its path including virtually every building in the town. The avalanche finally deposited the shreds of the town miles from the former city center. The mudslide killed 23,000 people and left several thousand wounded. Only 3-4,000 people survived, although many thousands more were indirectly affected by the disaster, since Armero had been the commercial and administrative center for the region.

### Capacities & Vulnerabilities of the Project Area

Armero was a prosperous town located in a relatively developed country. The population was well-housed and had ample food and clothing. Medical care was generally available and there was no shortage of paid work. For its more prosperous citizens, Armero had well-developed social organizations. The larger businesses and trade groups had strong associations including credit unions and cooperatives for marketing and agricultural services. However, Armero had only weak church organizations and no active neighborhood-based groups, although political parties were quite active. The organizations that did exist in the town did not benefit the poor or the marginalized population--the very people who later survived the mudslide.

The "Armeritas" (citizens of Armero) tended to consider themselves somewhat superior to those in neighboring areas. The town took pride in its prosperity and cosmopolitan attractions. The dominant philosophy was that economic success resulted from combining hard work with a sound idea. The area had a strong tradition of individualism and reluctance to work cooperatively.

The disaster took with it many of Armero's capacities. The people lost all of their material possessions as well as the possibilities for work and income in the short-term. They lacked homes and had no clothing other than what they wore on their backs when they fled their homes. During the first days, they had no immediate access to medical care and many were seriously wounded. There was no food and the only available water was dangerously contaminated.

The survivors dispersed to the highest available ground in a completely unorganized manner. Families were separated and neighbors went off in different directions. After the disaster, none of Armero's indigenous organizations, either public or private, were operating. Most of the seriously wounded were airlifted out of Armero on helicopters, taken to medical processing centers, and then shipped off to hospitals in major cities all over the country. As a result, survivors did not know whether their families were living or dead, or where they might be.

Many of the survivors suffered a loss of identity. The various bases for social status and power were gone: money, possessions and jobs. Later, staff members of several agencies involved in the relief of Armero commented that a coordinating agency should have regrouped the victims by block, or neighborhood. An opportunity was lost to build on surviving social structures and to reduce some of the psychological trauma.

The disaster survivors were of the lowest educational, economic, and social classes of Armero. The more prosperous and educated people had lived in the center of town and very few survived. The poorest people, primarily agricultural day laborers, lived in the hills outside of the town center. The difference in altitude gave them time to climb to safety. The area where the brothels were located also had a high survival rate.

The social composition of the surviving population had implications for the activities undertaken during the emergency relief phase:

- 1) No traditional leaders survived. Political leaders, teachers, clergy, and businessmen were almost all eliminated, and the few that survived removed themselves from the area immediately, using their own resources.
- 2) In the emergency tent camps there was no privacy; many families slept for months in undivided shelters. Rape, violence, child abuse, and alcoholism were frequently reported in the camps. Prostitutes were housed along with other survivors, contributing to sexual promiscuity and the breakdown of family units.

3) Poor families from outside the Armero area rushed to Armero to take advantage of relief goods and services. This contributed to an atmosphere of disorder and breakdown of community.

4) The actual Armero survivors quickly divided themselves into two groups: those who lived in the camps and those who "floated". The "floaters" were people who refused to occupy the tent camps and managed to house themselves through a series of temporary measures including renting quarters in the nearby villages of Lerida or Guayabal, staying with friends or relatives, out-migration to Bogota or Ubaque, and (most frequently) a combination of the above. The floaters tended to be the easier groups to work with, since they showed more initiative and had somewhat greater resources.

There was ongoing, though low-level, conflict between the floaters, the camp dwellers and the original residents of Lerida and Guayabal. The relief agencies quickly realized that the success of the long-term rehabilitation process depended on finding employment for the relocated "Armeritas."

#### **The Nueva Vida Project of Save the Children**

During the emergency phase following the Armero disaster, Save the Children (USA) ran a tent camp for survivors. Later SCF staff met with the survivors and elaborated tentative plans for a long-term development project and invited people to participate in establishing a new community which would provide housing and employment for those who agreed to work together and hold communal property. SCF would help the people establish themselves in small businesses and agricultural production.

The key point of transition from the emergency work to the development project was the purchase of land for the new community, called "Nuevo Horizonte," when SCF bought the farm where the emergency camp was located. A nearby river ensured a continuous supply of water and there was enough fertile land to provide farming possibilities. Nine families agreed to stay on and work in the self-help housing project, and they were joined by forty-eight other families.

SCF originally decided to limit the participation in the project to families from the camp. According to the SCF social work coordinator, this plan had to be modified because the "Armeritas" who were living in the camp were of the lowest educational, economic, and social class and showed little initiative. The fact that most camp dwellers were poor, illiterate, marginalized, and lacking organizational experience was exacerbated by the broader relief program in the area. The special government relief agency, RESURGIR, provided a regular cash and commodity subsidy. All basic needs were satisfied in the camps, including the SCF camp. People came to expect such services as their right, a situation of acute

dependency. This led to serious problems in participation and initiative as the SCF project tried to wean people from hand-outs and promote self-reliant strategies. These problems persisted for well over a year after the Nueva Vida Project began.

SCF staff recognized that the people occupying the camp were extremely difficult to work with, and that another group of survivors, the "floaters," were fending for themselves outside of the camps. They recruited an additional 34 floater families to participate in the project. When the floaters started to work in the construction of the new village, the camp dwellers also started to work.

The Nueva Vida Project was based on SCF's development philosophy which emphasizes participatory strategies towards community self-reliance. The long term work in the Armero area included a principle of no giveaways: people were required to provide a contribution of some sort (work, materials, funds) in order to receive program benefits. The community participated actively in project design and execution, while SCF staff were advisors.

The Nueva Vida Project also expanded beneficiaries of SCF work beyond survivors from Armero as strictly defined. The SCF project area was to include a number of nearby towns and villages that had also been adversely affected, especially economically, by the Armero tragedy. In addition to long term development assistance to sixty families in the new town of Nuevo Horizonte, the project extended to the entire area of Guayabal-Armero (surrounding Nuevo Horizonte), with an estimated population of 12,000. Work in Nuevo Horizonte concentrated on production, employment and housing, while work in the wider community emphasized health, education, and social integration, the latter aimed at reducing tensions between Armero survivors and the long-term residents of the Guayabal area.

The Nueva Vida Project was designed to provide production work for the whole community. This included income from agriculture on the farm and from small businesses and industries. The mix of agriculture and other income activities was necessary because there was insufficient land to provide each family with a plot large enough to live solely from agriculture. Also, not all of the families were familiar with agriculture; some had held menial jobs in the agribusiness sector, or worked in small commercial enterprises.

### **Project Results**

For many of the families in the new (Pillage of Nuevo Horizonte the new setting provided a marked improvement in job security and living conditions over their lives in Armero before the disaster. Through the housing program, people also gained marketable construction skills, broadening their employment options. Grant and credit programs supported agricultural production and creation

of small businesses and other enterprises, improving economic capacities.

Although Armero survivors proved to be a difficult group, SCF staff continued to encourage self-sustaining organization among the residents of Nuevo Horizonte. Progress was slow, but there was good participation in the planning of family housing units and of common facilities such as the school and health post. They found that organizing residents into groups of ten families for construction work had more success than efforts with the larger group of residents. Within these functional groups focussed on a specific task, it was possible to gain cooperation and mutual accountability. In the course of the self-help housing project, new leadership began slowly to emerge.

The people of Nuevo Horizonte had an important experience of successful cooperation through the self-help housing project. As their lives, housing, income, and social context stabilized, they began to show a change in attitude and motivation, shifting away from dependency towards independent initiative. While this process was frustratingly slow for SCF staff, progress was made.

#### LESSONS FOR FUTURE PROGRAM DESIGN

##### 1. Making and Breaking Dependency Patterns

The SCF project illustrates the ease with which dependency patterns can be established among disaster survivors, despite the best intentions of relief agency staff. Dependency patterns are also related to preexisting conditions in the country. Colombia was a country where solutions to essential social problems came from the government or from nowhere. The grassroots organizations that existed in Armero before the disaster were for the purpose of maintaining and exercising political influence, not for identifying and solving problems at the local level. The general population therefore had little experience with initiating efforts to solve their common difficulties.

In the wake of the disaster, the government, eager to demonstrate its competence and caring for the survivors, established a system of benefits that was almost guaranteed to lead to dependency. The NGO community was enlisted to augment, and in some cases implement, these schemes. The government dole to Armero survivors undermined efforts to encourage self-sufficiency.

The SCF project tried to wean people from dependence on government handouts and to promote greater self-reliance. As they moved from the emergency operation to long term resettlement, SCF staff came under repeated pressure to continue dependency patterns, including threats of violence and incidents of property destruction. Through tough determination SCF staff were able to withstand the pressure while people made the transition.

## 2. Deciding whether to Respond in the Emergency Phase

In retrospect, some agency staff have questioned whether they should have intervened during the emergency phase. Emergency activities were being handled adequately by the Red Cross and government departments. NGO resources do not go very far in such circumstances and might be better reserved for longer term efforts, when they become possible.

By delaying intervention to later stages, agencies avoid connection with massive handout programs which operate in the immediate aftermath of disasters. They can work with populations that have stabilized.

## 3. Who the Disaster Survivors/Victims Are Is Key

The ability to adopt program strategies with long term development effects was affected by the social status, skills, and organization of the Armero survivors. Several groups were included: both camp dwellers and "floaters," among direct victims; indirect victims of the economic losses from Armero; and "professional victims" who came from elsewhere to take advantage of the benefits offered. Analysis of the people with whom agencies had to work was complicated by the constant shifts in population as people looked for relatives and "shopped" for the best set of benefits for their families. Nevertheless, most survivors were landless, less educated, poor people with few skills. This had a profound effect on programming choices, including pacing and participation strategies. SCF found that the project began to move more quickly once people with slightly more resources (the "floaters") joined the project.

## 4. Resettle People According to Former Associations

In Armero, the chaotic situation that followed the disaster resulted in groups of families living in camps and, later, starting new housing developments without consideration for any previous association. Grouping families with former neighbors would have provided more basis for community organization.

## 5. Approach Self-help Programs Flexibly

SCF discovered, through its housing construction program, that the self-help aspects had to be adapted to circumstances. The process of grouping families in teams of ten to build homes finally began to knit Nuevo Horizonte into a community. However, some families found that it was difficult to pursue jobs or other economic efforts while constructing their homes. In the end, SCF hired contractors to build some houses.

### **CASE III: SABLAALE: A Community Development Program for Resettlement**

While droughts are regular and frequent in all parts of Somalia, the drought of 1974 was particularly severe in the northern and central regions of the country. At least 19,000 people died, and enormous numbers of livestock (on which northern nomads depended) starved to death. About 1.2 million people (of a total national population of 3 million) received food aid during the crisis.

Because of the severity of this drought, the Government of Somalia decided to resettle people from the northern and central regions where it was determined that the land and ecosystem simply could no longer sustain these populations. Sablaale, in the Lower Shebelle Region 230 km south of Mogadishu, was selected as the site for resettling 30,000 drought victims. The area was chosen because it appeared to be sparsely populated with, according to some reports, "no real villages or settlements." Most of those who were settled in Sablaale were northern nomads; some, from the central region, also had agricultural experience either as agropastoralists or in settled farming.

#### **Environment/Ecology**

Seasonal rain fall in the Lower Shebelle area is very unreliable and differs significantly even over short distances from place to place. It is marginal for crop production. Judgments regarding the quality and reliability of the soils differed among experts, ranging from "relatively high fertility" to "it is the type of soil that you would not farm if there was a choice available." The major problems associated with the soils of Sablaale, however, arise from poor management. A salinity hazard has been created in the farmed areas by over-irrigation leading to waterlogging and by early season irrigation which brings in river water when its salinity is high.

#### **The Settlers**

Those who were settled during the airlift of 1974 came from nomadic communities in the north and semi-nomadic, agropastoralist groups who usually lived in the center of the country. While there was some cultivation of food crops among both groups, herding was greatly preferred and carried greater prestige than farming. The culture of these settler groups was quite different from those of the local people in many ways, but a strong preference for herding over farming was common to most of them.

The political and social systems represented by the clans of the northern and central nomads are extremely important in Somali society, both historically and in modern times. The sub-clan

group, known as the "dia-paying" group, functioned as the most concrete political and legal group where tribal law was made and enforced. "Dia" was the "blood money" which each member of the defined group was committed to paying in times of collective need. For example, if there were a crime or murder, all male members of the dia-paying group were contractually bound to contribute to reparation and settlement payments. Similarly, marriages were negotiated between dia-paying groups as were water and grazing rights.

Within the dia-paying groups, small groupings of five to seven families lived and herded together. Families, which included the man, his wife and the unmarried children, formed the basic economic and social unit. Men, as heads of families, owned the herds which included camels, goats and sheep. As boys became older, they began to acquire animals of their own. When they had enough, they could afford to pay the required bride price for marriage, and they then set up their own household units.

The intricacies of nomadic governance and culture were illustrated by the systems which operated when a camel was lost. Word of the loss travelled many miles across deserts and the language of description of camel color, height, facial expression, etc. were extensive so that any individual camel could be recognized miles from its herd and returned to its owner. The people who were resettled in Sablaale came from many different dia-paying groups though one major clan family was heavily represented since it was the group hardest hit by the drought.

#### Development of the Sablaale Scheme

The Sablaale scheme was initially developed as a State Farm using the settler population as the source of labor. A camp commandant ran the settlement according to a regimen which assigned all jobs and set schedules for work and for meals. Directions were given to workers through loudspeaker announcements. The State Farm was subsidized by foreign aid in the form of rations for the laborers, technical assistance on farm management, and social services such as schooling, provision of clean water, and medical services and supplies. Sablaale continued as a State Farm until 1981 when it was decollectivized. In the words of the District Administrator of the Settlement Development Agency, "the government decided that it could increase productivity by turning the land over to the farmers." The farm area includes 3,000 hectares, of which 1,200 ha were irrigated with support from foreign assistance. Some of the 1,200 improved hectares became non-arable after a few years due to salinity. A foreman managed the farm but a committee of farmers, elected through traditional means, settles disputes when they arise.

Farmers on this SDA-run land have been required to pay the government for land preparation annually since 1981. The plan was

that such payments could cover the costs of running the farm so that all subsidies could be phased out. It was estimated that fuel costs amounted to 3,400 Shillings per farmer. Food rations to farmers were stopped by 1985. However, the SDA manager was able to get the World Food Programme to agree to continue to supply Food For Work funds to the area to support road building and other labor-intensive projects.

In addition to the former State Farm area on which settlers lived, there was a World Bank agricultural project run by Bingles, Pty. (a commercial Australian firm) which was entirely managed by a professional manager (expatriate in this case), equipped through imports, and in which farmers supplied only labor. On this rain-fed farm Bingles provided mechanized land preparation, planting, fertilizing, and cultivating. The farmers were responsible only for scaring away the baboons which threatened the crops and for harvesting.

### ACORD Project

ACORD is an international consortium of non-governmental organizations committed to providing aid to people in developing countries in ways that establish or strengthen local structures with a view to achieving self-reliant development. In 1981, the Government of Somalia requested that ACORD undertake a community development program for the victims of the 1974 drought who had been resettled in Sablaale. After project identification and design missions in 1981 and 1982, ACORD launched a project with the Sablaale settlers in 1983. When ACORD arrived in Sablaale, the circumstances were not those of crisis. The "disaster" of the famine had ended almost ten years earlier. ACORD entered into a situation where the residents (ACORD's proposed project beneficiaries) had been drought victims, but national and international aid had been available to them for many years.

ACCORD staff noted the need both for income generation among the poorest populations and for improvement in nutritional status so they developed a focus on vegetable farming. They also began a poultry raising component. Small efforts were made to develop a hand grinder for grain and to work with women's groups. However, the hand grinder proved too labor intensive and there were complications in working with the Somali Democratic Women's Organization because the poorer groups toward whom ACORD was targeting its efforts were not yet active in SDWO's activities.

ACORD's two primary programs became the vegetable farming and the poultry raising programs. The vegetable farming project started with 32 people who were each allocated a very small plot. By 1986, the number involved had increased to sixty. ACORD insisted that the vegetable farmers set up a committee to handle irrigation decisions and to reconcile differences when they arose. (The first committee was half men and half women with a woman as chairperson.)

In addition, ACORD offered a number of services to encourage the farmers to enter the project and to begin to grow vegetables (an unfamiliar enterprise). They provided technical assistance on irrigation and fertilizers, bought and supplied the fertilizers, prepared the land using SDA machinery, installed an irrigation pump and hired night watchmen to guard it, developed a seed nursery and staffed it with technical staff and hired several extension agents to work with farmers. ACORD also helped with marketing of vegetables.

Vegetable farming is a labor-intensive enterprise, especially as compared to farming of maize, the staple crop in the area. With hard work, however, a farmer could realize as much as Sh.10,000 to 16,000 each season (with two crop seasons/year) from these plots. The land that ACORD was allocated by SDA happened to be somewhat distant from the village and other population centers, so that farmers had to walk a fair distance to the plots daily. In addition, irrigation was an unfamiliar task and, even over time, the farmers in the vegetable project were reluctant to take on the responsibility of decision-making surrounding irrigation schedules and amounts. They did share the job, under ACORD staff supervision, of opening and closing irrigation gates.

ACORD had a strong commitment to enabling the vegetable farmers to become self-reliant. Therefore, they initiated a process of transferring responsibility for decisions regarding land preparation, use of fertilizers, irrigation, etc. to the farmers. In particular, they wanted to transfer all actual costs to the farmers over time. However, each season, the ACORD attempt to get the farmers to pay these costs resulted in a period of what one staff person called "intense negotiation." Farmers would go "on strike" over this issue, refusing to pay for land preparation or to farm.

ACORD's decision to promote poultry raising was also motivated by its assessment that income generation and nutrition were critical needs. ACORD started by introducing special exotic egg-laying stock into the Sablaale region, offering these to families who were identified as eligible on the basis of need. In a short time, the project introduced cross-breeding rather than strict poultry imports. The project began small, with specific inputs, including the stock and a few weeks or months of training in poultry care. ACORD tried to develop a system for marketing, introducing a middle-man, but the families involved were unable to agree on prices. Later, a system of cooperative marketing evolved among some of the families. By 1986, over 600 families had been involved in poultry raising.

#### LESSONS LEARNED

1. Staff made no early attempt to identify capacities of the resettled nomads and assumed that they had no traditional social or

organizational capacities. This led to difficulties in getting the vegetable farmers to organize groups to manage some of the functions, because new and inappropriate forms of consultation were being insisted upon by project organizers.

2. The Sablaale area suffered from ecological vulnerabilities that were not recognized before the resettlement was planned in the region. These continued to pose problems for the settlers and to limit their ability to gain a self-sufficient livelihood. In addition, the project focus on agriculture that required irrigation actually exacerbated the ecological vulnerabilities.

3. Experience in Sablaale shows that when too much assistance is offered at the beginning of a crisis, it tends to result in long-term dependency by the settlers on the aid givers. Once such a pattern is established, it is exceedingly difficult to reverse.

## BIBLIOGRAPHY

Anderson, Mary B. and Peter J. Woodrow, Rising from the Ashes: Development Strategies at Times of Disaster, Westview and UNESCO Presses, Boulder and Paris, 1989.

Cernea, Michael M., Involuntary Resettlement in Development Projects: Policy Guidelines in World Bank-Financed Projects, World Bank Technical Paper No.80, 1988.

Cuny, Frederick C., Disasters and Development, Oxford University Press, London, 1983.

Cuny, Frederick C. and Richard Hill, "Mount Pinatubo Reconstruction: A Progress Report," INTERTECT, Dallas, December 3, 1991.

Food and Agriculture Organization of the United Nations, "Land Reform: Land Settlement and Cooperatives," FAO, Rome, 1980.

Hansen, Art, "Self-Settled Rural Refugees in Africa: The Case of Angolans in Zambian Villages," in Hansen, Art and Anthony Oliver-Smith, Involuntary Migration and Resettlement: The Problems and Responses of Dislocated People, Westview Press, Boulder, 1982.

Oberai, A.S., Land Settlement Policies and Population Redistribution in Developing Countries: Achievements, Problems and Prospects, Praeger, New York, 1988.

Oliver-Smith, Anthony, "Here There Is Life: The Social and Cultural Dynamics of Successful Resistance to Resettlement in Postdisaster Peru," in Hansen and Oliver-Smith, Involuntary Migration and Resettlement: The Problems and Responses of Dislocated People, Westview Press, Boulder, 1982.

-----, "Success and Failures in Post-Disaster Resettlement", in Disasters: The Journal of Disaster Studies and Management, Vol.15, No.1, March 1991, pp.12-23.

Palacio, Joseph O., "Posthurricane Resettlement in Belize," in Hansen and Oliver-Smith, Involuntary Migration and Resettlement: The Problems and Responses of Dislocated People, Westview Press, Boulder, 1982.

Pankhurst, Alula, "People on the Move: Settlers Leaving Ethiopian Resettlement Villages," in Disasters: The Journal of Disaster Studies and Management, Vol.15, No.1, March 1991, pp.61-67.

Pickett, Liam E., Organising Development Through Participation: Cooperative Organisation and Services for Land Settlement, A Study Prepared for the International Labour Office, Croom Helm, London, 1988.

Scudder, Thayer and Elizabeth Colson, "From Welfare to Development: A Conceptual Framework for the Analysis of Dislocated People," in Hansen and Oliver-Smith, Involuntary Migration and Resettlement: The Problems and Responses of Dislocated People, Westview Press, Boulder, 1982.

Smock, David R. "The Role of Anthropology in a Western Nigerian Resettlement Project," in Brokensha, D. and M. Pearsall (eds), The Anthropology of Development in Sub-Saharan Africa, Monograph No.10, Society for Applied Anthropology, Lexington, Ky, 1969.

Woldemeskel, Getachew, "The Consequences of Resettlement in Ethiopia," in African Affairs: Journal of the Royal African Society, Vol.88, No.352, July 1989, pp.359-374.

Wood, Adrian P., "Population Redistribution and Agricultural Settlement Schemes in Ethiopia, 1958-80," in Clark, John I, Mustafa Khogali and Leszek A. Kosinski, (eds.), Population and Development Projects in Africa, for the International Geographical Union, Commission on Population Geography, Cambridge University Press, Cambridge, 1985.

World Bank, Indonesia: The Transmigration Program in Perspective, A World Bank Country Study, Washington, D.C., 1988.