

DRAFT FOR DISCUSSION

DISASTER MANAGEMENT FACILITY

**Targeting Assistance toward Those Most Affected by Disasters:
The Role of Social Investment Funds**

Gabriel Siri

THE WORLD BANK

Abstract

Natural disasters have a very high impact in low-income countries, and within these countries, they also tend to target the poor. However, in many cases, post-disaster assistance is insufficiently targeted toward those most affected by the catastrophe, and disaster preparedness efforts are not focused toward the most vulnerable groups. This report seeks to raise awareness of these issues and to examine the rationale for expanding the use of social investment funds as instruments for disaster management centered on the poor.

In many countries social funds are the leading poverty-focused investment program and the most operationally developed instrument for social action. A functioning social fund, experienced in channeling large amounts of external assistance to scores of small-scale projects that benefit the poor, is a key instrument that a government can access when mounting a reconstruction program. The existence of social investment funds in more than 60 developing countries, with total investments of over US\$6 billion, constitutes an important asset in the field of disaster management, both for the countries and for international financial community. Notwithstanding, social funds do not have the size or the scope to carry out disaster management programs on their own and their effectiveness depends on them forming part of a comprehensive rehabilitation and transformation program.

Social funds can contribute to disaster management programs via two different channels. One involves support to disaster prevention and preparedness activities that can help the poor mitigate risk. The other entails post-disaster reconstruction and rehabilitation interventions focused squarely on the regions and people most affected by the catastrophe. This report suggests that in order to be poised for effective action, social funds prepare contingency manuals that spell out the process to follow in response to emergency situations.

The author, Gabriel Siri, is a consultant for the Disaster Management Facility. The report was prepared with the support of the Facility, Alcira Kreimer, Manager. The author wishes to thank Margaret Arnold, Senior Program Officer, for her very insightful comments, and Jonathan Agwe, Operations Officer, for his assistance in gathering the data. The views and interpretations expressed in this paper are those of the author and do not necessarily represent the views and policies of the World Bank.

Background

Natural disasters have a very high impact in low-income countries. The *World Development Report 2000/2001* points out that from 1990 to 1998 some 94% of the world's 568 major natural disasters and over 97% of the deaths related to them occurred in developing countries.¹ Poor countries are generally more vulnerable to disaster damage because of their lack of effective risk-management systems, the prevalence of low construction standards and uncontrolled urbanization, and in some cases, because they have large environmentally degraded zones prone to heavy damage from hurricanes and floods.

For similar reasons, within these countries, natural disasters also tend to target the poor. The overwhelming majority of deaths from catastrophic events are those of poor people. Impoverished people often live in high-risk zones, occupy structurally unsound housing, and cultivate their crops on steep slopes and in riverbeds. Vulnerability is a major component of their poverty. In a way, poverty itself can be considered to be a major cause -- a multiplier -- of the damage inflicted by natural disasters.

In the aftermath of a catastrophe, reconstruction efforts often focus on rebuilding major economic infrastructure whose destruction will hinder macroeconomic recovery (e.g., bridges, trunk highways, public buildings, etc.). Giving priority to vital public works is also justified in terms of the benefits that their rehabilitation eventually brings to the entire population. However, in many cases, post-disaster rehabilitation programs are insufficiently targeted toward those most affected by the catastrophe and with the least resources to "bounce back". This includes groups such as subsistence farmers, landless laborers, people working in cottage industries and the informal sector, and small and micro entrepreneurs, who have lost their livelihood as a result of a disaster. Post-disaster assistance to the poor is often limited to emergency relief and not to offsetting their losses and rebuilding their livelihoods through employment- and income-generating projects.

¹ World Bank (2000b), p. 170.

Furthermore, disaster preparedness initiatives are not targeted to the most vulnerable groups, and formal insurance arrangements are beyond the reach of the very poor. Reducing the vulnerability of destitute people through schemes that aim to spread risks faces major constraints. The very poor have consumption profiles that are below minimum acceptable thresholds and have virtually no capacity to save. Their budgets clearly have many demands that are more pressing than insurance -- where costs are up-front and payoffs far off.

Underlying the binding constraints that the poor face are "initial conditions" of high concentration of income and wealth -- conditions that by their very nature are not very amenable to redressing through market mechanisms. A major challenge for disaster-prone low-income countries is to develop instruments with adequate incentives (inevitably entailing subsidies) that will make it possible for the very poor to participate in risk mitigation and reduction programs. Obviously, however, for the hard-hit poor to rebuild their lives, schemes that pool losses will not suffice. Direct and immediate assistance will be required.

In sum, a comprehensive disaster management approach is needed: risk prevention, risk mitigation, and effective recovery assistance. All three lines of action are essential. Using the analogy of personal fire protection, homeowners need to i) take preventive measures, ii) purchase fire insurance, and iii) should a fire occur, have an effective fire department and a program to repair the damage.

The aim of this report is to raise awareness of these issues and examine the rationale for expanding the use of social investment fund programs as instruments for disaster-risk mitigation and for effectively targeting assistance to poor people severely affected by disasters. Social funds have a number of core characteristics that make them well-suited for responding to both these challenges and in particular, for taking effective action once disasters have occurred. They specialize in small construction works, are able to disburse resources and expand operations rapidly, maintain direct contact with poor

communities, operate in a decentralized manner, and work closely with civil society organizations and local governments.

The report bases its findings on the abundant analytical literature available in both the area of disaster management and that of social investment funds, and extracts lessons from the role that some funds have played in emergency situations. It starts by highlighting the core characteristics of social investment funds that make them suitable instruments for delivering disaster assistance to the poor -- at the same time pointing out the constraints that funds face. As examples of what can be done in this field, it presents four country cases where social funds have been used successfully in disaster reconstruction programs. The report then offers a number of conclusions and recommendations on the actions that social funds can take to reduce and mitigate risk and cope with disaster damage. Finally, it presents some observations on the role of the Bank in providing disaster assistance by way of the social funds.

The Potential Role of Social Investment Funds in Disaster Management

Social investment funds represent a new social technology developed over the past 15 years. They have proliferated throughout the world (more than 60 countries in Latin America, Africa, Central Europe, and Asia have social funds), and they continue to grow in size and number. The total commitments of social funds exceed US\$ 6 billion, and they have carried out more than 100,000 small-scale projects.² In many countries funds are the leading poverty-focused investment program and the most operationally developed instrument for social action.

Social funds have obtained significant financing from the international community -- largely in the form of soft loans. The World Bank has strongly supported them since the original model was conceived in Bolivia in 1986 and has been active in

² World Bank (2000), p. 1.

more than 50 countries. The Bank has approved more than 70 social fund projects, with commitments of over US\$3 billion. The Inter-American Development Bank has financed social funds in 18 Latin American and Caribbean countries, for a total of about US\$1.8 billion.

Most assessments by international financial institutions and donor countries have judged the overall performance of the social funds favorably -- although with some reservations. The World Bank's OED ratings of the 18 social fund projects that were closed by April 2000 indicate that the outcome of 94% of them was "satisfactory", the sustainability of 39% was "likely", and the institutional development impact of 72% was "substantial."³ The 1997 Inter-American Bank study of social investment funds in Latin America concludes that the "funds have undoubtedly had a positive impact on the welfare of most communities where projects have been executed."⁴ According to the study, social funds "have proven to be good and efficient providers of social infrastructure to the poor." The study, however, expresses concerns about the sustainability of fund projects (that is, whether the facilities built are being fully utilized) and the extent to which the benefits are reaching the very poor.

*Potential of Social Funds to Participate in Disaster Recovery Programs*⁵

A number of the core characteristics of social investment funds suggest that the model has high potential for delivering effective disaster assistance to the poor:

i. Social investment funds are essentially builders; most of them focus on the construction and rehabilitation of small-scale public works (more than 80% of their projects are health posts, schools, and water supply infrastructure). Often, they support the execution of hundreds of projects per year and in a number of countries they finance

³ The Bank's OED is preparing an in-depth study of social investment funds, *OED: Social Fund Review* (forthcoming).

⁴ Inter-American Development Bank (1997), p 71.

most of the social infrastructure investment. Natural disasters always inflict damage on economic and social infrastructure, and social investment funds can be a useful tool for repairing and rebuilding damaged structures.

ii. Social investment funds have the capacity to disburse resources rapidly and to channel large amounts of concessional financing to projects that benefit the impoverished population. A number of studies show that the benefits generated by the funds *do* reach the poor⁶ -- although the extent to which they reach the poorest of the poor is less clear. One reason for their effectiveness in managing resources is that social funds are in charge both of overseeing the implementation of projects and mobilizing the external financing required. International financial institutions and country donors have found them a useful channel for ensuring that their assistance is disbursed and actually reaches the poor.

iii. Social investment fund operations have demonstrated an ability to expand rapidly when resources are available. This is partly because they do not execute projects directly but through intermediaries; public works projects are contracted out to private construction firms and NGOs. Moreover, social funds typically operate outside the normal executing channels of line ministries, and their relatively autonomous nature frees them from a number of operational and managerial constraints (e.g., civil service and procurement regulations). For example, the lifting of civil service salary caps has allowed funds to recruit qualified staff and build more permanent professional teams. All social investment funds aim to be results-oriented and employ private-sector management methods, and they often achieve greater operational efficiency (lower overhead and shorter delivery time) than do government executing agencies.⁷ Given their capacity for

⁵ See Siri (2000), Section 2.

⁶ See Jorgensen, Grosh, and Shacter (1992); Razcynski D (1996). See also the results of a recent World Bank impact assessment of six social funds in *Evaluating Social Fund Performance Across Countries* (2000c), which includes the cases of Armenia, Honduras, and Nicaragua.

⁷ The incidence of administrative overhead in total fund expenditures is on the order of 8% to 13% (World Bank 1994, p. 26). "There is some evidence to show that Social Funds are able to construct infrastructure at lower cost than public agencies... (and) within a lesser time." (World Bank 1998a, p. 41).

rapid expansion and their adeptness at pioneering innovative solutions in emergency situations, social funds have in some instances outperformed other government agencies -- which are normally not geared to carrying out large numbers of small projects.

iv. Social investment funds have played a leading role in introducing the “demand-driven” concept in project selection, an approach that promotes a process of ongoing consultation with communities and elicits the most valuable contribution that poor people can make: their knowledge and insight into local conditions and problems. As a rule, funds require the beneficiaries of a project to demonstrate their interest by making a tangible contribution to its implementation (often in terms of labor). Social funds promote the participation of beneficiaries in the selection, monitoring, and maintenance of projects. Community involvement in the different stages of the project cycle has proven to be instrumental in focusing operations toward real needs and improving the sustainability of projects.⁸ The close dialogue that social funds establish with poor people and their practice of responding to community demands can reap benefits in terms of greater capacity to deliver effective and sustainable projects in emergency situations. For example, decisions on what, how, and where to rebuild, can employ a transparent and participatory approach that takes the wishes of the beneficiaries into account and discusses the costs and trade-offs of different options with them.

In the aftermath of disasters, the social capital latent in all communities tends to surface. Citizens' groups spring up and deal with pressing needs, such as clearing away rubble, building temporary shelters, procuring clean water, etc. Social investment funds can contribute to the formation of social capital by establishing a "learning-by doing" process conducive to developing the people's capacity for independent civic action.

v. Most social funds have developed working relations with civil society organizations (international and local NGOs, religious groups, cooperatives, community associations, etc.) and have often used them for project execution. These organizations

⁸ See Narayan D. (1994)

have the advantage that they are already in place, operate on the ground (often at the micro-level), and are well acquainted with the needs of destitute people. Social investment funds have come to represent what is perhaps the broadest channel through which the World Bank's operations interface with civil society organizations.

In disaster situations, there is much to be gained by taking advantage of the capacity of civil society organizations as intermediaries to reach the poor. Indeed, experience in providing disaster assistance indicates that it is preferable to work through entities that already exist than to create new organizations to undertake recovery efforts. By working in partnership with existing organizations with proven capacity, social investment funds can respond rapidly at the grassroots level -- which is where the crises resulting from disasters are primarily felt -- and effectively channel resources to the people most in need.

vi. The decentralized manner of operation characteristic of most social investment funds facilitates their intervention at the local level. Thus, when facing a catastrophe, they can quickly assess the damage in different parts of the country and move into specific geographical areas that have been hard hit. Administrative decentralization has also allowed social funds to reinforce the disaster management capacity of local governments.

vii. In a number of cases, social investment funds have supported directly productive projects in the hands of the poor through microfinance operations that provide credit to small farmers, entrepreneurs, and merchants. With few exceptions, these programs are relatively small⁹ and have not proven more effective than freestanding microcredit operations. However, economic recovery programs aimed at restoring the livelihood of small producers and businessmen who have been hurt by disasters can profit from the microcredit networks that social funds have set up -- particularly in isolated areas that have no other access to banking services.

⁹ A salient exception is the Egypt Social Fund, a very large fund that allocates more than half of its portfolio to microenterprise-financing operations.

Constraints that Social Investment Funds Face in Delivering Disaster Assistance

There are also some limitations to the capacity of social funds to spearhead a government's post-disaster recovery programs. Funds do not have the expertise to manage emergency relief operations nor the mandate to relocate displaced households. They are not agencies for the distribution of food, clothing, or medicines and are not fully targeted to those most in need, as relief efforts must be. Although in emergency situations social funds sometimes help to get relief programs off the ground, they are not suited to managing welfare projects nor open-ended operations that commit future recurrent expenditures. For projects involving the delivery of social services (health, education, etc.), social funds depend on central and local government budgets or contributions from NGOs and community organizations.¹⁰

Furthermore, social funds have limited capacity to create permanent employment. This is a serious shortcoming, for although temporary employment can alleviate economic hardship in the aftermath of a disaster, permanent employment is needed to restore the solvency and well-being of impoverished households. For the poor, the losses in terms of employment and disruptions in economic activity tend to be even more detrimental than losses in economic assets.¹¹

Rapidly changing social funds' traditional course of action in terms of the regional distribution of activities, target groups, etc. can have destabilizing effects. In addition, a rapid increase in the number of projects under implementation and an abrupt acceleration of disbursements can result in a loosening of quality controls and financial oversight in

¹⁰ See Siri (2000), p. 22.

¹¹ Real estate ownership by the very poor is by definition low. In rural areas peasants are to a large extent landless and live in huts or adobe houses, and in urban areas the very poor tend to settle in shantytowns or overcrowded tenements (buildings generally owned by landlords who are not poor).

project operations, as well as a loss of transparency conducive to the misappropriation of resources.

Another aspect of concern is that in order to attend to emergency situations, social funds co-opt resources previously allocated to their regular programs. When funds redirect their operations toward disaster-related activities, many communities are left with expectations that cannot be met. Thus, in order to justify the reorientation of social investment fund portfolios towards disaster-coping activities, plans must be made to replenish their budgets so that once the emergency is over, normal programs can be resumed. It should be noted that the diversion of resources from developmental objectives to disaster emergencies is a perennial problem in all types of development assistance and underscores the advantages of ensuring that development activities incorporate disaster risk-reduction measures.

Furthermore, in terms of the geographical scope and magnitude of the damage caused by most disasters, social funds are relatively small undertakings -- certainly in terms of the vast needs of the poor in most developing countries.¹² While some funds do generate significant amounts of employment for unskilled workers, the jobs they create are temporary and generally modest in relation to the number of workers unemployed, and marginal with respect to the total labor force. However, the potential impact of a social fund in terms of disaster management can multiply if it forms part of a broad national reconstruction and transformation program.

It is relevant to point out that in small countries, the effects of a catastrophe are sometimes transmitted to neighboring countries (for example, the degradation of a watershed can be carried downstream across a border, the damage to highway infrastructure in one country can block international trade); the resulting problems cannot be solved at the national level, and they are clearly beyond the scope of a social investment fund. This shortcoming can be turned into an advantage if partnerships can be

¹² In the Latin American countries, funds disburse at best US\$ 10-15 annually per poor person. See Inter-American Development Bank (1997) Table 2.1.

established between the social funds of neighboring countries and the necessary institutional capacity for coordinated action can be developed at the regional level.

Finally, social funds are constrained in their capacity to respond to disasters by their extreme reliance on external financing (which, in the case of most Latin American and African funds, accounts for more than 80% of their budgets). Thus, the decision to expand rapidly depends largely on the good will of external financial institutions, since it is generally out of the question for the country to finance a major expansion on its own.

Some Examples of Disaster Assistance Provided by Social Investment Funds

This section examines the case of four social funds that have had an important role in reconstruction activities following a major disaster and have been successful in reaching the people most affected: Honduras' *Social Investment Fund (FHIS)*, Nicaragua's *Emergency Social Investment Fund (FISE)*, Madagascar's *Fonds d'Intervention pour le Développement (FID)*, and Armenia's *Social Investment Fund (ASIF)*. These examples evidence that social funds can be used effectively in reconstruction programs. However, there has been no deliberate policy to use them systematically as tools for disaster management.

Honduras' Social Investment Fund (FHIS)

In October 1998 Hurricane Mitch struck the coast of Honduras with high winds and torrential rains that caused massive mudslides and flooding throughout the country. The economic and social toll was devastating, and estimates indicate that the country's poverty level rose by about 4%. Some 5,700 people lost their lives, 12,300 were injured, and 1.5 million incurred property losses. Estimates put the economic damage at US\$3.8 billion (more than 70% of the country's GDP). GDP growth fell sharply in 1999, particularly in the agricultural sector, which incurred 70% of the damage.

Honduras' Social Investment Fund (FHIS) played a key role in the government's post-disaster reconstruction and transformation program.¹³ Following Mitch, the fund redirected its project portfolio to meet the urgent needs of both urban and rural communities. In the post-disaster period, it expedited the evaluation, authorization, and contracting out of projects (allowing direct contracting and fostering the standardization of projects) and streamlined procurement and disbursement procedures. The decentralization that characterizes the FHIS operation was put to good use, making it possible to rapidly expand the number of regional offices and actually reach remote rural and urban communities.

The bulk of FHIS operations centered on social infrastructure (especially the rehabilitation of schools and the replacement of damaged water and sanitation systems) and on aid to municipalities. The social fund also launched operations to clear away mud and debris, and in the process generated significant amounts of local employment. Several bridge structures were rapidly procured to replace those that had been destroyed.

During the three months following the disaster, the FHIS dramatically expanded its operations, and investments reached record levels. More than 2,000 small social-assistance and infrastructure projects, costing about US\$40 million, were carried out.¹⁴ During the two years following the catastrophe (November 1998 - October 2000), 6,400 projects were approved, for a total of US\$137 million -- versus the roughly 10,000 projects that were executed during the first eight years of the fund's existence (1990-98), for a total investment of approximately US\$125 million. The World Bank strongly supported the FHIS' role in Honduran reconstruction efforts by accelerating disbursements of the ongoing Fourth Social Investment IDA Credit (US\$ 45 million) and by granting a supplemental emergency credit for US\$ 22.5 million in 1999.

¹³ World Bank (1999).

¹⁴ See Warren D. (2000).

As indicated above, the FHIS' contributions to the reconstruction programs following Hurricane Mitch were substantial. However, they were limited in comparison with the total sums allocated for the disaster. To put FHIS investments into context, it should be noted that the total loan operations subscribed for reconstruction efforts by international and bilateral financial organizations during the 1999 Stockholm Consultative Group meeting came to US\$ 855 million. A significant portion of the total funding (43%) went to balance-of-payments support. In addition, donations secured at the Stockholm meeting totaled US\$ 1,176 million.¹⁵

Nicaragua's Emergency Social Investment Fund (FISE)

Hurricane Mitch also caused extensive damage in Nicaragua. The torrential rains that accompanied the high winds gave rise to major flooding and landslides in the northwestern part of the country. As a result of the catastrophe, 2,870 people died and 870,000 (20% of the country's population) suffered material losses; 65,000 people had to be placed in temporary shelters. The hurricane caused severe damage in the poorest regions of the country: 40 of the 58 poorest municipalities were in the hardest hit departments.¹⁶ The damage to social and economic infrastructure (particularly highways) and to agricultural production was extremely high. Estimates put the direct and indirect damage at US\$ 900 million (about 45% of GDP).¹⁷

Nicaragua has the advantage of having a social investment fund that is highly experienced in building social infrastructure (largely schools, health centers, and water and sanitation facilities). About 40% of the total social infrastructure investments made in the country during the period 1991-1998 were carried out by the social fund. Since its

¹⁵ See República de Honduras (2000).

¹⁶ See World Bank Report No. P-7279-NI, Hurricane Emergency Project, December 14, 1998.

¹⁷ See UNDP/ECLAC. *A Preliminary Assessment of Damages Caused by Hurricane Mitch*. December 10, 1998 (Table 1).

creation in 1990, FISE has disbursed more than US\$ 300 million; the World Bank has supported the fund with three credits totaling US\$ 95 million.

Nicaragua's FISE responded rapidly to the emergency. Key to the success of the social fund's intervention was its decentralized manner of operation. Teams of experts were dispatched to the municipalities where the greatest damage had occurred, and they worked closely with the affected communities. Another critical aspect was the expediting of procurement procedures and the approval of a system of direct contracting of projects.

The FISE engaged in four types of disaster management operations: i) emergency assistance projects; ii) the repair of rural roads, bridges, and streets; iii) the construction of works to reduce vulnerability to disasters (dykes, drainage channels, etc.); and iv) the rehabilitation of social infrastructure (schools, water supply and sanitation systems, and health posts). Large numbers of unskilled workers were hired for the clean-up, rehabilitation, and reconstruction operations. In the three months following the disaster the social fund disbursed US\$ 12 million to finance 1,280 emergency projects in the affected areas. Investments in 1999 reached record levels, increasing by nearly one-quarter over the previous year.¹⁸ FISE will also participate in the *Natural Disaster Vulnerability Reduction Project*, an IDA operation for US\$ 13.5 million that is expected to become effective in September 2001. FISE's responsibility within this project will center on building local capacity to implement and evaluate vulnerability mitigation and reduction measures.

*Madagascar's Fonds d'Intervention pour le Développement (FID)*¹⁹

During the months of February, March, and April 2000, three major cyclones struck Madagascar, one of the poorest countries in sub-Saharan Africa. The cyclones left

¹⁸ See Fondo de Inversión Social de Emergencia (2000).

¹⁹ The description of the project is based on the World Bank's Report No. P-7380-MAG, *Proposed Supplemental Credit to the Republic of Madagascar for the Third Social Fund Project for Cyclone Rehabilitation Activities*. July 2000.

200 people dead and 400,000 in need of emergency assistance, inflicted heavy damage on the country's social and economic infrastructure and on its agricultural production, and had a major environmental impact. Material damage to housing and other social infrastructure (largely schools and health centers), economic infrastructure (mainly feeder roads and irrigation systems), and the agricultural assets of households (livestock; and vanilla, coffee and clove trees) amounted to US\$ 137 million (4% of GDP). Income losses represented an additional 2% of GDP. Most of the deaths were among the poor and poor people were the group primarily affected by the material damage. About 60% of the losses in income occurred in the agricultural sector, which the rural poor depend upon for their subsistence; more than 85% of Madagascar's poor population is rural.

The World Bank's International Development Association (IDA) responded to the emergency created by providing Madagascar with significant financial assistance through i) the restructuring of the Bank's loan portfolio to meet reconstruction needs; ii) a supplemental credit of US\$ 20 million to the Second Structural Adjustment Credit; and iii) a supplemental credit of US\$ 18 million to the Third Social Fund Project, for Cyclone Rehabilitation Activities.

Madagascar's social fund (FID) has completed over 1,500 projects since its creation in 1993. Its portfolio has focused on social infrastructure (schools, health centers and water supply), productive infrastructure (micro irrigation works and markets), and transport infrastructure (rural roads and bridges). The fund has developed working relationships with local governments, NGOs, and community organizations. Communities select projects and are responsible for procurement and supervision activities and for maintaining the projects once they are completed. Project ownership by the beneficiaries has fostered greater effectiveness and sustainability of the public works built. It is relevant to note that community infrastructure buildings built by the social fund in recent years have not been destroyed by cyclones.

The Bank considered Madagascar's social fund an "ideal vehicle for responding rapidly to stricken rural populations." The Third Social Fund Project for Cyclone

Rehabilitation Activities is aimed at reconstructing social and economic infrastructure in cyclone-damaged areas and creating income-earning opportunities by generating temporary employment. The project went into effect in September 2000, and work has started activities in about 200 cyclone rehabilitation sites. All loan resources have been committed. It is anticipated that the supplemental credit will enable the FID to rehabilitate 500-600 sites during the year 2001.

Armenia's Social Investment Fund (ASIF)

In December 1988 a major earthquake struck the northwestern part of Armenia, causing enormous loss of life and extensive property damage. More than 25,000 people died, over half a million were left without shelter (one-sixth of the total population), and a substantial part of the country's productive capacity was destroyed. The devastation caused by the earthquake was heightened by a period of major economic upheavals resulting from the dismantling of the Soviet Union in the early 1990s and from a conflict with neighboring Azerbaijan. More than 300,000 ethnic Albanian refugees poured into the country, and three quarters of a million (about 20% of the population) emigrated. GDP per capita plummeted from US\$ 2,160 in 1990 to US\$ 670 in 1994, and the majority of the population fell into poverty.

Armenia's recovery from these devastating shocks has been slow. More than a decade after the earthquake, the country is still struggling to rehabilitate damaged structures, provide recovery assistance to households in extreme poverty, and reduce unemployment.

Armenia's Social Investment Fund commenced operations in January 1996. The project received strong support from the World Bank through an IDA credit of US\$12 million (for a total project investment of US\$ 20 million).²⁰ Its main objectives were to build small-scale infrastructure that could improve the living conditions of the poor,

²⁰ See World Bank Report P-6644-AM, *Proposed Credit to the Republic of Armenia for a Social Investment Fund Project*. October 1995.

generate employment through labor-intensive public works projects, and strengthen the social capital of communities. The implementation of the social fund's projects was characterized by a high degree of community participation, a factor that has contributed significantly to increasing their cost-efficiency and sustainability. The majority of the projects requested by communities and carried out by the fund consisted of the rehabilitation of small schools, potable-water pipelines, and irrigation works. To date, more than 200 small-scale projects have been completed, and nearly half a million people have benefited from them.

Among the regions that were given priority for project allocation was the earthquake zone in the northwest of the country. Moreover, in August 1998, the unspent resources of the social fund were reallocated to the administrative units affected by the disaster. ASIF I has completed 89 projects in the earthquake zone. The fund's portfolio includes 32 schools, 31 potable water installations, and other infrastructure works such as irrigation and sewage projects. The projects have benefited 200,000 people, and the communities have expressed their satisfaction with the quality of the public works built.

In July 2000, the Bank granted a US\$ 20 million credit for a second stage of Armenia's Social Investment Fund (ASIF II). The success that ASIF I achieved with its programs to rehabilitate infrastructure damaged by the disaster has helped to make the case for going ahead with ASIF II. Like its predecessor, the second stage of the social fund will continue to favor the earthquake zones in the regional distribution of its projects.

The Role that Social Investment Funds Can Play in Reducing Disaster Risk and Coping with Disaster Damage

Social funds can contribute to disaster management programs targeted to the poor through two different channels. One is through activities that can reduce and mitigate disaster risk; the other is through timely and effective post-disaster rehabilitation

projects.²¹ The social funds' strengths lie more in the second line of action, although there is also much funds can do -- both before and after a disaster strikes -- to reduce the vulnerability of the poor to disasters.

Actions to Mitigate the Risks Faced by the Poor

There are a number of actions that social investment funds can take to reduce the vulnerability of the poor to disasters. These comprise both projects to reduce the damage that future disasters may cause, and financial schemes aimed at mitigating the risk:

i. Social funds can set a standard of best practice in their infrastructure construction programs by incorporating project designs aimed at reducing the potential damage from future disasters. In particular, masonry buildings need to be reinforced with tension-resistant elements that will tie the structure together (e.g., confined masonry). Stricter building codes and higher quality materials will, of course, result in higher construction costs. The task of social funds is to find reasonably priced, structurally sound solutions that make maximum use of local materials. It is prohibitive to build disaster-proof structures, but a key objective of all reconstruction programs should be to minimize deaths from future disasters. This is a particularly important precept in the case of schools (one of the mainstays of social fund programs), where the lives of many children are at stake. Keeping the health posts built from collapsing is also critical, because they are precisely the facilities that are most needed when a disaster strikes.

A valuable service that social funds can perform is to set an example by not rebuilding in risk-prone zones that have been ravaged by previous disasters (e.g., unstable terrain, riverbeds, coastal areas subject to flooding, etc.). Obviously, rebuilding structures in the same locations -- in other words, reproducing vulnerability -- is a bad investment

²¹ Steen Jorgensen and Julie Van Domelen have developed a broad conceptual and operational framework for the role that social funds can play in risk-management strategies. Within this framework, the lines of action that I emphasize in this paper would entail: i) expanding the use of disaster risk mitigation programs in the project portfolios of social investment funds, and ii) in the

practice that will eventually cause additional harm to the intended beneficiaries. Social funds should make maximum use of hazard-risk mapping and encourage the development and enforcement of land use planning and zoning codes.

Social funds can also incorporate in their projects training activities aimed at strengthening technical capacity to mitigate the potential impact of natural disasters. Training will need to cover not only the funds' own personnel but that of local governments, NGOs, and community organizations that work in partnership with the funds.

ii. Social funds should broaden their portfolios to include damage mitigation projects -- for example, environmental projects such as flood control, retaining walls to contain landslides, reforestation, infrastructure to counter drought, etc. In this way they can contribute not only to reconstruction efforts but to a structural transformation that will reduce a country's environmental vulnerability. This is particularly true in the case of hurricanes, where damages tend to be closely linked with pre-existing ecological degradation (and, at the same time, with existing poverty). In Honduras, Nicaragua, and Madagascar, highly deforested and soil-depleted areas were among the hardest hit by the hurricanes -- not surprisingly, these same zones were also among the poorest in the countries. Disasters tend to lay bare the dire social and ecological conditions that exist in many poor countries and focus national and international attention on these issues. Thus, they often create a window of opportunity for taking a step forward in the task of reducing poverty and reversing environmental degradation.

iii. As indicated above, the social funds' role in microfinance is small. Nevertheless, the microcredit operations that funds have created tend to reduce the vulnerability of the poor by diversifying their sources of income, sometimes away from more risk-prone occupations such as the farming of micro-holdings. There is also the possibility of promoting insurance schemes through microcredit programs, and even

wake of a disaster, squarely target the funds' coping potential on the poor affected by the disaster. Both lines of action are clearly essential.

considering "forced savings" for insurance purposes (although this can hardly apply to the population in extreme poverty).

iv. Finally, it is relevant to note that to the extent that social investment funds are successful in generating employment or expanding social services to low-income groups, they will in fact reduce the vulnerability of the poor to disasters, particularly for people in danger of falling below subsistence levels. Moreover, to the extent that funds contribute to widening social capital and furthering community-based solutions, they will also reduce and mitigate risk for the poor²².

Maximizing the Capacity of Social Funds to Intervene Effectively in Emergency Situations

As indicated earlier, the delivery of post-disaster assistance to the poor can be improved by taking advantage of the inherent strengths of the social investment fund model. The following are some steps that funds can take to expand and bring to bear their potential in this regard:

i. Employ a proactive approach aimed at producing tangible results in the short term. A fund can play a vital role in an emergency situation by diverting a significant part of its programs toward the reconstruction and rehabilitation of damaged small-scale infrastructure. A rapid response is critical, both for humanitarian reasons and to halt the inevitable economic downturn. Weeks and months are often lost getting the reconstruction process started -- not only in setting up government programs but in putting the external assistance obtained from external donors and financial institutions into effect.

ii. Narrow the focus of the social funds' targeting mechanisms: center on the geographical areas and the poor most affected by the disaster. Social investment funds

²² See Jorgensen and Van Domelen (1999), Section IV.

have developed sophisticated methods for targeting the regional distribution of their operations and have considerable practical experience in this field. In emergency situations there will be a need to rework poverty maps and adapt the corresponding targeting software to focus on hard-hit areas and vulnerable households. This will entail mapping the regional patterns of the damage caused by the disaster over the standard poverty-based project distribution maps.

iii. Establish close linkages with the management and coordination agencies that the governments have set up to oversee disaster prevention, mitigation, and response activities at the national level. It will also be essential to build direct partnerships with other actors involved in the process. Of particular importance are early contacts with citizens' groups and private sector and civil society organizations, which are generally the first to respond to the needs of disaster victims. Moreover, given their decentralized mode of operation, social funds are in a good position to establish close links with the work of local governments. Finally, in order to ensure effective donor support during emergency situations, the funds will need to establish a permanent dialogue with the regional offices of the international financial community that work in the country.

iv. Prepare "contingency manuals" that spell out the guidelines for social fund operations to follow during post-disaster emergency situations. The drafting of these manuals could be included within the project components of the World Bank's loan operations. The manuals could include the following components:

- Action plans for disaster management operations, specifying the types of projects that could be financed by the social funds during the emergency period -- with their own budgets or with supplemental financing -- and the list of ongoing programs that would be put on hold. In addition to social infrastructure projects, the portfolio of social funds should include economic infrastructure that will directly contribute to restoring the production and permanent employment of the poor (rehabilitation of rural roads, small irrigation projects, market installations, etc.), and the type of

public works that will reduce the vulnerability of the population to disasters (environmental projects, etc.).

Contingency plans should also specify the types of projects or services that a fund will *not* venture into (e.g., relocation programs, food distribution, vaccination campaigns, urban planning design, etc.). A fund is not a relief program but a development project and should not be expected to change its nature during an emergency situation. The benefits that a social fund generates should be attained largely through the implementation of investment projects. Moreover, a fund should not be overburdened with too many initiatives and should concentrate on the types of projects that it is familiar with and can do well.

- Guidelines for determining how to assess the needs of communities in the wake of a disaster: organizational structure, operational methodology, staffing requirements, equipment, etc. It is important to ensure that the pressure to obtain rapid results does not lead authorities to ignore the demand-driven nature of the social funds. Communities should participate in the identification of the disaster-damage risks that they face and in the selection of the projects needed to reduce vulnerability. Project ownership by communities will be conducive to increasing project sustainability -- which is a major concern in disaster-damage prevention infrastructure projects.²³

- Guidelines for giving more flexibility to the social fund operations during emergencies (with respect to procurement, contracting procedures, etc.). In the aftermath of a disaster, consideration should be given to allowing for a limited period of time a system of direct contracting of projects.

²³ See Soundy W. and Velasco O. (2000).

- Regulations for strict financial oversight of the increased flow of funds that the emergency operations will entail. These should include provisions for independent financial and operational audits performed on at least a quarterly basis during the emergency period. Transparency and accountability in the use of resources are not only conducive to efficient and effective operations but are essential for ensuring the continued support of the international financial community. Also essential are explicit provisions for maintaining quality controls over the emergency projects.

- Guidelines for close cooperation with civil society organizations and neighborhood groups engaged in civic action. This will make projects more responsive to real needs and further accountability in social fund operations. The active participation of civil society in disaster reconstruction programs is increasingly becoming part of the conditionality stipulated in funding agreements with country donors and international financial institutions.

- Plans for further operational decentralization to pave the way for social funds to move quickly into damaged areas following disasters. There is a need to develop contingency plans for opening new regional offices, hiring and placing in the field additional personnel with the required skills, and acquiring additional equipment. Furthermore, explicit knowledge about the capacity of local contractors and NGOs to execute projects is very valuable in emergency situations.

- Guidelines for expanding fund activities in areas where women have a comparative advantage.²⁴ In developing countries, poverty is more prevalent among women, and women are more vulnerable to downturns in

²⁴ See Siri (2000), pp. 13,19.

economic activity. Thus, incorporating more women as beneficiaries of social fund projects amounts to targeting benefits to the poor population most affected by disasters. Moreover, women are the prime generators of social capital at the micro level -- a factor that is especially valuable in emergency situations. Expanding women's participation in fund projects is conducive to more effective operations. The following types of social fund projects are good examples of operations that benefit women and also take advantage of their development potential: i) health posts (women and children make more visits to the health clinics); ii) drinking water facilities (essential for maintaining the health of families); iii) microcredit programs (women tend to organize themselves well in business ventures and are more responsible about repaying loan obligations).

Some Final Observations on the Role of the Bank in Disaster Assistance

Disaster recovery assistance is clearly a major concern of the World Bank and, since most people affected by disasters are poor, the concern falls squarely in line with the Bank's central mission of fighting poverty. There is growing recognition that decreasing and mitigating risk in disaster-prone countries and effectively tackling reconstruction tasks is clearly a matter of development policy. Reflecting the approach of the *Comprehensive Development Framework* (CDF),²⁵ policy discussions in recent Bank analytical work increasingly emphasize long-term issues such as disaster management. The Framework recognizes that disasters “also have an impact on country ability to focus on a longer term, holistic development agenda.” It draws attention to the need to address

²⁵ “The CDF puts forward a holistic approach to development. It seeks a better balance in policymaking and implementation by highlighting the interdependence of all elements of development—social, structural, human, governance, environmental, macroeconomic, and financial. ... In some cases, the CDF matrix will also provide a basis for discussing the impact of external global and regional issues in a given country as well as risks and vulnerabilities, such as natural disasters.” *Comprehensive Development Framework, Questions and Answers*. The World Bank, Washington, D.C. June 1, 2000.

“the tough economic management issues faced by countries that are subject to repeated shocks such as droughts or large commodity price swings.”

The World Bank is the largest provider of disaster management assistance. Its extensive support to developing countries in this field is channeled through three main avenues: i) prevention and mitigation projects, ii) reallocation of the funding for ongoing operations toward emergency recovery needs; and iii) investment in reconstruction operations.

i. In recent years, the Bank has focused increasing attention on activities that can reduce and mitigate risk before a disaster strikes. Of the more than 200 mitigation projects approved since 1980, more than 60 correspond to the last two years.²⁶ It is estimated that of the US\$ 8.6 billion granted to operations involving disaster mitigation, approximately 20% has been spent directly on risk reduction and mitigation components.

Since its creation in 1998, the Bank’s Disaster Management Facility has promoted a more proactive approach to disaster-risk management issues through analytical work in the field, workshops with the scientific community and private-sector groups, and through the incorporation of risk mitigation and reduction components into Bank development operations. In addition, the Bank has given special attention to forging partnerships with other actors that are working in the field. In February 2000, a broad coalition of governments, private sector, civil society, and international community development organizations, the ProVention Consortium, was established, with the aim of identifying and reducing people's vulnerability to natural disasters in developing countries and making disaster risk management an integral part of development policy.

²⁶ World Bank (2000a), p. 3.

ii. Another very important channel of Bank financial assistance to countries in emergency situations has been the reallocation of loan resources of ongoing operations to subprojects that respond to more urgent needs. Redirecting funding from regular operations is the quickest way of getting disaster reconstruction operations off the ground. Moreover, the Bank has facilitated the implementation of investment operations through the creation in 1966 of the Loan Administration Change Initiative (LACI), an integrated project monitoring system that aims to strengthen financial management. The system seeks to expedite disbursements and make the adjustment of project schedules more flexible.

iii. The World Bank has also supported post-disaster reconstruction projects in 63 countries, and in recent years has greatly expanded its activities in this line of assistance. During the three-year period FY 1998-2000, Bank lending for natural disaster reconstruction totaled nearly US\$ 3.5 billion -- a sum equal to about one-third of all lending in this area since 1980. Of the 129 reconstruction operations financed during the last two decades, 41 were approved in the last three years. Most of the projects in the Bank portfolio fall into the categories of transportation infrastructure (largely highways), urban development programs, and irrigation and drainage projects.

Social investment funds can play an important role in all three channels of disaster-related assistance. However, it is relevant to note that social fund operations are generally not registered as disaster assistance unless they are specifically labeled as supplemental emergency loans. Thus, the contributions that regular social fund operations make to disaster management are not identified as such. This deficiency can be remedied by systematically earmarking during the design stage of social fund operations (and whenever their project portfolios are restructured) the components that go to finance disaster assistance.

The Bank has supported social funds throughout the world and has been highly influential in their development. The close dialogue that it has developed with the

countries through these operations gives the Bank a certain comparative advantage for using social funds as strategic instruments to mitigate disaster-risk and, in particular, to targeting post-disaster coping operations squarely on the people most affected.

In general terms, the Bank's support of social investment funds for disaster management objectives could comprise the following risk-reduction and risk-coping activities:²⁷ i) Support the social funds' long-term preparedness and prevention programs; ii) Once a disaster has occurred, allow the funds to restructure their portfolios to meet the demands generated by the emergency; and iii) Consider granting -- under expedite procedure norms -- supplemental loans and credits to rebuild small infrastructure required for restoring basic services to the poor. Obviously, the conditionality assigned to all three types operations should be linked to meeting sound disaster risk reduction goals and to the targeting of the subprojects toward vulnerable communities.

The international financial community plays a decisive role in the financing of social investment funds and has considerable leverage in determining their size and scope and, in general, the breadth of disaster recovery investment programs as a whole. The Bank can use its lending program to mobilize additional external resources for disaster management operations and can work closely with other financial institutions to ensure the coordination of policy initiatives and investment projects. Clearly, the effectiveness of emergency assistance will require a close dialogue between international financial institutions, donor countries, international NGOs, and specialized agencies of the United Nations that are active in the countries.

Although most social funds do not have the necessary quantum to be the centerpiece of disaster management programs, they can play a pivotal role. A functioning social fund, experienced in managing large amounts of external assistance to finance scores of projects that benefit the poor is a valuable tool that a government can access when mounting a reconstruction program. Similarly, the World Bank and its partners in

²⁷ See the World Bank's *Operational Policies: Emergency Recovery Assistance*. The World Bank Operational Manual, December 2000.

the international financial community can take advantage of the institutional development that social funds represent to channel disaster assistance to developing countries. The existence of social investment funds in more than 60 developing countries constitutes an important asset in the field of disaster management.

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