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Risk Management in South Asia
A Poverty Focused Approach

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ACRONYMS AND ABBREVIATIONS

BAAC	**Bank for Agriculture and Agricultural Cooperatives**
BGMEA	**Bangladesh Manufacturers and Exporters Association**
BRAC	**Bangladesh Rural Advancement Committee**
BRDB	**Bangladesh Rural Development Board**
BRI-UD	**Bank Rakyat Indonesia-Unit Desa**
CBOs	**Community Based Organization**
CREDA	**The Centre of Rural Education and Development Action**
EGS	**Employment Guarantee Scheme**
FFW	**Food for Work**
GDP	**Gross Domestic Product**
GNP	**Gross National Product**
ICRISAT	**International Crops Research Institute for Semi-Arid Tropics**
ILO	**International Labour Organization**
IPEC	**International Program on the Elimination of Child Labor**
JRY	**Jawahar Rozgar Yojana**
MVF	**M. Venkatrangaiah Foundation**
NGO	**Non-Government Organization**
PERs	**Public Expenditure Reviews**
PPF	**Public Provident Fund**
PPP	**Purchasing Power Parity**
PRSP	**Poverty Reduction Strategy Paper**
RHP	**Rural Health Program**
SASHD	**South Asia Human Development Sector**
SCNSB	**Sri-Lanka National Savings Bank**
SEWA	**Self Employed Women's Association**
SPARC	**Society for Promotion of Area Resource Centers**
SUC	**Standard Unit Contract**
TR	**Test Relief**
UNICEF	**United Nations Children's Fund**
WDR	**World Development Report**

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PREFACE

This paper has been prepared for the South Asia region by Ambar Narayan, Tara Vishwanath and N. Roberto Zagha. We would like to thank the Social Protection Network for supporting this work. We would also like to thank Rie Hiraoka for inputs on the Child Labor section, Salman Zaidi for inputs pertaining to Bangladesh, and Robert Palacios for materials contributing to the section on pension reform. Finally, we are grateful to Alfred Friendly for editorial support, and peer reviewers Shanta Devarajan and Manny Jimenez for helpful comments.

CONTENTS

BOXES, FIGURES AND TABLES IN THE TEXT

Executive Summary

The World Development Report (2000) and the consultations preceding it have focused attention on particularly important aspects of poverty – risk and vulnerability. The poor, especially, are subject to a variety of risks that affect their short-term well-being and long-term ability to climb out of poverty. Because they lack the ability to insure against risks, the poor often shape their behavior and decision-making to minimize exposure to risks, even at the cost of economic efficiency and long-term interest. Poverty and vulnerability are thus mutually reinforcing, each likely to aggravate the other. As part of the Bank's recognition of this vulnerability and its consequences, this paper reviews what is known about the risk-coping and risk-mitigating behavior of the poor in South Asia, the support they receive from governments and NGOs and the Bank's contributions. It also presents suggestions for a strategy that integrates efforts to reduce poverty with efforts to overcome risk.

Since poverty and vulnerability are mutually reinforcing, measures that mitigate risk can also bring meaningful reductions in poverty. Particularly for South Asia, where poverty is widespread and resistant to many traditional policies, the paper argues that effective poverty-reduction requires complementary risk-management measures that can cushion poor households against temporary setbacks, so that transitory events do not produce permanent destitution. In addition to the range of familiar safety-net programs such as targeted employment programs, credit and insurance, the paper finds promise in the microfinance movement spreading throughout South Asia and in informal, savings and insurance schemes. Such undertakings share one trait; they link participants with market institutions. For economic growth to yield strong, sustained returns in reducing poverty, markets must not only function efficiently but also enable the poor to gain strength from them.

While standard poverty reduction measures have traditionally focused on ways to improve the *mean utility* of a poor household, the objective of Social Protection is best understood in terms of reducing the *variance* of household's *utility* over time. However, since poverty and vulnerability are closely linked, the policy responses to them overlap considerably, with important synergies. Having said that, a social protection strategy must extend beyond the traditional poverty reduction measures, to focus on creating opportunities for households to manage risk better, primarily through a variety of instruments that perform the role of safety nets. The focus of this paper will be on these elements of a social protection strategy.

Social protection in developed countries have traditionally encompassed safety net measures like unemployment and health benefits and insurance, social security and food stamps. For countries in South Asia, where a vast majority of the poor are concentrated in the informal sector, the existing level of institutional development – with, for instance, the near-absence of insurance markets and institutions necessary to identify beneficiaries – strongly limits the scope for social protection through formal mechanisms. Improving the institutional capacity would thus be imperative for social protection. However, given that such change is a lengthy process, the social protection strategy for the region in the immediate future has to look beyond the traditional formal mechanisms, and incorporate the potential role of existing programs like public works, as well as programs that involve the use of informal community-based institutions.

Going beyond the specific programs under review, the current study's central message is a broad one: an effective social protection strategy must consciously integrate risk management and poverty reduction. They are two sides of the same coin.

Poverty and Vulnerability

South Asia is home to the largest number of the world's poor. While the incidence of poverty as defined by head-count ratio has shown some decline in all South Asian countries over the years, a sizable proportion of the population in all the countries still live in poverty. Moreover, conventional measurements – head-count ratios of the population of various countries below their poverty lines – portray the static picture, but say little about the movement of households in and out of poverty in response to shocks. The limited evidence available reveals such movements to be quite common, and transitory poverty to be a dominant component of total poverty. Thus in order to understanding vulnerability better, more comprehensive studies that analyze the dynamics of income and poverty are imperative for South Asian countries.

The link between poverty and vulnerability arises from the fact that the poor have higher exposure to a variety of risks, and also lack access to instruments to mitigate and cope with such risks. Risks range from the household-specific (or idiosyncratic) danger of a crippling illness or death, to the community-wide (covariant) risks posed by an economic downturn, a conflict or a natural disaster. For the poor in South Asia, normal living conditions carry a higher-than-normal risk to health, and labor markets in the informal sector where most of them are employed expose them to high risks of unemployment. Harvest risks, additionally, raise higher threats to poor farmers with restricted access to credit, pesticides, disease-resistant seeds and irrigation. Floods and plagues, while affecting all, do tend to leave longer-lasting effects among the poor.

The literature documenting the consequences of risk for the poor includes a study of South Indian villages where just the higher risk represented by a shift in the onset of the monsoon could cut the farm profits of households in the lowest wealth quartile by 35%, compared to a 15% reduction for median households and no effect on the wealthiest. Hardest hit everywhere are those who must depend on others: children, the elderly, widows, the chronically ill and the disabled. Women are also especially vulnerable in South Asia, according to evidence from a number of countries.

Compared to those who are better-off, the poor have relatively few opportunities to mitigate risks. Being overwhelmingly concentrated in the informal sector, which is isolated from markets and formal institutions, the poor have little access to formal risk-mitigating instruments. The market failures in insurance and credit markets that arise mainly from information gaps can be circumvented only through the use of collateral; the poor however seldom possess assets that can be used as collateral. Thus to cope with shocks, poor households are often obliged to adopt strategies with possible long-term adverse consequences, like withdrawing children from school to contribute their labor to the family, selling crucial assets or crop inventories, or borrowing from moneylenders at usurious rates of interest. Other than such coping measures, risk-mitigation, whether through diversification in livelihoods or informal kinship-based arrangements, can be potential strategies. Opportunities for diversification are however limited for poor households, due to factors like lack of skills and assets required to start a new activity. Thus their mechanisms for risk mitigation consist mostly of adopting low-risk, low-return technologies, at the cost of income and productivity, or informal arrangements based on migration and participation in kinship-based networks for mutual support. There is however evidence to suggest that such informal arrangements, while common, are inadequate in protecting the poor, and are also likely to prove inadequate in the case of wider community-level shocks.

The Role of Social Protection

Lack of access of the poor to formal instruments for risk-mitigation and coping, along with the inadequacy and the costly nature of informal instruments, together provide the rationale for public intervention in some form in the provision of safety nets, credit and insurance. Moreover, government participation can be justified on the grounds of the public good nature of these programs, where the externalities generated cannot be internalized by any private institution.

An important justification for public intervention in safety net programs, such as public works and cash transfers, has traditionally been redistribution undertaken with the goal of promoting equity and improving welfare of the poor. This paper argues that in the presence of uncertainty, the design of such redistribution programs should explicitly take into account the importance of reducing volatility in the context of their immediate impact. This is however not to discount the importance of redistribution programs that operate independent of a safety net objective, like transferring or creating assets or providing free health and education services for the poor, that should be an integral part of a long-term strategy to reduce poverty and vulnerability. In the context of an overall strategy, it will be imperative for each country to take into account country-specific factors to decide on an optimal mix of such programs that provide benefits independent of shocks, and social protection measures that directly target volatility.

Acknowledging the varieties of vulnerability and the differences in conditions across countries, it is nonetheless possible to suggest a social protection strategy that seeks to reduce risk, mitigate its impact and enhance the ability of the poor to cope with shocks. Many of the elements of such a strategy derive from such long-standing programs as targeted public works and targeted transfers to vulnerable groups, which can potentially provide risk mitigation and coping benefits. In addition, innovative microfinance initiatives that are spreading in South Asia appear to offer considerable benefits by providing access to credit. The informal mechanisms that drive the success of such credit initiatives can also be harnessed for providing a range of financial services, like savings and insurance, which act as instruments for risk mitigation.

Finally, while public safety nets like public works and targeted transfers can provide risk and welfare benefits in the absence of adequately functioning financial markets in the short run, the *long-term* solution would lie in correcting imperfections in credit and insurance markets, particularly since there is evidence to suggest that market imperfections hurt lower income groups disproportionately. Elimination of market constraints can be achieved through institutional reforms, including liberalization of the financial sector along with the creation of regulatory mechanisms that promote transparency. Such reforms should take precedence over a policy of direct subsidization of credit and insurance by the government, which has largely proved to be a failure in South Asia. This is mainly because the information problems that limit private participation also tend to make government programs unsustainable; also, the nature of government support often distorts the incentives of both private providers and clients. In the short run, public support in insurance and credit should largely involve nurturing and providing institutional support to innovative mechanisms like microfinance that seek to circumvent information problems by the use of informal networks on the one hand, and undertaking financial and regulatory reforms to facilitate market mechanisms on the other.

In deciding which programs are most likely to prove effective, it will be necessary to lay some analytical groundwork. Beyond identifying the most vulnerable populations in each South Asian nation, such inquiries should seek to classify the risks that threaten different vulnerable groups or kinds of poor households according to their incidence and severity, an exercise attempted in Chapter I. A companion effort would produce detailed evaluations of both the risk-reducing impact of existing anti-poverty programs and the performance and potential of less traditional approaches such as microfinance, issues addressed by subsequent chapters.

Targeting Vulnerable Groups: Widows and Children

The fact that widows and working children are among the most vulnerable in most South Asian countries should shape the priorities of policy-makers. While there is evidence, albeit indirect or anecdotal given the paucity of data, of the special vulnerability of *widows* in most South Asian settings, it receives inadequate attention from current public policy. Even safety net programs that do exist, like the long-running state-government pension schemes for women in India, leave much to be desired in terms of coverage and impact. Responding to the weaknesses of official programs, grassroots organizations have developed imaginative measures for insurance, social assistance and legal support for widows. As a foundation for action to reduce the vulnerability of widows, there is a need for governments to evaluate both the adequacy and the accessibility of existing safety-net programs. In cooperation with innovative NGOs, moreover, public efforts should aim at enabling poor women – and poor widows in particular – to exercise guaranteed legal rights and employ effective savings and insurance instruments to reduce the risks they face.

A social protection strategy that seeks to integrate efforts to reduce risk and poverty at the same time must also take into account the problem of *child labor*. Conservative estimates put the number of such working children in the region's five countries at 20-30 million, the largest concentration in the world. Although definitions of child labor vary and sweeping statements about the problem must be suspect, the need to supplement family incomes during times of stress is clearly an important reason behind children going to work rather than school. At the same time, the problem is attributable to the interaction of a complex range of factors that goes beyond economic factors, like the lack of access to quality education leading to perceived low returns to education vis-à-vis work, and social and cultural mores. A strategy to reduce child labor must therefore adopt a holistic approach that addresses the full range of complex issues involved.

While some progress has been made in prohibiting hazardous working conditions for children, South Asian governments have mostly been unable to institute enforceable bans on child labor. What seems to be necessary is a combination of policies that include social protection and poverty reduction programs that reduce the household's need for the child's earnings on the one hand, and measures to increase demand-side incentives for schooling (such as targeted enrollment subsidies, and increasing the availability of quality schooling) on the other. The few isolated instances of success in addressing the problem of child labor in South Asian countries have mostly been a result of community-based efforts, or partnerships between NGOs, government and private initiatives, involving intensive efforts to create awareness and on inducing gradual transition from work to school. Examples of such efforts are discussed in detail in Chapter II.

Assessing Government Programs

While it is true that strategies need to speak to specific country situations, some of the most important policy mechanisms have mitigating and coping impacts on a wide range of risks present in varying degrees throughout the region. Recognizing the wide-ranging impact of such policy mechanisms, Chapter III of the paper evaluates the role, impact and potential of the ones that are commonly used by governments in the region.

<u>Public Works</u>: Workfare programs, traditional mechanisms in South Asia and elsewhere for boosting the income of the poor through short-term employment can be purposefully designed to address vulnerability in the aftermath of community-wide shocks and seasonal downturns. What has proved problematic is ensuring that the programs actually target the poor and the vulnerable. Only if such public works are properly sited and timed, and if jobs can be distributed to match demonstrated need, will the assistance reach the target clientele efficiently. The benefits of the

program can also be directed towards the target population if the wages are kept low enough to ensure self-selection by the needy into the program.

Bangladesh's 26-year-old Food for Work (FFW) and companion Test Relief (TR) programs achieve a measure of self-selection by distributing wheat, considered an inferior grain, as payment in kind at less-than-prevailing agricultural wages. The Employment Guarantee Scheme (EGS) introduced by the Maharashtra state government in India in 1972 began as drought relief but has expanded to entitle all able-bodied adults in rural areas to unskilled jobs. Apart from stabilizing incomes during periods of low employment, EGS helps in mitigating the risk of labor market shocks and harvest failures, primarily by credibly guaranteeing work during times of need. Another large public works program in the region, India's countrywide Jawahar Rozgar Yojana (JRY) scheme, is targeted by time (the off-season) as well as geography (districts measured for their socio-economic backwardness). Unlike the EGS however, JRY's success in reaching poor households is very much open to question. But while the average transfer benefits from the program are low, consumption smoothing benefits may be considerable because of the timing of the program.

Evaluating these public works programs with the emphasis on their place in a social protection strategy, it seems clear that for risk mitigation, programs that are continuously available and capable of emergency expansion produce the highest benefits. Local market levels should play the decisive role in setting wages for unskilled labor with the understanding that higher payments may bring higher transfer benefits, but at the expense of precision in targeting the poor and desired labor intensity. Payments in kind that improve self-selection by the poor also carry higher costs that may outweigh the advantages. Also, as with most other existing programs, evidence on the impact of public works programs on vulnerability is inadequate, making further studies on the subject imperative for more detailed analysis. Finally, while public works are important mechanisms to reduce vulnerability, such programs do not reduce vulnerability from all sources, nor are they able to reach all vulnerable groups, like the old, the infirm and children. Other programs are thus needed to complement the role of public works, and targeted transfers in cash or kind is an important class of such programs.

Transfers in Cash or Kind: As entrenched in government social policy as public works, various means-tested social assistance programs in South Asia seek to make direct transfers to the poor through old-age payments, child allowances, subsidies and waivers for basic services and targeted human development programs. Taken together, the transfers represent short-term palliatives for vulnerability and poverty. In many cases however, the programs' targeting efficiency and impact on poverty are in doubt. Whether they mitigate risk, moreover, is an open question that is yet to be addressed substantively in empirical evaluations.

Pakistan's 20-year-old program of redistributing wealth through Zakat and Ushr taxes is yet to reach more than two million beneficiaries in any year in a country where many more live below the poverty line. Only about half of the direct payments being made, moreover, go to the poorest of the poor, those in the lowest expenditure quintile. Targeting problems are also apparent from available evaluations of Sri Lanka's Samurdhi program, a large proportion of which consists of direct transfers in the form of food stamp grants.

Under the circumstances, while existing government public works and cash transfer programs can be seen as important mechanisms of social protection, laying the foundations for a comprehensive social protection strategy that addresses poverty and vulnerability together would require a broader range of initiatives and reform of many of the existing ones. Facilitating innovative microfinance schemes that use group-based and other form of informal mechanisms to provide credit services would be a crucial element of such a strategy.

Microfinance: The spread of microfinance in recent years in South Asia offers important lessons. As of 1997, microfinance institutions in the region had $900 million in 2.8 million outstanding loans. Group-lending schemes, used by 93 percent of microfinance institutions in South Asia, are often able to circumvent the common sources of market failures, namely adverse selection and moral hazard, associated with conventional lending. By relying on peer pressure and the social information that the poor have about each other to monitor and enforce contracts, group-based lending provides incentives for borrowers to repay and improves selection of borrowers.

The evidence on the poverty-reducing impact of microfinance is however inconclusive – targeting has not been universally successful, and studies have documented barriers to participation in programs for the very poor. Moreover, a large proportion of microcredit loans seem to be going towards consumption smoothing – particularly for extreme poor households – instead of productive investment. In the absence of alternate forms of insurance, use of microcredit for consumption smoothing helps to reduce short run vulnerability, and is especially crucial for the extreme poor. However, credit used for non-investment purpose does not generate income, suggesting that for the poorest microfinance borrowers, consumption smoothing often occurs at the expense of long run improvements in economic status. Finally, the cushion that microcredit provides may prove highly inadequate if disaster strikes a whole community or, as in the 1998 Bangladesh floods, almost an entire nation. The vulnerability of the smaller microfinance institutions themselves to such calamities suggests the advisability of creating a separate disaster fund to tide the lenders through such widespread adversity.

The tradeoff between the long-term objectives of microfinance and its short-term use for consumption-smoothing suggest that providing alternative means of risk mitigation to the poor, for example in the form of access to insurance and saving schemes, can help microfinance achieve its long-term poverty reduction objectives. Such programs can be based on principles similar to those microcredit rely on, namely the use of informal social networks and local knowledge to circumvent information problems and mobilize support and awareness. Also, the fact that insurance provided by microfinance is inadequate against covariant shocks also underscores the importance of devising alternate insurance mechanisms specially designed for such risks. Chapter IV explores some of these relatively new directions in social protection.

Innovative Programs for Saving and Insurance Services

Savings can be a valuable instrument for risk mitigation and coping among the poor. While early microfinance programs were not effective in mobilizing savings, since it was thought that the poor are too poor to save, recent experience has shown that even poor households are eager to save if provided with safe, flexible and accessible accounts and attractive interest rates. Institutions like Safe Save in Bangladesh have been able to rely on the savings they mobilize for a majority of their credit activities, thus moving close to self-sustainability. Key to the success of these institutions in mobilizing savings from the poor is their ability to organize communities at the grassroot level, while decentralizing key elements of decision-making to groups within communities, which has led to ownership and commitment.

Another equally important instrument for mitigating and coping with risk, namely insurance, has been largely absent or ineffective for the poor. In rural areas, insurance programs have mostly been limited to crop insurance schemes to address harvest risk. Commercial crop insurance have had little impact – the rural poor comprise largely of either the landless or farmers who do not grow the crops that are usually insured, and most commercial banks focus on large commercial farms rather than on smaller holdings or riskier clients. A strong rationale for large-scale *public* intervention in crop insurance is that such schemes can pool risks at a national or regional level, and therefore also be able to insure riskier clients like poor farmers. However, public crop insurance in most countries in the region has proved to be not only unsustainable due to high costs, but also largely ineffective, due to a number of factors: lack of institutional capability, information problems that lead to moral hazard and adverse selection among clients, and distorted incentives for insurers due to availability of public funds to fall back on. While some public subsidies will no doubt be necessary for successful crop insurance, in order to be sustainable such schemes must operate on a commercial basis – focusing on insurable risks and calculating premiums based on actuarial data – and deny insurers automatic access to funds to cover losses.

In the near-absence of formal insurance against idiosyncratic risks faced by the poor, innovative attempts by *community-based* initiatives – often associated with microfinance institutions – have developed to provide coverage in the areas of health, life and asset insurance. Too recent to be definitively evaluated, insurance programs like Grameen Kalyan in Bangladesh and the program run by the Self-Employed Women's Association in India have indicated the potential role and sustainability of such initiatives. While the insurance products provided by these schemes are formal in nature, the delivery of products is carried out through organization at the community level, facilitated by the trust created by the existing relationship between the institutions and their clients. The full potential of community-based innovations can be realized if they are incorporated in the overall social protection strategy, which would help in replicating so far isolated efforts on a larger scale. The government's role in such a strategy would be to play the role of facilitator, through creating the right institutional framework, facilitating linking of microfinance institutions to markets, and contributing in initial financing if necessary.

The problems with traditional publicly funded crop insurance programs demand innovative solutions; one could be *area-based index insurance contracts*, where contracts are written against specific perils or events, like loss in average yield in the area, drought or flood, that are defined and recorded at a regional level. Insurance is sold as standard contract for each unit purchased where buyers are free to purchase as many units as they want to. Some of the attractive features of such schemes are low cost of administering, ease of marketing, affordability for the poor, and low moral hazard problems. Above all, it can be a sustainable way of insuring the rural population against covariant risks. However insuring against covariant risks also exposes the insurer to the risk of having to pay out huge indemnities at some instant; international financial markets can play an important role in hedging against such risk through mechanisms like reinsurance. Although private provision of such insurance should be the goal, public intervention may be needed in South Asia to provide the initial impetus, possibly in areas of credibly monitoring natural events, financing and creating regulatory framework.

If the systemic correlated risk faced by an individual is eliminated through index based contract, the only remaining risk the individual faces is of the idiosyncratic kind, which can be more easily insured through conventional insurance or credit markets, as well as through community-based mechanisms described above. Thus all the different mechanisms described above fit into an overall strategy of insuring the risks of the poor.

Pension Reforms

The elderly among the poor are an especially vulnerable group, and any social protection strategy should address their risks explicitly. On the face of it, formal pension schemes in South Asia are unlikely to have great impact in reducing the vulnerability of the elderly poor. Such measures (based on evidence from India) are estimated to cover less than 10% of the region's workforce, largely excluding the informal sector, where the overwhelming majority of the poor earn their livings. Even where pensions are available to working contributors, poor households are more likely to seek to shield themselves against the immediate perils of health, harvest and unemployment risks.

As discussed in Chapter IV, with significant reforms, that picture could change. A recent study of India's system underscores the need to develop a multi-pillar structure that would provide publicly funded benefits to those in need of social assistance, and participant-funded plans that define contributions for distribution after retirement. Where financial markets are experiencing on-going deregulation, as in India, opportunities are opening up for the creation of a competitive pension sector. At the lower end of the income scale, the work of informal savings, credit and insurance institutions also creates new possibilities for social assistance to serve the elderly poor.

Towards a Comprehensive Strategy for Social Protection

This report underscores the interdependence of poverty and vulnerability, and argues the need for a comprehensive social protection strategy that can address both. Although it is not possible to give a detailed blueprint for such a strategy, the broad building blocks that would underlie it are identifiable, as detailed in Chapter V of the paper. Designing a strategy should involve analytical assessment of specific kinds of risks and institutional arrangements relevant to each country, before an optimal mix of country-specific policies can be decided on. The country-specific strategies must have a poverty focus, given the close and mutually reinforcing relationship between poverty and vulnerability in the region. Moreover, the strategies should be informed by evaluations of existing forms of public and private (informal and formal) risk-mitigating and coping mechanisms in each country, that can generate suggestions for strengthening existing programs and expanding promising initiatives.

Briefly, the design of an optimal strategy for each country would involve (a) identifying the priorities in terms of vulnerable groups and specific risks, (b) deciding on the combination of instruments to be used, (c) setting goals for the programs, and (d) developing an implementation structure, identifying strategic partners on the ground. The review conducted in this paper also suggests some essential elements of a social protection strategy that are broadly applicable to the region as a whole. These elements, outlined below, must then be modified and adapted for specific country needs, as well as the institutional capability of individual countries.

Strengthening Risk-Mitigating Options: Institutional reforms that promote and expand market opportunities, backed by a regulatory environment that induce competitive behavior, are intrinsic elements of a long-term social protection strategy for all countries in the region. However, such institutional changes will take time to have their desired effect. Meanwhile, given the prevalence of risk and vulnerability in the region, it will be imperative for governments to incorporate measures that provide risk management options in the immediate future. As suggested by this paper, the options range from expanding and strengthening existing options in public safety net programs, including public works and targeted transfers, to building on recent successful experiences with community-based instruments like microfinance. The review of existing government, private or community based options in this paper provides some guidelines to improve the functioning of such programs as safety nets, and also helps identify the possible role that public policy can play in facilitating the expansion of informal, community-based initiatives.

The medium and long-term strategy for social protection in each country must include broad-based institutional reforms that create market opportunities to promote growth and facilitate formal mechanisms for risk management. Such reforms will also allow informal initiatives like microfinance institutions to make use of market opportunities – crucial for their expansion and sustainability. Specific priority areas would be in designing comprehensive pension reform to mitigate the risks of old age, and creating the right regulatory environment to help reduce information problems in financial markets. Equally important will be to design insurance to address covariant or community-wide risks. In the light of the failure of subsidized crop insurance schemes in the past, index-based insurance, which by design reduces transactions cost and moral hazard problems, may help mitigate some of these covariant risks. Finally, poverty-reducing interventions, even when they do not address risk management directly, are important long-term measures for reducing risk. One example of such intervention would be initiatives to improve income diversification opportunities for the poor, by expanding access to credit, training, and extension services.

Strengthening Risk-Coping Options: Since a large number of risks cannot be wholly eliminated, a social protection strategy must also focus on providing risk-coping options. This is especially true in the case of such covariant shocks as natural disasters, where most insurance mechanisms, formal and informal, tend to fail. A proper disaster-management strategy, planned in advance and implemented promptly, would help in coping with such shocks. The strategy must develop mechanisms for immediate and widespread relief efforts in the event of the disaster, as well as for addressing the more long-term needs of the affected people, in the form of assistance to rebuild their homes and livelihood. Public works programs can play an important role in providing livelihood, while helping in the process of rebuilding communities and infrastructure.

Integrating Social Protection into the World Bank's Program in South Asia

The principles outlined so far should guide the Bank's involvement, along with partners in respective governments, in designing social protection strategies for individual countries in South Asia. There is also a need to integrate social protection objectives in analytical work conducted by the Bank to underpin the development strategy for individual countries, as well as in specific programs undertaken by the Bank in various sectors. As a first step it will be important to assess the role of existing Bank supported projects, encompassing diverse areas including rural and social development, environment and infrastructure, in creating opportunities for social protection. Furthermore, given the mutually reinforcing relationship between poverty and vulnerability, there is a need to address issues of risk, vulnerability and social protection more exhaustively in country Poverty Reduction Strategy Paper (PRSP) initiatives than they have been so far. For this, country social risk assessments should be made an integral part of the background work for PRSP, possibly by having analytical initiatives like Public Expenditure Reviews (PERs) and Poverty Assessments explicitly address risk and vulnerability issues.

Integration of social protection in operational work of the Bank on the ground can be achieved through a number of avenues. For example, Bank supported anti-poverty programs (e.g. Poverty Alleviation Funds) could be expanded to include financial instruments that can better deal with risk. The Bank can also have a role in providing financial and technical assistance for pilot initiatives of innovative programs highlighted in this report, like savings and insurance schemes using local, community-based institutions. Such endeavors should have a special focus on monitoring and evaluation, to help learn the best practices on the ground, in order to inform scaling-up of current efforts and future design.

I. Rationale For A Social Protection Strategy

As articulated in the 1990 World Development Report, the World Bank's cornerstone for poverty-reduction policy rests on three critical elements: promoting growth to foster and expand opportunity, supporting investments in health and education to encourage human development and creating safety nets. Safety nets, however, are envisioned primarily as protection for the poor in times of macroeconomic downturns. Although implicitly recognizing some of the vulnerability that afflicts the poor in developing countries, the poverty-reduction strategy has not explicitly recognized a broad range of risks as a factor in poverty and in measures to combat it.

Incorporating risk explicitly in a poverty-reduction strategy, however, is important -- evidence has shown that the poor suffer disproportionately from the consequences of various kinds of risk. Often left destitute by the consequences of a shock, the poor, moreover, lack access to formal instruments for mitigating risks and are thus compelled to conduct their affairs in ways that weaken their ability to break out of poverty. The problem is especially relevant to South Asia, where the majority of the poor are concentrated in the informal sector, mostly in rural areas, where formal credit and insurance markets do not penetrate. In such circumstances, traditional poverty reduction strategies that accord risk little more than indirect attention may not produce the desired results. In recognition of this reality, the recent World Development Report (World Bank, 2000) has defined the three pillars of a poverty reduction strategy as opportunity, empowerment and security. This strategy paper for South Asia focuses on security concerns, going beyond the traditional approach toward reducing poverty to develop a social protection strategy dedicated to the objective of mitigating and coping with risk. In doing this, the paper draws from the discussion in the Social Protection Sector Strategy paper (World Bank, 2001), applying the insights and framework developed there to the specific context of South Asia.

Poverty and Vulnerability in South Asia

South Asia is home to the largest number of the world's poor. While the incidence of poverty as defined by head-count ratio has shown some decline in all South Asian countries over the years, a sizable proportion of the population in all the countries still live in poverty (Figure 1). In spite of growing relatively well over the recent decade, per capita GNP (with Purchasing Power Parity or PPP) of all countries and for the region as a whole remains low and is but a small fraction of that for middle-income countries (Figure 2). For a majority of countries in the region, average annual growth of GNP (at PPP) over the period 1989-99 has been higher than that in 1979-89, and has surpassed average rates for low-income and middle-income countries (Figure 3). In spite of the general improvement in growth, according to some evidence that is by no means conclusive, the pace of poverty reduction has slowed down in most countries in the region in recent years.

Poverty estimates like head-count ratio can however represent only the static status of poverty, and not its dynamic aspects, namely the fluctuations in income, consumption and general well-being of the poor, as well as the cause and impact of these fluctuations. Recent research using longitudinal household survey data has shown that poverty is often a temporary phenomenon, with a large number of households moving frequently into and out of poverty due to transitory shocks such as illness or loss of employment. A 9-year panel survey of households in south Indian villages found that movements into and out of poverty were the norm for most households – only 20 percent were poor throughout the period, while only 12 percent were never poor. [1]

Figure 1: Head Count Ratios with National Poverty Lines (for latest available years)

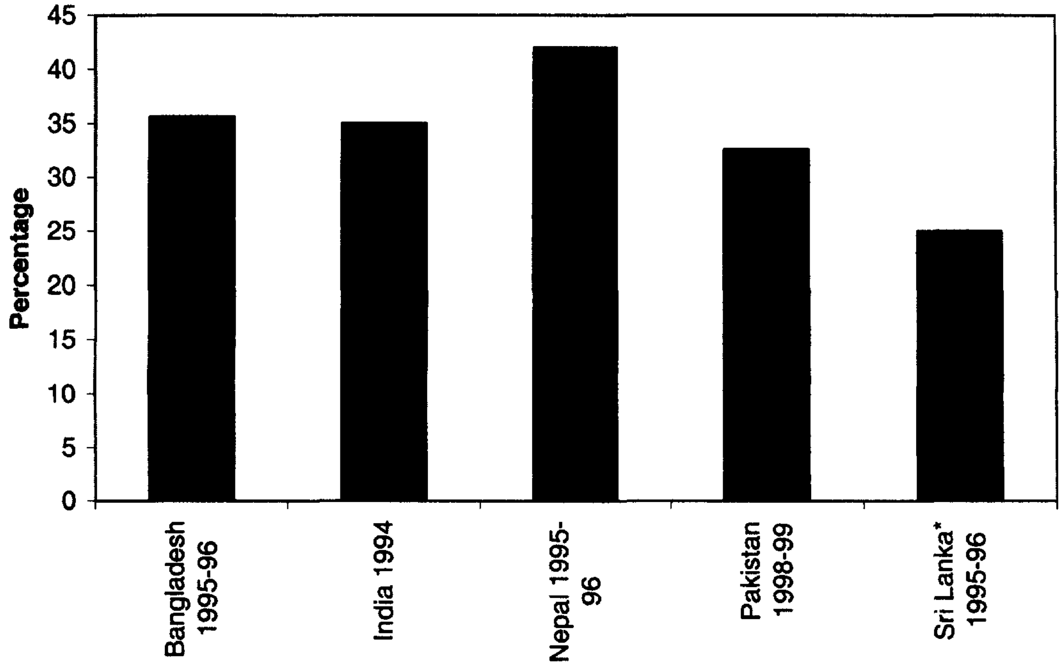
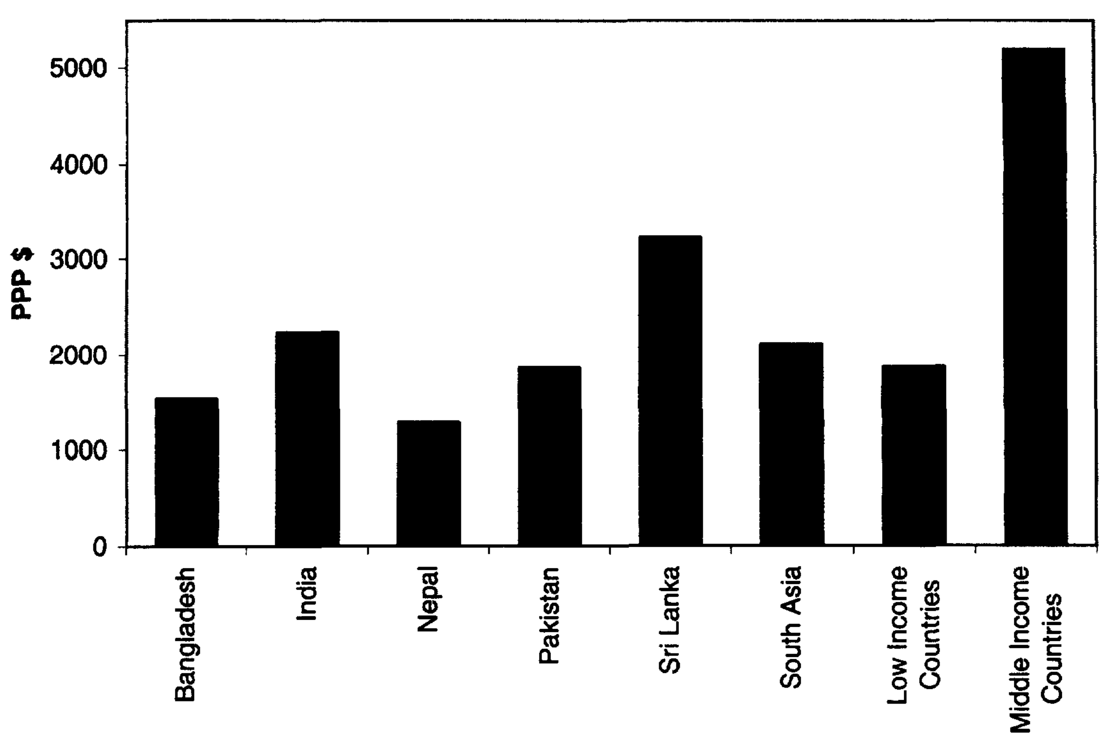
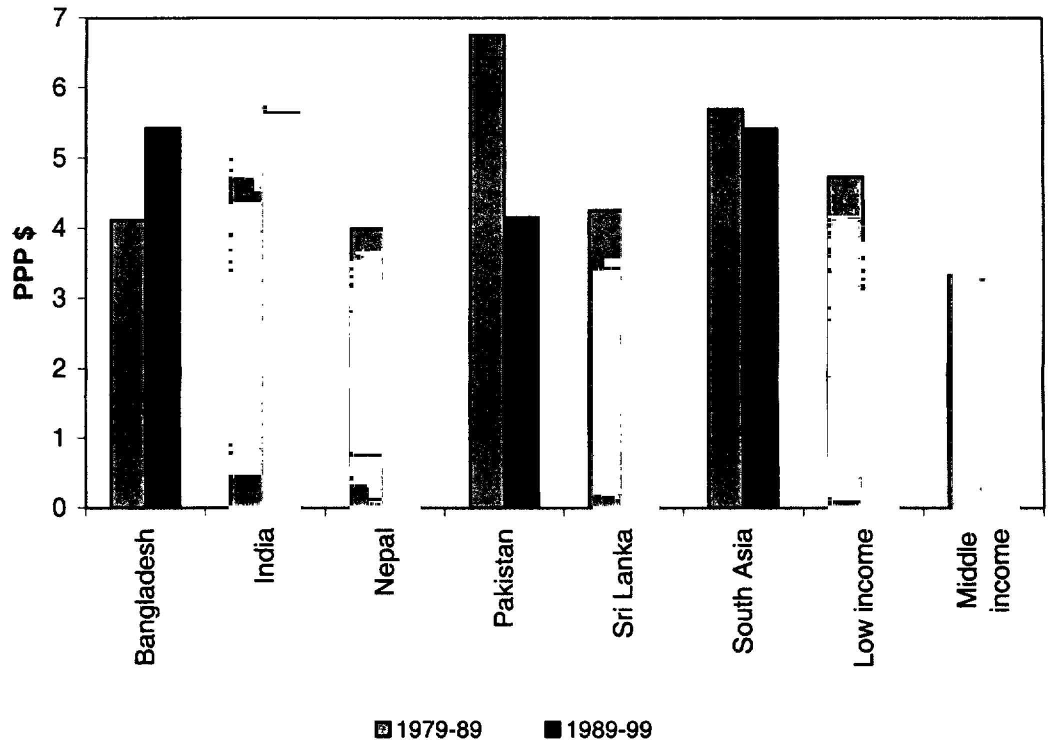


Figure 2: Per Capita GNP at Purchasing Power Parity in 1999



* The Poverty Head-Count Rate for Sri Lanka excludes the North-East Region of the country from the measurement

Figure 3: Average Annual Growth of GNP (Constant 1995 $) over Ten Year Periods



A direct consequence of such fluctuations is *vulnerability*, which can be defined as the likelihood of being adversely affected by a shock that usually causes consumption levels, or other factors that determine well-being, to drop. While vulnerability can affect a broad range of the population, as poverty assessments of a number of countries as well as other studies have shown, for various reasons the poor are more likely to bear its worst consequences. In the case of South Asia, the poor are exposed to a wide variety of risks against which they have little protection, mainly because they are overwhelmingly concentrated in rural areas and in the large informal sectors found in all countries, where formal (market-based as well as public) instruments of social protection are almost non-existent.

Even among the poor, certain groups, like children, the elderly, widows (and women in general) are especially vulnerable. Although existing studies contain very little quantitative evidence, primarily due to lack of suitable data, qualitative studies offer compelling anecdotal accounts of the high vulnerability of certain groups within poor households. While such groups exist in most developing countries, disparities across groups are especially stark in most South Asian countries, with various aggregate indicators suggesting deep intra-household differences with likely implications for vulnerability. For example, the male-female gap in primary enrollment rate in Pakistan is estimated at more than 20 percentage points. Significant male-female differences persist in education and health outcomes across South Asia, resulting in low levels of human capital for women, which increases their vulnerability; the social and cultural factors that are responsible for such gender differences also contribute to vulnerability of women. Studies have shown that women in South Asia often suffer more from the consequences of adverse shocks than men.[2]

Moreover, factors specific to countries in the region contribute to the acute vulnerability of certain groups. Social and cultural factors contribute to relatively higher deprivation – and therefore vulnerability – of widows, as measured by various indicators of well-being. For example, a recent demographic study indicates that mortality rates among Indian widows are about twice as high as among married women of the same age; similar results have also been found in Bangladesh.[3] Also, prevalence of child labor in some areas creates serious risks for large populations of children, especially in urban areas.

Social Protection and Poverty Reduction

Poverty is commonly understood in terms of inadequate consumption, education, health and other indicators of human welfare. However, poverty is also associated with insecurity and fear for the future – insecurity that stems from inability to cope with *risk* –, which is the dimension where social protection policy plays a direct role. Risks, best understood as the probability of shocks occurring that can adversely affect well being, can be unanticipated, like illness or a drought, or anticipated, like seasonal downturns in farm income (where severity but not timing is in doubt). It is useful to distinguish between two broad forms of risks or shocks, *idiosyncratic* and *covariant* – the former affects individual households, with the correlation of the occurrence of shocks across households being very low, the incidence of the latter on the other hand is highly correlated across households belonging to a community.

While standard poverty reduction measures have traditionally focused on ways to improve the *mean utility* of a poor household, the objective of *Social Protection* is best understood in terms of reducing the *variance* of household's *utility* over time. Thus while policies promoting growth and increasing access to health and education services improve the average well being of the poor, policies that create opportunities for households to manage risk better, thus reducing the impact of shocks, fall under the purview of social protection. It is however important to realize that since poverty and vulnerability are closely linked and reinforce each other, the policy responses to them overlap considerably, and also have important synergies. Improvements in the income opportunities and human capital of the poor, for example, would naturally reduce their vulnerability to adverse shocks, and avoiding disastrous effects of shocks would certainly promote their ability to climb out of poverty. In fact, all policy measures designed to reduce poverty, since they would also reduce the risks households are exposed to, would be important elements of a social protection strategy. However, the role of social protection must extend beyond such policies, and explicitly address the issue of risk management, primarily through a variety of instruments that perform the role of safety nets. The focus of this paper will be on these elements of a social protection strategy, and the crucial role of such a strategy over and beyond what is normally considered a poverty reduction policy will become clearer as the discussion proceeds.

Social protection in developed countries have traditionally encompassed measures like unemployment and health benefits and insurance, social security, pensions and targeted welfare programs like food stamps, which provide protection against shocks. While such programs are usually funded publicly (private provision, especially in areas of insurance, can also be seen), they are administered through an elaborate set of formal institutional mechanism to identify beneficiaries and deliver services. Developing countries, on the other hand, lack the resources necessary to provide such safety nets to the large sections of the population that need them, and even the resources which are available cannot be put to optimum use because of the lack of institutions necessary to identify beneficiaries and provide targeted assistance. Private provision of insurance is stymied by the lack of institutional and regulatory mechanisms that lead to market failures. For countries in South Asia, where a vast majority of the poor are concentrated in the informal sector, the existing level of institutional development strongly limits the scope for social protection through formal mechanisms. Improving the institutional capacity would thus be imperative for social protection. However, given that such change is a lengthy process, the social protection strategy for the region in the immediate future has to look beyond the traditional formal mechanisms, and incorporate the potential role of existing programs like public works, as well as programs that involve the use of informal community-based institutions.

Box 1.1: The Definition and Measurement of Vulnerability

Vulnerability can be defined as the expected welfare loss above a socially accepted norm which is caused by uncertain events and the lack of appropriate risk management instruments. Susceptibility to such uncertain or risky events would depend on a number of individual characteristics like age, gender, location and so on. A definition to vulnerability must thus take into account a range of factors like sources of risks, personal or household characteristics that determine exposure to risks, access to risk management instruments, and the time frame over which the negative consequences of a shock persist. The World Bank has recently moved towards operationalizing a definition for vulnerability that incorporates these key elements.[4]

Arriving at a satisfactory measurement of vulnerability poses an additional set of challenges. The common practice so far has been to look at consumption of households in order to detect patterns that suggest vulnerability. Measuring vulnerability in terms of consumption has its undeniable appeal – first, because vulnerability in most cases will affect consumption, and second, because changes in consumption are the most easily observable and measurable outcomes of vulnerability. For example, Morduch (1998a) and Pitt and Khandker (1998) use measures of consumption variability, like the coefficient of variation of consumption, or the variance of log consumption. A somewhat different approach is adopted by Amin, Rai and Topa (1999), who estimate household-specific vulnerability parameters where a household is considered vulnerable if idiosyncratic income shocks are passed on to current consumption. By this measure, a household is not vulnerable if it is only affected by aggregate village-level fluctuations in income and not by idiosyncratic shocks to the particular household's income or resources. Jalan and Ravallion use a similar measure in their study of vulnerability in rural China. Another way to measure the vulnerability of the poor and the near-poor is to look at how often a household is above or below the poverty line over a given period, as done by Gaiha and Deolalikar for a nine-year panel survey of south Indian villages.

However, vulnerability extends to a number of other dimensions that may not be entirely captured by consumption evidence. Children's health and development, physical well-being, social capital, family sizes and insecurity of old age are but some of the dimensions where vulnerability can have adverse impacts. Since many of these effects are hard to observe, let alone measure, an enormous measurement challenge faces studies of vulnerability among the poor. Vulnerability along some of these dimensions can only be addressed through detailed qualitative surveys, which should preferably be aligned with parallel quantitative surveys to ensure comparability of vulnerability along these dimensions with income and consumption volatility.

The Measurement Challenge

In order to formulate a strategy, it will be imperative to understand vulnerability – the likelihood of experiencing drops in utility as a result of shocks – in terms of its nature, causes and impact. This would involve not only examining the particular factors that place individuals, households and communities at risk of poverty or worsened poverty, but also *measuring* effectively the extent to which the poor are vulnerable. Analytically, this would require exploring the dynamics of poverty, namely the movement of households into and out of poverty and the likelihood that those who are already poor could fall into deeper poverty, and the factors that determine these movements. Box 1.1 describes some of the objective measures of vulnerability developed in economic literature, as well as some of the limitations of and challenges faced by such empirical estimates. One of the most significant obstacles to being able to reliably measure vulnerability is the lack of availability of panel data for most South Asian countries. Identifying the causes and indicators of vulnerability would also be greatly facilitated by suitably incorporating qualitative information to capture the sources of non-income dimensions of risk, which may not be fully captured by quantitative data.

How Vulnerability Affects the Poor

It is not difficult to see why the poor are among the most vulnerable in any society. Poor households usually lack land, financial assets or other mechanisms to tide them over in the event of a shock; another contributing factor is the generally less-diversified sources of the income the poor receive. In addition, in order to cope with a shock, the poor often have to disinvest whatever meager resources they do possess, often at the cost of long-term potential to climb out of poverty. In the absence of the risk-mitigating mechanisms available to the more fortunate, the poor are also compelled to make choices that affect their long-term productivity. Thus not only are the poor less resilient to shocks, the strategies they are compelled to adopt can further trap them in a cycle of low productivity and low income. Ample evidence in existing literature describes the extent of income fluctuation the poor are subject to. A study of villages in south India showed that an increase in risk, represented by a 1 percent increase in the coefficient of variation of the date of the onset of the monsoon, reduced farm profits of the households in the bottom wealth quartile by 35 percent, compared to only 15 percent for the median household, and almost none for the wealthiest.[5]

Attempting to protect themselves against income fluctuations, poor households must find ways to reduce vulnerability through informal channels which can be classified either as mechanisms of *self-protection* or as *group-based relationships* between households.[6]

Self Protection – Costs and Limitations

Self-protection refers to ex ante and ex post measures taken by individual households to mitigate risk. Ex ante measures are adopted in order to minimize exposure to risk by taking anticipatory precautions. In the presence of inadequately insured risk, the rational measure of a risk-averse poor household would often be to *adopt technologies that are less risky*, even if it is at the cost of lower expected returns. For example, in rural south India, farmers have been slow to adopt improved varieties of sorghum and rice offering higher average yields than traditional crops along with a higher risk of failure, out of concern with protecting themselves against risk. There is evidence that in risk-prone areas of India, households may sacrifice as much as 25 percent of average income to reduce exposure to shocks.[7] The poor also enter into credit/land arrangements like share tenancy and tied labor that balance risk against average return. Besides being costly in terms of potential income for the household, such behavior limits experimentation and stifles innovation, which are important for growth and development.

While *diversifying income sources* is another rational ex ante measure to smooth income flow, such smoothing is often imperfect, particularly in rural areas. This is largely because firstly, non-farm income tends to move with farm income during times of crisis, and secondly, opportunities for diversification are extremely limited for poor households, due to their lack of assets required to start a new activity and lack of skills. Empirical research also shows that poor households in developing countries often engage in *precautionary savings* in anticipation of income shocks.[8] Since high-frequency consumption smoothing would necessitate liquidity, poor households may be driven to accumulate highly liquid assets at the cost of less liquid (and higher-yielding) productive investment for farm or other household enterprises. There is evidence that such choice of asset portfolio has costs in terms of loss of productivity and income.[9]

Self-protection can also take the form of ex post measures, when unanticipated downturns cause individual households to draw on savings, sell assets acquired during better times, increase labor supply or borrow from rotating savings or credit associations. Although studies have found evidence for the use of buffer crops, in particular, for smoothing consumption,[10] such opportunities tend to be limited for the poor – studies in rural India show that buffer stocks are used only by relatively large landholders to smooth fluctuations in income, evidently because only they possess such stocks.[11] Moreover, in times of community-level shocks, prices may fall because a large number of households are offering assets in the market, with the result that the sale of such assets may not generate enough resources.[12] Even when the poor do have some assets to sell, being compelled by short-term survival needs to sell their few assets for very low returns in the aftermath of a shock, may adversely affect their long-term productivity for which the assets would have been valuable.

Because they own few assets in the first place, the poor are more likely to rely on *increasing their labor supply* in times of a shock, and by diversifying labor supply across additional household members, like women or children. Evidence has shown that in response to income shocks, poor households often have to draw on the labor of their school-age children, interrupting their schooling.[13] In so far as erratic school attendance lowers educational attainment and thus the children's future productivity, such responses to income shocks are costly in terms of perpetuating poverty. Household responses to risk may also have disproportionately unfavorable effects on certain members of the household. Studies in India have found that girls' nutrition suffered more than boys' during slack seasons; price changes have also been found to affect girls' consumption more than boys'.[14] All these evidence point to existence of intra-household effects of shock that are hard to measure but of great importance in terms of impact on well being.

Group Based Mechanisms – Role and Limitations

The poor also rely on personalized or group-based relationships, to take ex ante measures for mitigating risk as well as to cope with the consequences of shock. Relationships that have often been developed over years in effect allow households to tap into a store of community resources during times of crisis. Interest-free lending of surplus land to poor households, or loans where the terms of repayment are conditioned on income realized are examples of such expedients. Ex post group-based measures often take the form of gift exchanges based on a tacit agreement to reciprocate, as well as borrowing or lending among members of a group in times of need, using the ability of members of the mutual support network to monitor each other's repayment. Evidence indicates that large amounts of such transfers occur among poor households in developing countries.[15] Such informal risk sharing based on reciprocity would be more effective against shocks that do not affect the whole network, with the result that wider the network, broader is the extent of potential risk sharing and consumption smoothing.

Townsend (1994) finds strong evidence for risk-sharing in three ICRISAT villages in South India, especially against idiosyncratic, and not covariant, shocks; however even in case of idiosyncratic shocks, evidence suggests that consumption smoothing was only partial.[16] Such findings not only confirm the risk-sharing role played by informal group-based arrangements, but also underline their limitations, particularly in protecting the poor.

Firstly, informal networks often exclude the poor. Informal insurance can work if people attach enough importance to the future, since compliance is ensured by the fear of exclusion from the arrangement in future. Since a person in poverty is more likely to value the present more than the future, the poor may drop out of such informal arrangements. Poorer members may also be excluded from arrangements by richer members; or the network itself may be weakened by the rich opting out over time from such arrangements, perceiving greater benefit in forming a group with only the rich, or being on their own.[17]

Secondly, group-based arrangements, even when the poor participate in them, may not provide enough protection. Studies have found that in rural South India, the poor have only limited insurance, even against idiosyncratic shocks, from informal networks.[18] Evidence from India and China indicate that the poor and the landless are much less protected against income fluctuations than the rich and large landholders. Another study has estimated transfers to be less than 10 percent of the size of income shocks typically in bad periods.[19] Insurance may also deteriorate with distance, since informal networks tend to become less effective as the social ties that bind them matter less over long distances.[20] Finally, informal arrangements can also lead to exploitative scenarios where the richer members of the group, by virtue of their superior bargaining position, can extract the entire available surplus from the poor, by compelling them to provide labor for very low wages in return for protection during hard times for example.[21]

Mutual insurance and kinship networks are also unlikely to provide adequate insurance in the case of village or community-level shocks,[22] primarily because their risk-pools are not sufficiently diversified. Apart from that, informal group-based mechanisms work through reciprocity that is self-enforced through norms and social pressure but prone to fall apart during times of high stress when many members are likely to choose to hold on to whatever they have rather than share it. Thus informal arrangements, coming under the highest stress during especially hard times when insurance is needed most, are likely to fail the test.

Rationale for Intervention

The discussion so far indicates that firstly, the poor suffer from a high degree of vulnerability, and secondly, given the absence of formal safety net mechanisms, rely to a large degree on self-protection and group-based arrangements to protect themselves against risk. However these household and community level strategies usually provide inadequate protection to the poor, and moreover are likely to lead to adjustments with significant long-term negative effects on their productivity and ability to climb out of poverty.

It is also important to understand why formal market-based instruments for risk management are unavailable to the poor. The reasons for this are mainly to do with the concentration of the poor in rural areas and in the informal sector in both rural and urban areas of South Asian countries. Isolation of the poor from the formal sectors (which are likely to be urban-based) means that market-based institutions have very little information about the poor and almost no ability to monitor, which leads to significant adverse selection and moral hazard problems that contribute to market failures in insurance and credit.

Such market failures, along with the inadequacy and the costly nature of informal instruments, together provide the rationale for public intervention in some form in the provision of safety nets, credit and insurance for the poor. In the case of a range of safety net programs, such as public works and targeted transfers to vulnerable groups among the poor like the elderly and widows, government participation is justified on the grounds of the public good nature those programs, where the externalities generated cannot be internalized by any private institution.

An important justification for public intervention in the form of safety net programs such as public works and direct transfers like social assistance has traditionally been redistribution undertaken with the goal of promoting equity and improving welfare of the poor. While these considerations are critical, incorporating the objective of social protection can have significant implications for the design and targeting of such programs. To see what this means, one should note that in the presence of uncertainty or risk, a redistribution program, in order to raise the welfare of its beneficiaries, should aim to increase their *expected utilities*. It is easy to see that in the presence of a high degree of volatility, for individuals who are risk-averse – and there are strong reasons to believe that most poor people fall into this category – the increase in expected utility for the marginal dollar of transfer will tend to be higher if the transfers are targeted to reduce the impact of shocks to income and consumption flows. In other words, given a budget constraint for expenditures on transfers, the impact of redistributive transfers on welfare may be maximized by targeting transfers to perform a role similar to that of insurance, that of smoothing income and consumption flows when there is high volatility in these flows. Consequently, Chapter III of this paper will discuss the extent to which existing redistributive safety net programs do perform this role, and how they can be improved upon with this objective in mind.

The redistribution rationale for public expenditure on safety nets is obviously distinct from the aforementioned rationale of addressing market failures for intervention in credit and insurance markets. However, there are important links between the two. The primary reason why redistribution schemes like public works and direct transfers need to address volatility in income and consumption, is that credit and insurance markets do not function properly in the first place. If, for example, well-functioning credit and insurance programs were able to insure against risk and volatility, redistribution programs could achieve their welfare and equity objectives by simply making transfers independent of shocks – a classic example of this would be a land reform program which aims to rearrange the "initial endowments" in a manner consistent with equity and welfare goals.

That said, the arguments above are not to suggest that in the presence of risk and uncertainty, redistribution programs like land reforms or providing free health and education services for the poor should be lower priorities for public policy in South Asia. In fact, such programs must be an integral part of a long-term poverty-reduction program, and would have strong long-run impacts on reducing risk and vulnerability. Rather, the suggestion is that in the presence of uncertainty, the design of redistributive programs, particularly of the ones that play the role of safety nets, should explicitly take into account the importance of reducing volatility in the context of their immediate impact. An overall public expenditure policy operating under a hard budget constraint must take into account the impact of "risk" expenditures that target volatility, and "non-risk" expenditures that provide transfer benefits independent of shocks, and decide on the optimal mix. The country-specific factors that would determine the optimal mix would include, just to mention a few, the nature and extent of risk and vulnerability, the share of transitory poverty in total poverty, and the extent of inequality prevailing in the country.

Finally, it should be noted that while public safety nets like public works and targeted transfers can provide risk and welfare benefits in the absence of inadequately functioning financial markets in the short run, the long-term path to welfare improvement would lie in correcting imperfections in the credit and insurance markets. Holzmann (1990) uses a welfare-based measure to evaluate the distributive effects of public expenditure programs, which suggest that, in general, the welfare effects from public programs whose aim is to eliminate market constraints are greater than those that can be achieved through interpersonal income distribution.[23] Simply put, this is because market imperfections hurt lower income groups disproportionately, with the result that the welfare effects of reducing such constraints would tend to dominate those potentially achieved through a more equal income distribution across the cross-section of the population.

Elimination of market constraints, particularly in capital markets, can be achieved through institutional reforms, including liberalization of the financial sector along with the creation of regulatory mechanisms, which promote transparency. Creating the right regulatory environment would involve establishing rigorous accounting standards and disclosure requirements, backed by institutions to supervise and enforce the regulations. These measures would help reduce information problems and mitigate perverse incentives, factors that limit participation and often lead to market failures in formal credit and insurance markets. Correcting market imperfections through these policies would induce privately provided instruments for risk management, as well as create conditions for publicly provided formal instruments like unemployment and health insurance.

Although the discussion so far in this section has provided the rationale for public intervention in social protection, this should not be interpreted to mean that direct public expenditure for the provision of services would be the only way to go, especially in credit and insurance markets. The landscape of South Asia is dotted with failures of government programs of subsidized credit and insurance, mainly because the information problems that limit private participation also tend to make government programs unsustainable. In fact, in some cases, certain elements of government support like promises of bailout of insuring companies, and loan write-offs exacerbate the problems by distorting the incentives of both private providers and clients. The paper will thus argue that government support in insurance and credit should largely involve nurturing and providing institutional support to innovative mechanisms like microfinance that seek to circumvent information problems by the use of informal networks on the one hand, and undertaking financial and regulatory reform to promote private participation on the other. Upcoming chapters will attempt to lay out in more detail the specific areas of potential government role.

Towards a Strategy for Reducing Vulnerability in South Asia

An effective *social protection strategy* that acts directly on the dimension of vulnerability can go a long way towards breaking the vicious cycle of poverty and vulnerability. As developed by Holzmann and Jorgensen (1999), the strategy incorporates three elements – risk reduction, risk mitigation and risk coping. *Risk reduction* refers to measures that aim to reduce the probability that a shock will occur. Public action in this sphere would mainly take the form of actions taken at the community or macro level. For example, a sound macroeconomic policy can reduce the chance of an inflationary shock, public health policy can reduce the possibility of an epidemic and infrastructure can prevent potential flooding. As mentioned before, social protection and poverty alleviation are overlapping, interacting concerns in South Asia. Thus, apart from the fact that all policies that promote growth and increase incomes would by themselves reduce risk, programs like land reforms that alleviate poverty and promote equality can also have less obvious impacts on risk-mitigation. For example, reducing inequality can actually promote informal group-based insurance, by decreasing the chance of groups collapsing, and reducing the prevalence of patron-client relationships that exploit poor clients.[24]

Addressing vulnerability explicitly will call for an additional focus on strategies to mitigate and cope with risk. *Risk mitigation* would aim at ex ante measures that reduce the impact of inevitable shocks, something that households can do for instance by diversifying crops and plots, combining farm and non-farm sources of income, developing buffer stocks and so on. Group-based and public action can encourage such anticipatory measures and also provide or upgrade the tools poor households use to insure against risk. Public intervention, as discussed in the previous section, would be needed to address market failures in credit and insurance markets, in order to provide access to instruments to insure against risk. Public programs with redistribution objectives, like public works and direct transfers in the form of social assistance, can also play the role of risk mitigation, if they are designed and targeted towards reducing the impact of income shocks.

Valuable as risk reduction and mitigation are to social protection, many of the myriad risks to which the poor are exposed may never be entirely eliminated. Given that reality, the overall strategy should also provide *mechanisms that enable the poor to cope* with the impact of a shock after it has occurred, through public actions like social assistance, initiating crisis-related workfare programs to provide emergency income and cash transfers. Such measures, if they are credible to poor households in terms of availability during times of need, can also serve as valuable tools of risk-mitigation.

Such a framework for a social protection strategy, incorporating mechanisms for risk reduction, mitigation and coping is entirely consistent with the approach laid out in the Social Protection Sector Strategy paper (World Bank, 2001) for all developing countries.

Typology of Risk

This section will discuss the various elements of social protection strategy for South Asia in the context of the typology of risks relevant to the region. The risks that affect the poor can be classified on the basis of whether their impact occurs at the level of the household, the community, or the province or the country. The distinction is however blurred in a large number of cases where shocks have both idiosyncratic and covariant components. Shocks can also be distinguished on the basis of the *frequency* and *severity* of occurrence. Consumption smoothing is more difficult with repeated calamities, because households, having exhausted their resources in coping with the initial shock, would be even more vulnerable to those that follow. Shocks can also differ in terms of severity, ranging from catastrophes to events that do temporary damage.

Some Important Sources of Risk for the Poor in South Asia

<u>Health Risk</u> – Living and working in conditions where the risk of illness and injury is high but with little access to reliable health care facilities, the poor face a high degree of health risk. Other kinds of risks that disproportionately affect the poor often endanger health so that one shock sets off others concurrently.[25] Health shocks reduce the income-earning capacity of poor households, with devastating consequences especially in households with only one earning member. Using ICRISAT data for households in central

India, Kochar (1995) finds that while labor income is an effective method of insurance against most idiosyncratic shocks for poor households, it is ineffective as far as health shocks are concerned.

Covariant health risks like epidemics can affect a community, region or an entire country, and affect the poor the most. Epidemics are frequently associated with multiple shocks, since they are often the direct consequence of drought or flooding. Since individual households and even communities cannot insure against and cope with epidemics, public intervention is necessary not only in coping with the shocks ex post, but also to reduce the chance of their occurrence.

Harvest Risk – Protection against harvest risks that can arise from drought, plant disease, pestilence and other causes, requires access to technologies like irrigation, pesticides, and disease-resistant varieties of seeds, which poorer farmers often lack. Household responses to such risks typically include strategies like reducing consumption, seeking out alternative sources of income and borrowing.[26] In general, the rich are much better able to insure themselves against such risks ex ante by diversifying among different sources of income. As discussed before, since the downside risk of crop failure affects the poor disproportionately, they are more likely to adopt less risky, low-return technologies, which further perpetuate their poverty.

While harvest risks do have an idiosyncratic element, most truly disastrous shocks are likely to be covariant, since things like drought, flood and pestilence typically hit entire communities. In the face of such shocks, individual smoothing strategies are powerless, and informal group-based arrangements break down, necessitating emergency public action. Again, the role of public action should not be limited to coping with the aftermath of such shocks, but also be geared towards reducing the chance of occurrence of such events, as well as mitigating the impact of such shocks when they inevitably do occur.

Related to harvest risk, *food-price risk* especially affects the poor who are net food buyers. Food prices are naturally related to success or failure of harvests, and thus food-price and harvest risks are often covariant. The less land a household owns, the more likely the household is to be a net food buyer and to be affected by food price risk. Small farmers who often engage in seasonal switching from roles as net sellers after the harvest to net buyers at other times are also likely to be affected to be food price risk, since they would sell when food is relatively plentiful and buy when it is scarce. In response to food price shocks, the poor often have to restrict their consumption during lean times to the point that they experience major and lasting effects on their health and productive ability.

Labor Market Risk – The poor are also exposed to a high degree of labor market risk. When layoffs occur in the formal sector in urban areas, the poor, who are likely to be the ones with low skills, tend to lose their jobs first, swelling the ranks of the urban poor in the informal sector. Loss of employment in the urban sector can occur on a large scale during covariant economic shocks like the East Asian crisis. The crisis had less effect in South Asia, but the formal sector in the region is still vulnerable to future economic shocks. Shocks that affect the urban formal sector also have spillover effects on the informal sector, an example of which was Indonesia during the East Asian crisis – laid off workers crowded the urban informal sectors reducing incomes.

Workers employed in the informal sector are exposed to even higher degrees of risk, since they have little or no job security, and the demand for labor can vary widely. Since such workers have very low incomes, even relatively small shocks to employment and wages can have profound effects. Such a decline in demand for labor also affects rural households, many of which depend on the earnings of family members who work in urban areas.

Special Risks for Vulnerable Groups -- Even among the poor, certain groups like children, the elderly, widows, the chronically ill and the disabled are frequently cited (in consultations with the poor) as especially vulnerable, primarily because they are dependent on the aid of others.[27] Women as a group are identified as among the most vulnerable, because of factors like social norms, limited access to labor markets and low decision-making power within households (Box 1.2). Children are also especially vulnerable – being often underweight, poor children are susceptible to irreversible harm from further declines in consumption as a result of a shock. In Bangladesh, children's growth was adversely affected by major floods, whereas in rural India, rainfall shortages increased child mortality rates, and the increase was more for landless households than for households with land.[28] The elderly poor also are subject to a high degree of risk. Unlike the non-poor, who may be able to fall back on accumulated assets as they age, the elderly poor almost always rely on transfers from family members. Studies suggest that the motive of old age insurance provides some explanation for high fertility and preference for sons among poor households, revealed in gender differences in investments in education and health made by poor parents in South Asia.[29] Any policy strategy to address old-age security must be premised on knowledge of traditional mechanisms, like intergenerational transfers.

Box 1.2: Vulnerability of Women

Women in poor households in South Asia are especially vulnerable in a number of ways. Women in households with adult males are vulnerable because of little decision-making power, often having very little say in decisions about how household assets would be used, especially during times of crisis. Consequently household decisions may not take enough cognizance of the women's needs and contingencies during times of crisis. Even when women do have some control over productive assets there may be gender differences. In Pakistan, women raise smaller livestock like chicken and goats, while men usually raise cattle. During times of crisis the smaller livestock get sold first. Cultural factors play a role too. In some areas of India, where women have their meals after everybody else in the household, women are left with virtually no food during times of shortage.

Studies have shown that women often suffer more from adverse shocks than men. In India, rising food prices led to larger reductions in nutrient intake for women than for men (Behrman and Deolalikar, 1990). There is also evidence for pro-male bias in household health and nutrition expenditures, and a recent study found limited evidence that in Pakistan, such bias increases as incomes fall (Alderman and Gertler, 1997). Also, female-headed households, and especially those with children who are too young to work or take care of themselves are particularly vulnerable. A study in Pakistan in 1993 has shown that such households may have fewer work options, lower incomes and low labor power. Cultural factors can also affect the livelihood of divorced or widowed women in South Asia – such women are often denied access to their late husband's property. For such reasons women in rural Bangladesh place great value in ownership of homesteads which would provide them with the collateral for loans, which are important to them for productive enterprises, as well as for providing security in case of contingencies like widowhood, desertion by husbands, divorces and so on. The fact that most of them feel that they cannot work outside their homes for wage labor makes it all the more important for them to acquire assets like homestead.

Source: *Voices of the Poor*, Volume I, World Bank, 1999

<u>Social Risk</u> – Like the poor elsewhere, the poor in South Asia are also exposed to a high degree of social risk, crime and domestic violence for instance. Since poor urban areas are more crime-prone than better-off areas, the urban poor are vulnerable to the risk of crime. Crime leads to destruction of social capital, weakens informal ties within a community and contributes to a sense of insecurity. Studies have also shown the poor to be more vulnerable to domestic violence than those who are well off, since economic stress often contributes to such violence.

<u>Covariant Risks</u> – A wide range of covariant risks at the community, country or international level menace the poor. *Natural disasters* like earthquakes, floods, hurricanes and droughts, which affect entire regions, can also be directly responsible for health, harvest and food price risks. Country-level *economic shocks* arising from balance of payment, currency or financial crises affect all sections of the population, but more so the poor by reducing their already low purchasing power or throwing them out of work. The poor are especially vulnerable to the risk of inflation; dynamic changes in the economy, like technological changes that result in redundancy of skills, or movements in terms of trade all carry with them risk for the

vulnerable who are unable to make quick adjustments. *Wars, terrorism, civil strife and riots,* affecting some countries in South Asia (e.g. parts of Sri Lanka, India and Pakistan), can lead to a high degree of social risk especially for the poor whose livelihood and sense of security are among the first to be threatened. *Political instability*, besides possibly causing economic instability, can also undermine law and order and increase crime risks. The process of development itself can give rise to uncertainties and risks of a different sort. *Resettlement* of entire communities for development projects can uproot the poor and threaten their livelihoods. *Environmental degradation* in the form of pollution and deforestation poses risks to health and livelihoods.[30]

From the discussion so far it is apparent that the poor are exposed to risks from a broad range of factors. It will be useful to summarize the discussion so far in a table that attempts to organize the various sources of risk, while also drawing attention to the type of risk associated with each of these sources. *Table 1.1* is an attempt in that direction, by way of a two-way *classification of risks*, in terms of sources as well as types. The sources of risk summarized in Table 1.1 call for a broad range of strategies for social protection, classified into risk reducing, risk mitigation and risk coping strategies. *Table 1.2* considers various *risk reducing* options, and attempts to link each one of them to the various sources of risk identified in Table 1.1. As mentioned before, the instruments to reduce risk would also, in most cases, qualify as policies aimed at promoting growth, strengthening human capital and reducing poverty. A comprehensive social protection strategy should however go beyond these policies, and seek to develop mechanisms to mitigate and cope with risks, in some cases by supplanting costly adjustments, and sometimes by utilizing and extending the existing informal networks.

Table 1.3 matches options for *risk mitigation and coping* with different sources of risk. While some are essential elements of broad-based policies to reduce poverty and promote income and growth, what sets them apart is the fact that each one can directly impact vulnerability from specific sources. Tables 1.2 and 1.3 are not, however, exhaustive lists of possible instruments, nor are the listed impacts the *only* possible impacts. The objective is rather to focus on instruments that could be important in the context of South Asia, as well as the *observed* and *potential* effects of such strategies on risk and vulnerability. Moreover, the strategies listed here offer a broad gamut of measures, encompassing areas of public action as well as interventions that are primarily community-driven (where government can play only indirect roles).

Some of the instruments for risk mitigation and coping listed in Table 1.3, that are particularly relevant to South Asia, will be discussed in upcoming Chapter III, with special attention to each instrument's role in the rubric of social protection, and outlining the principles for improving their performance. Given the inadequacy of existing options, it will be imperative to expand risk mitigating and coping options, both in terms of extending coverage and addressing vulnerability better; Chapter IV will consider some innovative directions in which such expansion can be attempted. Even before considering existing options for social protection, one should stress the need to target the vulnerability of those who are at special risk, even among the poor, requiring specific kinds of intervention. Among the most important of such groups, in South Asian context, are widows and working children; Chapter II discusses how their vulnerability is targeted by current policy, and suggests options for the future. Finally, Chapter V draws from the discussion in previous chapters, and the framework laid out in the current chapter, to suggest broad guidelines for a social protection strategy, at the regional level as well as individual country level.

Table 1.1: Sources and Types of Risk

	Idiosyncratic ⟵	⟶	Covariant
Sources of Risk ↓	**Micro: Household**	**Meso: Village/ Community**	**Macro: National/ International**
Natural Disasters			
Earthquake, flood, drought, hurricane		√	
Landslide, flash flood	√	√	
Health			
Epidemics like malaria, AIDS, etc.		√	√
Illness, injury, disability, old age	√		
Economic			
Economic recession		√	√
Devaluation, technology or trade induced change in relative prices			√
Labor market risk: unemployment, redundancy of skills	√	√	
Harvest failure and food price risk	√	√	
Social / Security Related			
Civil strife, riots, terrorism, war		√	√
Crime, domestic violence	√		
Development Related			
Environmental: pollution, deforestation		√	
Resettlement		√	

Table 1.2: Policy Instruments for Risk Reduction

Sources of Risk ↓	Spreading Awareness	Public Health, Safe Water & Sanitation	Labor Standards, Workplace Safety	Education & Training	Access to Agro Technology	Sound Macro-economic Policy	Transparency in Decision making	Redistribution, e.g. Land Reform
Natural Disasters	√							
Epidemics	√	√						
Illness, disability		√	√					
Old age				√				
Economic crises						√	√	
Labor market risk			√	√			√	√
Harvest failure, food price					√	√		√
Crime & violence	√			√				
Environ-mental	√	√		√				
Resettle-ment							√	

Table 1.3: Instruments for Risk Mitigation and Coping: Public, Market-Based and Informal

Sources of Risk ↓	Workfare	Targeted Transfers: Including Social Assistance to Elderly & Widows	Community-based Instruments: Microfinance & Insurance	Formal Market-Based Instruments			Saving Instruments		Property Rights	Medical, Public Health
				Health & Unemployment Insurance	Crop Insurance	Social Security & Pensions	Formal Market-Based	Informal Group-Based		
Natural Disasters	√	√			√					√
Epidemics		√								√
Illness, disability		√	√	√			√	√	√	√
Old age, widowhood		√	√			√	√	√	√	
Economic crises	√									
Labor market risk	√			√			√	√		
Harvest failure and food price	√	√			√		√	√	√	
Crime and violence		√	√	√			√	√		
War, Civil Strife	√	√								√
Environmental							√	√		√
Resettlement		√					√	√	√	

II. Targeting the Vulnerable: Widows and Working Children

In varying degrees vulnerability is universal. Still, an effective strategy to address risk must identify those who are most vulnerable. Gender, age – children and the elderly – or widowhood can serve as identifiers of groups whose members are especially vulnerable to shocks, both idiosyncratic and covariant, which may drive them to destitution or trap them in long-term poverty. As discussed in Chapter One, for various reasons women as a group are identified among the most vulnerable, and among women, widows are especially at risk. Old-age security, a matter of special concern, is addressed explicitly in the context of pension reform later. This chapter focuses on two of the most vulnerable groups, widows and working children, both of them especially important in South Asia, and seeks to understand the extent and source of their vulnerability and to explore the special kinds of interventions required to deal with the risks they face.

Addressing Vulnerability of Widows

Although knowledge about the condition of widows is limited by the paucity of empirical information, informal field investigations, sociological studies and related sources suggest that many widows in South Asia live in acute deprivation and insecurity, even in households classified as non-poor.[31] Widowhood is inevitable for many since women tend to outlive men, and also because women are usually married to men who are older than they are. Surveys conducted in India reveal that many widows are left totally destitute by the time their husbands die.[32] Often they have sold off all their assets to pay for medicines, carry heavy debts incurred by their husbands and frequently become the victims of unscrupulous moneylenders as well as of family members who lay claims to their property. The risk of widowhood then is often synonymous with the risk of losing property and source of livelihood. Addressing the vulnerability of widows thus should include government action to create a legal environment that protects their rights.

Existing South Asian government programs to address the economic risks of widowhood, relying mostly on direct transfers, are highly inadequate. For example, in India, only four states -- Tamil Nadu, Kerala, Gujarat and Orissa -- have pension schemes for destitute widows providing extremely limited coverage, with average amounts of transfers too low to make much difference to the economic status of even those who are covered.[33] A typical case is that of Tamil Nadu's pension scheme, which targets destitute widows above the age of 40 with average transfers that are less than 10 percent of poverty-line income. A review of this scheme finds the application process for assistance to be extremely demanding in terms of time, travel, expenses and document requirements, compounded by an often arbitrary and lengthy enquiry process, as well as long delays before payments start, even after eligibility has been determined. The high opportunity costs and minimal assistance often discourages intended beneficiaries from seeking state pensions, detracting from the scheme's functioning as a safety net.[34]

While government efforts have the potential advantage of extended outreach, to be able to mitigate risks such programs must be easily accessible and efficiently targeted – characteristics that future efforts at program design should ensure. Government programs should also focus on providing access to financial instruments like saving and insurance to mitigate risks, and create a legal environment to protect the rights of widows. Inheritance laws to protect the property rights of widows should be enacted and enforced, along with campaigns to promote awareness of the laws. In most countries of the region, such laws exist but awareness of them is low and the relevant law-enforcement institutions are often neither very accessible nor sensitive to the needs of widows.

Grassroots organizations can play an important role in providing insurance and legal protection for widows, as shown by the experiences of SEWA in India and the Bangladesh Rural Advancement Committee (BRAC) (Box 2.1).[35] Given the limitations of existing government pension schemes and the likelihood that most South Asian governments will be unable to finance adequate pension schemes in the foreseeable future, grassroots efforts like these should be explored as models that can be replicated elsewhere with necessary adaptations, while steps are taken to ensure financial sustainability. Insurance that women can purchase in anticipation of widowhood is one of many products that microfinance and other forms of community-based efforts can provide, as discussed later, against a variety of risks the poor must face.

Box 2.1: Community-Based Efforts in Addressing the Vulnerability of Widows

SEWA has been a model of how poor women can organize themselves for change and economic independence. Among its programs are those aimed to assist not only widowed members, but to prepare all women for widowhood. Since 1994 SEWA members have been able to insure against their husband's deaths for a small premium, which provides assistance with funeral expenses and a lump sum or a regular pension. Besides providing various forms of support through its network of women, SEWA also offers legal help against exploitation and property appropriation.

In Bangladesh, BRAC has been training paralegals drawn from the women themselves to provide legal help to widows in many of the villages where BRAC projects are in place. For example, for 200 widows in Maniganj district, the paralegal is a young widow named Ishrat. The women go to her at the first signs of trouble, often disputes with the deceased husband's family over land. Although under Muslim law a woman is entitled to half her brother's portion of her father's estate, and an eighth of her husband's estate, in practice she rarely receives her due. Sometimes widows find themselves evicted from their homes, with even their children forcibly taken away. Ishrat works to achieve a just settlement of the disputes, initially by just confronting the defendant on behalf of the plaintiff for his alleged offenses. If this tactic does not work she would represent the widow at the village council. If all else fails, she would ask the BRAC legal office to bring the matter to the courts. Her activities in challenging a male-dominated establishment have often become big news in the area, making people aware of the rights of widows. The contribution of Ishrat and other paralegals in BRAC villages has to be measured in terms of this information aspect in addition to the security they provide to widows.

Source: "Widows Banding Together", by Margaret Owen (1995) in People and Planet, Vol. 4, No.3

Reducing the Incidence and Risks of Child Labor[36]

The incidence of child labor is attributed largely to the poverty and vulnerability of households. Vulnerability plays an important role, as is evident from numerous studies that have documented children being removed from school and sent to work in response to shocks or seasonal falls in income. These suggest that along with poverty reducing measures, strategies that explicitly seek to mitigate risks faced by poor households are likely to reduce child work. Reducing child labor in turn would in turn have a beneficial impact on poverty and vulnerability in the long run, since work that keeps children away from school affects their long term development and productive potential, perpetuating poverty and vulnerability. Quite apart from these numerous tangible ill effects of child labor, the prevalence of child labor in South Asia is a matter of great concern from a social, ethical and welfare point of view, and a comprehensive strategy is imperative to address this phenomenon.

It is also important to realize that vulnerability is not the only factor responsible for the prevalence of child labor. A number of factors, like lack of availability of quality education, the fact that the training a child receives at work is sometimes perceived by parents to be more valuable than the low perceived returns of formal education, as well as social and cultural factors, may play important roles under different conditions. Keeping the broad range of factors in mind, a strategy to reduce child labor must adopt a holistic approach, combining social protection measures that seek to reduce the need for child work by reducing vulnerability, with other elements like community-based campaigns, providing schooling incentives, developing alternative schooling programs for children compelled to work for economic reasons, and enacting and enforcing appropriate legislation. Since reducing child labor would need a range of measures broader than social protection interventions, the discussion in this section will not be limited to explicit measures to reduce vulnerability, and instead outline the important elements of a holistic strategy to tackle the problem.

Figure 4

Workforce Participation Rates of Children in Selected South Asian Countries

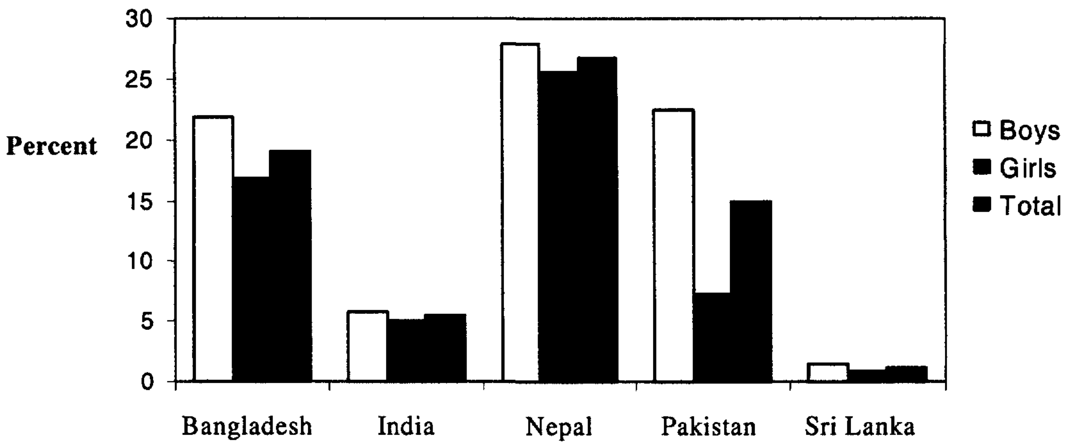
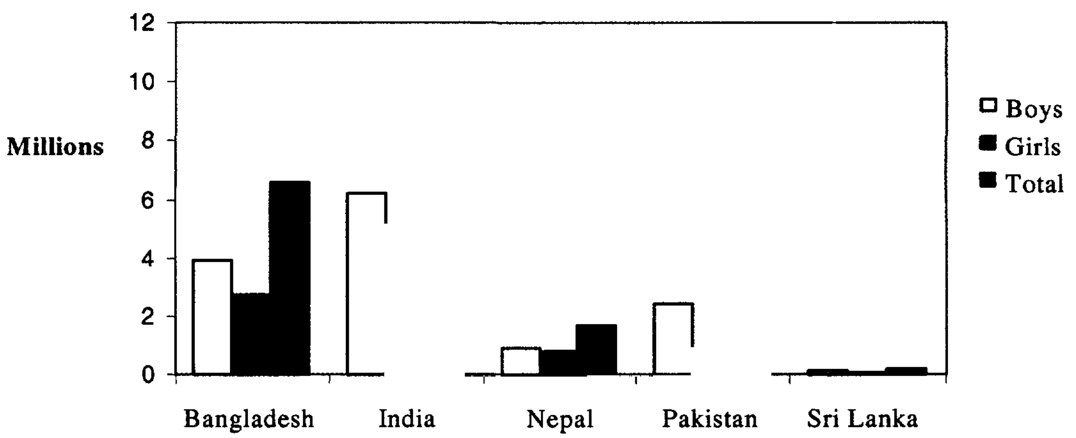


Figure 5

Estimated Number of Child Workers in Selected South Asian Countries



For children of age 5-14 for Bangladesh, India and Nepal, and for those of age 10-14 for Pakistan and Sri Lanka. The lack of availability of standardized data makes comparisons across countries difficult. (The charts are based on work by Rie Hiraoka, SASHP, World Bank, 2000)

South Asia is home to the largest number of working children in the world. Although estimating the extent of child labor is a difficult exercise, even conservative estimates suggest that there are some 20-30 million children at work in the region's five large countries, where sizeable proportions of children in all countries except Sri Lanka appear to be engaged in the workforce (Figures 4 and 5). Agriculture has the major share of child employment, absorbing two-thirds of working children in Pakistan and Bangladesh and three-fourths in India. While a sizable proportion of these children work on family farms, a large number are also agricultural wage laborers. Urban child workers are more likely to be engaged in hazardous work in the informal sectors. In Bangladesh, nearly 70 percent of urban child workers work outside the family enterprise, including hazardous occupations in manufacturing or domestic service. Average hours of work are higher in urban areas, and often children are employed as forced labor in the brick-kiln industry or carpet manufacturing. In Pakistan 11 percent of children are employed in manufacturing, including hazardous industries such as carpet and brick making. In India, child labor is found to be growing rapidly in urban areas, from 5.5 percent of the total amount of child labor in 1961 to 10 percent in 1991, with potentially hazardous sectors like manufacturing, transport, storage and communications sectors being large employers of child labor.

Correlates of Child Labor

Evidence from different countries indicates that vulnerability of the poor is an important factor pushing children into work and exploitative conditions. Ray (1999) finds that when a Pakistani household falls into poverty, its children's involvement in outside, paid employment is substantially increased at the expense of schooling, with the reduction in schooling being comparatively larger for girls. Jacoby and Skoufias (1997) found evidence of children being withdrawn from school as a response to seasonal shocks to household incomes in six villages in semi-arid regions of India. Evidence from Bangladesh shows that 67 percent of children work on account of economic hardship either to contribute labor for wages to supplement or smooth household incomes, or to work at home so that adults can work outside. These findings suggest that due to the absence of mechanisms to mitigate risk, wider involvement of children in the labor market is often used as a strategy to insure against transitory economic hardship like the loss of a job or illness.

A number of other factors are also responsible for the existence of child labor. Given high unemployment rates in most of the countries in the region, parents may perceive a child's current income to be preferable to the uncertain prospect of future employment that education offers. Families also often view children's work as valuable opportunities for learning vocational skills that are valued more than traditional primary education, often regarded to be of poor quality and relevance. Lack of food security can also create incentives for child labor. A survey in Bangladesh found that urban working children, unlike the majority of the urban poor, are able to afford three meals a day, a major incentive for children to seek wage employment.

Demand for child labor also plays an important role, especially in the urban sector. In Bangladesh for example, the spurt in urban child labor in the last decade can be partly attributed to major job creation in the export-oriented garment industry in the major cities, along with jobs in other industries and the informal sector, an estimated 20 percent of which were taken by children. Various indicators of human and economic development are also found to be closely linked with the incidence of child labor.[37] Finally, the will and ability of governments to enact and enforce labor laws, including anti-child-labor and minimum wage laws also affect the prevalence of child labor.

Public Policy and Programs

Countries in South Asia in recent years have by and large been able to enact legislation addressing the problem of child labor, particularly in hazardous industries. Enforcement of the laws, however, remains profoundly inadequate in all countries. A number of countries have also adopted various schemes for the withdrawal and rehabilitation of working children under the ILO International Program on the Elimination of Child Labor (IPEC).

While a number of pure government initiatives exist to address the issue of child labor (e.g. the National Child Labor Projects in India, targeted to select hazardous industries, and the Food for Education Program in Bangladesh), partnerships between the government, NGOs and the private sector deserve special attention as innovative initiatives in the region. In Bangladesh, the *BGMEA*[38] program in the Ready Made Garment sector successfully created the first-ever partnership of the industry, ILO, UNICEF, NGOs and the Government to address the root causes of child labor. Also in Bangladesh, the *Basic Education for Hard to Reach Urban Children* program aims to alleviate exploitative child labor by providing basic education for 351,000 working children in 6 major cities of Bangladesh by the Year 2000, implemented through learning centers run by NGOs with emphasis on community participation and accountability. In Pakistan, the Sialkot Chamber of Commerce and Industry in partnership with some international organizations and NGOs is engaged in a project since 1997 to eliminate child labor from the local soccer ball industry. The project involves prevention and monitoring, along with non-formal education, skills training, income generation activities for adults and a savings and loan scheme.

Box 2.2: Community-Based Anti-Child Labor Initiatives in India

CREDA is an NGO working in the Mirzapur district of Uttar Pradesh for the last 15 or more years, identified in 1992 as a credible partner and implementing agency for ILO. CREDA started its initial campaign against the employment of child labor in two blocks identified as high concentration areas for child labor engaged in the carpet industry in Allahabad and Mirzapur districts. To begin with, CREDA provided facilities for free medical check-up for working children in 15 villages. This was followed by non-formal education classes after working hours, and then an awareness campaign at four contact centers, which became the nucleus for all future CREDA efforts. CREDA's strategy in its campaign against employing children involved all stakeholders of the carpet industry including loom owners and carpet manufacturers, relied heavily on community mobilization through face to face contact with individuals and groups, and involved activists from villages who were keen to work with CREDA as volunteers. These efforts were collectively responsible for creating a climate in which the elimination of child labor was largely possible in 25 villages, while preserving the industry; these villages continue to have looms, but with only adults working on them. Another NGO in India, the M. Venkatrangaiah Foundation (MVF) has undertaken several programs to reduce child labor in the Ranga Reddy district of Andhra Pradesh, particularly with regard to girl children and bonded laborers. Their strategy involves intensive advocacy in the community by forming parents' and village level committees, and focusing particularly on the family and the child. After convincing the family to withdraw the child from work, the MVF first enrolls the child in a non-formal bridge course whose duration depends on the needs of the child; on completion of the course the child is enrolled in a regular school. In spite of facing resistance from the employers of children in factories, MVF was able to set up a dialogue with all the stakeholders and substantially reduce child labor in the Kattedan Industrial Area of Ranga Reddy district. The special role of MVF has been to successfully draw various stakeholders like communities, parents, the children, employers and trade unions into their efforts, as well as the ability to network with the state enforcement machinery for the implementation of child labor laws.

These efforts have demonstrated the importance of being able to engage stakeholders and encourage them in taking ownership of the program in order for any intervention to succeed.

Source: Sector work by SASHD, the World Bank on situational analyses of child labor in India (2000).

A number of purely NGO driven efforts have also been successful in the region, examples of which include the cases of two NGOs in India addressing the child labor issue by involving communities and encouraging stakeholders to assume ownership of the programs (Box 2.2). Most such programs in the region are limited in their scope and coverage.[39] There are two major long-term challenges that a broader solution must face – how to achieve cost-effectiveness with programs such as these, and how to replicate them on a broader scale for increased impact.

Broad Guidelines for Reducing Child Labor

Strategies adopted in South Asian countries have mostly taken a partial approach, operating mainly through isolated programs aimed at working children in specific occupations and areas. While such efforts are important, a long-term solution to the problem lies in a holistic, multi-dimensional approach that treats child labor as one aspect of a broad social protection strategy, recognizing the complex nature of the problem and the complementarity between short-term measures to rehabilitate working children, and long term strategy to remove the incentives that favor child labor, through risk-mitigation and poverty reduction. Complementary measures would create social awareness about the value of education for children, provide access to education of relevance and quality and build a consensus for the enforcement of laws. While the ultimate goal should be total elimination of child labor, a more incremental short-run approach would first aim at protecting and rehabilitating children who are already working. The strategy would also need to involve the community in planning, implementation and monitoring of all programs to encourage complete community ownership. While the guidelines described below are broad enough to be applicable to the entire region, a detailed policy strategy would need to be country-specific, informed by conditions and capacities in individual countries.

Enforcement of existing legislation banning the most hazardous or unethical form of child labor, examples of which in the context of South Asia range from prostitution and bonded labor to the use of children in militia, is imperative. While all South Asian countries have enacted such legislation, the capacity to enforce must improve dramatically in most countries. An enabling environment for enforcing such legislation, as well as support for programs to reduce child labor, can be created by *raising social awareness* about the ills of child labor and the value of education for the child. In certain cases where severe forms of exploitation of child labor exist, bonded labor being one example, awareness can be created only through empowerment of vulnerable groups.

Reducing poverty and vulnerability is the long-run solution to the child labor problem. In this context, the role of policy should not be limited to promoting long-term improvement in the poor households' resource base and productive capacity and must include intervention to improve the ability of poor households to manage risk, by making available alternative mechanisms for risk mitigation, so that they do not have to rely on child labor to insure against income shocks. Various safety net measures like public works programs and provision of credit and insurance and saving would be able to perform this role.

The situation in most South Asian countries would also warrant *a gradual approach*, making an initial mix of labor and schooling attractive to the household. Ravallion and Wodon (2000) found that the enrollment subsidy provided by the Food for Education program in Bangladesh had large positive effects on enrollment but a much smaller (negative) effect on the incidence of child labor, suggesting that poor families often find combinations of child labor and schooling to be more attractive than a dichotomous choice between child labor or schooling. While the gradual approach may not lead to an appreciable decrease in child work in the short run, it would avoid interventions of the kind that leave the child worse off, and complement the long term strategy outlined above. The gradual approach should (a) rather than prohibiting all forms of child labor, impose restrictions consistent with enforcement capacity; (b) encourage children compelled to work for economic reasons – through flexible schooling hours and informal, transitional education programs – to combine work and school, as in certain successful programs in the region; (c) transfer resources to households with working children, sometimes targeting services like health care and education services through the children themselves.

Policies also need to take into account possible short-run tradeoffs. For example, programs providing productive loans in order to lift households out of poverty may have the short-run effect of diverting children from school to work in household enterprises. In such cases, *schooling or enrollment incentives* in the form of subsidies for books, uniforms and meals, will help to negate the short-run effects on child labor. Since women constitute a large share of the entrepreneurs in such programs in South Asia, girl children are more likely to be taken out of school to work at home, calling for targeting incentives especially towards girl children.

Strategies should actively *involve communities.* This can often be achieved by inviting participation of NGOs and CBOs, whose knowledge at the community level can help in identifying child labor, mobilizing community support and awareness, and encouraging stakeholders to take ownership of the programs. Such institutions are also likely to be best equipped to undertake participatory or action research to pilot strategies, and in tailoring educational programs to fit the specific needs of working children.

Finally, it is essential to address the existing *gaps in knowledge* about child labor issues, largely due to the lack of reliable and detailed data. Census data in each country should provide reliable measures of child labor, to form the basis for household surveys concentrating on sectors/areas with high incidence of child labor, to collect more detailed information on factors behind child labor. Such data would induce empirical analysis to identify where interventions need to occur, how incentives need to be corrected and what targeting devices are most effective. Without information of this kind the precise area and mode of policy intervention will be hard to ascertain, and strategies – holistic or otherwise – may prove profoundly off base.

III. Evaluating Existing Options for Risk Mitigation and Coping

Normal poverty-reducing interventions in the areas of health and education remain important as long-term measures for mitigating the risk of being poor. Improving income diversification opportunities especially for rural areas, through improved extension services and access to credit are also elements of a long-term poverty reduction strategy that will contribute towards mitigating risk. These changes can however take place only in the long run, which creates the need for more immediate measures that mitigate risk.

In South Asia the most effective responses to the vulnerability of the poor will flow from each country's characteristics, needs and institutional capability and reflect the considerable variety of the important sources of risk within the region.[40] That said, there are certain areas of social protection in all countries where governments have important roles to play, and have historically done so. These include public works programs, which provide livelihood security to the poor, and targeted transfers of various kinds that mitigate some risks faced by the most vulnerable groups, including widows and the elderly. In the absence of formal insurance, such programs are important instruments for risk mitigation and coping, and most countries in the region have had substantial experience with at least one such program.

As mentioned in Chapter I, the rationale for government intervention through these programs is mainly to do with redistribution, with the goal of achieving equity and welfare for the needy. Market failures in credit and insurance markets that result in very limited risk management opportunities for the poor, would mean that such redistributive programs could provide significant welfare benefits if they were aligned towards reducing the volatility of income and consumption flows. The discussion that follows attempts to review some of the existing programs from the point of view of the risk benefits they provide, and suggest some broad principles for their success. Public works and direct targeted transfers are considered important in this context because firstly, they have a long history of existence in some of the countries and at least in some cases, have achieved a measure of success; secondly, they are commonly used instruments that experience has shown to be implementable in developing countries with limited institutional capabilities.

Public Works Programs

In low-income countries like those in South Asia, public works programs or workfare programs that require participants to work to obtain benefits play an important role as safety nets. They confer stabilization benefits by smoothing consumption in periods of high unemployment, as well as confer transfer benefits to the poor. The utility of workfare programs can extend to cases of aggregate or covariant shocks as well if they are adapted to respond to times of crisis, such as macroeconomic shocks, natural disasters or large-scale harvest failures when a large number of able-bodied people lose jobs and livelihood.[41] To the extent that such programs can provide employment in the aftermath of a shock, they provide a means to cope with risk. To the extent they can inspire confidence in the target population about availability and effectiveness after a crisis strikes, they also perform the role of risk mitigation.

The inadequacy of available data makes it difficult to assess the impact of many public works programs and especially to evaluate their risk benefits. Some studies, however, have demonstrated the large risk benefits of a good workfare program during famines (examples found in Ravallion, 1997), which would be present during more normal times also. The extent of risk benefits that safety net programs generate depends on how flexibly the program responds to changing household circumstances. Workfare programs can show such flexibility provided the work is easily obtained when needed; that in turn will depend on the wage rates, the scheme's budget, the labor intensity of the work and the eligibility requirements.

The extent of benefits generated by a workfare program would depend on the *program features* (like wage structure, timing and duration), *design features* (like the institutional framework and the type of implementing agencies) and *sustainability*. Targeting is an important determinant of benefits and cost effectiveness.[42] Wage rate and structure can help in targeting – maintaining the program wage at a level no higher than the prevailing market wage for unskilled labor may induce self-selection by the poor into the program; piece-wage payments or wages in kind can help attract vulnerable groups like women into the program. Crucial program features also include the *timing and duration* of employment – a program operated intensively during the agricultural off-peak season can provide consumption-smoothing benefits, even if transfer benefits per poor person are quite low. For a program to be able to mitigate risk, it should ideally guarantee availability of employment during times of need to anyone willing to work at the prevailing wage. The benefits generated by a particular program are also dependent on the program's design features, like *implementing agencies* and the *institutional framework* that often determine the extent to which the poor have to bear transactions costs or costs arising out of corruption.

Among public works programs in South Asia, programs in Bangladesh and India have been especially important both in terms of time and scale of operation. The discussion focuses on them, noting that the broad overlap in the experiences and conditions among most countries gives their design and performance a measure of region-wide significance. The programs in other countries, like Sri Lanka, Pakistan and Nepal have been more short-lived as well as limited in terms of coverage.[43]

Bangladesh: Food for Work (FFW) and Test Relief (TR) Programs[44]

Bangladesh is exposed to a high degree of risk from natural sources like floods, storms and harvest failure. Public works programs can play an important part in efforts to combat vulnerability from such covariant risks, as well as risks that are more idiosyncratic in nature. Since its inception following the 1974 famine, FFW has become a large part of Bangladesh's rural public works program. Around 1981-82, the program had an annual capacity to provide more than 100 million man-days of employment, equivalent to at least 17 days of additional employment for every landless worker in the country.[45] In FFW projects, activities are undertaken during the dry season (mid-December through mid-May).[46]

Studies have shown that most programs included in the umbrella of FFW programs are relatively well-targeted, possibly because wages paid in terms of wheat, considered an inferior grain in Bangladesh, and kept below the prevailing agricultural wage induce self-selection. A large proportion of participants were also found to live near the project sites and name agricultural labor as their primary occupation, indicating that they regard FFW programs as intended – a source of remunerative employment during the agricultural slack season. By generating wage employment during the February-May period, the slack agricultural season, FFW programs directly impact vulnerability by reducing seasonal joblessness.

India: Maharashtra's Employment Guarantee Scheme (EGS) and Jawahar Rozgar Yojana (JRY)

Introduced in 1972 in the state of Maharashtra, EGS has been described by UNDP's Human Development Report (1993) as one of the largest public programs in the developing world. The program guarantees employment to all adults above the age of 18 who are willing to provide unskilled manual labor on a piece-rate basis. Employment in the scheme, provided year-round but more intensively during agricultural slack seasons, increased from 4.5 million person-days in 1973 to about 148 million person-days in 1993. [47] By offering below-market wages, EGS seeks to induce self-selection by the poor. Until 1988, the wage rate was equal to the minimum wage, but lower than the prevailing peak season agricultural market wage for unskilled labor, but in 1988 minimum and EGS wages doubled, and both exceeded the market wage rates. The wage hike may have reduced the program's self-targeting ability, though there is no clear evidence to support this claim.

There is evidence that stabilization benefits of EGS are quite significant. Stabilization benefits are created by relatively high EGS employment in the lean agricultural season (April to July) compared to the peak season (October to January). Landless labor households in two villages where EGS has operated since 1977 had about 50 percent less variable income streams than those in a village where employment guarantee schemes were not available.[48] Even though the transfer benefits of the program declined following the wage hike in 1988, as evidenced by a sharp fall in total number of person days of employment caused at least partly by job rationing, EGS continued to offer stabilization benefits.[49] EGS also plays the key role of risk mitigation by providing insurance against labor market shocks and harvest failures, enabled by its credible guarantee of work during times of need (especially until the wage rate increases of 1988 led to job rationing) both on account of its legal commitment and its long history of successful operation throughout the state. According to various evaluations, EGS has outperformed other anti poverty programs in India, as well as similar programs elsewhere, on such criteria as quality of implementation, sustainability and controlling leakage due to corruption and administrative failure. [50] However, there remains room for improvement in administrative efficiency, reducing leakage from corruption, delivery of services and maintenance of assets (see Box 3.1 for lessons offered by the experience of EGS).

JRY, a countrywide scheme, was formally instituted in 1989. The program aims to alleviate poverty by creating supplementary employment opportunities for the rural poor during agricultural slack periods, create social assets and positively impact agricultural wages. By 1995, JRY covered 123 underdeveloped districts of the country's 350 districts and generated around 1 billion person-days of employment annually on average between 1993-94 and 1995-96.[51] Its targeting performance, however, has been largely inefficient. In 11 out of 15 states the share of all poor among JRY participants is below 50 percent, probably caused by the fact that the JRY wage, always equal to the minimum wage, often turns out to be very close to or higher than the local wage, thus detracting from self-targeting.[52]

So far JRY has been much less of a success than EGS and has also been much less studied. Available assessments suggest that monthly employment generated per participant has been on the low side, with a median value of 4.1 days. This low level of job creation would clearly translate into low transfer benefits, but because the program operates intensively during the agricultural slack season, as many as 55 million persons gained employment during times of high seasonal unemployment, possibly creating large consumption smoothing benefits.[53] However on the whole, the program has not performed adequately by various criteria. Participation of women is very low and costs tend to be high, while transfer benefits are limited.

Box 3.1: Lessons Learnt from Maharashtra's Employment Guarantee Scheme

Programs in developing countries can learn a lot from the experience of EGS, regarding elements like employment guarantees, wage rates, sustainability of the program and the role of voluntary organizations.

Statutory Guarantee of Employment -- The guarantee of employment is central to the success of EGS. Such a feature enhances insurance benefits to the poor and reduces the need for costly adjustments, often allows scarce resources to go to the poorest first (albeit only to those able to work), and reduces some of the possibilities of corruption (Ravallion et al., 1993). In addition it empowers the poor by creating a sense of entitlement among them. The long sustained history of the program and the fact that it operates round the year have made the guarantee credible to the poor.

Wage Rates – Evidence shows that wages have been effective for targeting purposes. However, the feature of employment guarantee may have been undermined by the increase in wage rates in 1988, when the average EGS wage became higher than market wages and were not accompanied by commiserate expansion in budget. Ravallion et al found that average monthly expenditures on EGS actually fell after the increase in wages, and employment fell by one-third, suggesting some rationing in employment. There was also a shift in the EGS work toward activities that are paid at lower piece rates, with the effect that the real average EGS wage increased much less than the nominal wage rate. The government denied the existence of any rationing, and attributed the fall in employment mainly to increased demand for labor in the mainstream sector caused by various factors. While there is some merit in that argument, the experience offers some valuable lessons – wage rates should be consistent with budgetary resources, and a departure from that may in fact detract from the most beneficial feature of the program.

Sustainability – Finance provided by the urban areas and universal support, particularly the support of the rural rich, seem to be the main reason for the sustainability of the scheme in the state. The reason for this universal popularity is that the EGS is perceived to offer something for each group. The rural rich benefit from the assets created by the scheme, and there is widespread support among the rural poor because of the benefits they derive. The number of beneficiaries of the program may in fact be larger than the actual number of participants at any one date (Ravallion, 1991) – many who rarely participate still value the scheme's insurance benefits. The key to sustainability thus lies in the ability to convince different groups about the benefits to themselves.

Role of Voluntary Organizations – Delivery of benefits from EGS is seen to improve markedly with the participation of voluntary organizations, as Deshpande (1988) shows in his study on Jawahar Taluka of Thane. In this case a labor organization helped spread awareness of the scheme, mobilized labor to demand employment from the administrators and checked malpractice and leakage to some extent. The program itself was implemented differently in various parts of the taluka, depending on whether a labor organization was present. The constructive role of voluntary organizations is thus another important lesson to take away from the story of EGS.

Some Broad Principles of Success for Public Works Programs

While these large public works programs offer diverse experiences, their experiences suggest some principles of success outlined below.

- Wage rates should be determined by the local market wage for unskilled labor. While higher wages can have positive effect on transfer benefits, and sometimes on the market wage, these effects must be weighed against adverse effects on targeting and employment generating capacity of the program. Wage schedules should also be gender neutral. Certain kinds of wage structures can facilitate participation of women, as can features like local work sites and childcare facilities.[54]

- While paying wages in kind (as in FFW) is sometimes justified on the grounds of targeting (poor workers would self-select when payment is in the form of a perceived inferior grain) and nutritional objectives, it also has disadvantages – higher costs, not being attractive to the poor because of lack of flexibility are some of them – that may outweigh the advantages. These arguments for and against wages in kind should be carefully weighed.

- Labor intensity for public works projects should be higher than the local norm for similar projects. In this context, minimizing possible conflict between objectives of workfare programs would be important. Evaluations of FFW have noted that the two main objectives of short-term stabilization and building infrastructure to foster long-term development are not always mutually consistent. Such conflicts may engender tradeoffs between high labor intensity and efficient infrastructure investments, which need to be taken into account for program design.

- While some benefits of the infrastructure created going to the non-poor can be good for generating support for the program contributing to its sustainability (EGS being a successful example), efforts should be made to protect the share of the poor in benefits. Involving communities in project selection can enable the poor to access benefits from infrastructure.

- Risk mitigation benefits are high when there is credible availability of the program during times of need. Making the program available at all times, expanding automatically during crisis when demand is high (as is the case with EGS) will maximize risk mitigation. In case of programs that operate mostly in lean seasons (JRY, FFW), a long history of successful operation can create the credibility among the poor necessary to mitigate risk.

- Delivery of benefits, as well as cost-effectiveness can be improved by effective organization at the local level. Briefly, this would involve strengthening local governments, building their capacity to implement the project efficiently, increasing their accountability to local communities, and ensuring incentive compatibility between local officials and line agencies. Many of the shortcomings of FFW and JRY, for example, can be traced to inadequacies in local implementing authorities.

- Closely related to above is the need to encourage the creation and participation of coalitions of the poor that empower them, like labor unions or community-based organizations. Such organizations can also improve accountability of implementing agencies and act as checks against leakage from corruption and administrative malpractice. EGS has met with considerable success with such endeavors.

- Geographic targeting could also enhance a workfare program's impact, whereby regions with large concentrations of vulnerable groups can be identified for program allocations. Programs like FFW in Bangladesh do not currently incorporate such elements of regional targeting; line ministries allocate resources mainly on population criteria.

Public works programs are important policy measures to reduce vulnerability, especially in the context of South Asian countries with large informal sectors, where the level of institutional development limits the outreach of formal safety nets. It is also important, however, to remember that public works programs do not reduce vulnerability from all sources, nor are they able to reach such vulnerable groups as the old, the infirm and children. Other programs that target vulnerability of the poor are thus needed as complements.

Social Protection Through Targeted Transfers in Cash or Kind

In developing countries like those of South Asia, means-tested social assistance is an important instrument of social protection that governments can employ. Such assistance includes transfers for the elderly, child allowances, targeted human development programs and subsidies and waivers for basic services. Cross-country experiences suggest that while family assistance and targeted social assistance are effective in addressing vulnerability and reducing poverty in the short term, finding an appropriate targeting system compatible with local administrative capacity is difficult. A number of such programs exist in South Asian countries, some of which are discussed below to identify the roles of the most important existing transfer arrangements, and to suggest the place such policies could occupy in a comprehensive social protection strategy.

Cash Transfer Program in Pakistan – Zakat

In Pakistan, the principal form of cash transfers to the poor is through the publicly administered *Zakat* system. Zakat can be thought of as a wealth tax of 2.5 percent on individually owned financial assets. Zakat is paid into a central fund administered by an autonomous Zakat Council and maintained by the State Bank of Pakistan. Some of the funds are disbursed to institutions operating at national level, with the rest going to provincial Zakat funds to be further distributed among local committees for payment to individuals. Those eligible to receive Zakat directly or indirectly, include the poor (especially widows and orphans) and the handicapped.

Zakat has some positive elements – subsistence allowance seems adequate, the allowance paid in cash makes the transfer a full income equivalent, administration costs are kept low primarily by the voluntary inputs from the local committees, reliance on a specific source for funds ensures sustainability, and the program has a strong re-distributive potential.[55] Studies have however concluded that the impact Zakat funds has been highly limited by the relatively low levels of transfers and beneficiaries involved. Collections that increased steadily between 1980-81 and 1993-94 have since declined, amounting to only 0.19 percent of GDP by 1992-93; this implies that even if all the benefits had gone to the lowest quintile of households, the income of this group would have been augmented by only 2 percent.[56] Evidence on targeting efficiency is mixed at best. Selection of beneficiaries is primarily at the discretion of local Zakat committees, and subject to some patronage at the local level.[57] Also, the status of beneficiaries is not kept up-to-date, resulting in beneficiaries continuing to receive support for years after their initial entry into the program, regardless of their current status.[58]

Samurdhi Program in Sri Lanka[59]

Introduced in 1995, Samurdhi is the largest welfare program currently operating in the country. The main component of the program (comprising about 80 percent of the total program budget) is a consumption grant in the form of food stamps to means-tested eligible households. One of the objectives of the program is to create employment for youth by hiring young men and women, mostly local residents, as program administrators and development officers (niyamakas). Among their duties are identifying and screening potential beneficiaries, using household questionnaires about income sources and other welfare considerations -- the size of the grant varies from Rs. 100 to Rs. 1000 per month depending on these criteria.

Recent analysis finds the program to have considerable targeting problems – 44 percent of the total budget benefits households in the top three quintiles, and 41 percent of households in the lowest expenditure quintile are untouched by Samurdhi while a number of well-off households receive transfers.[60] Samurdhi's targeting performance turns out to be inferior to that of the *median* targeted program in a review of targeting outcomes of 47 government programs in Latin America, and is in fact comparable with such *untargeted* programs as primary health care and primary education.[61] Evidence suggests that targeting errors are most likely due to misallocation of funds at the local level. The probability of being a beneficiary is found to differ significantly by ethnic status, and qualitative findings suggest that party affiliation as well as voting patterns influence allocation of Samurdhi grants. Thus targeting errors to a large extent seem to reflect flaws in the design of the program that allow for the deliberate omission of individuals belonging to certain groups. Analysis also reveals that the transfers supply on average 13 percent of household food expenditure by Samurdhi recipients, and that the impact on the welfare of households belonging to the lower quintiles is larger than on the higher-income households. Although the numbers suggest limited impact on consumption, such food stamps can be critical in cushioning the effect of a shock experienced by the household. Only an explicit study of the impact of food stamps on vulnerability, missing from the current evaluations, would be able to identify and measure any such benefits from the program.

Improving Targeted Transfers

From the existing studies on impact and targeting some inferences can be made about the social protection role of the Pakistani and Sri Lankan programs. For a means-tested transfer program to perform the role of social protection, the program needs to have wide coverage, be able to identify needy households and deliver benefits to them in a timely manner. Only then can it help the poor cope with shocks and achieve the credibility critical for risk-mitigation. For Zakat, limited scale and coverage of the programs, small size of the average transfer, and the evidence of leakage to non-target households suggest that the program has a limited impact on vulnerability of the target population. In order to make the program a better safety net, along with increasing its scale, institutional arrangements must also be strengthened to better identify eligible persons and make the application process transparent. In the case of Samurdhi, the role of food stamps as an instrument for social protection seems to be undermined mainly by the presence of substantial mis-targeting at the local level. Improvements in program design, especially in the mechanism to identify beneficiaries, would help reduce these problems.

Beyond these inferences, very little can be said about the role of either of these programs as instruments for social protection. This is because, as in the case with most transfer programs, no explicit analysis has yet been conducted on the impact of the transfers in terms of reducing vulnerability to shocks. In order to address this gap in knowledge, studies focused on the impact of public transfers on risk and vulnerability, in the context of different countries in the region, should be an important step toward evaluation, analysis and recommendation for improvement.

Providing insurance against various risks faced by the poor is a crucial element of social protection. In South Asian countries, the opportunities for formal insurance are limited at present, particularly because most of the poor are concentrated in the large informal sectors of these countries, as well as in rural areas, where market failures caused by information problems pose major obstacles to insurance by public or private providers. Moreover, such failures are exacerbated by weak institutional capability in all South Asian countries for formal instruments like unemployment insurance, pension or social security plans. While it will be imperative to strengthen formal mechanisms, such changes will take time, and while moving in that direction, informal mechanisms – properly supported – offer more realistic hope of providing effective insurance in the short run.

Through innovations like using informal networks and group-lending, informal mechanisms like microfinance and related institutions like broad community-based saving and insurance programs provide ways to circumvent information problems that often lead to market failures. Microfinance is thus an important example of interventions to address market failures (the rationale for such intervention was discussed in some detail in Chapter I). While the governments have had a limited role to play in the microfinance movement so far, the community-based approach of microfinance can provide important lessons for the future, particularly in the context of scaling up these programs towards wider geographical coverage and broader range of financial services, where governments can play a crucial facilitating role.

The Role of Microfinance in Social Protection

The microfinance movement has spread throughout South Asia to the point that 98 institutions founded in or before 1992 currently provide financial services in each case to more than 1000 individuals and can be regarded as having achieved a certain degree of outreach and longevity.[62] According to statistics based on a sample of 30 institutions, the total number of outstanding loans for the region amounts to 20 percent of the worldwide figure, making up a loan portfolio equal to 13 percent of the global figure. A wide variety of institutions provide microfinance, among them commercial banks, credit unions and cooperatives and NGOs, using different delivery mechanisms. In comparison to microfinance institutions in other regions, South Asian institutions seem to provide loans in smaller amounts to larger groups of people, with higher repayment rates (average arrears rate of 4 percent compared to 15 percent worldwide), indicating that smaller loan sizes have no adverse effects on repayment rates. The Grameen Bank and the Sri Lanka National Savings Bank (SLNSB) account for approximately 89 percent of the value of all micro-lending in the region. Although NGOs tend to operate on a much smaller scale than the banks, with much lower average outstanding portfolios, loan size and clientele, they seem to be responsible for offering financial services at the most micro levels. NGOs are also more likely than other institutions, with the exception of Grameen Bank, to extend financial services to women and rural clients and to focus more on providing social services than financially oriented banks and credit unions. In general, South Asian institutions "..... tend to invest heavily in social services and are much more likely to use an integrated approach when providing microfinance services than their global counterparts" (World Bank, 1997). The programs also have relatively high incidence of female participants,[63] perhaps directly linked to the prevalence of mechanisms like group-lending that often target women.

Many studies have documented the failures of rural finance programs intended for the poor at subsidized interest rates, resulting from the fact that commercial banks often lack the information to be effective lenders in rural settings. Thus even though such programs disburse large volumes, they are not necessarily the most efficient means of channeling credit. Group-lending schemes, used by 93 percent of microfinance institutions in South Asia (higher than in any other region sampled), on the other hand are often able to circumvent the common sources of market failures, namely adverse selection and moral hazard, associated with conventional lending. By relying on peer pressure and the social information that the poor have about each other to monitor and enforce contracts, group-based lending provides incentives for borrowers to repay and improves selection of borrowers. Such lending also helps create social capital that enables loan repayment. Group lending can also lead to better targeting because only the poor select themselves into groups with other poor members. That said, evidence indicates that targeting has not been universally successful.[64] Studies have also documented barriers to participation in programs for the very poor (see Hashemi 1997).

Impact of Microfinance

By improving access to credit, microfinance is expected to ease constraints in production, raising the long-term incomes and productivity of the poor. While recent evidence, mostly from Bangladesh, does not tell a clear story about the impact of microfinance on poverty, there seems to be more agreement on its role in reducing vulnerability of poor households. [65] Morduch (1998a) finds consumption variability to be between 47 and 54 percent lower for eligible Grameen, BRAC and BRDB households compared to a control group. Consumption smoothing is driven by income smoothing as evident from the significantly lower labor supply variability experienced by microcredit households as compared to those in the control group. There is also evidence of widespread use of the loans themselves for consumption-smoothing – a case study of credit transactions in a village in northern Bangladesh by Matin (1998) reveals that "more than 60 percent of the total amount borrowed from microfinance institutions by the target group households is diverted for consumption-smoothing (28 percent) and loan repayment purposes (35 percent)."[66] A World Bank study on Sri Lanka finds that extremely poor households allocate a relatively large share of loans (around 40 percent) to consumption needs, in comparison to the moderately poor and the vulnerable non-poor (27 and 23 percent respectively), who allocate higher shares of loan amounts to supplementary income activity and housing improvements.

Reduction in vulnerability can also occur through the use of credit to build assets, via the increase in productivity and incomes those assets provide, and the sale of the assets themselves during periods of low income to smooth consumption. Available evidence suggests that the long-run impact through investment in productive assets increases with the number of years of participation in microcredit programs, and probably with loan sizes as well.[67] Since the moderately poor are more likely than the poorest to receive larger loans and participate for longer times, this lends credence to the idea that moderately poor microcredit borrowers benefit more than extremely poor borrowers over the long run. The reason for this would be that the poorest have a number of constraints which prevent them from investing the loan in a high-return activity, probably because of the high risk associated with a high-return activity or a long gestation period for the returns to accrue.[68]

In the absence of alternate forms of insurance, use of microcredit for consumption smoothing has considerable stabilization benefits, especially important for the extreme poor, who otherwise would often be excluded from all sources of credit. Sinha and Matin (1998) find that access to microcredit for the poorest also improves their access to alternate informal sources of credit to smooth consumption, often improving well-being in ways important for long-term development of productivity. The insurance use of microcredit however has long-term costs. Credit used for non-investment purpose does not generate income, meaning that repayment can only be achieved at the cost of future consumption or through additional loans. Sinha and Matin's case study reveals a worrying pattern -- the low marginal return on credit used for smoothing consumption adversely affects the household's ability to maintain regular payments, necessitating further loans to meet repayment obligations, creating conditions for a debt trap.

The tradeoff between the long-term poverty reducing objectives of microfinance and its short-term use for insurance implies that providing alternative means of consumption-smoothing to the poor, through programs that provide access to insurance and savings opportunities, will help microfinance achieve its long-term objectives. Such programs can be based on principles similar to those used for microcredit, namely the use of informal social networks and local knowledge to circumvent information problems and mobilize support and awareness. While early microfinance programs were not effective in mobilizing savings, recent experience has shown that even poor households are eager to save if provided with safe, flexible accounts. Other than providing poor households with the ability to smooth consumption, savings mobilization can also help the sustainability of microfinance programs and create a client pool of borrowers.[69] A broad community-based approach to mobilize savings may be able to achieve results by generating awareness of the value of saving and by innovative measures to induce participation, like organizing the poor into small saving groups. A similar community-based strategy can also be used to devise insurance schemes, as some microfinance institutions have already attempted, that are accessible to and attractive for the poor.

Large Covariant Shocks and Microfinance

While microfinance has an important role to play in reducing vulnerability from idiosyncratic or seasonal shocks, its effectiveness in mitigating large covariant shocks is questionable, with the high vulnerability of the institutions themselves to such shocks being a serious concern. To consider a recent example, the disastrous effects of the 1998 floods in Bangladesh on microfinance clients, as well as the measures the microfinance institutions adopted to mitigate the clients' suffering, caused these institutions to experience income losses, shortfalls in cash for new loans due to delayed repayments and withdrawal of savings, client dropouts from groups, erosion of capital base and difficulty in paying back institutional loans.[70] The repayment rates for the flood period were estimated at about 60 percent and the loss of interest income at 54 percent, compared to 92 percent and 5 percent respectively for the period immediately preceding the disaster. The situation was particularly difficult for small and medium-sized microfinance institutions as they had less access to donor funds and fewer disaster funds to draw on. Establishing a separate 'Disaster Fund' (of the type that large microfinance institutions in Bangladesh already have), diversification of the risk portfolio by expanding geographical reach and adopting some measures on the lines of those practiced by commercial lending institutions, would be positive steps towards reducing the very high vulnerability of small and medium NGOs. Finally the ability to tap into large amounts of funds from donors, both private and government, in a crunch would be important. The government especially has a crucial role to play. Its commitment to bolster the microfinance sector can mitigate the latter's vulnerability. From the available evidence, it also appears that households are less able to insure themselves against covariant shocks with microcredit -- therefore having to rely on borrowing from relatives and moneylenders and reducing food consumption – than against idiosyncratic shocks or seasonal falls in income. While withdrawal of savings can provide an important source of insurance for the poor against covariant shocks, withdrawals may be constrained by institutional factors like lack of accessibility of the institution's branches.

Thus while on the one hand, microfinance institutions need to be strengthened and modified to make them less vulnerable to covariant shocks, on the other hand alternative mechanisms for insurance need to be made available to the poor who are especially vulnerable to such shocks. Providing instruments and facilities for safe and accessible savings that encourage the poor to save will also provide a valuable source of insurance against covariant shocks.

IV. Expanding Options for Risk Mitigation and Coping: Saving, Insurance and Pension Reform

Mobilizing Savings of the Poor

Households that are able to save acquire the potential to provide self-insurance against a variety of risks. Although each rural financial institution will want to tailor its approach to the specific circumstances of its target clientele, some broad principles can be identified for effective voluntary savings mobilization. Evidence has shown that even very poor households may be eager to accumulate financial savings, and that liquidity, convenience and security appear to be more important than interest rates on deposits in motivating their decisions to save.[71] Since liquidity is a critical consideration for the poor, saving schemes meant to attract them must allow considerable flexibility in drawing on their savings. How and where deposits are invested appears to be far less important than that deposits are mobilized from poor households. Where it is costly to set up savings bank branches, simple mechanisms like post office savings plans, which already exist in some countries in the region, may offer appealing options.

In recent years different kinds of rural financial institutions promoting informal savings schemes have had much success with savings mobilization, examples of which are the Unit Desa program of Bank Rakyat Indonesia (BRI-UD) and the Bank for Agriculture and Agricultural Cooperatives (BAAC) in Thailand. While microfinance institutions like the Grameen Bank and BRAC have encouraged savings by requiring mandatory savings by client-members who want to gain access to loans, the approach of BRI-UD and BAAC has been to mobilize voluntary deposits separate from credit transactions. Their success can be partly attributed to the variety of savings instruments they offer.[72] Safe Save in Bangladesh (Box 4.1) and the Cooperative Development Foundation in India are relatively recent programs that have succeeded so well in mobilizing savings that they serve as their major source of funds. Behind such successes has been the ability to organize communities at the grassroots level as well as to decentralize key elements of decision-making to groups within communities – important for ownership and commitment.

Box 4.1: Safe Save in Bangladesh: Mobilizing Savings to Attain Financial Sustainability

Safe Save is a financial services provider, which works in the poorer slums of Dhaka, the capital of Bangladesh. Starting in late 1996, by early 1999 it had a little less than 3,000 clients, with about around 50,000 US dollars of clients' savings and about 75,000 US dollars of loans outstanding. Despite its small size, it attracts attention because of its unique products. Its products are designed to enable very poor slum dwellers turn their capacity to save into usefully large lump sums conveniently and quickly, by offering its clients, in essence, a full individual banking service on their doorstep. There is no group formation. Bank workers, called Collectors, visit each client every day six days a week. On each visit clients may save, withdraw, or repay loans in any amount they choose, or take loans on their doorstep in amounts based on their proven capacity to save and repay. Given this flexibility, many clients transact very regularly, in volumes that exceed those of more conventional schemes for the poor. Using cost cutting devices – like recruiting Collectors from among the slum dwellers themselves, and full computerization – Safe Save already covers its operational costs from its loan interest income, and with growth, promises to become fully economically sustainable.

Source: Matin, Hulme and Rutherford, 1999

Public policy can help in integrating the wide variety of savings programs that exist in these countries, which can in turn lead to widening of the risk pool, allowing the financial system to easily handle localized shocks. The keys to a successful savings program are providing long-term security and convenience, finding a way to hedge against inflation, minimizing costs, and exploiting opportunities to re-lend deposits safely and profitably.[73] While existing banks and community-based efforts may not be up to all these tasks at present, public policy can be critical for attaining these objectives. Liberalizing financial markets so that saving and lending institutions can exploit market opportunities, complemented by designing effective, but not overly intrusive, prudential regulations can promote effective savings mobilization.[74]

Insuring the Poor against Risk

Experience with Public Crop Insurance[75]

Vulnerability could also be addressed directly by providing access to insurance against such contingencies as crop failure, loss of income, illness and natural disasters, to poor households. Insurance schemes for livelihood in rural areas in most developing regions, including South Asia, have focused almost entirely on agriculture and within agriculture on crops much more than on livestock. Rural insurance providers have to diversify across different types of crops, farms, regions and sectors of the economy in order to reduce their risks, but such diversification usually raises administrative costs. Accordingly, most commercial banks focus on large commercial farms rather than on smaller holdings or riskier clients. The rationale for public agricultural insurance schemes is that they are able to diversify better by pooling risks at a national or regional level. However, experiences with public crop insurance have mostly been disappointing.

To be financially sustainable in the long run, the insurer must satisfy the condition $Z < 1$, where $Z = (A + I)/P$, implying that the insurer's average income from premiums (P) must cover average indemnities paid (I) plus average administrative costs (A).[76] For public crop insurers in developing countries, Z ratios are usually well above 1, and A is often as high as 30 percent of P. In fact, loss ratios alone (I/P) were as high as 5.19 in Bangladesh and 6.87 in India on a cumulative basis during the late 1980s (FAO 1992).[77] In spite of the high costs, there is little evidence to show that crop insurance has had any positive impacts. Farmers do not always demand such insurance, probably due to the adverse selection that often groups them into risk categories when premiums are calculated, but distributes benefits tailored to individual losses. Heavily subsidized insurance can also have the negative effects of encouraging excessive risk-taking by farmers, and creating dependence on government assistance during droughts. Further, the impact of crop insurance, if any, is limited to farmers who grow insured crops, and is of no consequence to vulnerable groups like landless laborers, whose livelihood is also affected by agricultural disasters.

While public support for insurance is necessary, public insurance schemes can be successful only if some basic principles are adhered to. These include making the insurer responsible for its own financial affairs, and denying automatic access to government funds to cover losses. Coverage should also be written mainly on insurable risks – named perils over which clients have little control. Where moral hazard cannot be avoided, deductible and other co-insurance arrangements should be used. Available weather records and information about clients should be used to calculate actuarially based premiums, adjusted over time to reflect actual loss payments. Incentive problems among clients can be addressed by tailoring premiums, indemnities and deductibles to the risk level of individual clients or to fairly narrowly defined client groups. The insurer should also develop a rational insurance portfolio for managing risk, which should be diversified as much as possible across regions and activities.

While commercial insurers in many developing countries do adhere to these principles and are thus able to operate, they usually insure only large-scale, commercial farmers growing high-value crops. The experience with insurance is somewhat similar to that with commercial credit that does not reach the poorest. As with credit, innovation is needed to provide insurance for small farmers and other groups of rural poor. Such innovations are also needed to insure the poor against health and other forms of idiosyncratic risk that are not easily verifiable and thus may not be covered by commercial or public insurance schemes that follow sustainable practices.

Alternative Approaches to Insurance

One example of innovations in insurance involves adopting *community-based* mechanisms to circumvent information failures, for example by relying on existing relationships, peer pressure and group interaction to induce correct behavior and reduce moral hazard. For covariant risks, a potential strategy involves the use of *index and area-based contracts*, where insurers write contracts against specific perils or events defined and recorded at regional level.

Community-Based Efforts:

A number of grassroot organizations have recently undertaken a variety of approaches to delivering insurance services at the community level, using local knowledge and facilitated by the existing trust between the institutions and their clients. In the case of the Self-Employed Women's Association (SEWA) in India, for example, delivery of health, asset and life insurance is dependent on the organizing strength of cooperatives and long-term grassroot level involvement. Grameen Kalyan, an offshoot of the Grameen Bank, draws on a long history of peer-group strategies and self-help groups to provide health insurance through its Rural Health program (RHP), in addition to life and disability insurance (Box 4.2). A crucial element in the success till date of these organizations has been their ability to forge partnerships between cooperative social protection and publicly provided services. SEWA links cooperative social protection with national insurance companies and government subsidies channeled through the SEWA Bank, while Grameen Kalyan links cooperative mechanisms to the public health-care system. While the insurance programs are still at a nascent stage and need further development as well as analysis, they suggest potentially successful approaches that can possibly be replicated on a larger scale for maximum impact.

Although the government should not participate directly in the design and delivery of such programs, in order for them to retain their community-driven qualities, it can play the crucial role of promoting such efforts, through support of the kind that is provided to SEWA and Grameen Kalyan. A critical role of the government – especially in the context of efforts to scale up existing programs -- would also be to undertake reforms in the financial sector which would open up market opportunities to such organizations, and to create the right regulatory environment for these opportunities to be realized. Creating the right regulatory environment would involve setting regulations and standards that increase transparency, along with legal and institutional systems that are able to enforce the regulations.

While liberalization of financial sector has the potential of creating great opportunities, it will also pose fresh challenges. For example, the ongoing process of opening up the insurance market in India to private providers offers an organization like SEWA the opportunity to design and administer its own insurance scheme. At the same time, the likely shift from public to private funding of insurance also raises questions about the existing arrangements between the public schemes and the organization. The ability to work in partnership with private and public sources, as well as to link existing programs to the formal financial market will thus be crucial to the future success of insurance programs run by organizations like SEWA and Grameen Kalyan.

Box 4.2: Insuring the Poor – the Programs of Grameen Kalyan and SEWA

Grameen Kalyan is a not-for profit company founded in 1997, when it took over the Rural Health Program (RHP) initiated by the Grameen Bank in 1993. The RHP acts both as an insurer and health-care provider through health centers attached to branches of the Grameen Bank. Each health-care unit uses local expertise at the Grameen Bank branch to spread awareness on the benefits of insurance, preventive care and services available at the center. Referrals are used to utilize the existing public health infrastructure and minimize overlap of services. The RHP corresponding to each Grameen Bank branch is created only after a consensus is reached in discussion with members, who decide whether to subscribe to the annual plan for the RHP. Annual premiums are collected from member-households associated with a Health Center. Different types of pricing schemes for various service packages, and supplementary services for additional premium are available. Subsidies to the scheme are targeted to poor households – identified by Grameen Bank branch staff in the area – within the Health Center zones. The services package presently includes a combination of annual check-ups, subsidized laboratory tests, quality medicines for below market price, maternal and child health care, preventive care, and partial expenses of hospitalization, specialist consultation and tests in case of referrals. Presently receiving premiums from about 66 percent of Grameen members, Health Centers on average have recovered approximately 65 percent of total operational costs; it is estimated that cost recovery will increase significantly as more members get insured.

SEWA is a registered trade union working mainly with women in informal sector, with a membership of almost a quarter of a million. In addition to performing conventional labor-union functions, SEWA provides legal aid, operates a bank and an Integrated Social Security Program – the largest comprehensive contributory social security scheme in India today for informal workers, with health, life and disability and asset insurance for over 32,000 workers. Membership and claims processing is done through SEWA Bank, helped by considerable field presence and grassroots organizing by the bank and union staff. Premiums are also collected through mobile services similar to collection methods normally associated with microfinance programs. Flexible premium structures have been designed to suit different income groups among the poor. About a third of the costs are covered by premiums; the rest is financed by external grants and subsidies from the government in collaboration with two public/private insurance companies. SEWA views contributions by members as a step toward their increased participation in the design and administration of the scheme. The combination of microfinance, insurance and union services has increased SEWA's membership and helped raise the incomes of its members.

The experience of these voluntary and demand-driven programs shows that not only can social security provision be sustainable for the poor (or informal sector workers), but also that the poor are willing to pay increasing amounts as long as the service is appropriately designed and sensitive to their needs.

Source: Lund and Srinivas, 1999

Index and Area-Based Insurance Contracts[78]:

Area-based index insurance involves writing contracts against specific perils or events, like loss in average yield in the area, drought or flood, which are defined and recorded at a regional level. Insurance is sold in standard units with a contract for each unit purchased called a Standard Unit Contract (SUC), with fixed premium rates and indemnity per SUC for all buyers in a given region. An example of such a scheme is area-based crop-yield insurance written against the average yield for a region with payment made whenever the measured yield for the region falls below some pre-defined limit.[79] Since such coverage requires long and reliable series of area-yield data, not always available in South Asia, contracts contingent on rainfall or soil moisture can effectively protect against losses due to drought or excess rainfall.

Such insurance has a number of attractive features – administrative costs can be held low since there are no individual contracts to write and no individual loss assessments, and marketing can be easy since SUCs could be sold like coupons or lottery tickets. Moral hazard is reduced because the insured individual has no control over the probability of the insured event and therefore has the same incentive as an uninsured person. Insurance of this kind would be attractive to anyone (not necessarily farmers) whose livelihood is correlated with the insured event, and should also be relatively easy for the private sector to run, in fact providing a possible entry point for them to develop other kinds of insurance for rural areas. A secondary market in the SUCs might also emerge, making SUCs a more liquid asset, attractive especially to the poor who highly value such liquidity. Most importantly, a well-designed index insurance can be a part of a sustainable strategy for insuring the poor against covariant risks, to complement other instruments like conventional insurance, credit, or community-based mechanisms that insure against idiosyncratic risks.

The high levels of covariant risks for which such contracts are designed can be potentially troubling for insurers who face the possibility of having to pay out huge indemnities. To hedge against this risk, the insurer can either diversify regionally, or sell part of the risk to the international markets through reinsurance or in the emerging markets for sharing catastrophic risk. In case of catastrophe, reinsurance will usually be possible only through large international reinsurers with the ability to spread their own risks among different parts of the world with risks of catastrophic events that are not positively correlated. Despite significant growth in recent years, international reinsurance markets still have limited capacity.[80] Given these limitations, there may be a role for new, global financial instruments like "catastrophe" bonds issued against rainfall events in specific countries or regions where risks would be uncorrelated with those of other financial investments. Governments may also facilitate reinsurance by selling options on the index in the international market, reducing the risk to the reinsurer and lowering the price of reinsurance.

Although the ultimate goal of policy should be private provision of insurance, public intervention may be needed in South Asian countries to provide the initial impetus for such activity. Such start-up measures would include promoting the necessary research, educating rural people about the value of the insurance, and most importantly, ensuring that the measurement and monitoring of natural events, like rainfall, are accurate, timely and credible. To attract private insurers, the government may also have an initial financial role to play in underwriting insurance. In order to facilitate private-sector insurance as well as to protect the interests of clients, the government will also need to establish an appropriate legal and regulatory framework for such institutions.

Reforming Pension Systems in South Asia

The economic and social risks associated with old age contribute in a major way to vulnerability of the poor in South Asia. Old age is usually associated with the risk of loss of livelihood on the economic front, and isolation on the social front. In most South Asian countries, evidence suggests that informal family-support systems are major sources of old age security. Little is known, however, about the extent and adequacy of family support of the aged or about intra-household resource-allocation that may not always favor the old. Studies that have attempted to overcome these methodological problems have found evidence that informal safety nets are not always adequate.[81] Evidence from developed countries also indicate that as income and life expectancy rise, family support systems tend to come under increasing strain, particularly in urban areas, due to the increased mobility of household members, increase in the aged population and changes in attitudes. Formal schemes, in principle, can compensate for many of the inadequacies of informal systems. Public policy can facilitate formal savings and insurance schemes that provide old-age security to those who have the ability to make provisions for old age. Pension schemes and provident funds also have the advantage of greater scale economies and broader risk pools compared to family support systems, leading to lower transactions cost and better risk mitigation. Formal pension systems are however limited in their scope and coverage in most South Asian countries,[82] and institutional deficiencies limit the potential for reform of pension systems without complementary broad-based reform of financial markets. Even if such reforms became successful over the long run, coverage among vulnerable groups, like the poor in the informal sector, is likely to remain low.

A quick look at the pension system in India will illustrate some of facts, keeping in mind that the general picture is fairly typical for most South Asian countries. Public instruments for old-age support in India take the forms of compulsory savings or insurance programs, voluntary savings with favorable tax treatment and social assistance to the elderly. Heavy concentration of labor in the informal sector automatically excludes a large proportion of the workforce from compulsory schemes limited to the organized sector, resulting in a combined coverage rate (for the main old-age schemes) of below 10 percent of the labor force. For poor informal-sector workers, participation in voluntary schemes like the PPF (the primary available instrument) is limited by the fact that the returns from available schemes are usually not enough to induce long-term savings from the poor who value liquidity very highly. In addition, the main incentive for participation in voluntary schemes, namely a reduction in tax rates, is relevant to only about 2-3 percent of the workforce who pay taxes, a group that almost certainly excludes the poor in the informal sector. As a result, the voluntary schemes have extremely low participation rates of between 0.2 and 0.8 percent of the labor force. The social assistance scheme for the elderly involves every state providing some kind of means-tested pension to older citizens, supplemented by a pension scheme of the national government. In most states coverage is less than 10 percent of persons above age 60, suggesting that most of the poor elderly are excluded from these programs. The two pensions together also have a very low benefit level equivalent to around 5 percent of the average wage.[83]

Broad Recommendations for Pension Reform

A detailed study of the pension system in India lays the foundation for future pension reform.[84] A similar exercise for all countries in the region is imperative as background to making specific and detailed reform recommendations geared to conditions in each country. In the absence of such studies, a few general guidelines, mostly derived from the India study, should be relevant to the entire region. The general recommendations for pension reform, as briefly articulated by WDR (2000), propose establishing a multi-pillar system that combines a publicly managed defined-benefit or social-assistance plan with a privately managed defined-contribution plan, supplemented by voluntary retirement savings. While the publicly managed component should be funded by tax revenues and can address poverty and equity concerns, the privately managed plan would be fully funded by participant contributions and provide pensions on retirement.[85] Several countries in Latin America and Eastern Europe have established such systems.

As a first step, it will be necessary to formulate a clear set of policy objectives for key targets like the level of protection for all covered workers. The strategy must also address the incentive problems that restrict program participation by adopting investing strategies conducive to higher rates of return for long-term savings and by liberalizing investment rules in line with international practice, in order for which to succeed, the right institutions and regulatory framework in the financial market have to be created. A well regulated, decentralized and competitive pension sector would help achieve higher rates of return along with better quality of services to members. Once target levels and the required institutional frameworks are determined, the transition to the 'new' system has to be carefully mapped out, where the pace of transition must take into account the need for parallel financial sector reforms and the need to set up the regulatory apparatus.

A pension reform initiative must also incorporate measures to harness informal institutions in the provision of social security, especially in the light of the short-term limitations of formal systems. Expanding existing public social-assistance schemes would help address the old-age risk of those beyond the reach of the formal system; fostering partnerships between government social assistance programs and community-based institutions, especially with regard to identifying beneficiaries and delivery of benefits, would improve targeting by such programs. Organizations like SEWA or the Society for Promotion of Area Resource Centers (SPARC) in India, or the Grameen Bank in Bangladesh may also be in a position to utilize their large client bases and relationships with clients to offer long-term saving services and insurance directly to the poor. The main obstacle faced by such community-driven efforts is creating interest among members for long-term contractual savings instruments, given the members' need for liquidity and flexibility.[86] The direct provision of long-term services also can prove costly, especially for smaller organizations. Financial sector reforms could help address such issues, for example by enabling investments (of long-term savings) to earn higher returns, and by initiating privately managed open pension funds, where community-based institutions can arrange for *group contracts* that would reduce asset management charges. Creating the right regulatory framework and support institutions, and instituting financial-sector reforms would be important means for the government to promote provision of social security by community-based institutions; direct assistance in the form of grants for specific programs may also be necessary in the early stages.

V. Guidelines For A Social Protection Strategy

Improving the growth performance of an economy is imperative for achieving reduction in poverty, risk and vulnerability in the long run. Improvements in investment climate, liberalization of various sectors to create opportunities for private enterprise, creating the right regulatory mechanism to induce competitive behavior, promoting export performance, and fiscal reforms that make for a stable macroeconomic environment that promotes growth, will all contribute in the long run towards reducing vulnerability. Liberalization and strengthening of markets to promote private enterprise will expand risk-mitigating options by creating access to financial instruments to larger sections of the population, and by allowing for better risk sharing across individuals and regions.

While such policy measures are necessary, the fact remains that in countries in South Asia, most of these changes will involve institutional and structural reforms that require a long time horizon. Many countries in the region have already embarked on such a reform process. But while such reforms are undertaken and their impacts realized over the long run, it will be important to incorporate explicit short-term measures that address the vulnerability of the poor and assist them to improve their risk-management options. This is all the more important because risk and vulnerability by themselves have considerable negative implications for economic growth of a country. As the discussion in previous chapters have shown, exposure to risk and lack of opportunities to manage risk can prevent adoption of highly productive technologies, and lead to other adjustments in behavior that stifle productivity and innovation, at the cost of growth in the long run.

Given the mutual reinforcing relationship between vulnerability and growth, promoting risk management in the short run will thus create better conditions for poverty-reducing growth in the long run. The lack of formal institutions in the South Asian countries, coupled with the fact that the poor are concentrated in rural areas and in the informal sector, where information problems often lead to market failures, would mean that formal or market-based options are limited for risk management in the immediate future. The major immediate challenge for a social protection strategy thus lies in designing instruments that can effectively reach the poor, given their virtual exclusion from formal institutions of credit and insurance, in countries where such institutions are highly inadequate in the first place.

Principles for Designing Comprehensive Strategies for Countries in the Region

Designing a comprehensive social protection strategy should involve assessment of risk and evaluation of the current social protection landscape, including the specific kinds of risks and institutional arrangements relevant to each country, before an optimal mix of policies can be decided on. Such a strategy, in order to be comprehensive and operational, would have to be country-specific, and must be informed by analytical work at the country level. The broad principles for designing such a comprehensive strategy are outlined below.

- Typology of Risk: Arrive at a typology of the types of different types of risks prevalent in the region, classifying them as idiosyncratic or covariant so as to identify important sources of risk and inform policy responses; also identify the vulnerable groups and the factors that make them vulnerable.

— In-depth analysis is necessary for each individual country, especially since it is obvious that conditions differ even among countries in the region and can only be addressed by country-specific policy design.

— Very seldom is information on the different types of risk, whether they are idiosyncratic or covariant, available from traditional household surveys. Special efforts are necessary to develop an information base for identifying the critical sources of idiosyncratic and covariant shocks in the context of specific countries and regions within countries. In many cases, surveys that incorporate qualitative information can help identify the sources and types of shocks for specific countries and regions.

- Measurement of Vulnerability: Assess the extent, trends and determinants of income and expenditure volatility, analyze the role and limitations of informal self-protection and group-based mechanisms in managing the risk of poor households, and measure the impact of vulnerability on households. This can be done through a combination of country-level analytical work at the Bank, including poverty assessments/updates and sectoral work in areas like education, health and rural development.

— The understanding of poverty should go beyond the "traditional" static measurement of poverty status to capture its dynamics, namely the movement of households into and out of poverty and the likelihood that those who are already poor could fall into deeper poverty. Such an exercise ideally would need panel data on household expenditure, income and other measures of well-being seldom available for the countries in the region. Identifying indicators of vulnerability would be also greatly facilitated by suitably incorporating qualitative information to capture the sources of non-income dimensions of risk.

— Such information can have enormous policy implications in choosing the appropriate policy as well as in ensuring the appropriate targeting tools. If, for example, transitory poverty is as high as some studies suggest, then targeting anti-poverty programs using characteristics of the currently poor will not be enough, and must be complemented by strategies geared toward increasing exits from and reducing entry into poverty. Identifying the determinants of poverty transitions would then become critical. A related question would be whether a temporary "shock" could cause a previously non-poor household to sink into chronic poverty. If the answer were yes, then long-term benefits would flow from safety-net policies that effectively protect people from transient shocks.

— Vulnerability in the context of South Asia has implications beyond those measurable from household-level data. Specific members within poor households, children and women, especially widows, are often particularly vulnerable. For more detailed measurement and analysis of intra-household dimensions of vulnerability, future surveys need to go beyond information gathering at the household level, by collecting information pertaining to individual household members, as well as intra-household allocations and decision-making. Again, qualitative surveys can play a crucial role here, by helping understand those aspects of vulnerability that are not apparent in quantitative responses.

- Evaluating Existing Options: Evaluate the existing forms of public and private (informal and formal) mechanisms in each country, which help the poor mitigate and cope with risk so that, wherever possible, evaluations can generate suggestions for strengthening existing programs and expanding promising initiatives. The existing knowledge base in these spheres is weak.

— The knowledge base in the domain of informal mechanisms needs to be strengthened for many reasons. First, greater understanding would enable a more systematic assessment of the adequacy (or lack of) of such mechanisms. Second, the identification of effective delivery modes would inform proposals to harness such mechanisms in the design of interventions. Third, knowledge can ensure that as formal institutions are put into place, they do not supplant or destroy valid existing options for the poor.

— Evaluations should focus on the broad issues of coverage, effectiveness, and incentives created by formal and informal mechanisms. One vital element of the evaluation exercise will be to conduct analysis of safety nets spending at the national and local levels, which will help identify the scale, incidence and inefficiencies of existing expenditures. Public expenditure reviews (PERs) at the country and provincial levels conducted by the Bank could be a vehicle for such analysis.

- Deriving the Optimal Mix: Assess the optimal mix and methods of delivery of various interventions necessary to address multidimensional risk. The strategy must have a poverty focus, given the close and mutually reinforcing relationship between poverty and vulnerability in the region. The answer to how the mix of interventions will be provided will depend largely on the type of risk and the institutional capability of the country in question. The design of an optimal strategy should involve (a) identifying the priorities in terms of vulnerable groups and specific risks, (b) deciding on the combination of instruments to be used, (c) setting goals for the programs, and (d) developing an implementation structure, identifying strategic partners on the ground.

Elements of a Social Protection Strategy in South Asia

While the principles outlined above can guide country-specific social protection strategies for the region, the review conducted in this paper suggests some essential elements that are broadly applicable to the region as a whole. These elements should be looked upon as the set of issues that can guide a regional strategy; the general guidelines that emerge must then be modified and adapted for specific country situations, as well as the capability of individual countries.

Strengthening Risk-Mitigating Options

The review of existing government, private or community-based options suggests some broad principles to improve and expand their role in mitigating risk. As mentioned before, institutional reforms that promote and expand market opportunities, backed by a regulatory environment that induce competitive behavior, are intrinsic elements of a long-term social protection strategy for all countries in the region. However, such institutional changes that create formal mechanisms for social protection will take time to have their desired effect. Meanwhile, given the prevalence of risk and vulnerability in the region, it will be imperative to governments to incorporate measures that provide risk management options in the immediate future. This can be done, as the paper has argued, through a combination of expanding and strengthening existing options in public safety net programs, and building on existing community-based instruments that have met with some success in the recent past. Some of these important *short-run options for social protection* are listed below:

1) Targeted Public Safety Net Programs: Given the lack of formal financial instruments to manage risk, targeted public safety net programs like workfare and means-tested assistance in cash or kind, can be important immediate options for governments to provide risk benefits to the poor. A number of such programs are already in place in South Asian countries, lessons from which can be drawn upon to design new programs and improve existing ones. While these programs are often looked upon as poverty reducing or redistributive, by their very nature they also have the potential of providing considerable risk benefits. Therefore, as

Chapter III of this paper has argued, the design these programs should be adapted to address vulnerability arising out of short-term exposure to shocks, and a review of some existing programs (in Chapters II and III) offers some guidelines to realize their safety net potential. Some broad issues important for the design of such programs are listed below.

- For the most part, the design of safety net should be such that some reciprocal action is necessary from beneficiaries, to ensure that only those who need assistance self-select into programs, and to reduce dependency. Public works programs, which help the poor to cope with community-wide shocks and seasonal in return for physical labor, satisfy this principle. Direct transfers which do not have such reciprocity should be instruments for targeting especially vulnerable groups like the elderly, the disabled and widows among the poor, who have recourse to no assets, including their own labor. The main areas to focus on for public programs are improving the programs' targeting and aligning them to better concentrate on vulnerable groups. It is also important to establish credibility among the potential beneficiaries of such programs in order to ensure the objective of risk-mitigation, which has been true for successful workfare programs like the EGS in India.

- Public safety nets, especially in the form of targeted transfers to highly vulnerable groups, such as needy widows and elderly people, may also crowd out informal risk mitigation mechanisms including private transfers and reciprocity-based arrangements. The design of the program should take this issue into account to minimize such displacement. However in some cases, some amount of crowding-out can be tolerated as the necessary cost of expanding coverage to include a large previously unprotected population. This would be true if private transfers had hitherto covered only a part of the target population, or if the coverage was inadequate.

- Targeted social safety net programs can also be designed to protect the human capital of the poor. To cope with a shock, the poorest households are often likely to withdraw from basic health and education services, for instance by withdrawing children from schools, with long-term repercussions. Safety net programs can provide additional incentives to such households to avoid costly adjustments to human development, examples of which are programs in Pakistan and Bangladesh that provide food for girls attending school.

2) Informal Instruments for Social Protection: Innovations based on informal instruments seem to offer some of the most immediate options for effectively mitigating the risks of the poor. The success of microfinance, especially in the area of credit (see Chapter III), offers some valuable lessons in harnessing informal institutions and local knowledge to overcome information problems in providing financial services. Some of these options, which seem to hold considerable promise in South Asia, have been reviewed in Chapter IV, and are summarized below.

   - Since most South Asian countries are characterized by limited market coverage of the banking sector, encouraging savings programs through community-based efforts could be an important way to help the poor insure against risk, as exemplified by the success of recent community-driven programs in Bangladesh and India in encouraging the poor to save. Public policy can play an important role here by helping integrate small individual programs that exist currently, so that the risk pool is wide enough for the system to easily handle localized shocks. Public funds can also be used to support expansion, monitoring, and evaluation of pilot savings schemes to draw lessons for broader application. For long-term sustainability and expansion of such programs, it will be necessary to undertake institutional reforms – liberalizing financial markets so that saving and lending institutions can exploit market opportunities, complemented by suitable prudential regulations can promote effective savings mobilization.

- Community-based approaches that share risks fairly broadly can also be an important innovation for designing effective insurance for the poor. Successful examples of such efforts can be found in the programs of SEWA and Grameen Bank in India and Bangladesh respectively. Such efforts have relied on community participation and group-based mechanisms to stimulate participation in insurance programs. The government can support such efforts by providing technical and financial support in the start-up phase (which can be crucial for scaling up existing programs), and by creating an enabling legal and regulatory framework for such institutions. Achieving long-term sustainability and expanding the outreach of these programs will also require reforms in the financial sector that would open up market opportunities to them.

Over a longer time horizon, a social protection strategy must incorporate institutional reforms that create market opportunities that promote growth and enable increased access to formal mechanisms for risk management. Some important *medium and long term priorities in social protection* for countries in the region are discussed briefly below:

1) <u>Strengthening Formal Institutions for Social Protection</u>: All the countries in the region are characterized by weak institutional capability for formal social protection, like unemployment insurance, pension or social security plans as well as mobilization of savings. Broad-based financial and regulatory reforms, along with market liberalization to promote private enterprise, are essential for reducing poverty and vulnerability in the long run. Moreover, as the discussion on informal instruments above mentioned, such reforms will also allow informal instruments to make use of market opportunities, which would be crucial for their continued success.

    - Institutional reforms, including liberalization of the financial sector along with the creation of regulatory mechanisms that promote transparency, will be crucial for the expansion of market-based insurance opportunities. Important elements in creating the right regulatory environment would be establishing rigorous accounting standards and disclosure requirements, backed by legal and institutional systems to supervise and enforce the regulations. These measures would help reduce information problems and mitigate perverse incentives, factors that limit participation and often lead to market failures in formal credit and insurance markets.

    - Critical issues in the design of formal instruments of risk management, such as unemployment insurance, pensions and social security will be the ability of these schemes to attract participants, and to operate in a sustainable manner. To meet those objectives in the context of mitigating the risks of old age, a broad-based pension reform is needed in countries. This should be in the form of a multi-pillar system – combining a privately managed defined-contribution plan with a public social-assistance plan for the needy among the elderly, supplemented by voluntary retirement savings – supported by financial liberalization and creation of the necessary institutions and regulatory framework. It will be critical to harness informal community-based institutions to target social assistance to those unable to participate in contributory schemes, and also to provide social security in the informal sector where most of these schemes will not be able to operate. Financial liberalization supported by the right regulatory environment would help formal safety net mechanisms by opening up these programs to market opportunities and private participation, while institutional improvements (that lead to better information base for instance) can improve their functioning and expand coverage.

- Reform programs underway in most South Asian countries – opening up the insurance market to the private sector in India being a recent example – are steps in the right direction. In order for market opportunities to be realized, such reforms must be complemented by suitable regulations and institutions of governance that promote transparency and induce market discipline.

- Creating the right regulatory environment, for example through strictly enforced disclosure requirements, would also help reduce the information problems that constrain savings mobilization by formal institutions. Moreover, government supported deposit insurance, by mitigating the consequences of bank failure, can circumvent some of the information problems limiting savings; its advantages must however be balanced against associated moral hazard problems which may lead to imprudent practices by banks and clients alike. In order to promote savings, it will also be important to reduce macroeconomic risks, particularly with respect to price and exchange rate volatility, which will assure the poor that the value of savings will be protected.

2) <u>Poverty Reduction Programs and Risk Reduction</u>: Although poverty-reducing interventions in the areas of health and education do not provide direct insurance or risk-mitigation benefits, they are important long-term measures for reducing risk. Improving income diversification opportunities especially for rural areas, through improved extension services and access to credit are elements of a poverty reduction strategy that will contribute towards reducing risk. Although microfinance is an important lever for creating such opportunities, there is evidence that microfinance loans are often used to smooth consumption rather than to generate income and diversify its sources. This practice undermines the objectives of microcredit and points to the need for community-based insurance programs (as discussed above) that would complement lending and directly address the consumption-smoothing needs of the poor people, so that microcredit loans are used productively.

3) <u>Insuring Against Covariant Shocks</u>: Covariant shocks such as natural disasters, crop disease or pestilence, affect entire communities or regions. As a result, informal and group-based mechanisms, as well as traditional formal mechanisms that are able to assist in the case of idiosyncratic shocks, may become unsustainable due to lack of diversification in the risk pool. Designing insurance to address such risks is an enormous challenge, given the lack of opportunities for diversification and hedging. Public as well as private supported crop insurance schemes in the past have met with failure in insuring against agricultural shocks due to various reasons (see Chapter IV).

   - An innovative instrument, namely index-based insurance, which by design reduces transactions cost and moral hazard problems, is one measure that can help address the risk of crop failure and natural calamities (detailed discussion in Chapter IV). This option is relatively unexplored, but an experiment along these lines is underway in Bangladesh. Although the ultimate goal of policy should be private provision of insurance, the government will need to establish an appropriate legal and regulatory framework for such institutions. Public intervention may also be needed to provide the initial impetus, by ensuring accurate, timely and credible measurement and monitoring of natural events, and by performing other roles including that of financial underwriting. An important challenge with regard to index-based insurance is also to be able to diversify the risk pool. Potential solutions to this problem lie in the insurer being able to diversify across large regions or countries, or being able to sell part of the risk to the international market. A well-designed index insurance can be a part of a sustainable strategy for insuring the poor against covariant risks, to complement other instruments like conventional insurance, credit, or community-based mechanisms that insure against idiosyncratic risks.

Strengthening Risk-Coping Options

A crucial element of a social protection strategy will also be to provide risk-coping options, since a large number of risks cannot be eliminated. This is especially true in the case of such covariant shocks as natural disasters (flooding, droughts, hurricanes, earthquakes, etc.), where most insurance mechanisms, formal and informal, tend to fail. Community-based instruments like microfinance and small saving groups turn out to be inadequate, and often vulnerable themselves, to such shocks.[87] A proper disaster-management strategy, planned by the government and its partners in advance, and implemented promptly, would help in coping with such shocks. A few important components of such a strategy are listed below.

1) A comprehensive disaster management strategy must develop mechanisms for immediate and widespread relief efforts in the event of the disaster. Wherever possible, the help of local community-based and non-governmental institutions, should be elicited for creating an efficient distribution network and identifying the affected people. The strategy should also incorporate public health measures to guard against diseases and epidemics that often occur in the aftermath of natural disasters, focusing especially on highly vulnerable groups like children and the elderly.

2) The strategy should also incorporate explicit measures to address the more long-term needs of the affected people, namely providing them assistance to rebuild their lives, including homes and livelihood. Such assistance can take various forms, including direct grants, subsidized loans, technical help, and skills training, to name a few. Public works programs can provide an important coping mechanism for people who have lost their livelihood, while helping in the process of rebuilding communities and infrastructure. The recent devastating earthquake in India is an example of a very serious covariant shock, which demands a comprehensive strategy for coping and reconstruction. The World Bank's role in such a strategy, involving financial and technical assistance, are based on some core principles that stress a decentralized approach with the direct involvement of the government, communities and the private sector (Box 5.1). The strategy also incorporates assistance to develop disaster management capacity of the state, which will help in coping with future shocks in an area that is known to be prone to natural disasters. Lessons drawn from the implementation of the strategy will also have valuable implications for future efforts in disaster management and coping strategies for the region.

3) Past experience in South Asia has shown community-based efforts including microfinance institutions to be vulnerable to such disasters (as their loan recovery rates and withdrawal from savings decrease to the point of unsustainability), which is detrimental to the long-term development potential of the affected region or community. A strategy to cope with disaster thus should include a plan to provide financial support to the institutions that need it particularly.

4) In case of weather-related risks, current advances in information technology can be harnessed to better track and predict events as well as to target relief programs for maximum effect. This will induce readiness on the part of the vulnerable population, and the public authorities to cope with such risks.

Box 5.1: The Recent Earthquake in Gujarat (India) and the Strategy for Reconstruction

On January 26, 2001, a devastating earthquake devastated lives, social infrastructure and economic foundations in large areas in western and central parts of the state of Gujarat. By latest estimates, the quake resulted in 20,000 deaths, 167,000 injuries, and destruction and damages to 1 million homes. Besides severe damage to health and education infrastructure, with damage or destruction of 1200 health clinics and over 11,600 schools, extensive damage occurred in rural and urban water supply, power, telecommunications, and small enterprises including single family artisans and rural industry. The most direct economic impact of the earthquake is in the form of assets losses, estimated at $2.1 billion, of which private assets account for $1.6 billion. The immediate needs for the affected areas are provision of temporary housing while an extensive housing reconstruction process is undertaken, restoration of lost records to house, land and other property rights, restoration of public services, and securing the livelihood of vulnerable people.

Cross-country experiences suggest some core principles for reconstruction. Revival of the local economy is an urgent need, which can be partly achieved through workfare programs, and direct transfers to households. Empowering individuals and communities to foster local ownership and involvement in reconstruction are crucial for reducing social tensions and ensuring sustainable development. Reconstruction efforts should also take into account potential impact on public finances, use available private sector participation and financing, and prioritize the greatest assistance for those most in need. In order to facilitate community-driven reconstruction, effective networks for a decentralized system of reconstruction must be developed. Decisions to rebuild or relocate villages, for example, should follow a transparent and participatory approach to assess the wishes of the villagers, using local elected bodies wherever possible. Moreover, a participatory approach must be based on effective communication between the government, the public and donors. The strong presence of community-based organizations and NGOs in Gujarat (SEWA being just one example) also creates opportunities for important synergies between such institutions and public programs for reconstruction. The local knowledge, capacity and credibility of these institutions can be of great assistance in identifying beneficiaries, distributing assistance, and ensuring transparency. Collaborations with such institutions have already had major impact on the immediate relief efforts, and need to be persisted with in the course of reconstruction.

The World Bank and the Asian Development Bank have collaborated in a damage and needs assessment for the disaster, as a valuable precursor of an effective strategy for reconstruction. The involvement of the World Bank, in the form of financial and technical assistance, will be consistent with the above-mentioned core principles, by supporting closely integrated efforts of communities, government, non-government organizations and the private sector, while emphasizing community based self-help approaches. The Bank will contribute to short-term financing needs for housing, rubble removal, temporary shelter, education, health, local irrigation, infrastructure, public buildings, capacity building for local communities, and establishment of disaster management capacity in the state. A medium and long-term role for the Bank is also envisaged, assistance for which may be provided in a later phase.

Source: Gujarat Earthquake Recovery Program Assessment Report – a Joint Report by the World Bank and the Asian Development Bank to the Governments of Gujarat and India (March, 2001)

Integrating Social Protection into the World Bank's Program in South Asia

The principles outlined in the previous section should guide the Bank's involvement, along with partners in respective governments, in designing social protection strategies for individual countries in South Asia. The issues discussed in this paper also has some concrete implications for the Bank's role as a development partner in these countries, in analytical work conducted to underpin the development strategy for individual countries, as well as in specific programs undertaken by the Bank in various sectors.

A wide range of programs supported by various sectors in the South Asia Region of the Bank, encompassing diverse areas like rural development, environment, water, infrastructure, health and education, address social protection issues highlighted in this report. The accompanying matrix in the *Annex* gives an indicative list of projects and analytical exercises – ongoing and upcoming, and organized in terms of social protection themes – undertaken by the Region, that have social protection components. It is important to note that this matrix only includes activities with specific components that seek to address the issues of risk mitigation and coping, and does not incorporate the remaining vast range of activities that have implications for the broader objective of poverty-reduction. Moreover, the list is meant to be merely indicative, and not an exhaustive accounting of all activities addressing issues related to social protection; developing such a list will require a more in-depth look into each individual activity through the lens of social protection.

In order to integrate the programs of the Region with the social protection objective, an important next step will be to assess and evaluate the precise role of each relevant project in creating opportunities for social protection, across various dimensions like risk mitigation, reduction and coping. Understanding the social protection implications of all existing Bank projects in the region will help in expanding, and in some cases, modifying some of these programs to address issues of vulnerability better in future. More broadly, such in-depth assessment will underpin an operational framework for Social Protection in the Region.

While such detailed exercise remains outstanding, it is possible to identify some broad principles for integrating social protection into the Bank's program in the South Asia Region. These, along with some specific mechanisms through which such integration can take place, are listed below.

- The mutually reinforcing nature of poverty and vulnerability necessarily imply that the impact of any poverty-reduction strategy is conditioned by the extent to which the risks of the poor are managed. Investing in education, for example, may not have the desired effect on human development of the poorest if they are highly vulnerable to shocks, and interrupt their children's education to cope with these shocks. Therefore, rather than having a narrow focus, social protection should be integrated fully into the country's PRSP, where issues of risk management should be explicitly incorporated into various sector-specific components of the poverty reduction strategy. Such a multi-sector approach will be necessary to address risk and vulnerability in a holistic manner.

- Risk, vulnerability and social protection issues need to be addressed more exhaustively in PRSP initiatives than they have been so far. One way of doing this would be to make country social risk assessments an integral part of the background country or sector-specific work for PRSP, to work towards deriving a country-by-country profile of vulnerability issues and the various policy options. This can done through integrating social protection with current analytical vehicles, particularly public expenditure reviews (PERs) and poverty assessments, by having them explicitly include analysis of risk and vulnerability issues along the lines discussed in this paper. PRSPs of certain countries in the Africa region, like Mauritania, Burkina Faso, Senegal and Mali, provide examples of strong focus on vulnerability, which need to be emulated for countries in South Asia.

  — PERs for example, should include explicit analysis of scale, incidence and impact of public spending on social safety nets. Public expenditure on safety nets is often diffused between different public agencies, and PERs can identify ways in which these programs can be consolidated to increase efficiency and impact. Decentralization and devolution of programs to local governments can improve efficiency and access, and PERs can explore the mechanisms through which such reforms can take place. In countries where devolution programs are currently underway, e.g. Pakistan, PERs can analyze whether such reforms has had the desired effect on the availability and impact of safety nets.

— Poverty assessments should contain explicit analysis of risk and vulnerability, and the impact of vulnerability on the long-term productive potential of households. Analysis of income or expenditure volatility will call for the need to develop longitudinal panel household data sets for countries and integrating them into the poverty monitoring and analysis system. To explore the factors that determine vulnerability, a poverty assessment should be able to call on information from qualitative surveys that may not be available from quantitative data.[88]

— Other analytical work, in sectors like health, education, nutrition, labor market and rural development, should explore the potential of existing mechanisms to mitigate and cope with risks, and the impact of inadequate risk management on outcomes in each sector. In the specific South Asian context, analytical work must have a strong focus on the informal sector, rural and urban, which is where most of the vulnerable are. The focus on the informal sector is also imperative for analytical work on pension reform strategy for specific South Asian countries like India. There is also a need for analytical work to focus on the vulnerability of certain high-risk groups in South Asia, like working children and widows, in addition to what has been done till now.

- Integration of social protection in operational work of the Bank on the ground can be achieved through a number of avenues. Some of these are suggested below.

— Bank supported anti-poverty programs (e.g. Poverty Alleviation Funds) should be expanded to include financial instruments that can better deal with risk. In addition, Bank supported community infrastructure projects should be designed to improve integration with existing government programs aimed at coping with risks.

— Bank supported service delivery projects (health, education, rural services) should be able to explore project designs that include insurance schemes to mitigate important risks, e.g. sustainable forms of crop insurance in the case of rural services, or catastrophic health insurance in the case of health projects.

- Finally, the Bank must be prepared to provide financial and technical support for innovative instruments of social protection that provide access to savings and insurance using local, community-based institutions (some examples are provided in this paper), and also explore the possible role of an innovation like index-based insurance to provide much-needed protection against widespread shocks. These approaches need to be tried on a pilot basis to understand their role, scope and limitations. Such endeavors should have a special focus on monitoring and evaluation, which will help in learning the best practices on the ground, depending on local conditions, in order to inform scaling-up of current efforts and future design of social protection instruments.

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Annex: Indicative List of Activities in South Asia Region with Social Protection Component

Social Protection Themes	Lending Services		Non-Lending/ Analytical (AAA/ESW)	Country	Implemen-ting Sector	Risk Reduction, Mitigation & Coping Elements
	Projects Being Implemented	Projects in the Pipeline				
Micro-finance	*Microfinance II*: Expand outreach of microcredit including urban poor and micro-entrepreneurs			Bangladesh	SASFP	Mitigate risk by helping smooth consumption; reduce risk by increasing incomes
		Ultra-hardcore Poor: Target the very poor with no access to microcredit		Bangla-desh	SASFP	Risk mitigation and reduction through microcredit, complemented by safety net programs
			Microfinance Review: Assess potential for sustainable development of microfinance	India	SASFP	Focuses on microfinance as a risk mitigating tool for poor households.
			Financial Sector Study: Overview of the financial sector including microfinance	Nepal	SASFP	One chapter focuses on microfinance as a risk mitigating tool
Community -Driven Programs		*Social Investment Program*: Grants to NGOs & local organizations will increase access to basic services to excluded groups		Bangla-desh	SASFP	Strengthen social services delivery, and enhance local institutional capacity to help mitigate and cope with various kinds of risks
	Rural Women's Empowerment: Strengthen women's productive and organizational ability			India	SASES	Mitigate risks of exclusion and disempowerment
	Poverty Alleviation Fund: Support poverty alleviation programs of NGOs and local organizations			Pakistan	SASFP	Increasing incomes and reducing vulnerability of poor households, empowering the poor (esp. women)

Social Protection Themes	Lending Services		Non-Lending/ Analytical (AAA/ESW)	Country	Implemen-ting Sector	Risk Reduction, Mitigation & Coping Elements
	Projects Being Implemented	Projects in the Pipeline				
Community-Driven Programs (Continued)	***District Poverty Initiative Project (DPIP):*** in the states of Rajasthan, Andhra Pradesh & Madhya Pradesh			India	SASRD	Mitigate risks through credit and savings programs; reduce risk and poverty through income generation; building capacity of local organizations for service delivery and mutual assistance
Labor Market Risks			*India: the Challenge of Old Age Income Security*: Analysis of current pension programs in India, and developing a framework for pension reform	India	SASFP (with Social Protection Network)	Assess what reforms are necessary to mitigate risks associated with old-age; programs include employee pension programs and social assistance for the aged poor.
			Child Labor in Nepal: Situational Analysis	Nepal	SASHD	Assess the extent and causes of child labor, and promote interventions that will serve to reduce child labor, especially child labor that is harmful to human capital accumulation
			Exploited children in Sri Lanka: are their rights protected ?	Sri Lanka	SASHD	
			Breaking the cycle: Working children in Bangladesh	Bangladesh	SASHD	
			Understanding children's work and its Impact: Nepal (ongoing)	Nepal	SASHD (with UNICEF & ILO)	

Social Protection Themes	Lending Services		Non-Lending/ Analytical (AAA/ESW)	Country	Implemen-ting Sector	Risk Reduction, Mitigation & Coping Elements
	Projects Being Implemented	**Projects in the Pipeline**				
Health Risks: Direct Instruments for Disease Prevention	*HPSP AIV/AIDS Prevention Program* *2nd National HIV/AIDS Control* *AIDS Prevention*			Bangladesh India Sri Lanka	SASHD SASHD SASHD	Reduce health risk from HIV/AIDS through prevention
	Tuberculosis Control *Malaria Control* *Immunization strengthening*			India India India	SASHD SASHD SASHD	Reduce the likelihood of epidemics and reduce health risks of children
Health Risks: Indirect Instruments to Reduce Health Risks	*Arsenic Mitigation* *Air Quality Management* *Indus Pollution Prevention*			Bangladesh Bangladesh India	SASES SASES SASES	Reduce health risks associated with environment degradation
	Coal Sector Environment & Social Mitigation			India	SASES	Mitigate risks associated with environment & involuntary resettlement
			India Indoor Air Pollution Study – to be followed by *"Clean Cooking Fuels"* initiative	India	SASEI	Assess health risks of indoor air pollution and examine mitigation techniques – focus on poor women and children
	NWFP Community Infrastructure	*Azad Jammu & Kashmir Community Infrastructure* *Community Infrastructure* *Second Community Water*		Pakistan Pakistan India Sri Lanka	SASEI SASEI SASEI SASEI	Reduce health risk by improving access to and quality of basic services in communities

Social Protection Themes	Lending Services		Non-Lending/ Analytical (AAA/ESW)	Country	Implemen-ting Sector	Risk Reduction, Mitigation & Coping Elements
	Projects Being Implemented	Projects in the Pipeline				
Disaster Manage-ment & Harvest Risk		*Andhra Pradesh Cyclone Emergency* *Orissa Cyclone Emergency* *Gujarat Emergency Earthquake Reconstruction*		India India India	SASEI SASEI SASEI	Cope with disasters through investments to restore lost public assets; long term planning for coping strategy for future hazards
			Water Resource & Drought Management: Build a comprehensive framework for more effective use of water resources	Pakistan	SASES	Assess how to mitigate risks associated with crop failure and water shortage
Other Risks (e.g. Environment, Legal)	*Legal and Judicial Capacity Building*: Improve civil justice system; includes strengthening small courts, legal aid, and legal awareness			Bangla-desh	SASFP	Reduce the risks of exploitation and violence, especially among women and the poor
		Singrauli Social & Environment Development: Build environmentally sustainable local livelihoods		India	SASES	Mitigate risks to health (environment-related) and livelihood associated with industrial development in marginal region
			Mandatory review and safeguards policy: to ensure that social and environmental safeguard policies are applied	SAR-Regional	SASES	Ensure that risks associated with involuntary resettlement, indigenous peoples and environment are minimized in Bank supported projects

Notes to the Text

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[1] Deolalikar and Gaiha (1993a). Also, preliminary analyses of a panel survey from rural Pakistan suggest that while there was a high incidence of poverty (between 21 and 29 percent) in the sample villages, a large proportion of these households (46 to 51 percent) exited poverty from one year to the next, and a very small proportion stayed poor over the entire period of 5 years (Baulch and McCulloch, 1998)

[2] For example, in India, rising food prices were found to have led to larger reductions in nutrient intake for women than for men (Behrman and Deolalikar, 1990).

[3] Mari Bhat (1994) for India, Rahman et al (1992) for Bangladesh

[4] For more details on an operational definition of Vulnerability, refer to the presentation by Holzmann at Vulnerability Workshop on March 13, 2001, the World Bank

[5] Rosenzweig and Binswanger (1992). Evidence from other developing regions also indicate that incomes of the poor are subject to large fluctuations – over a 20-year period, an estimated 78 percent of rural Ethiopian households suffered a harvest failure (Dercon, 1999; Kinsey et al., 1998); a study in China finds that for the poorest 10 percent of households, 40 percent of an income shock is passed on as lower consumption, compared to only 10 percent for the richest third of the households, and richer households tend to have better access to insurance mechanisms (Jalan and Ravallion, 1999).

[6] Murdoch (1998a)

[7] Morduch (1999)

[8] E.g. Deaton (1992a), Paxson (1992)

[9] Aggregate income uncertainty is shown to induce Indian farm households to hold less risky portfolios, sacrificing higher expected returns for lower risk and greater liquidity (Rosenzweig and Binswanger, 1993)

[10] See Lim and Townsend (1998), Paxson and Chaudhuri (1994)

[11] Evidence from other developing regions, notably Africa and Thailand seems to confirm this hypothesis (for evidence from Thailand, see Townsend, 1995a)

[12] Lim and Townsend (1998) found that bullock transactions can in fact add volatility to income in rural south India instead of smoothing them during times of community-level shocks

[13] A study of 6 villages in semi-arid regions of India examined how school attendance drops along with downward seasonal fluctuations in family income, that depend on the vagaries of the monsoon and are therefore hard to anticipate (Jacoby and Skoufias, 1997)

[14] Behrman (1988), Behrman and Deolalikar (1990)

[15] For example, in Nepal in 1996, 58 percent of poor households received transfers, and the share of transfers in pre-transfer income of poor households was as much as 58 percent.

[16] Studies from other regions have findings similar to Townsend's (e.g. Deaton, 1992b for Cote d'Ivoire)

[17] Hoff (1997) has a theoretical model. A study of reciprocity in fishing villages in Kerala, India finds some evidence for this theory (Platteau and Abraham, 1987).

[18] Ravallion and Chaudhuri (1997) and Morduch (1991) – using data on the ICRISAT villages

[19] Rosenzweig (1988)

[20] Rashid (1991) finds this pattern in Pakistan

[21] Fafchamps (1992)

[22] Evidence from Africa indicate that transfers are unable to offset aggregate income shocks (e.g. Czukas et al., 1998); to make things worse such aggregate shocks often amount to a large part of the income fluctuations of poor households – a study in northern Nigeria shows that as much as 58 percent of the variation in agricultural output was caused by such aggregate shocks.

[23] The welfare-based measure proposed by Holzmann (1990) to evaluate the impact of public programs differs from the "traditional" approaches by taking into account, firstly, life-cycle considerations, and secondly, market imperfections.

[24] As pointed out in Morduch (1999)

[25] Sinha and Lipton (1999) report that 30 percent of households reported increased incidence of illness as a result of successive harvest failures in Sri Lanka in 1995 and 1996.

[26] The harvest failures in Sri Lanka in 1995 and 1996 led to increased indebtedness in 80 percent of the households in eight villages.

[27] Voices of the Poor, Volume 1 (1999)

[28] Foster (1995) and Rose (1999) respectively

[29] E.g. Dasgupta (1992), Cain (1981)

[30] Many traditional coping strategies such as gathering wood, hunting, fishing, and harvesting herbs and fruits must rely on increasingly over-utilized common resources. In India, for instance, reports indicate that gum collection is no longer profitable due to a drastic fall in the availability of gum trees. Women are much more dependent on gathering forest resources, and the disappearance of non-timber forest products affects their well being disproportionately (Voices of the Poor, Volume I).

[31] Dreze and Srinivasan (1997) finds that in India, for a given household size and child-adult ratio, female-headed households are poorer than male-headed households, wheree widows head as many as 64 percent of female-headed households.

[32] According to surveys conducted by Self-Employed Women's Association (SEWA) based in Ahmedabad, India.

[33] Eswara Prasad (1993)

[34] Eswara Prasad (1995)

[35] See Owen (1995) for a more detailed discussion

[36] This section draws from Grootaert and Kanbur (1995), Chapters 1 and 7 in Grootaert and Patrinos (eds.), (1999), and situational analyses of child labor in individual South Asian countries by Rie Hiraoka, South Asia Sector, Health, Population and Nutrition (SASHD), The World Bank.

[37] Significant regional differences in child labor trends in India are found to correlate strongly with total fertility and infant mortality rates, enrollment and literacy rates, female participation in non-agricultural work (greater participation is associated with lower incidence of child labor), the level of infrastructure development, and the rise in investment and output per worker.

[38] Bangladesh Garment Manufacturer's Exporter's Association

[39] For example, the two programs in Bangladesh together cover only about 17 percent of the economically active children in Bangladesh

[40] For example, floods and natural disasters are more important sources of risk in Bangladesh and some parts of India than in the rest of the region; the risk of civil strife and economic instability may be more pronounced in Sri Lanka and Pakistan respectively

[41] The first column of Table 2b shows the important sources of risk for which workfare programs can serve as mitigating and/or coping mechanisms

[42] While the cost of transferring one rupee of income to participants in India's JRY was 1.9 rupees, because the participants included large numbers of non poor due to mis-targeting, the cost of transferring one rupee of income to a *poor* participant was as high as 4.35 rupees.

[43] In Pakistan, various Income Generation Program for Refugee Areas (IGPRA) schemes have been in operation since 1984, generating between 5 and 23 million person-days of employment annually. Sri Lanka Janasaviya program is no longer in operation.

[44] This short discussion is based on BIDS and IFPRI (1985) and Subbarao (1997)

[45] The TR program is similar to FFW, with the distinction that it aims to generate employment for the poor from public works mainly during the rainy season. The program generates an estimated 15 million man-days of employment annually

[46] The total cost per person-day of employment created for the FFW and TR program, as well as the ratio of wage cost to total cost (all 1991-92 figures), compare favorably with comparable public works programs in developing nations.

[47] The average cost per person-day of employment of around $1.2 compares favorably with programs of this type in the developing world.

[48] Walker and Ryan (1990). More evaluations of EGS can be found in Dev (1995), Bhende et al. (1992), Acharya (1990), Acharya and Panwalkar (1988) and PEO (1980).

[49] Subbarao (1997)

[50] Osmani (1991) and Ravallion (1991)

[51] Aggregate figures from Annual Report 1997-98, Government of India, Ministry of Rural Areas and Employment.

[52] Gaiha et al. (1998)

[53] Subbarao (1997)

[54] For discussions on women's participation in workfare programs, see Deolalikar and Gaiha (1993b) and Dandekar (1983)

[55] World Bank (1995)

[56] Naseem (2000)

[57] Social Development in Pakistan (1999)

[58] Subbarao et al. (1997). For more on targeting of Zakat, see Shirazi (1996)

[59] The discussion for this program is drawn mostly from World Bank (2000a)

[60] World Bank (2000b) based on data from Sri Lanka Integrated Survey, 1999-2000

[61] Grosh (1994)

[62] World Bank (1997)

[63] Approximately 71 percent of the clients are women and 89 percent are rural, compared to global averages of 61 and 47 percent respectively (World Bank, 1997).

[64] See Mustafa et al (1996), Khandker (1996), Montgomery et al (1996), and Khandker (1998) for evidence on targeting by a number of programs in Bangladesh.

[65] See, for example, Khandker (1998) and Morduch (1998a)

[66] Khan et al (1998) track 35 BRAC borrowers over 2 years and find that 67 percent of credit is used for investment, 12 percent to repay loans, 7 percent for household consumption and the rest for other activities.

[67] See Mustafa et al. (1996), Zaman (1999).

[68] Wood and Sharif (1997)

[69] Morduch (1999)

[70] For detailed discussion, see Nayar and Faisal (1999), Zaman (1999) and articles from the Web site on Flood of 1998, Grameen Trust.

[71] Morduch (1999)

[72]For example, in addition to individual savings, the BRI-UD attracts savings from community groups like schools and municipalities.

[73] Morduch (1999)

[74] See McGuire (1999) for a discussion on policy and regulation for sustainable microfinance, including the prudential regulations necessary for institutions that accept savings.

[75] The main sources for this sub-section are Skees et al (1999) and Yaron, Benjamin and Piprek (1997).

[76] This condition was suggested by Hazell (1992)

[77] The I/P ratio also measures the average return to farmers' own investment in the insurance, i.e. the number of dollars received on average per dollar premium paid.

[78]The discussion that follows is drawn largely from Skees et al. (1999), as well as on discussions with Panayotis Varangis, DECRG.

[79]Such schemes already exist in a number of countries, including the US, India, Sweden and Canada.

[80] Existing literature also indicate that reinsurers tend to have short memories – after a major catastrophe, prices increase significantly or reinsurers simply pull out.

[81] For example, Dreze and Srinivasan (1997)

[82] According to recent estimates, formal pensions cover under 10 percent of the labor force (Palacios and Pallares, 2000).

[83] A thorough evaluation of such social assistance programs will require systematic collection of data that is still lacking. An important issue to consider will be whether public transfers supplant private transfers as evidence from some countries outside South Asia suggests.

[84] The World Bank (2000c). For more on social security issues for India, see Van Ginneken (ed.) (1998). For a discussion on social security for workers in the informal sector in Kerala, India, see Pillai (1996).

[85] World Bank (1994)

[86] Some institutions have been able to successfully introduce long-term products – SEWA provides insurance against death, disability and widowhood to its clients in the informal sector, and a microfinance institution (called Association for Social Advancement) with 3 million members in Bangladesh offers a five year "contractual savings" option (Rutherford, 2000)

[87] For an example, see discussion in the previous chapter on the impact of the 1998 floods in Bangladesh on microfinance institutions.

[88] The Poverty Assessment for Pakistan (2001) currently underway would attempt to address these issues, by looking at the extent and impact of vulnerability, using quantitative as well as qualitative information (from case studies at select sites). The availability of a 10-year household panel data set – to be updated through a re-survey of the panel – offers the scope to analyze the nature and determinants of income and expenditure volatility.