

# **Designing a safety net strategy for risk and vulnerability reduction**

A training exercise for the course on:  
Design and implementation of effective Safety Nets  
December 2002

## **Background material**

### **GENERAL BACKGROUND**

Safety Haven (SH) is a very poor country, with a large proportion of the population living at a subsistence level. The country is also very vulnerable to drought and diseases. SH has a population of 8 million people with an average capita GDP of \$150. More than half the population lives on less than \$100 per year.

The prospects for economic growth are not very good. The country has a limited resource base, a high rate of population growth, and low productivity in the agricultural sector, which is the dominant source of income.

80 percent of the population lives in the rural areas, have a small plot of land and produce mostly a subsistence crop of maize once a year. Because of the lack of an efficient marketing infrastructure, there is a large difference in the price of maize between the months following the harvest and the months preceding the harvest. Besides, SH is also subject to droughts that further reduce the amount of maize produced and therefore have an additional impact on its price.

SH received a substantial amount of foreign aid resources, in terms of food aid and cash. Most of those resources are used for supporting government budget and foreign reserves and for building infrastructures.

### **AN OVERVIEW OF THE RISKS**

In a poor country like SH, there are a large number of people that are either poor or are very likely to become poor if they are faced by the occurrence of a bad event. These events could be common to the rest of the population or just suffered by the individual household. A list of the possible risks faced by the population of SH is reported here.

First, SH is vulnerable to the periodic droughts that affects its agricultural production of Maize. With the population (and particularly the poor) relying heavily on rain-fed agriculture, these droughts have a tremendous impact on household welfare. Major droughts in past have resulted in widespread hunger and hardship. The poor in the rural areas are particularly hard-hit by droughts, as they tend to have fewer diversified sources of income. Poor consumers are also more to suffer from the negative consequences resulting from sharp price increases and the contraction in off-farm income opportunities that accompany droughts.

Second, there is the seasonal shock of annual food shortages and price increases. Each year food stocks run low by about November, and for the next three or four months many households subsist on one meal a day, or even less. At the same time, due to scarcity, the price of maize increases dramatically, sharply reducing their capacity to buy food from the market. This results in extreme nutritional stress for many households.

Third, low level of economic growth and poor policies have resulted in the lack of any improvement in the level of poverty. Not many jobs have been created and there is a lack of opportunities for the poor landless in the rural areas and high unemployment in the urban areas.

Fourth, the situation with respect to health and nutrition remains poor. Up to 40 percent of preschool children are malnourished and 20 percent have not completed the basic immunization. In addition, there is the threat of diseases like malaria and AIDS. SH has one of the world's highest rates of HIV, with an estimated lifetime risk of dying of AIDS of about 45 percent. AIDS tends to affect those in the most productive age groups. According to the World Health Organization, the probability of dying between the ages of 15 and 59 years is a staggering 63 percent for males, and 60 percent for females. Almost every family in SH is affected, either directly or indirectly, by the loss of a breadwinner to AIDS.

Fifth, There are a large number of other adversities that threaten poor households in SH. These include the possibility of losing a job, being the victim of a crime, being or becoming disabled. Old people and female headed households are particularly vulnerable to these risks.

## **VULNERABLE GROUPS**

Who are the most vulnerable in this population? Although there is widespread poverty, some groups suffer more than others. Primary among these are the landless, female-headed households, and those unable to insure against the risks described above.

We have reported some of the possible vulnerable groups and an estimate of their size among the general population and in particular among the poor, disaggregated by specific age groups (See Table 2 for details). Each of these groups represents a difficult challenge for the government. Table 2 shows that 50 percent of the population is below 18 years of age. This is due to the high fertility and the low life expectancy and high mortality due the poor conditions and health care especially for infants and young children.

There are some evident challenges in SH. These include the high percentage of malnutrition, the low level of education enrollment, the high level of youth unemployment and high rate of teen pregnancy. Reducing malnutrition, increasing education and reducing fertility of young woman, can have a very positive impact on the life of the target population and on the prospects of economic development of the country as a whole as well.

Agriculture represents the most important source of income in SH. The average size of land owned is very small and there are a large percentage of people, especially among the poor, in the rural areas that have no access to land at all.

Female headed households represent a high proportion of population (20 percent of poor households). Research shows that women in SH are less likely to be able to take advantage of off-farm employment opportunities, and are often unable to fully exploit their own landholdings.

SH also has a very high proportion of orphans. This is largely due to the fact that SH also has one of the world's highest incidences of HIV/AIDS. As this epidemic spreads, many children are left without parents. Orphans have traditionally been cared for by extended family members such as aunts, uncles, cousins, and grandparents. But the situation is so bad now that communities are overwhelmed. Churches and non-governmental organizations are unable to meet the needs of orphaned children.

## **OVERVIEW OF EXISTENT SAFETY NET PROGRAMS**

At this time, SH has several programs to provide a safety net for the chronically poor and vulnerable. These include:

### ***Public Works and Food-for-Work***

There are several public employment schemes at the moment and one a new cash-employment scheme just being launched. Public Works Programs (PWP), which provides employment to the moderately poor on labor-intensive public works, have recently employed about 50,000 people at a time for a total of 5 months each (covering perhaps 3 percent of the population), at a cost of approximately \$4 million p.a. Food for work programs cost \$ 3 million p.a. and cover a total of 40,000 beneficiaries.

### ***Food Distribution***

Various programs distribute free maize, mostly using food aid provided through WFP. Originally intended as emergency relief measures, they have increasingly been implemented as a safety net in non-drought years. In last year's version transfers equivalent to almost the entire family food requirement were distributed to 200,000 households during the lean season at a cost of about \$10 million. The program is targeted on the basis of the nutritional status of children.

### ***School Feeding***

A program of free school meals, plus a take-home ration for female students, has been operating on a pilot basis, and is being expanded. Coverage is 25,000 students, at a cost of \$3.3 million. Designed partly as an educational intervention and partly as a transfer, the program currently covers only about 1 percent of the population. It is untargeted within schools.

### ***Agriculture Input Subsidy***

The Agriculture Input Subsidy (AIS) is the most recent in a series of programs distributing free fertilizer and seeds to rural households, partly to counteract the effects of

subsidy removal and price rises. The AIS provides universal coverage to 1.2 million farmers at a cost of \$25 million in the past year. The value of benefits is about 50 percent greater than the cost of the inputs.

### ***Other Social Interventions –The Universal Maize Subsidy***

Maize is sold directly to consumers by the government marketing agency, in accordance with an administered price band, generally well below the cost of imported maize. The amount of the subsidy varies from year to year depending on the relative scarcity and prices of imported maize. Last year an estimated \$20 million was spent on this subsidy, partly in an attempt to protect consumers from the effect of a major devaluation. There is no analytical evidence on the incidence of the subsidy, although it is not targeted at the poor.

## **CONSTRAINTS**

There are usually several constraints to the implementation of safety net programs. In the example given to you, the country has a limited amount of resources from their own budget and from the amount of aid supplied by international donor organizations. For example, to provide a transfer equivalent to just half of the minimum food requirement (\$12 a month per household) to the poorest 20 percent of the population would cost about \$40 million or 25 percent of public discretionary expenditure. On the other hand, lesser interventions will not reach sufficient numbers of people (some examples are given in Table 4).

Despite the improvements made in the past few years, there still a lack of coordination between the policies pursued by the government and the donors. There is a pressing need for preparing a coherent strategy that will make the best use of the resources available and that will cover most of the needs of the chronically poor and vulnerable population. At the same time it is crucial for the government to develop policies that stimulate economic growth and job creation that will include the poor and vulnerable.

You know that decisions regarding the implementation of a safety net scheme in SH need to be made quickly. Working in close collaboration with government officials, your staff has constructed the following tables on the situation in the country. These tables describe levels of poverty, risks and the estimated cost of various types of programs that could be implemented within the country. You believe that laying out the alternatives is very helpful to the government as well as to external donors in terms of deciding which programs are most useful and cost-effective.

## **LIST OF TABLES**

1. General information, population, GDP per capita and poverty rates
2. Vulnerable Population by Age Groups and Other Characteristics
3. Cost and Coverage of Current and Proposed Safety Net Programs
4. Examples of Alternative Program Allocation for a Given Budget
5. Budgetary feasibility. Transfer possibility for a given level of funding
6. Budget Shares and Expenditure Characteristics

**Table 1 - General Information, Population, GDP per Capita and Poverty Rates**

	<b>People</b>	<b>Households</b>
Population	8,000,000	1,600,000
Hh size	5	
GDP per capita (Annual \$)	150	750
GDP Total	1,200,000,000	
AID per capita	50	
AID Total	400,000,000	
GOV Budget	500,000,000	
GOV Discretionary Budget	180,000,000	
Urban population (20 % of total)	1,600,000	320,000
Urban poor (35 %)	560,000	112,000
Urban non poor	1,040,000	208,000
Rural population	6,400,000	1,280,000
Rural poor (55 %)	3,520,000	704,000
Rural non poor	2,880,000	576,000
All poor	4,080,000	816,000
Overall poverty rate	50%	
Exchange rate	42	

**Table 2 - Vulnerable Population by Age Groups and Other Characteristics**

	Incidence		Population	
	% All	% Poor	Among Total Pop	Among Poor
<b>Ages 0-6</b>				
Total (25%)	25	25	2,000,000	1,000,000
Malnourished - Stunted (40% all - 55% poor)	40	55	800,000	550,000
Lack of vaccination (20% all - 30% poor)	20	30	400,000	137,500
Not going to preschool (60% - 80% poor)	60	80	480,000	75,625
<b>Ages 7 to 11</b>				
Total (15%)	15	15	1,200,000	600,000
Not enrolled in school (20% - 30% poor)	20	30	240,000	180,000
<b>Ages 12 to 18</b>				
Total (10%)	10	10	800,000	400,000
Not completing secondary school (50% - 70 poor)	50	70	400,000	280,000
Teen pregnancy (10% - 30% Poor)	10	30	40,000	60,000
Inactivity	10	10	40,000	42,000
Unemployment	30	50	240,000	200,000
Informal sector				
<b>Ages 19 to 64</b>				
Total (40%)	40	40	3,200,000	1,600,000
Unemployment (5% - 15% poor)	5	15	160,000	240,000
<b>Ages over 65</b>				
Total (10%)	10	10	800,000	400,000
<b>Farmers</b>				
Hhs with small amount of land (40 % - 60%)	40	60	640,000	480,000
<b>Female headed Households</b>				
Number	10	20	160,000	160,000
<b>Orphans</b>				
Number between 0 amd 18 years of age	5	5	200,000	100,000
<b>Total Population</b>			8,000,000	4,000,000

**Table 3 - Cost and Coverage of Current and Proposed Safety Net Programs**

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
	Cost in Millions	Number Covered	Total Coverage	% Population	Average Transfer	Cost of Transfer	Incidence of cost	Transfer Benefit/time	Tot Trans Benefits	Sponsor
<b>Current programs</b>										
Public works program (5 times)	\$4.00	50,000	250,000	3.13	\$16.00	\$5.00	31%	\$11.00	\$55.00	GOV
Food for Work (5 times)	\$3.00	40,000	200,000	2.50	\$15.00	\$5.00	33%	\$10.00	\$50.00	DON
Food Distribution (5 times)	\$10.00	200,000	1,000,000	12.50	\$10.00	\$2.00	20%	\$8.00	\$40.00	DON
School Feeding (9 Months)	\$3.30	25,000	225,000	1.56	\$14.67	\$4.00	27%	\$10.67	\$96.00	DON
Ag Input Subsidies (2 times)	\$25.00	1,200,000	1,200,000	75.00	\$20.83	\$1.50	7%	\$19.33	\$19.33	MIX
<b>Total non-farmers</b>	\$45.30	1,515,000	2,875,000	94.69						
<b>Total donors</b>	\$31.30	265,000	1,425,000	16.56						
<b>Total government</b>	\$14.00	1,250,000	1,450,000	78.13						
<b>Total all programs</b>	\$83.60	1,425,000	2,425,000	89.06						
Food Subsidy (12 times)	\$20.00	1,600,000	19,200,000	100.00	\$1.04	\$0.30	29%	\$0.74	\$3.71	GOV
<b>Proposed Programs</b>										
Nutrition (12 months)	\$5.00	200,000	2,400,000	12.50	\$2.08	\$0.50	24%	\$1.58	\$14.25	
Cash Transfers (12 times)	\$10.00	250,000	3,000,000	15.63	\$3.33	\$0.50	15%	\$2.83	\$14.20	
Cash Transfers (5 times)	\$5.00	250,000	1,250,000	15.63	\$4.00	\$0.50	13%	\$3.50	\$17.50	
Orphan Transfers (12 times)	\$4.00	500,000	6,000,000	31.25	\$0.67	\$0.50	75%	\$0.17	\$14.20	

Note: The amount of each single transfer per beneficiary reported in column (8) is equal to the average amount of transfer (5) minus the cost of the transfer (6).

**Table 4 - Examples of Alternative Program Allocation for a Given Budget**

	<b>1% of GDP</b>	<b>2% of GDP</b>	<b>5% of Discretionary Public Expenditure</b>	<b>10% of Aid Resources</b>
Amount of annual per capita Transfer to poorest 20% \a	\$5.63	\$11.25	\$4.22	\$18.75
Share of population provided w/ 4 months worth of food \b	14%	28%	11%	47%
Quantity of free fertilizer Per household \c (Kg)	22.4	44.7	16.8	74.6
<b>Total Amount of resources (Mil \$)</b>	<b>12.0</b>	<b>24.0</b>	<b>9.0</b>	<b>40.0</b>

Notes: a/ Assuming efficiency of 75%

b/ Assuming a transfer of \$8 per capita, and 75% efficiency

c/ Assuming costs of K.800/50kg., 1.2 million rural households, and 15% administrative costs

**Table 5 - Budget Shares and Expenditure Characteristics**

	Urban		Rural		All		ALL
	Poor	Non Poor	Poor	Non Poor	Poor	Non Poor	
Food							
Grains	30	15	35	20	34	19	23
Animal products	10	20	10	15	10	16	14
Oils and Fats	10	5	10	5	10	5	7
Fruits and veg	15	5	15	10	15	9	11
Other	5	5	0	0	0	0	0
Non Foods	30	50	30	50	30	50	44
Total Expenditure hh/mo (\$)	45	90	35	82	36	84	60
Per capita Calories	1,800	2,600	1,900	2,400	1,886	2,453	2,164
Number (1,000)	560	1,040	3,520	2,880	4,080	3,920	8,000