Technical Briefing paper

Social Protection and Poverty Reduction: using vulnerability mapping to project the impact of social protection measures on poverty reduction

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Introduction: accumulated research points to the benefits of incorporating social protection measures into poverty reduction programmes. "Vulnerability is a cause, symptom and constituent part of chronic poverty" (Prowse, 2003)[i], and risks and shocks "can decapitalise the poor, and trap them in situations of poverty from which they are unable to escape" (Carter *et al.,* 2004)[ii]. Risk can increase the persistence of poverty and even create poverty traps (Dercon, 2004)[iii]. Social protection through a number of mechanism (health, education, livelihoods, gender empowerment) has been clearly linked to improved outcomes and reduction in poverty.

Method: This paper uses finding from analysis of a 6,000 household vulnerability profiling data set from Myanmar to predict the impact of different types of social protection measures on household vulnerability, and hence on poverty. The Umbrella model collects data on ten different household characteristics, including livelihood, debt, health, water/sanitation, dependency, expenditure, social capital, assets, decision making and food security. Based on inter-population comparisons, households with three or more factors which are significantly suboptimal can be classified as vulnerable. Comparative analysis of these households with conventional poverty measures indicates a high correlation with poverty, and a strong predictive power to future poverty. Correlation between poverty and vulnerability: 90% of households with overall vulnerability were classified as poor.

Results: The potential ability of different interventions to reduce vulnerability (and hence reduce the risk of current or future poverty) is measured by considering the likely impact of an intervention on components of the household factors. Possible interventions were based on choices from a public opinion survey conducted by SPPRG on 2012[iv].

Table 1: projected impact and assumptions of different social protection interventions

Intervention	Beneficiary	Projected impact	Impact factor	Reference	Assumption
Livelihoods for households with persons with disabilities	Poor households with one or more PwD	one more income stream, increase proportion of spending on livelihood by 10%, reduce dependency	34%	Barrientos & Sabates-Wheeler 2006[v]	Either the PwD or their household member can benefit from the livelihood
Livelihoods for women	Poor households with working age women who is economically inactive	one more income stream, increase proportion of spending on livelihood by 10%	23.5%	Samson and Williams 2007[vi]	Assumes market opportunity and equitable access
Health insurance for older persons	Poor households with members aged over 65 with self-reported health needs	Reduce days lost to livelihoods by carers, reduce dependency, reduce out of pocket expenditure	59.6%	Asfaw & Jutting 2005	Assumes can access basic health services
Support for older persons (economic)	Poor households with members aged over 65	one more income stream, increase proportion of spending on livelihood by 10%, reduce dependency	35%	Kakwani and Subbaro 2005[vii]	Assumes availability of (SHG) or investment (livelihood)
Nutritional support for children	Poor households with <5 children reporting nutritional needs	Decrease household expenditure on food, reduce days lost to caring for sick children, reduce food insecurity	39.25%	IFPRI 2004[viii]	Assumes access to nutritious food

Using the project impact of different interventions, we can further apply these to eligible populations in Myanmar, using data available from the UNDP Integrated Household Living Conditions Analysis (2010), the National Disability Survey and demographic data from the Ministry of Health (Myanmar). This table shows that numbers of eligible households in each category, and the extent to which the activities carried out for those households can reduce national poverty, assuming a 100% coverage of each of the different types of household.

Table 2: projected household numbers and likely impact on National Poverty of different social protection interventions

Intervention	Eligible households	Poverty reduction (%)	New National Poverty
Livelihoods for persons with disabilities	345,203	1.3	24.3
Livelihoods for women	749,111	1.9	23.7
Health insurance for older persons	150,167	1.0	24.6
Support for older person	202,076	0.8	24.8
Nutrition for young children	312,210	1.2	24.4
Total	1,758,767	6.2	19.4

Assuming a 100% coverage, however, is unrealistic both in terms of logistics and in terms of sensible fiscal planning. Hence, further modeling at State and Regional level is able to estimate the likely impact and cost of a model which covers households proportionate to the relative poverty of that State and Region. So for States and Regions with poverty rates below 20%, 10% of all eligible households would be covered; for those with poverty rate between 20% and 25.6% (the national average), 25% would be covered; coverage rises to 50% for States and Regions with poverty rates between 25.6% and 40%, and increases to 75% for States and Regions with poverty rates over 40%. Although somewhat arbitrary, this allows resources to be targeted in areas where there is the greatest concentration of poor households, and so maximize the likely impact of the interventions.

In terms of approach, the Community Led Action for Social Protection (CLASP) approach, incorporating the elements listed in the tables here, was assumed. The mean cost per village was $3,082, using a pro-rata system to adjust for household size. Applying this to the Myanmar situation, a total of 25,221 villages would participate, requiring a total budget of US$77.7 million. The project benefit in terms of national poverty reduction is 2.65%, reducing overall poverty form 25.6% to 22.9%.

Conclusion: utilizing vulnerability data can enable planners to select interventions and areas which are likely to yield the highest benefits in terms of poverty reduction. Although much work still remains to build more accuracy into the predictive properties of the model, nonetheless the model demonstrates a viable approach to using predictive modeling to plan and prioritize social protection activities for sustainable poverty reduction.

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[viii] http://www.ifpri.org/sites/default/files/publications/ib18.pdf