Poverty

The Problem

Protecting farmers from crop loss related income shocks and eliminating extreme poverty are important development priorities of this century. India has made significant progress in protecting farmers from income loss due to drought and other calamities through various crop insurance schemes. In case of Rajasthan although there has been significant progress in reducing poverty from 38% to 15% in two decades between 1994 and 2012 (World Bank, 2016), rural poverty rate is still higher than that of urban areas with significant differences across districts. Making further dent on poverty reduction in sustainable manner remains a challenge.

This paper analyses the evidence on the necessity of subsidies for increasing uptake of crop insurance, and its potential impacts on farmers' risk-taking ability and health benefit and second a graduation model that provides a potential avenue of expanding social protection for ultra-poor.

Solutions

Interventions	BCR	Benefit (INR Crores)	Cost (INR Crores)
Subsidized Crop Insurance	1.53	78,286.6	51,138.5
Graduation ultra-poor	3.54	4,014.8	1,133.5

All figures assume a 5 percent discount rate.

The full paper by **Munshi Sulaiman** from Save the Children International and **Michael Murigi** from University of Sydney is available on www.rajasthanpriorities.com/poverty

Subsidized Crop Insurance

The Problem

Although agriculture is a major source of livelihood for rural population, the marginal farmers have long been vulnerable to the risks of crop losses. Smallholder farmers are particularly vulnerable since they lack the resources for taking preventive measures or for absorb the shocks in case of income loss. Consequently, they modify their livelihoods to mitigate risks by choosing low-risk but low-return crops and technologies and abstaining from other risky investments keeping them in a cycle of poverty. Additionally, continuous drought is the one the major problems to address the productivity issues in agricultural in Rajasthan. The state has the highest dependency on rainfed agriculture and faced drought in 20 of the last 50 years.

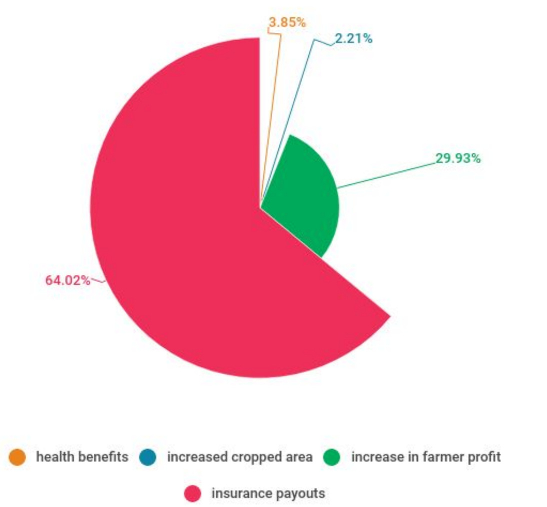
There is evidence of more severe consequences whereby crop loss from natural calamities, such as recurrent drought, causes higher mortality among the rural households.

The Solution

This intervention is a subsidized crop insurance that follows the Pradhan Mantri Fasal Bima Yojana (PMFBY). The subsidized crop insurance offers comprehensive unlimited coverage to farmers.

The farmers have to pay only 2% of the sum insured for the main kharif season. The corresponding rates for rabi crops and annual horticulture crops are 1.5% and 5% respectively, or the actuarial rate if this rate is lower than the cut-offs. Further there is no cap on the amount of sum insured per farmer. The coverage includes wider set of calamities as well as part of the post-harvest losses. The scheme uses technology and smart phones for increasing efficiency. This scheme is implemented as public-private partnership whereby insurance companies bid at state level.

Benefits of subsidised crop insurance



Benefits in lakhs rupees 2017-2032 at 5% discount rate. Source: Authors calculations.

Costs

The cost of this intervention is the subsidy that the state and central government split equally. The amount of subsidy is the balance of actuarial premium from the 1.5% to 5% that the farmers pay. The premium subsidy paid in 2016-17 was Rs. 2,885 per hectare for 74.6 lakh hectare that were covered in Rajasthan. The insurance coverage was 28.6% of the gross cropped area. It is projected that there would be an increase in the premium subsidy per hectare and increase in insurance coverage of cultivated land to estimate a total cost of Rs. 51,138.5 crores at 5% discount rate for a scheme that continues till 2032.

Benefits

The benefits from the crop insurance are two-fold – income from crop production and health benefits. The increase in income from crop production takes place because farmers can cultivate higher-risk crops that also give higher return on average, invest more in improved technologies and increase the amount of land cultivated for both seasons (i.e. increase gross cropped area). Farmers who suffer crop loss also benefit from the claims paid by the insurance companies. On the health front – the study uses the evidence of climate induced crop loss resulting in higher deaths and increased child malnutrition. The total estimated benefits due to this intervention is Rs. 78,286.6 crores.

Graduating ultra-poor

The Problem

The poverty rate in India has declined from 45% in early 1990s to 22% in 2011-12, the corresponding rates in Rajasthan are 38% and 15% (World Bank, 2016). Similar to the national trend, rural poverty in Rajasthan is higher (16%) than urban areas (11%). Although there has also been increasing urbanization, over 75% of the poor population of the state lives in rural areas.

These are households who are landless and marginal farmers, and also rely on casual work for their livelihoods. Consequently, they suffer from income shocks due to lean seasons and often are not able to access financial services including loans and micro-insurance.

The Solution

The goal of graduation model is to create a pathway out of extreme poverty through an intensive set of interventions that combine asset transfer to promote self-employment, food subsidy for supporting the shift to an alternative livelihoods, social support and handholding for protecting assets and increasing profitability of their business. This model follows a strict set of targeting criteria to reach the ultra-poor.

The overarching objective of this approach is to create a sustainable livelihood for the ultra-poor so that they are able to continue on a growth path by breaking free from poverty trap within a time-bound (usually 18-24 months) support system and are able to cope with (at least minor) shocks without further support after graduation.

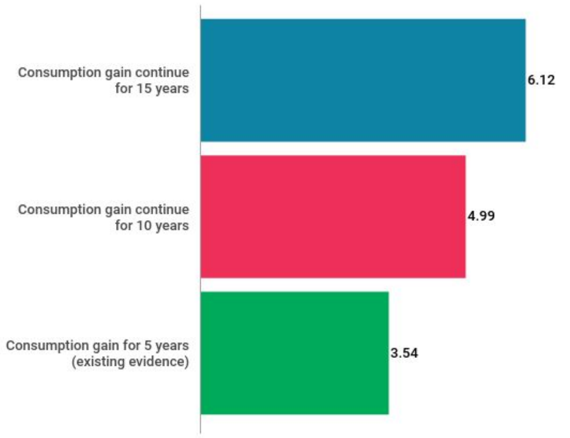
Costs

Due of comprehensive nature the cost of the intervention is relatively high at over Rs 25,000 per beneficiary household. Half of this amount is spent in direct supports including the asset transfer (usually livestock) and food stipend. The other half includes provision of other services (such as health) or intensive coaching for ensuring their micro-enterprises are profitable. Assuming the intervention will reach 30% of the poor households (ultra-poor 495,235 households in Rajasthan), the total investment required for this intervention is Rs. 1,133.5 crores.

Benefits

The main components of the benefits are increase in annual household consumption, amount of savings and assets. The total estimated benefits due to this intervention is Rs. 4,014.8 crores.

Benefit-to-cost ratios assuming lasting effects of poverty graduation programs



Assuming 5% discount rate. Source: Authors calculations.