

# Crop insurance: Low demand calls for rethink

WEATHER INDEX insurance protects farmers against losses from extreme weather and facilitates investment in their farms, but randomised evaluations have shown low demand for these products at market prices, suggesting the need for alternative approaches.

Weather index insurance, which makes payouts based on an easily observable variable such as rainfall, is a financial product designed to make insurance accessible to poor smallholder farmers. Weather index insurance was first offered in the early 2000s, and it is now marketed to individual farmers in over 15 countries. The 10 randomised evaluations summarized in J-PAL's policy bulletin, *Make it Rain*, tested the take-up of weather index insurance products and, in three cases, effects on agricultural production decisions. The key results:

- Without substantial subsidies, take-up of insurance was low. Large discounts increased take-up substantially and interventions designed to increase financial literacy or reduce basis risk also had positive effects. However, at market prices, take-up was in the range of 6%-18%, which cannot sustain unsubsidised markets.

- Insured farmers were more likely to plant riskier but higher-yielding crops. In three studies, farmers who felt protected against weather risks shifted production to-

wards crops that were more sensitive to weather, but more profitable on average.

The fact that weather index insurance has fallen short of its goal, points to the need to research alternatives that help smallholder farmers manage weather risk, including:

- Improving index design. Using indices based on yields, rather than weather, may reduce basis risk, especially with remote sensing technologies that can accurately measure yields for small areas. These improvements, which increase data quality and better tailor payouts to actual risks, may allow insurers to offer products that more effectively protect farmers.

- Using subsidized insurance to deliver cash to farmers. The studies that gave away free insurance compensated comparison group farmers with cash grants. While insurance led farmers to shift production toward higher-value crops, receiving cash did not.

- Promoting irrigation and stress-tolerant crops. Most smallholders rely on rain-fed agriculture, so improving irrigation systems is a natural first step in helping them cope with variation in rainfall. In addition, agricultural research centres have developed crop

varieties that tolerate conditions such as drought, flood, and salinity while maintaining good yields under normal conditions.

(Edited summary of J-PAL bulletin, available on the lab's web site)



## PAPER CLIP

FLAGGING INTERESTING RESEARCH

## AGRICULTURE CROP INSURANCE

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EVALUATIONS took place in Ethiopia, Ghana, India and Malawi