



INDEX INSURANCE FEASIBILITY STUDY & PROPOSED NEXT STEPS

Feasibility Study

The chief conclusions of the I4 Index Insurance Innovation Initiative of the BASIS Assets and Market Access Innovation Lab study of the feasibility of index insurance for Terai rice farmers are:

- 1. Yield Risk in the Terai is Potentially Insurable by an Index Insurance Contract*
BASIS/I4 researchers collected yield data from the Terai and showed that in 2014 an “area yield contract” (see below) would have issued insurance payouts for individual farmers who experienced a loss 60% of the time. While not perfect, a contract based on area yield would appear to remove enough risk to be of value to farmers.
- 2. A Cheap to Administer, Satellite-based Index Contract is the Most Promising Approach*
In a parallel study of rice farmers in Tanzania, we found satellite measures that had strong correlations with yields, such that they had a strong potential to serve as an effective index in an insurance product. Our goal in our analysis of Nepal has been to see if we can replicate this successful experience in Tanzania.
- 3. However, Satellite-based Yield Prediction Failed to Work Given Terai Agro-climatic Realities*
Working with our remote sensing partner, we have found that low cost satellite measures are poor predictors of on-the-ground yields (largely due to extended period of cloud coverage), indicating that it would be infeasible to use these predictors as the basis for an insurance contract in the Terai.

Given the failure to find a reliable satellite predictor, we recommend consideration of an area yield based contract as the solution with the greatest potential to predict farmer losses and protect them against risk.

Proposed Next Steps: An Area Yield Pilot

An area yield contract relies on a seasonal yield survey in which average yields in a region (*e.g.*, a VDC) are directly measured and used as the basis for insurance payouts. Insurance payouts are then triggered whenever VDC yields fall below a trigger level (*e.g.*, 80% of their long-term average).

Area yield is potentially the highest quality index insurance contract, but it is also the most expensive to administer. We recommend implementation of a small pilot study across 125 multi-ward zones to assess both the implementation costs and the development impacts of an area yield contract. Scaling up an area yield approach would only be worthwhile if its social and economic impacts are large enough to justify the costs.