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Parallel Session L3

Towards Climate-smart Solutions

Wednesday, 18 March 2015

8:30–12:30

Parallel session L3.1
Climate adaptation and mitigation services

Wednesday, 18 March 2015

8:30 – 12:30

ROOM SULLY 1

3. Index-based insurance for income stabilization for smallholder farms in Central Asia

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Climate change is one of the major challenges for agricultural producers worldwide. In Central Asian countries, climate-driven irrigation water variability is a major source of risk. Future projections indicate even further increase of production volatility in the region. Lack of financial mechanisms and high production risks are major challenges hindering investment into climate smart technologies. Agricultural insurance therefore could play an important role for reducing income volatility and create environment conducive to investment in the region. However, current premium rates in the region (*e.g.* Kazakhstan and Uzbekistan) are very high, associated with high operation and maintenance costs of the insurance companies. Insurance companies explain the high operation costs by sparse and remote location of fields and need for several visits during the vegetation period to reduce the moral hazard problem. Index-based insurance could help reducing the costs associated with field visits as well as challenges associated with information asymmetry. However, suitability of such insurance products is not tested in the region.

This study analyses the suitability of several index-based insurance tools to reduce income volatility in Central Asia. Long-term yield records were available from five case study farms in different agroecological zones (AEZs) of Central Asia. Index taken from remote sensing (NDVI, climate data) and climate stations as well as irrigation water supply are used to design insurance products for wheat growers in Central Asia. Overall analysis show that remote sensing based index insurance could serve as an important measure to reduce income volatility and create favorable environment for investment in the region.