



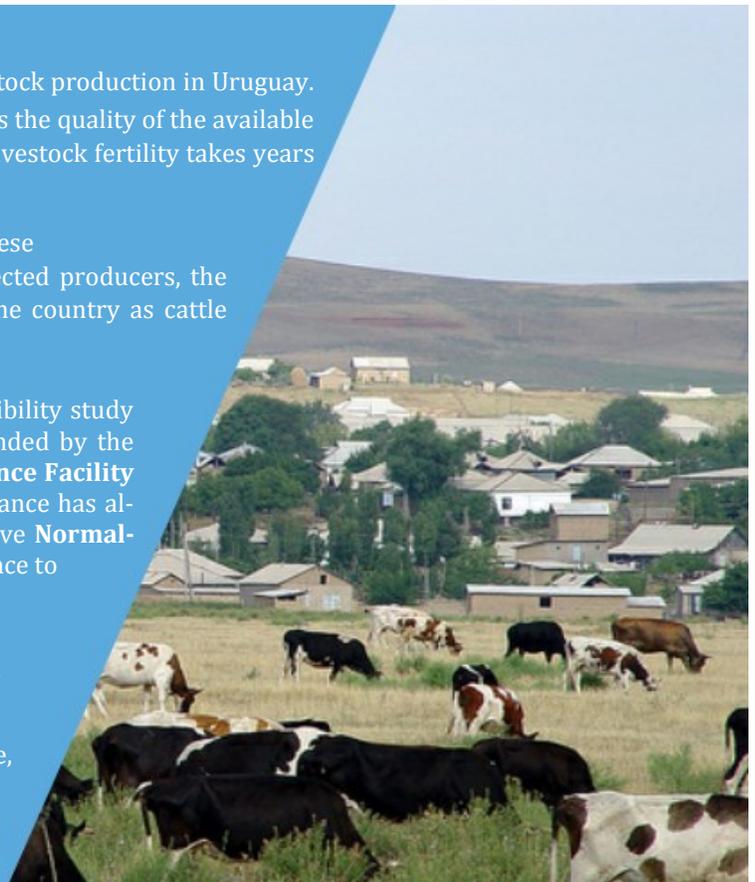
## Innovative Index Insurance Solutions - Uruguay

### Implementing of a Pilot Insurance Program for Livestock

The risk of drought is one of the biggest threats to livestock production in Uruguay. This is particularly relevant in livestock breeding bases, as the quality of the available pasture directly affects the quality of the livestock, and livestock fertility takes years to recover from bad droughts.

In the past, proper insurance was unavailable to cover these risks effectively for extensive cattle herding, which affected producers, the meat-supply value chain and in turn the economy of the country as cattle production is a big contributor to Uruguay's economy.

In 2011 The World Bank Group (WBG) launched a feasibility study on developing an Index Insurance pilot in Uruguay, funded by the Government of Japan through the **Global Index Insurance Facility (GIIF)**. The outputs of this technical and financial assistance has allowed the government to start pilot testing an innovative **Normalized Difference Vegetation Index (NDVI)** index insurance to cover small scale cattle producers meat producers in two regions against damage caused to permanent pasture by drought. The unique quality of this insurance is its ability to prevent extensive damage: quick claims payments allow herders to buy fodder to make up for missing pasture, thereby preventing livestock loss or quality impairment.



### IMPLEMENTATION

The pilot implementation began in November 2015 in two regions which were selected based on their vulnerability to drought. Based on 30-year weather data, the regions of Basalt and the Eastern Sierras were selected.

The premiums for the pilot were 100% financed by Ministerio de Ganadería, Agricultura y Pesca del Uruguay (MGAP) through their developmental projects including the Adaptation to Climate Change (DACC) programs.

The beneficiaries are small and medium meat producers who are key contributors to the local meat supply value chain. This initiative is especially relevant as it feeds into strengthening policy areas which work towards the promotion and development of agriculture insurance, which is a strategic area prioritized by the MGAP in their five year plan between 2015-2020.

This initiative speaks to both global as well as local government priorities on adaption to climate change, sustainable intensification and rural development, all of which contribute to climate risk management scaffolding other programs and policies which drive MGAP's agenda.



## IMPLEMENTATION DETAILS

- ◇ The Implementation for this project is based on the WBG Feasibility Study.
- ◇ Recommendations from this have been used by the Government of Uruguay on creating a pilot initiative with support from IFAD.
- ◇ The Pilot phase is scheduled between 2015 and 2017.
- ◇ Beneficiaries include small and medium meat producers who are part of a climate change resilience and adaptation project.
- ◇ 12,000 livestock units were insured in the first season (November to March when the impact of drought is most critical) of the pilot phase.
- ◇ 4,000 additional units of livestock will be insured when the pilot expands to other areas in Q4/2016.
- ◇ The sum insured for each livestock unit was 90 USD, corresponding to 50% of the estimated cost of food supplement in case of drought.
- ◇ The premium rate was 7.5%, calibrated for a 1-in-15 year drought, resulting in total premium of around 80,000 USD.
- ◇ The insurance is underwritten by the (state owned) Banco de Seguros del Estado, the largest insurance company in Uruguay.
- ◇ Quota share reinsurance is provided by Swiss Re.
- ◇ The Unidad de Agro-clima y Sistemas de información under the Instituto Nacional de Investigación Agropecuaria monitors the trigger.
- ◇ The Instituto Plan Agropecuario provided the capacity building to targeted beneficiaries, to complement the insurance with risk reduction and mitigation measures; it also advises the producer organizations on the procurement of fodder when the insurance is triggered.

## CHALLENGES

- ⇒ Historically, it has been a challenge to effectively insure livestock, especially through the lens of climate change adaption. Livestock losses due to drought in pasture is not easily measured by on-ground supervision. This is especially true in case of extensive livestock production in areas of low population density. NDVI based index insurance offers an innovative solution as it allows for the determining of losses based on a pre-set index/trigger permanently monitored by satellite at low cost.
- ⇒ It is essential that the government plays a key role in the design and propagation of this product by lifting restrictions on the insurance sector to allow innovation. In addition, it is essential that the government is able to provide access to necessary information to form multidisciplinary committees and provide historical weather and climate data. Lastly, clear signals from government that considerably larger demand for index insurance can be expected when the pilot projects show positive results, further generating interest from insurers and international reinsurers. It also helped in this case that government orchestrated the communication between the various stakeholders.
- ⇒ Designing the index (or trigger) is a critical and selecting the right index is crucial in product design. The index must be easily and accurately measureable, understood by consumers and must have a strong correlation with the risk to be hedged. In addition to strong data, good design requires a multidisciplinary approach and strong coordination between the different stakeholders. It is important to use evolving satellite technology to update the methodology of data gathering, to ensure better quality data but this comes with a higher price tag.



### NEXT STEPS

An additional 4,000 cows will be added to the pilot starting October 2016 – recent experience showed that the onset of the high risk season appears to be moving from November to October.

Considerations are underway to update the trigger design switching from a combination of NOAA and MODIS data to pure MODIS data in order to increase resolution of data.