



Agricultural insurance in the ASEAN region: INDONESIA

Background

The ASEAN region is one of the most exposed in the world to natural and climatic disasters, from earthquakes and volcanic eruptions to typhoons, floods, droughts, and pests and diseases affecting crops and livestock.

These disasters can cause many millions of dollars in losses and damage for the agricultural sector in an average year, and run into billions of dollars in more catastrophic years. Climate change is already having major adverse impacts on crop production and yields and is also affecting livestock and aquaculture. These negative impacts are predicted to increase significantly by the turn of the century.

Agricultural insurance is one of the tools that ASEAN Member States can use to compensate farmers for losses and transfer some of these unmanageable risks to national and international capital and insurance markets.

A snapshot of agricultural insurance in the ASEAN region

Brunei		No agricultural insurance
Cambodia		Crop & forestry insurance
Indonesia		Crop, livestock, aquaculture & forestry/plantation insurance
Lao PDR		Forestry insurance approved, but not yet available
Malaysia		Forestry insurance available on a limited scale
Myanmar		Crop insurance
Philippines		Crop, livestock, aquaculture, forestry & greenhouse insurance
Singapore		No agricultural insurance
Thailand		Crop & livestock insurance
Vietnam		Crop, livestock, aquaculture & forestry insurance

The status of agricultural insurance in Indonesia

The agricultural sector plays a vital role in Indonesia, both economically and in terms of food security. About a third of Indonesia's land area is used for agriculture and the sector accounted for about 13% of GDP in 2016 and 28% of employment in 2019. The average farm size is very small, with 75% of the country's 25 million farmers cultivating less than 1 hectare (ha) of land and 89% less than 2 ha. The small size of farms makes it challenging for agricultural insurers to deliver crop insurance cost-effectively.

In 2013, the Government of Indonesia took major steps to promote agricultural insurance with the enactment of the Farmer Protection and Empowerment Act, or FPE Act (Law No. 19/2013), which obliges national and local governments to protect farming activities, including through the provision of agricultural insurance, and gives state insurance company PT Asuransi Jasa Indonesia (Jasindo) the exclusive right to implement subsidised crop, livestock, and aquaculture insurance in the country.



Agricultural insurance	Year introduced	Market status	Public, private, PPP	Government support for premium subsidies
Crop	2015	Commercial (NPCI) & Pilot (WII)	Public	Commercial: 80%; Pilot: 0%
Livestock	2016	Commercial (Indemnity)	Public	Dairy cattle: 80%
Aquaculture/Fisheries	2017	Commercial (Indemnity)	PPP	Up to 100%
Forestry/Plantation	Information not available			
CROP <i>Indemnity insurance</i>	Named peril crop insurance (NPCI): Paddy Farming Business Insurance (AUTP) provides catastrophic protection to rice farmers for flood, drought, pests and disease. Available to rice farmers or landowners cultivating a maximum of 2 ha of irrigated land or rainfed land close to water sources. Compensation is for $\geq 75\%$ damage (intensity and area). The programme provides a fixed sum insurance policy for rice of IDR 6 million/ha (US\$425/ha) and a fixed premium rate of 3%. This low rate reflects the 75% deductible on the first loss or damage. Implemented by Jasindo.			
<i>Index insurance (Pilot)</i>	<p>Weather index insurance (WII): Paddy rice insurance pilot on an 80 ha paddy field in Indramayu District, West Java Province. Launched in 2017 and implemented by PT Asuransi Central Asia (ACA) as a multi-stakeholder project with Rural Bank BPR Kroya, Syngenta Indonesia, Syngenta Foundation, farmers' groups, and the local weather station. No government subsidy for premiums; farmers' rates are 4% to 12% of sum insured (\$600) depending on when they plant. The pilot aims to provide access to finance and good agriculture practices for unbanked poor farmers.</p> <p>Area yield index insurance (AYII): Maize insurance pilot that covers drought and windstorms. The aim is to create access to finance and good agriculture practices for unbanked poor farmers. Launched in 2015 and implemented by ACA as a multi-stakeholder project with Mercy Corps Indonesia, Bank Andara, Rural Bank Pesisir Akbar, Syngenta Indonesia, farmers' groups, off-takers, and a fertiliser company. No government subsidy for premiums; farmers' rate is 5% of sum insured (\$600).</p>			
LIVESTOCK <i>Indemnity insurance</i>	Cattle Business Insurance (AUTS): Covers named peril accident and mortality and epidemic diseases for heifers/cows that are at least one year old, in good health, and have a clear identity (ear tag, brand, microchip, etc.). The insurance covers the replacement cost of the cow, up to a maximum of IDR 10 million (about USD 725) per cow. Available to regulated breeders, including small-scale ones. Compensation is based on the sum insured value of the animal minus any carcass salvage value. Implemented by Jasindo.			
AQUACULTURE / FISHERIES <i>Indemnity insurance</i>	<p>Insurance for fin fish: Covers named natural perils and diseases for shrimp, tilapia, pangasius, milkfish, and catfish. Implemented by Jasindo through the APPIK programme.</p> <p>Insurance for shellfish: Covers named natural perils and diseases. Implemented by Jasindo through the APPIK programme. Jasindo also offers commercial insurance for shrimp (AUBU).</p>			
FORESTRY / PLANTATION	Forestry/plantation insurance: Covers fire, wind and associated perils. Implemented by ACA.			

Insurance providers

Jasindo offers highly subsidised traditional indemnity-based crop, livestock, and aquaculture insurance products and programmes, as well as non-government insurance protection for rice, cattle, maize, and fish. There are also emerging index insurance programmes led by entities such as Syngenta Foundation (SFSA). PT Asuransi Central Asia (ACA), one of Indonesia's leading commercial insurance companies, has been piloting unsubsidised micro-crop weather index insurance and area yield index insurance for several years.




Subsidies and public sector support

Jasindo offers 80% premium subsidies for crop (rice) and livestock (dairy cattle) insurance and up to 100% premium subsidies for aquaculture insurance. The government actively supports the loss-adjusting activities of the AUTP rice farming insurance scheme through the agricultural extension department.


Results and lessons learned

Agricultural insurance programmes in Indonesia have scaled up considerably and are protecting large numbers of farmers. This is due to significant government premium subsidies and compulsory linkage between insurance and credit. In just six years, an average of almost 1.2 million rice farmers and 1 million ha have been insured under the AOTP programme. The AUTS cattle insurance programme has insured 83% of its target, but has been more volatile than crop insurance and is operating at an underwriting loss. APPIK, the fully subsidised aquaculture insurance programme, has made steady progress but is also operating at an underwriting loss. It is estimated that the total cost of premium subsidies for the three programmes over the past six years is IDR 760 billion (US \$54.6 million). As farmers' knowledge, understanding, and demand for agricultural insurance increases, the cost of premium subsidies will rise accordingly.


Results of Jasindo's government-subsidised crop, livestock, and aquaculture insurance programmes (2015–2020)

 AOTP	Number of insured farmers	Insured crop area	Penetration rate	Premium rate	Maximum coverage	Loss ratio (%)
	1,367,678	1,000,001 ha / 13.4% of net cultivated paddy field area	6.9% of rice farmers; +/-8% of rice area	3% (fixed)	IDR 6 million / ha	59%
 AUTS	Number of insured cows	Percent of target insured	Penetration rate	Premium rate	Maximum coverage	Loss ratio (%)
	499,391	83%; 120,000 cows/year	Not available	IDR 200,000 (\$14)/cow (2% for max. coverage)	IDR 10 million (\$725) / cow	119%
 APPIK	Number of insured farmers	Insured fish pond area	Percent of insured area with claims	Gross premiums (IDR million)	Claims paid (IDR million)	Loss ratio (%)
	55,475	34,685 ha	2.4%	15,297	115,649	102%


Challenges for farmers, insurance providers, financial institutions & government




- Low awareness and interest in insurance among farmers.
- Lack of access to insurance companies, their staff, and products.




- Private commercial insurers struggle to compete on price with subsidised products.
- Lack of knowledge and technical capacity.



- High and unpredictable costs for data acquisition/ dissemination and marketing costs.
- Lack of quality data on farmers.




- While the government has focused on public sector financial institutions, farmers tend to have more trust in cooperatives or other agencies.





- COVID-19 has been a significant fiscal challenge, with the budget for crop insurance premium subsidies capped for 2020–2021.

Priorities & recommendations

If Indonesia wants to create a long-term, market-based agricultural insurance programme, it should consider amending the FPE Act to open the market to competition and provide private commercial insurers with equal access to premium subsidies.

 **Micro-level individual farmer insurance:** Area yield index insurance for semi-commercial farmers tied directly to seasonal crop loans. Such products could be sold alongside – and as a prerequisite for – the provision of seasonal loans from banks, helping smaller farmers to access credit as well as protecting them from loss. The Ministry of Agriculture has access to data on rice production at the district level, which could be used to create an appropriate index.

 **Macro-level social protection insurance:** Parametric weather index insurance as a catastrophe protection cover purchased by the Government of Indonesia/provisional governments on behalf of subsistence farmers owning and cultivating less than 1 ha of land. This programme could build on the 2018 World Bank study, *Developing Parametric Insurance for Weather Related Risks for Indonesia*, which presents proposals for a satellite rainfall index insurance product that provincial governments would purchase to protect large numbers of rice farmers from losses caused by severe droughts in El Niño years.

 **Better data management:** This is needed for insurers to understand the key challenges farmers face and to gain more control over their agricultural insurance activities. Loss assessment procedures and protocols require significant development to ensure loss adjustments are calculated accurately. Insurers may require technical assistance with key aspects, such as underwriting, programme administration, and rate setting. Adherence to the recommendations related to AOTP underwriting and loss adjustment guidelines is advised.



To learn more about the Climate Risk Financing in Cooperation with ASEAN project, visit:

https://www.thai-german-cooperation.info/en_US/climate-risk-financing-in-cooperation-with-asean/

<https://www.asean-agrifood.org/>

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Sitz der Gesellschaft
Bonn und Eschborn

Friedrich-Ebert-Allee 32 + 36
53113 Bonn, Deutschland
T +49 228 44 60-0
F +49 228 44 60-17 66

Dag-Hammarskjöld-Weg 1-5
65760 Eschborn, Deutschland
T +49 61 96 79-0
F +49 61 96 79-11 15

E info@giz.de
I www.giz.de