Insurance for Farmer Protection: Indonesian Experience

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Abstract

Agricultural sector is one of the most vulnerable business with high degree of uncertanties. Those sources of risks come from environment such as climate change, natural disaster, endemic pests, and also social economic change affected by international trade conflict. In order to mitigate the above mentioned risks, farmers opt to choose several strategies: (1) to diverse crops production (2) to modify ways of post harvest handling and pocessing in marketing their products, (3) to finance their cultivation by accessing financial institutions and last but not least (4) by protecting their business using agricultural insurance. Majority of smallholder farmers in Indonesia are un-tabbed group who are still lacking their knowledge about insurance. Compared with that of other countries, Indonesia should provide the minimum subsidies of agricultural insurance approximately 40% of the total investment (USA covers 25% of farming total loss, Brasil 50%, Mexico 80%).This paper shares some insight on Indonesian agricultural insurance, its best practice and future recommendation for better policy decision-making. Agricultural insurance in Indonesia has been initated since 2012 through pilot testing in two main commodites, namely paddy insurance (AUTP) and cattle insurance (AUTP). This initiave has been growing well. Further, Ministry of Agriculture formulated road-map of agricultural insurance for the year 2015-2019, with a set target of coverage for AUTP 1 (one) million ha and for AUTS 120.000 heads of cattle per year starting form 2016; and a period of insurance and total premium of 4 months and IDR 180.000; and 1 year and IDR 200.000 for rice and cattle, respectively. The realization of this target has been consistently increasing from 23.30% in 2015 to 50.00% in 2016 and 51.14% in 2017, and at the same time its coverage areas ha also been widened.

***Keywords**: Agriculture insurance, Indonesian farmers, Social protection*

Introduction

Agriculture in Indonesia comprises of majority smallholder farmers with less than 0.5 hectares ownership of land. Among those numbers, at least 20 million are rural households including those 100 thousand dealing with livestock sector. There are at least two major challenges of the Indonesian agriculture as follow: 1) lack of capital endowment to run productive farming, and 2) less protection to their business if they face significant loss which affect sustainability of their farming activity (Sumaryanto, 2006).

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To achieve food security, self sufficiency and food sovereignty, Indonesia has enacted Law No. 18/2012 about Food Law. This legal base has holistic dimension which assign farmers as the prime actor in agricultural development. As a result, protecting farmers from condition that threatens their existence and well-being become ultimate goals. In other words, its relevance and the need of farming protection would be morally and rationally irrefutable. A kind of farmer protection that has gained increasing attention from governments in developing countries is agricultural insurance (Walker and Jodha, 1986; Siamwalla and Valdes, 1986; Nurmanaf et al., 2007).

This paper shares some insight on the development of the Indonesian agricultural insurance, its best practice and future recommendation for better policy decision-making. In specific, the paper elaborates (i) agricultural insurance policy, (ii) agricultural isurance practices, and (iii) way forward agricultural insurance in Indonesia.

Agriculture Insurance Policy in Indonesia

According to the National Medium-Term Development Plan (2015-2019), developing agricultural insurance is mandatory by initiating pilot projects as mechanism in Agricultural Development in Indonesia. To this end, Ministry of Agriculture has taken further action by enacting Law No. 19/2013 about Farmer Protection and Empowerment, followed by Ministerial Decre No. 40/2015 on Agricultural Insurance Facilitation. Based on general rule in the Umbrella law No. 40/2014 about Insurance, there is no spesific arrangement of the definition for agricultural insurance. However, the lex specialis of Law No. 19/2013 should align with that general rules.

Government Roles

The Law of Agricultural Insurance mandates Ministry of Agriculture to take important roles in improving that above-mentioned insurance scheme. That role can be done by establishing national policy and also operational support on the ground. Systemic risk should be anticipated such as crop failure which affects other sector as a whole. Another delitescent problem which occurs in insurance industry is *assymetric information*. There are two problems related to assymetric information: *moral hazard and adverse selection problems*. According to Richard, Linda, and John (1999), both differences in subsidy incentives among farmers and assymetric information cause adverse selection in crop insurance participation decisions. In this regard, farmers should gain complete information and proper supervision to manage their better agricultural business. Other obstacle faced by farmer is Samaritan's Dillema which has negative impact on agricultural insurance industry and hinder farmers from their participation in this system (Buchanan, 1975).

Further, Ministry of Agriculture has already stipulated two ministerial decree (No. 15/Kpts/SR.230/B/05/2017 for crop incurance/AUTP and No. 12/Kpts/PK.240/B/04/ 2017 for Cattle Insurance/ AUTS). These regulations are the implementing rules to elaborate stakeholders in the agricultural insurance. Those are central government (MoA and MoF),

Insurance Company, Local Governments, Field Officers, and Farmer Groups. Additionally, Indonesian Government (i.e MoA) begins with the road-map of agricultural insurance for the year 2015-2019 starting with several pilot projects. In its target of AUTP every year we set our target for a million hectares, while in cattle insurance (AUTS) is 120.000 cattle per year start form 2016.

Some of conditions in Indonesian Insurance may emerge in ways of several challenges as follow:

Technical Challenges

To make criteria which agricultural loss could be determined as "puso" or crop failure is still arbirtrary. That is why field officers have to be very prudent to decide on certain area covered by crop insurance (Soewito, 2000; Mishra, 1999; Hazell, Bassoco, and Arcia, 1986). Government has still adversity to define the amount of this insurance premium.

Economical Challenges

With very insignificant number of participants (compared to all Indonesia farmers) and limited area insurance coverage, pilot project of insurance program should be upscalled to meet economical calculation for insurance company. The more farmers participating in this insurance, the more profitable for agricultural insurance institutions (APO, 1999; Barus, 2000).

Environment Challenges

Climate catastrophe is now inevitable. Vulnerable farmer must be ready and resilient to mitigate the impact of climate change such as flood, drought and frequent pest raid. Water issue may also emerge as results of global phenomena. In this regard, farmers and insurance company need actual, complete and valid data on weather and climate statistics (Adams and Hurd, 2001IPCC, 2001; Sakurai, 1997).

Agricultural Insurance Practices in Indonesia

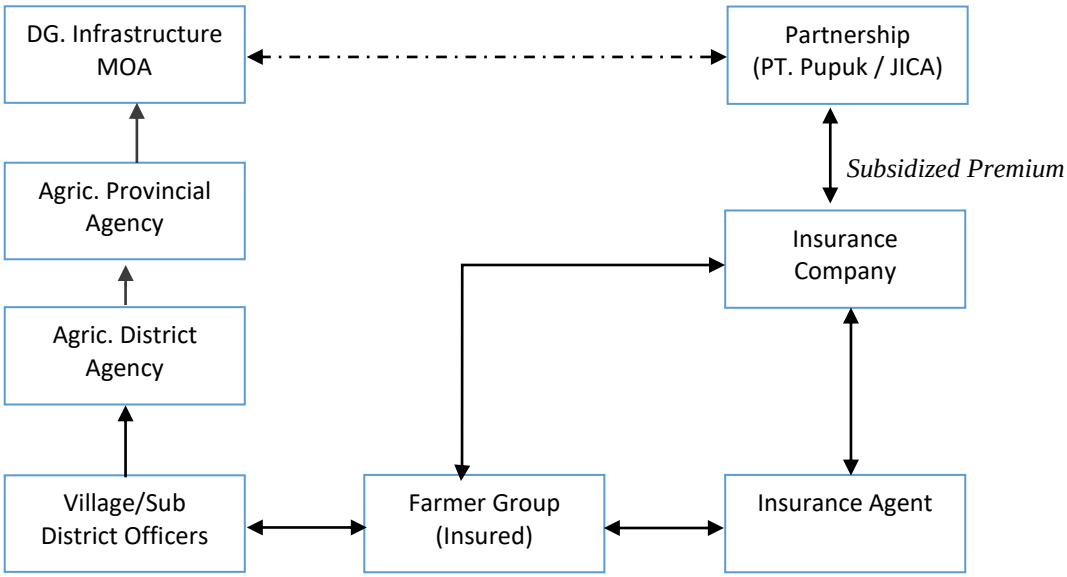
Eventhough insurance of agriculture in Indonesia has been started since 1980's, but realization of this kind of insurance was just implemented in recent years. This due to the absense of legal base for agriculture insurance. For those reasons, government i.e Ministry of Finance, initiates to kick a pilot project of this agriculture insurance in 2012-2014.

Indonesian government has chosen the commodities for its pilot pojects, those are paddy and livestock (cattle). Asuransi Usaha Tani Padi (AUTP) for the paddy and Asuransi Usaha Ternak Sapi (AUTS) are implemented based on its insurance premium calculated from its input cost or purchasing cost when the insurance company has to pay the compensation claim. There are 4 categories of insurance premium as follow: (1) covered by government, (2) paid by mutually agreed partnership, (2) by bank / financial institutions who fund their agriculture business, and (4) paid by farmer itself.

Rice Insurance Scheme (AUTP)

On this scheme, there are only three risks usually farmers face in their time of crop failure. This insurance covers in the case of drought, flood and pest (Walker and Jodha, 1986; Sumaryanto, 2006). The vision of paddy insurance are in order to protect farmers, support capital fund, secure paddy production, imporve *Good Agriculture Practices* (GAP), and give the confident or trust to access with banks or othe financial institutions. In the paddy insurance will underwrite farmers group consist of household who work in paddy farming. Further, the object of insurance coverage is paddy fields owned or acquired by farmer group. The period of paddy insurance is only 4 months as the life span of paddy cultivation with its premium only 3% of coverage term or only IDR 180.000 per season. All terms are subject to 75% of total loss when there is flood, drought or pest.

Figure 1. Implementation mechanism for rice insurance pilot project



Source: Ditjen PSP (2017)

Task of each stakeholder in Paddy Insurance Pilot Project:

1. State Owned Company (BUMN) and JICA: provide fund (80% or IDR 144.000 per season for insured farmers and supply production inputs as farmers business plan.
2. Farmers / Insured Farmer Group: implement technical recommendations, buy insurance premium for 20% or IDR 36.000 per season
3. Insurance Company: issues insurance policy and accept premium from farmers of state owned company/JICA, payback insurance claim

Pilot Projects in 2012 have been implemented in the two provinces in Indonesia: East Java (Tuban District and Gresik District) and South Sumatra (Ogan Komering Ulu Timur District). Both projects had successfully distributed insurance project with 100% of their target. East Jawa has collected IDR 84.750 million with 80 hectares claims, account for IDR 480 million insurance coverage. Meanwhile in South Sumatra, PT. Asuransi Jasindo has issued IDR

27.41 million coverage with its claim covers 7.28 hectare or IDR 4.37 million. To compare with total of paddy industry in Indonesia, those numbers show very small of coverage of insurance involvement in agriculture sector. This raises promising challenges for insurance companies to swift their business to agricultural sector (Barus, 2000). This table below depicts realization of pilot project betwen 2012-2014 in three provinces that covers 7 districts.

Table 1. Realization of AUTP pilot projects 2012-2014

No	Provinces	District	Area (ha)	Area Claimed (ha)	%
2012					
1	East Jawa	Tuban	320,00	80,00	25
		Gresik	150,87	-	-
2	South Sumatra	East OKU	152,25	7,28	4,78
TOTAL			623,12	87,28	29,78
2013					
1	East Jawa	Jombang	727,50	16,00	2,20
		Nganjuk	709,11	-	-
2	South Sumatra	East OKU	766,25	42,50	5,55
TOTAL			2.202,86	58,50	7,75
2014					
1	East Jawa	Jombang	496,00	4,69	0,95
		Nganjuk	251,00	0,50	0,20
		Lumajang	127,00	11,70	9,21
2	West Java	Cirebon	123,00	34,70	28,21
TOTAL			997,00	51,59	38,57

Source: Ditjen PSP (2014)

In terms of economic of scale, those pilot projects are only tried in just a 3% of premium claimed by insurance company. This means that replication of this pilot projects would be needed for the sake of insurance company outreach and economical size (Binswanger, 1986).

In 2015 and 2016, Ministry of Agriculture has expanded AUTP insurance scheme to 23 provinces with its total target every year was one million hectares per province. Report from DG of Insfrastructure shows that realization was 23,3% in 2015 and 50% in 2016. Early stages of agriculture insurance in Indonesia was initiated since 2015 with that phase of introducing this policy to farmers, farmer group and other stakeholders. Following that year, in 2016 its progress increased quite significantly in term of farmer membership and their claims. That was due to government socialization and farmer's understanding. That figure also increased in 2017 with higher number of their realization 51,14% (IDR 92,055 million premium) and 64% of its claim.

Cattle Insurance (AUTS)

Similar to paddy insurance, the scheme for cattle insurance was pilot tested in 6 province namely: East Java, Central Java, West Java, Yogyakarta, West Sumatra and Bali, where population of cattle and farmers are located. Period of cattle insurance is one year cattle production with maximum covarege of claim is 10 million rupiahs per cattle. Its premium should be borned by farmer is 2% of coverage of IDR 200.000 per year in every cattle.

AUTS was introduced in 2016 by the Minister Decree No. 40/SR/Permentan/SR.230/7/2015 to facilitate cattle insurance for smallholder farmers. In 2016, there was 120.000 cattles was insured but only 20.000 was realized (16.7%). This was due to government enactment was initiated in October 2016 (end of fiscal term). By the time of cattle insurance program in 2017, its target was widened in 26 provinces with total cattles insured reached 68.522 with its premium collected more than IDR 13,700 billion.

Lesson-learned of the Rice and Cattle Insurance will be percieved from recent years evaluation. Key succes of this subsidized program is the desimination by sosialization through stakeholders, particularly to farmer groups. Government might utilize multimedia form such as TV, Newspaper, and other Social Media. Through socialization and promotion, we can share information via: (1) workshop, training on trainee (TOT) from various level in the province, district and villages level, and (2) electronical media such as booklet, newspaper, radio, tv and many more.

Way Forward Agricultural Insurance in Indonesia

Amidts growing demand of agricultural insurance, there has been technical problems in advancing this type of insurance schemes. Those obstacles could be among others delayed of claimed payment, rolled back of documents to farmers, actively bank account of farmer group, longer data verification of insurance company (Jasindo).

Indonesia should learn from developed countries who have succesfully implement insurance for their farmers. Sustainability of insurance program needs collaboration between demand side (farmers) and also suppy side (Insurance Company). In the future, challenges in the insurance company can be classified by 4 challanges namely institutions, financial, technical and also operational challanges. Insurance business opportunities are still widely opened by aligning with banking system. The banks may require their clients when accessing loan to protect their farming busines with crop insurance. On the other hand, government roles are pivotal by subsidizing agricultural insurance in time of crop failure and imperfect market which deteriorates welfare of climate-affected farmers. Better policy in agricultural insurance enacted by Ministry of Agriculture provides rules based regulations for insurance industry in Indonesia. It will spur all stakeholders to get involved in the insurance scheme program. Strengthening of Insurance Institution could be achieved if all stakeholders collaboratively support each others. Those actors are government, private sector (insurance company) and farmers.

In the decentralization era, local government plays significant role in implementing central government program. According to National Medium-Term Development Plan (2015-2019) particularly in the development of national production for self sufficiency and diversification of food, provide legal base for local government to actively participate in the agricultural insurance program.

Finally, insurance system may use personal approach through farmers who has direct connection with insurance company. However, since land ownership is relatively small, farmer group has organizational bounding with insurance company. Through strengthening the institutional of farmer group, agricultural insurance program can be effectively achieved.

Conslusion

Agricultural sector faces two major types of risks. They are agriculture banks which support capital to farmers and agriculture insurance covering economical shocks affected by agriculture risks (crop failures and livestock loss). Indonesian administration since President Joko Widodo has been initiating insurance in agriculture since 2012 by pilot testing in two main commodites, namely paddy insurance (AUTP) and cattle insurance (AUTP). This article shed some lights on the progress of agriculture insuranse in Indonesia. Moreover, Ministery of Agriculture that mandated by Law No. 19 Year 2013 has implemented agricultre insurance for smallholder farmers. The results show that agriculture insurance is a promising business for insurance industry. Government should sustainably support agriculture insurance by enacting better insurance policy and providing subsidized premium. Finally, collaborating amongts stakeholders is mandatory for the advanced of agriculture in Indonesia.

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