

Strategies to Develop Agricultural Insurance in Algeria Les stratégies de développement de l'assurance agricole en Algérie

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Abstract: The State ever pays close attention to agricultural development. Regardless, the level of agricultural insurance development over recent years can't meet the requirements of agricultural basic status and fails to compensate the losses of agriculture caused by natural calamities.

But agricultural insurance which functions as both booster and stabilizer plays a significant role in enhancing the ability of risk resistance and the development level of social insurance.

In view of current problems existing in agricultural insurance, the article put forward seven proposals to develop agricultural insurance.

Keywords: Risk, Agriculture, Insurance, Agricultural insurance, développement.

(JEL) Classification : N12.N2

Résumé : L'État accorde toujours une attention particulière au développement agricole.

Quoi qu'il en soit, le niveau de développement de l'assurance agricole au cours des dernières années ne peut répondre aux exigences du statut de base de l'agriculture et ne compense pas les pertes de l'agriculture causées par des catastrophes naturelles.

Cependant, l'assurance agricole qui joue à la fois un rôle de rappel et de stabilisateur joue un rôle important dans l'amélioration de la capacité de résistance aux risques et du niveau de développement de l'assurance sociale.

Compte tenu des problèmes actuels en matière d'assurance agricole, l'article avance sept propositions visant à développer l'assurance agricole.

Mots clés : Risque, agriculture, assurance, assurance agricole, développement.

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1. Introduction :

The contribution of the agriculture sector in economic development cannot be undervalued.

Through the years, it has remained as an important source of food, vital raw materials and employment to the Algeria economy.

Interestingly, the algerian economy, during the first decade after independence could reasonably be described as an agricultural economy because agriculture served as the engine of growth of the overall economy after petrol.

Risk and shocks are an ever-present feature of life for farmers everywhere.

Agricultural risk management relies on an optimal combination of technical and financial tools, whenever they are available, to deal with the multiple sources of agricultural risk.

Agricultural value chain participants may avoid risk:

for instance, by choosing not to select a particular crop or crops which they consider of high risk for the area in which their farms are located.

In some countries around the world, crop insurance and to smaller extent livestock insurance is the primary public policy mechanism for reducing farmers' exposure to yield and/or revenue risk.¹ (¹ Miranda P.M. Meuwissen, Yann de Mey, Marcel van Asseldonk,2018 ,p177).

In Algeria, the policy importance of agricultural insurance is different for several reasons.

Accordingly, this study seeks to address the following problem:

What solutions can be applied to increase the spread of agricultural insurance?

In this regard, we will address the following elements:

2.The functions of agricultural insurance system:

The agricultural insurance system performs a number of functions, One of them is benefit for the society, As agricultural insurance reduces risks associated with agricultural production, farmers are guaranteed a steady income. Since agricultural production takes place mainly in agrarian areas, typically characterized by a rural environment, this income ensures security

of the country population.

The second function of agricultural insurance is, too, related with the rural environment.

The state supported system of agricultural insurance enables social interconnection and stability of rural areas.

The system allows compensation payments in order to maintain income and to keep agricultural producers viable, which is significant because they can continue with production without a dangerous increase in debts.

The third function agricultural risk insurance performs is the fact that it can act as a guarantee when asking for loans, as it is an instrument that ensures the primary producer's solvency even in case of unpredictable events.

3. Risks that influence decision making and management in agriculture:

There are numerous, variable risks that influence agriculture.

The main risks that influence decision making and management in agriculture are :

- Climatic – risks of unpredicted and unpredictable weather-related events, i.e. the impact of climatic and meteorological effects on agricultural production.
- Production-related – risks arising from factors such as pests, crop and livestock diseases, and the influence of machinery on the final agricultural production.
- Economic – risks associated with price fluctuation of both inputs and outputs on the agricultural product market, arising from unpredictable market trends.
- Commercial and financial – risks posed by the influence of other production and non-production sectors.
- Institutional – risks that arise from changes in the agricultural policy (in the EU, the impact of the CAP (Common Agricultural Policy), with regard to the regulation of agricultural production or trade;
- Environmental – risks arising from adverse effects of specific forms of

management on the environment, and from the impact of other companies' activity on agriculture.

Of these risks, some are insurable and some are not, non-insurable risks include institutional risks and risks related to the fluctuation of agricultural commodity prices.

4. instruments used in the field of agricultural risk management:

There are three instruments utilized in the field of agricultural risk management:² (E. VAVROVA,2005,p533).

- a- funds to cover catastrophic impacts of natural disasters.
- b- the use of specific financial instruments, e.g. a fund obtained as a reserve from profit generated during years of economic success.
- c- a system of agricultural insurance, which seems to be the most rational, comprehensive and systemically sophisticated way of risk management.

The more structured agriculture becomes, the more it is prone to the materialization of risks.

5. Insurance one of many risk management tools:

There are a number of means by which households can be protected against the income shocks that arise as a result of deficient rainfall. Informal risk-sharing networks, savings and credit markets can provide some protection against smaller shocks that do not affect all households in an area (perhaps untimely rain that affects the yields of a cash crop grown by a few select households).

However these tools can prove ineffective in the face of widespread weather shocks or weather shocks that occur in quick succession. Covariate weather shocks require more formalized insurance markets or programs that can pay large numbers of households in a given area. Social protection programs can play a part in this, both by building up the assets of poor households to withstand some shocks, and --if payments can be disbursed in timely and transparent manner-- by providing income support when widespread shocks occur.

However, the traditional tools of social protection—conditional cash transfer schemes and emergency relief—are unlikely to allow households to fully manage

the weather risks they face. Insurance markets are also an important means by which households can protect themselves against income risk.³ (Ruth Vargas Hill,2010,pp2-3).

The essence of insurance is risk sharing. This can be done in two ways. One is through risk spreading and other is through risk pooling.⁴(Dr. A. Amarender Reddy,2004,p2).

6. Insurance as a tool to manage risk in the agricultural sector:

Risk management involves the identification, measurement and assessment of risk followed by the development of appropriate risk management strategies.

Insurance (and other risk transfer instruments) is one of the tools available in risk management, which operates on the principles of risk pooling. Traditional insurance is a contractual transaction that guarantees financial protection against potentially large loss in return for a premium; if the insured experiences a loss event, then the insurer pays out a previously agreed amount.

Risk-pooling spreads the cost of losses among a large number of policyholders, which helps keeping costs (premiums) low.

The insurability of any kind of risk is conditional and it requires the following criteria to be fulfilled: symmetric information between stakeholders, independent risk, large number of exposed units, calculable chance of loss, measurable and determinable loss, significant potential losses.

While the insurability of risk is certainly essential pre-condition of a functioning insurance market, affordability is an equally important issue.

Affordability is an especially relevant topic in the context of farm insurance since the ability of farmers to pay for insurance could potentially be very low, particularly in developing countries.

For this reason agricultural insurance against natural hazards – such as flooding – is often publicly supported by the state either in the form of premium subsidies or

by the formulation of public private partnerships.⁵(Lorant Anna, Farkas Maria Fekete,2015,p72).

Table 1 : Risk and Agricultural Insurance :

Types of risk	Internal methods of insurance	Insurance outside an agricultural holding
Production risk	Diversification and technological innovation of production.	The classic insurance (property, crops, fruits, animals, against multiple types of risks etc.) and weather derivatives.
Market risk	Diversification, vertical coordination, marketing and production contracts, cooperatives and vertical integration.	Commodity derivatives (eg. agricultural futures and options on futures)
Personal risk	Application of safety standards, systematic control of health of household members and staff.	Insurance for persons (against accident, life insurance, insurance against a number of diseases, etc.)
Financial risk	Diversification, planning and significant funding from private sources.	Financial derivatives (interest rate and currency swaps).

Source :⁶ Zaklina Stojanovic , Mirjana Gligorijevic , Tatjana Rakonjac Antic , **The role of the marketing mix in the improvement of agricultural insurance.** (Zaklina Stojanovic , Mirjana Gligorijevic , Tatjana Rakonjac Antic,2012,p770).

Producers should be aware of all types of risks and the impacts they have on the efficiency and effectiveness of agricultural production. Consequently, they are highly motivated to use certain methods to overcome those impacts.

7. Classic Problems with Delivery of Insurance:

Agricultural crop insurance is simply a difficult product to produce. Private agricultural insurance has tended not to appear due to market and government failures for the following reasons:⁷ (Mark Wenner and Diego Arias,2003,p3).

a- Private insurers have not been able to cope with systemic, non diversifiable risk in crop yields stemming from say natural disasters affecting a large number of farms over a widespread region.

Even with the possibility of reinsurance it is hard to calculate fair premiums in order to develop sufficient reserves for low probability but high loss events.

Portfolios of geographically dispersed crop insurance contracts can be as much as 20 times more risky than an equally valued portfolio of health and automobile insurance contracts.

b- The presence of asymmetric information, which can lead to adverse selection and moral hazard problems, raises the cost and risks of introducing crop insurance products more so than other types of insurance products.

Adverse selection in insurance markets refers to the situation where insurers find it impossible or very expensive to distinguish between high-risk and low-risk insurance applicants and thus prices insurance contracts at the average premium for all individuals, which is inappropriate and non-sustainable.

This results in undercharging high-risk customers and overcharging low-risk customers for identical contracts.

Over time the low-risk clients drop out of the market and the insurance company is left with a very high-risk pool of clients with higher expected indemnities that negatively affects insurer's profitability.

Moral hazard refers to the situation where the granting of an insurance contract can lead to a reduction in the application of good husbandry practices or the complete altering of production practices on the part of the client, resulting in higher loss claims.

These two problems affect all insurance markets but more so in agricultural ones because obtaining information on clients is more difficult and monitoring client behavior is more costly.

8. Strategies to Develop Agricultural Insurance:

We presented some proposals on the following points:

-1- Quicken Agricultural insurance legislation :

Agricultural insurance is a bit exceptional, which Algeria's insurance law for commercial insurances is not fully applicable to, though Article 02 N° 15 of the Ordinance No 07/95 on insurance Official Gazette of the Algerian Republic, dated 12 March 2006, even now, there is still no regulation prescribing, who and how to carry out agricultural insurance and how to subsidize it and formulate suitable policies, and no special law providing, its aim, business principles, organization forms, scope of cover, premium rate, insurance coverage and government support and regulation.

the legislation was the institutional guarantee of agricultural insurance and its process should observe the rules of induced institutional change. So, in view of no proper occasion where Agricultural Insurance Law comes into being now, the provincial government may summarize gains and losses on the base of local investigation and draft the regional regulations of agricultural insurance to settle the imminent problem.

-2- Strengthen the Training of Agricultural Insurance Professionals, Especially Marketers:

Agricultural insurance business including distribution, underwriting, survey and claim settlement, demand high levels of policy analysis capability, professional knowledge, technical skill and professional quality, especially actuarial and ratemaking. What is worse, it is difficult for insurance enterprises to commence on business due to decentralized agricultural production in Algeria unless there are adequate eligible professionals.

the State shall accomplish this task from three main respects:

firstly, to strengthen vocational education and training of current insurance personnel mainly from such aspects as consolidating the foundation of national

economy, pushing forward modern agriculture, building harmonious society and advancing the policy-analysis capability;

Secondly, to recruit and cultivate agricultural insurance marketers from the farmers and mobilize them to participate in agricultural insurance by the carrier of farmer- agent of agricultural insurance;

thirdly, to set agricultural insurance majors in universities and colleges to culture reserved talents with high qualities.

-3- Spread Propaganda of Agricultural Insurance:

the State shall strive to promote the significance of agricultural insurance in settling the issues concerning farmers, countryside and agriculture, developing modern agriculture and building harmonious countryside around society from three following aspects:

firstly, the governments at all levels and their personnel shall have full realization of the significance above and at the same time administrative appraise system shall include performance measurement of relevant sectors in charge of agricultural insurance.

secondly, insurance enterprises of various types of ownership shall vigorously innovate agricultural insurance products and expand its market to give support to the development of modern agriculture from the angles of maximizing social benefit and political stability in rural areas while pursuing economic profit.

thirdly, the governments and insurance enterprises shall publicize agricultural insurance knowledge to the farmers and make them gradually realize its functions in loss prevention or precaution, agricultural production guarantee and social welfare in order to guide them to increase their consciousness of risk prevention and take the initiative in insurance participation.

-4- Step up Government Support to Agricultural Insurance:

High loss ratio which let insurers go into bankruptcy is another main hindrance to the development of agricultural insurance. In the light of successful modes abroad, the governments support agricultural insurance by direct or indirect intervention means.

the government at all levels in Algeria shall back up the development of agricultural insurance from the two aspects: on one hand, they shall encourage or support insurance enterprises to expand market and business by such tools as tax-preference, administrative fee-reduction and service, fund assistance and media publicizing and meanwhile provide all-round technical support in weather forecast, hazard prediction or precaution and loss prevention,

on the other hand, the governments shall promulgate premium subsidy-related policies including premium subsidy, application qualities and rate preference of credit for supporting agriculture and market information service, to inspire their enthusiasm in agricultural insurance participation.

-5- Set up the Complete Agricultural Insurance System:

To set up and improve policy agricultural insurance, firstly, the State shall enact agricultural insurance laws by which to establish its important status, expound its great functions and further carry it out, which makes its implementation more systematic and normal; secondly, the State shall vigorously step up the pace of pilot work of agricultural insurance and continuously explores and summarizes its experience where to perfect and innovate the theory and practice of agricultural insurance.

-6- Use the marketing in the improvement of agricultural insurance:

Agricultural insurance needs more precise marketing programs and techniques, which require identification of individual needs of farmers and a dialogue with smaller groups of the insured persons/business entities, insurers should make an extra effort to retain the existing clients, by developing a long term business relationship with them, as well as to gain new insured farmers.⁸ (Zaklina Stojanovic , Mirjana Gligorijevic , Tatjana Rakonjac Antic,2012,p774).

-7- Takaful insurance:

Experts in the insurance sector stressed that Islamic insurance is not a pure donation, but has an independent meaning based on cooperation and participation in the prevention of the effects of risks.

The meaning of donation in Islamic insurance is to consider the impact on the total number of participants and not on the intent of each individual.

-8- Agricultural micro insurance:

Micro insurance is like any other insurance in that it provides protection and caution against losses, but it varies in terms of the target market: individuals with low incomes.

Agricultural microinsurance aims to cover the risks that small farmers in developing countries face in securing crops.

This system allows farmers to cope with disasters and is based on the same basis as traditional insurance. However, when the insured risk is realized, compensation is either in cash or in kind, such as grain and seeds.

9. Conclusion:

Agricultural insurance is an active and functional tool supporting stability in the field of agricultural business. It diversifies the rate of risk, which would otherwise be borne by the farmers themselves, giving them a chance to continuously carry out their business even in case of a total production failure.

Especially for these functions and features, the support and development of the agricultural insurance system is in the public interest.

In a functioning agricultural insurance system, standard and systemic solutions are ready in the event of a disaster, so there is no need to search for ways to deal with the situation.

Additional support may be inefficient in some cases, and may be abused.

Overall development of algeria's agricultural insurance is still in low level, mismatching agricultural status in national economy and calamity losses and agricultural insurance evolves at inharmonious paces in various regions in algeria.

Therefore the State pays more attention to its development and selects pilot regions to grope for a new mode applying to algeria's agricultural insurance in order to accelerate the development of modern agriculture and build new socialist countryside.

We learn from developed counties and our failure experience that agricultural insurance development must adhere to its internal law, agree with its attribute of

quasi public and give full play to mutual complementation between market and government.

But considering algeria's special economic system and current situation in rural areas, administrative intervention shall play a more important role comparing with other countries.

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