GOVERNMENTAL SUPPORT TO AGRICULTURAL INSURANCE IN THE COUNTRIES OF THE WORLD

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Abstract

The aim of this study is comparative characteristics of agricultural insurance in countries such as China, Mexico, the US and so on, and as I state's role in this, as shown experience of the World Bank. The study showed that the main problem existing in the system of insurance with state support, are the weather conditions, since in different countries different climatic conditions. This paper analyzes the mechanisms of agricultural insurance with state support in different countries (China, Mexico, USA, and so on) and the World Bank's experience with the mechanism of agricultural insurance, as well as the possible use of these models of agricultural insurance in other countries. Scientific novelty of the research lies in the fact that the author has made specific proposals and recommendations on the modernization of agricultural insurance in the world, depending on climatic conditions while using assistance of the World Bank.

Key worlds: agricultural sector, risk, insurance, agricultural insurance market, private insurance markets.

JEL Classification Codes: G22; Q13

Introduction. The agricultural sector is a major economic sector and a critical source of livelihood in many developing countries. Agriculture is particularly exposed to adverse natural events, such as insect damage and poor weather conditions that negatively impact production. The economic

costs of major climatic disasters may increase further in the future due to climate change. Farmers and herders have developed risk management strategies to cope with these adverse events, sometimes with government assistance. Agricultural insurance is one financial tool that agricultural producers can utilize to mitigate the impacts of unpreventable risks. Although agricultural insurance has been offered in some industrialized countries for more than a century, the agricultural sector remains underserviced in middle- and low-income countries. Since the late 1990s, however, dwindling public support to agricultural producers in emerging markets has led to a renewed interest in agricultural insurance. The development of agricultural risk modeling techniques and the emergence of insurance pools and index-based insurance contributed to a revisiting of the potential role of agriculture insurance in emerging economies. A recent study conducted by the World Bank shows that agricultural insurance is currently available in more than 100 countries either as well-developed programs or pilots. While the vast majority of high-income countries have well-established agricultural insurance markets, only one-third of middle- and low-income countries currently offer such products and programs. The World Bank supports the development of agricultural insurance as part of an overall agricultural risk management framework. The World Bank assists middle- and low-income countries in designing and implementing traditional and innovative agricultural crop and livestock insurance products and in forming agricultural insurance pools. These projects are often connected to agricultural finance support efforts and tied to complementary efforts in agricultural extension [1,2].

Governments in developing countries have been increasingly involved in the support of commercial agricultural (crop and livestock) insurance programs in recent years. A striking example is China, where, with support (and premium subsidies) from the central and provincial

governments, the agricultural insurance market grew dramatically to become the second largest market in the world (after the United States) in 2008 [3,4].

In India and Mexico, weather based crop insurance has been developed on a large scale to protect farmers against the vagaries of the weather. Many other countries have investigated the feasibility of agricultural insurance, and some have implemented pilot programs. One common feature of many agricultural insurance programs is public support for agricultural insurance [5,6].

With some rare exceptions, such as the hail insurance market, governments are supporting the development and particularly the expansion of agricultural insurance, often by subsidizing premiums. In their attempt to design and implement agricultural insurance, many governments in developing countries have sought technical assistance from the international community, including the World Bank. The Bank is one of the few international financial organizations that has a fully dedicated insurance team of agricultural insurance experts, who currently provide technical assistance in more than 20 countries.

A recurrent request from governments is for information on the international experience with agricultural insurance, not only in developed countries, in some of which agricultural insurance has been offered for more than a century, but also in middle- and low-income countries. In particular, there is interest in the experience of public support for agricultural insurance, including its technical, operational, financial, and institutional aspects.

Main part. Global agricultural premium volume increased dramatically between 2004 and 2007, rising from $8 billion to about $20 billion, $15 billion of which is captured by the World Bank survey. This stunning increase was caused by rising agricultural commodity prices and sum insured values on which premium was paid; the expansion of agricultural insurance in China, Brazil, and Eastern Europe; and increasing government subsidy support in major countries,

including Brazil, China, the Republic of Korea, Turkey, and the United States. Despite this recent growth, penetration is still much lower than non–life insurance penetration in most countries [1,2].

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The agricultural insurance penetration rate is lower than the non–life insurance penetration in all groups of countries classified by development status. The gap decreases with development level. Agricultural insurance takes a long time to take off. The United States and many European countries have had some form of crop or livestock insurance for more than a century and are mature markets with high penetration rates. In contrast, in many developing countries, agricultural insurance has been operating for only 5–10 years (even less in countries introducing index-based insurance), and agricultural insurance demand and uptake have yet to take off. Agricultural insurance provision is dominated by high-income countries and China. Almost 90 percent of global agricultural insurance premium volume is underwritten in high-income countries. In 2008 the agricultural insurance premium volume in China was estimated at $1.75 billion, making this middle-income country the second-largest agricultural insurance market after the United States. Agricultural insurance provision is largely dominated by crop insurance [3,4].

Index-based crop insurance is available, mainly at a pilot stage, in one out of three surveyed countries. Such insurance—in which indemnity payments are based on an index (such

as cumulative rainfall or aggregate crop yields in a geographical area)—is available in 20 percent of high income and more than 40 percent of middle-income countries, usually under weather-based crop insurance programs. The aggregate premium volume for index insurance remains very low, however, as markets are not mature. Except in India and Mexico, most of the weather-based crop insurance programs are still under pilot implementation, with only few farmers insured. Many index initiatives in middle- and low-income countries have been supported by the donor community and the international reinsurance market. Livestock insurance is available in 85 percent of the surveyed countries. It is offered, usually in the form of individual animal accident and mortality cover, in a very high proportion of the surveyed countries. Many programs are very small, however, with demand and penetration rates generally low. Consequently, premium volume is much lower for livestock insurance than for crop insurance. Almost 80 percent of high-income and 63 percent of low- and middle-income countries surveyed offer livestock insurance. Insurance against epidemic diseases is offered mainly in high-income countries. Countries with large and specialized livestock insurance markets include China, Germany, Mexico, and Spain. Mongolia has been piloting index-based livestock insurance since 2006. Delivery channels are highly dependent on the development status of private insurance markets. In developed insurance markets in high income and upper-middle-income countries, insurance is traditionally marketed through insurance agents employed by insurance companies or insurance brokers. In low-income countries, where the insurance market is underdeveloped, agricultural insurance is provided mainly through cooperatives and farmers' groups. The provision of agricultural insurance through rural banking networks, including microfinance institutions, is still very limited, although several initiatives are under preparation in Africa and Asia. Almost 80 percent of agricultural insurance programs are offered on a voluntary basis. In

lower-middle- and low-income countries, agricultural insurance is often compulsory for borrowers of agricultural loans. This type 10 Government Support to Agricultural Insurance: Challenges and Options for Developing Countries of credit-linked insurance may offer new opportunities to develop agricultural insurance in middle- and low-income countries [7].

Agricultural reinsurance is purchased mainly from private reinsurers. It is usually critical for domestic agricultural insurers to secure enough risk capital in case of a major disaster causing catastrophic insurance losses. In two-thirds of the surveyed countries, the provision of agricultural reinsurance is from private reinsurers. In 22 percent of the surveyed countries, agricultural reinsurance is provided by both public and private entities. Some countries (including Costa Rica, Iran, Japan, and Kazakhstan) rely only on public reinsurance. Premium subsidies are the most common form of public intervention in agricultural insurance. Almost two-thirds of the surveyed countries (at all levels of development) provide agricultural insurance premium subsidies, with subsidies usually on the order of 50 percent of the original gross premium. Some countries also offer variable premium subsidies. A few countries, such as India, cap premiums [1,2].

Premium subsidy programs are offered mainly under MPCI or area-yield insurance (a major exception is South Africa, which offers nonsubsidized MPCI to individual farmers). Most named-peril crop insurance products, such as hail insurance, have been offered for many years without any public subsidies. Government intervention in livestock insurance is much lower than for crop insurance: only 35 percent of the surveyed countries offer livestock insurance premium subsidies. Governments also provide public reinsurance (32 percent of surveyed countries), subsidies on administrative and operational expenses (16 percent), and loss adjustment subsidies (6 percent). Public sector support to reinsurance is higher in high-income than middle-income economies. Forms

of support range from national reinsurance companies to agreements under which governments act as excess-of-loss reinsurers (in such cases, the government charges no reinsurance premium) [8].

Governments can also provide support with legislation (51 percent of crop programs and 33 percent of livestock programs reviewed) and research, development, and training (44 percent of crop programs and 33 percent of livestock programs reviewed). Only 11 percent of the surveyed countries have developed special programs for small and marginal farmers, usually in the form of additional Overview 11 premium subsidies. In some countries, such as Chile, rural banks and insurance companies have developed such programs. In Mexico the public reinsurance company supports small farmers' self-insurance groups. The total public cost of agricultural insurance programs is estimated at 68 percent of the 2007 global premium volume, of which upfront premium subsidies represent 44 percent. On the basis of the World Bank survey in 65 countries, the overall government cost of upfront premium subsidies is estimated at 44 percent of original gross premiums [2].

With the inclusion of administrative and operating subsidies and claim subsidies, the total cost to governments of agricultural insurance provision may be as high as 68 percent of original gross premiums. The public cost of agricultural insurance subsidies represents 50–300 percent of the premiums paid by farmers in the majority of the countries surveyed. Public support to agricultural insurance in many high-income countries (including Italy, Spain, and the United States) represents more than twice the premium paid by farmers. In contrast, in most of the middle- and low-income countries surveyed, public support to agricultural insurance represents 50–150 percent of the premium paid by farmers. Subsidies are not always a precondition for high penetration. High levels of agricultural insurance uptake can be found not only for programs that carry high premium subsidy levels [9].

The survey results thus do not support the argument that premium subsidies are a precondition for farmers and herders to purchase agricultural insurance. PPPs in agricultural insurance tend to improve the financial performance of government-sponsored agricultural insurance programs. Loss ratios (a simple measure of the financial performance of an insurance program) seem to be lower when programs are managed by the private sector, sometimes with support from the government through PPPs. This may be a consequence of better implementation of insurance principles, such as sound underwriting procedures and better pricing of risk; lower administrative costs; and greater financial discipline of private insurers [7].

Agricultural insurance is a complex line of business that requires highly technical expertise, both in development and operational phases. Private insurance markets have proved to be efficient, without public intervention, for dealing with non-systemic risk and large farmers, but purely commercial insurance may not be viable for systemic risks or smaller farmers. The primary role of governments should be to address market and regulatory imperfections in order to encourage participation by the private insurance and reinsurance industry. In competitive markets, insurance premiums should be risk based and differentiated, thus reflecting the underlying risk exposure [8].

Actuarially sound rates draw attention to the agricultural production risk exposure of individuals, firms, or governments and allow them to evaluate the benefits of agricultural risk management programs by comparing the cost of risk reduction investments with the resulting reduction in potential losses. They inform farmers and herders about their risk exposure and provide them with incentives to invest in risk mitigation activities (for example, irrigation) or to shift from nonviable crops to more viable crops. Risk-based premiums can also assist governments in the financial planning of agricultural losses through improved assessment of their contingent liability. By understanding their exposure, governments can 14 Government Support to Agricultural Insurance: Challenges and Options for

Developing Countries better assess their liabilities in case of natural calamities and devise appropriate financial strategies. Governments must carefully analyze the fiscal implications of government sponsored agricultural insurance programs, whose costs may not be sustainable in the long term. Subsidies on agricultural insurance premiums should be carefully considered, because they can distort price signals and provide inappropriate incentives to farmers and herders to invest in unprofitable farming activities. The World Bank survey does not support the argument that premium subsidies are always a prerequisite if farmers and livestock breeders are to purchase voluntary crop and livestock insurance, as shown by several named-peril crop insurance programs [10].

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Conclusions. Where subsidies are offered, planners should carefully identify which beneficiaries, crop or livestock sectors, and regions to target and whether the subsidies will be provided for a limited period or phased out over time once agricultural insurance takes off and achieves a critical presence in the market. In start-up situations, where market infrastructure is not yet developed, a technical support unit could be established to provide specialized services to agricultural insurance companies and other risk-pooling vehicles. This unit should have support from the government, insurers, and reinsurers. It could be either a stand-alone entity or hosted by an insurance provider (such as agricultural insurance pools or monopoly insurer).

The goals of the technical support unit would include the following:

• Create a center of expertise able to support the development and scaling up of agricultural insurance.

• Establish a core team of agricultural insurance experts to provide technical support to agricultural insurers in underwriting, product development, pricing, product delivery, loss adjustment, catastrophe risk financing, and so forth.

• Create and manage a centralized database of agricultural and weather statistics, and make the database available to agricultural insurance practitioners.

• Promote the exchange of expertise among insurance companies and access to international best practice through training courses, operations manuals, and other means.

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