



Palestine Economic Policy Research Institute (MAS)

Agricultural Insurance in Palestine

**Current Conditions and Recommendations
for Future Policy**

Abdul Hamid Musa Barghouthi

2009



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Founded in Jerusalem in 1994 as an independent, non-profit institution to contribute to the policy-making process by conducting economic and social policy research. MAS is governed by a Board of Trustees consisting of prominent academics, businessmen and distinguished personalities from Palestine and the Arab Countries.

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MAS is dedicated to producing sound and innovative policy research, relevant to economic and social development in Palestine, with the aim of assisting policy-makers and fostering public participation in the formulation of economic and social policies.

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- ◆ Promoting knowledge-based policy formulation by conducting economic and social policy research in accordance with the expressed priorities and needs of decision-makers.
- ◆ Evaluating economic and social policies and their impact at different levels for correction and review of existing policies.
- ◆ Providing a forum for free, open and democratic public debate among all stakeholders on the socio-economic policy-making process.
- ◆ Disseminating up-to-date socio-economic information and research results.
- ◆ Providing technical support and expert advice to PNA bodies, the private sector, and NGOs to enhance their engagement and participation in policy formulation.
- ◆ Strengthening economic and social policy research capabilities and resources in Palestine.

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FOREWORD

The agricultural sector is an important sector in any economy. It is the main source of income to farmers. In addition, the agricultural sector is the main source of fruit and vegetables, and animals stuffs for the entire Palestinian population.

However, it the most vulnerable sector among the economy's producing sectors, particularly because agricultural production is affected by factors outside of farmers' control. The most important of these is weather conditions.

Palestinian farmers are not alone in often having to face undesirable weather conditions, which are the subject of great concern for farmers since production (and consequently their income), can suffer. In turn, food insecurity increases at the micro, farmer level, as well as at the macro, country level.

The vulnerability of farmers and of the agricultural sector as a whole results from a set of risks. The adverse effects of drought and frost in one year can extend many years, since a farmer's production capacity may remain low for a long period. Even if weather conditions are good and conducive to good farming practices, farmers still face the risk of lower prices to their products. Variability in agricultural produce prices is another common risk.

From these factors, the need for farmers to be able to access an insurance system that protects them totally or partially from the risks of losing production or low prices is very clear. Alternative insurance systems are widely available in developed countries but sadly, not in most developing countries, which are very behind on this issue.

This study tackles many topics related to insurance in the agricultural sector in Palestine. Insurance is essential to farmers as it offers stability to their income and therefore to their consumption pattern and agricultural production. Appropriate and accessible insurance policies will contribute substantially to food security for farmers and to the country more generally.

I would like to thank the researcher, Dr. Abdul-Hamid Barghouthi, for conducting this study and also the reviewers, especially Dr. Basim Makhool. I am most grateful to The Asamblea de Cooperación Por la Paz (ACPP) and The Spanish Cooperation (AECID) for financing this Study.

Dr. Fathi Srouji
Research Coordinator

Executive Summary

This study investigates key aspects of the agricultural production system and proposes an insurance system to fit the Palestinian case. The subjects covered are broadly divided into three. Each section is called a 'map'. The 'Map of Agricultural production' which includes investment, production costs, expected returns and the structure of production units (horticultural and livestock); The 'Map of Agricultural Risks' which looks at market, natural and farming risks impacting agricultural production; and finally, The 'Map of Agricultural Losses' focuses on losses due to a decrease in productivity and a drop in sales and returns. The study fuses information about these three subject areas, results of questionnaires, and interviews with farmers, particularly about perceived risk of agricultural insurance programs in order to find the most appropriate insurance system for the occupied Palestinian Territories.

The study focuses on the theoretical background of agricultural insurance and applies it to the Palestinian case. In addition to expanding relevant terminology, the study further developed some globally used agricultural insurance programs: single-peril insurance, crop insurance, insurance of crop returns or farm returns, and traditional agricultural insurance schemes. The study found that index-based crop agricultural schemes to be the most innovative of insurances and capable of overcoming several of the shortcomings and problems of the traditional agricultural insurance programs, (problems such as a moral hazard, adverse selection, systemic risk and co-variability). The study suggests that index-based agricultural insurance is the best fitting agricultural production system for the occupied Palestinian Territories.

In preparing the study, data was collected in the field from farmers with a specially designed questionnaire and around 300 personal interviews were conducted in five agricultural production regions during September 2008. The regions were: the Ghore (West Jordan Valley), the northern high-plateau (Jenin), semi-coastal areas (Tulkarme & Qalqyia), the eastern slopes (Tubas) and southern high-plateau (Hebron). In addition to these interviews and questionnaires, five focus groups of farmers and one focus group comprising insurers, bankers and interested institutions were held. Discussions were tailored to reveal the participants' experiences, expectations and suggestions about and for a proposed agricultural insurance program. The focus groups proved a more useful resource than

the questionnaire results, particularly in terms of designing an agricultural insurance program.

Gathered information revealed the breadth of intensive agricultural production, most prevalent in the northern governorates of Jenin, Tulkarem and Tubas and in the Jordan valley, but also in the southern governorate in the west Bank. This publication stresses the importance of identifying the agricultural production process for insurance purposes. In addition to information about the crop used and in order to understand production performance, the study suggests that details on the following variables also need examining: geographical location, production technology, season of production and production performance. It is essential to include these variables in formulating a sustainable agricultural insurance program since they greatly affect risk and expected losses.

Hazards and agricultural risks include: frost, high wind, high temperatures, low rainfall (drought). In particular, drought affects the southern governorates, where rain-fed agricultural production is abundant and plays a major socio-economic role in these governorates. It impacts eastern slopes too, where grazing animals provide a major source of income for the local population.

The study suggests four agricultural insurance programs for the Palestinian context, (based on either a single parameter index or collective performance index). They are as follows: Agricultural Insurance of intensive farming in selected areas based on an area productivity index; Agricultural Insurance for sheep and goat producers in the nomadic areas based on a mortality rate index; Insurance against drought in the Eastern Slopes based on the single parameter index (rainfall); and, Insurance of crop or farm income based on area productivity index and market price index.

In order to institutionalize the proposed agricultural insurance program, the study suggests that in addition to nongovernmental organizations (which are already active), the private sector, insurance companies and commercial banks should play a decisive role in administering the proposed national agricultural insurance program. Governmental institutions that include the Ministries of Finance and Agriculture need to play a supervisory role to the implementation process, without taking a directorial role. The Ministry of Agriculture has a vital part to play in the national program, in terms of generating the information needed for

preparing and managing a sound and sustainable agricultural insurance program. It must also disseminate information and provide extension and advisory services.

The study stresses the importance of keeping basis insurance (farm income) and compensation for disasters (catastrophic) as one program with options: A Basis Insurance component run entirely by insurance companies, and another part, a Disaster Insurance component, which receives financial support from the government so as to provide a backstop for the private sector.

The study suggests establishing a national agricultural insurance scheme over four or five years. Broken down into three phases, the first would be spent in establishing the scheme, the second and third years would be devoted to running pilot scheme in four or five locations, and in the final year, the program would be evaluated and expanded.

Other recommendations from the study include: establishing a comprehensive agricultural insurance information system, and carrying out a feasibility study of agricultural insurance for sheep and goat producers in the eastern slopes based on a mortality rate index and rainfall index.