

## **Organic agriculture, environment and food security**

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### **ABSTRACT**

Organic agriculture is defined as an environmentally and socially sensitive food supply system. This publication examines its many facets, looking at the contribution of organic agriculture to ecological health, international markets and local food security. It builds on empirical experiences throughout the world and analyses the prospects for a wider adoption of organic agriculture. Numerous scenarios depicted in this publication represent the millions of people from all social and economic backgrounds who have adopted this new agrarian ethic on the integrity of food.

An introduction to the general concepts of organic agriculture includes an overview of its agronomic, economic, social and institutional performance. Further, the publication presents scientific evidence of the impact of organic agriculture on environmental goods and services and offers an evaluation of its possible contribution to the implementation of international environmental agreements. It also reviews the current status, trends and prospective development of certified organic agriculture production and trade.

The important contribution of resource-poor peasants and indigenous farmers to non-certified organic agriculture is highlighted and reviewed. Specific examples of how organic agriculture improves agricultural productivity and rural livelihoods are presented, along with lessons for scaling up positive experiences. The emerging sector of organic aquaculture is described, and its potential is discussed. Finally, case studies from Brazil, India, the Islamic Republic of Iran, Thailand and Uganda show how traditional knowledge, social mobilization and agro-ecological approaches have been used to restore degraded natural resources while producing food.

The small farmers who seek fully integrated food systems are given recognition throughout the publication. They, along with the consumers who are creating market-based incentives for ecological management of agricultural systems, are at the centre of the "organic movement". The publication discusses the weakness of institutional support for nurturing existing knowledge and exchange in organic agriculture, support that could further enhance organic agriculture's positive impact on the natural and human environments.

**Keywords:** organic agriculture, organic aquaculture, agro-ecology, ecological management, resource-poor farmers, community development, rural livelihoods, international trade, markets, food security, food supply chains.

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