Chapter 9

Organic Agriculture as a Tool to Make Economy Green

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ABSTRACT

The main questions that trouble ecologists are concentrated on the state of the environment per square unit, while concerns of food security supporters are concentrated on a cost of production unit (which is bigger in comparison with standard for organic agriculture). Economists, in turn, are concerned about the low cost of decision for achievement of food security in comparison with environmental safety. The point, discussed in the chapter, is related to implementation of organic and traditional technologies of farming. It is expedient to estimate the changes of environment per units of production, if there is a set of food production and soils of a variable quality.

INTRODUCTION

Organic agriculture is a system, composed of interdependent factors. The aim of economic science is to discover its multifold problems, analyze the current situation, elaborate scenarios of development, and search for the bifurcation points for decision making, which are efficient by Pareto optimality (distribution of resources which cannot be improved at least for one person, without having worsened thus welfare of another).

According to researches, organic agriculture has almost twofold bigger price in comparison with traditional one.

Ukraine widely introduced industrial methods of farming in 1970-1980s, which ensured significant growth of agricultural production. However, such industrialization of agricultural production was accompanied by strengthening human pressure on environment and exhaustion of natural resources.

Development of new branch of agriculture on a basis of green farming will promote employment in the country and overall effectiveness of agricultural production.

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Implementation of such a model of agricultural development allows us to define the scenario of future rural development, with regards to solution of employment problems for rural households. Agroecological policy has to be focused on rational use of soil resources, environmental protection and providing population with green products.

Review of the literature, included in the chapter, related to organic agriculture and its influences on environment and utilization of resources, confirmed us by a number of environmental indexes, that organic agriculture was carried out more effectively in comparison with the usual (intensive) one. All efficiency factors of organic agriculture demonstrated lower efficiency in comparison with the usual agriculture. Due to the lack of information, it was only possible to estimate the work of various farming systems from the point of their environmental safety and utilization of resources per hectare.

Organic agriculture is useful for the solution of environmental problems especially, as its spreading leads to the improvement of majority of the ecological indexes.

The level of profitability of organic agriculture is the main factor in its spreading. Businessmen are always concerned by the cost and, as a rule, organic agriculture is perceived not as itself only, but as a tool to achieve certain economic targets.

Based on the purpose of organic agriculture, its implementation has to be coincided with environmental and socio-economic indexes, as well as with the desire to correspond the particular level of specified indexes in the society. This point of view corresponds with the “Tinbergen’s rule”, which argues that a number of the chosen political instrument has to be equal, at least, to the quantity of objectives.

The literature review, provided in the chapter, shows the insufficient volume of information for detailed effectiveness analysis of organic agriculture development. It is especially true for the characteristics of organic agriculture influences on environment and utilization of existing resources.

Thus, based on those theoretical reasoning, the chapter substantiates development of organic agriculture as a mechanism of greening and potential efficient element of agroecological policy.

BACKGROUND

Organic farming is a rather complex system of interrelated factors and the task of economics is in-depth coverage of issues, situation analysis, developing scenarios and finding bifurcation points for decisions that are effective for V. Pareto optimality criterion, i.e. the allocation of resources, which cannot be improved at least for one person, no worsening in this well-being of another.

International Federation of Organic Agricultural Movement (IFOAM, ifoam.org) defends the following arguments that contribute to the spread of the organic movement in the world: environmental protection; quality of food; food security; climate change; social justice.


First, the issue of environmental protection has attracted the attention of economists after the release in 1920 of the book of English economist A. Pigou “The Economics of Welfare”, which raised the question of the introduction of natural wealth in the market pricing mechanism and management of pollution (Pigou, 1932). In the 60-s of the twentieth century. When environmental regulation of economic activity in developed countries led to increased spending on environmental measures, environmental economics