

ORGANIC AGRICULTURE AN APPROACH TO BIOLOGICAL CONSTANT DEVELOPMENT

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ABSTRACT

Increasing growth of population has caused more human need to food, and this factor has led to the development of agricultural products, and negative effects on soil and basic resources. In addition to polluting soil, surface and groundwater resources, using fertilizers and pesticides causes genetic erosion and the extinction of animal and plant species as well. These factors makes public anxiety, and the anxiety summarizes into the concept "*constant development*". In fact, constant development intends to comply present generation needs without imperiling future generation abilities in meeting its necessities. Increasing the efficiency of water and soil resources without inflicting long-lasting damages to the resources is the prerequisite of agricultural constant development. Organic production systems are based on specific and accurate standards of the production with the aim of gaining access to optimal agricultural ecosystem that are socially, ecologically and ecologically constant. Organic agriculture is typically known as a method in agriculture in which no fertilizers or pesticides are used. In this research, we study the organic agricultural role on biological constant development. The method of data compilation is a library type, and the study is of promoting – scientific kind.

Keywords: *Organic Agriculture, Constant Farming, Constant Development, Vermin Compost*

INTRODUCTION

Environment and also its creatures are affected by industrialized human societies. In most civic societies, environmental pollutants resulting from human activities and different industries have disrupted natural, environmental and global ecosystems. Fertilizers can meet farmers' demands for a short period of time, but in long term, their destructive affections on the environment are irreversible. Excessive use of them is not only a threat to the environment, but also increases the production costs for farmers. The fertilizers can be stored in agricultural products for their accumulating nature, and they can be entered into the human body through their consumption by men. The irregular consumption of them pollutes soils, flowing water, groundwater and drinking water sources. So they are a serious threat to environment and human health in long term. Yet it should be considered that it's not a good solution for the problem to deprive farmers from using the materials which reduces the production of agricultural products. Thus, there should be a substitute for these products so that the farmers can continue to produce. The pests integrated restraining is another key component of constant agricultural systems (Kharazmi & Taleb Beidokhti, 2009). Organic agriculture utilizes natural elements, and chemical agents are not used in this type of farming. As a result, it can assist human in achieving the constant development.

1.The Description of the Problem

Planning systems that increase productivity while it is compatible with human long term needs to the preservation of natural resources and the prevention of environmental problems is what is particularly important today. Thus, a technology must be created so that it can end the outbreak of concerns about wastage and garbage and reduce dangers resulting from consuming pesticides and fertilizers as well. Today, global prospect is toward organic agriculture. In this agricultural system that have probably come from traditional farming, it's attempted not to use the elements with chemical origin (PourSaied et al, 2013).

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Through a research entitled "*Constant development: ambiguous and the vague theory*" Pesqueux (2009) studies the concept constant development and abandon concentrating on the economical aspects, and proceed the problem related to other scientific fields. The study results of the concept constant development follows the matter that there is an obvious agreement on highlighting the issues such as unity, responsibility, justice and so on. This leads to the generation of various senses of the companies responsibility, especially the large ones. Today, the political aspect is largely using the results of this concept. The constant development is one feature of the company management that is a larger matter rather than the political aspect.

Dou, et al (2013), "*The environmental strategy and Civic constant development*" deduced that the environmental constant development is the central core of the constant development, the achievement to the constant development relates to the interchange and feedback among the social, economical, and environmental dimensions of development, and considers that to obtain a constant development, it's necessary to plan on civic buildings, rubbish disposal management and evaluating the urban environmental affections.

Karimi, et al (2011'), "*A study on progress obstacles of organic agriculture from the viewpoint of the experts in the Ministry of Agricultural Jihad*" support the following conclusions: Among the three obstacles (Economical, Cognitive and Informational, and Intuitional), the economical barrier has the first priority. There is also a relevant and positive correlation about one percent between the proceeding of organic farming and experts point of view. Considering a new approach created in recent decades, called constant development (A development that goes after meeting current population necessities due to the future needs), and according to the environmental pollution made by agricultural pesticides, in this research, we are going to study what the organic agricultural role is for biological constant development.

2.Development and the Constant Development Concept

The term development has entered English language since 17th A.D, and it was used by the biologists for organic process for the first time (Sadeghi, et al, 2010). Since 1960 on, development concept shocked the world. Not to be ranked in developed ones, all countries did their last efforts for people's welfare and well-being. On the other hand, most programs executers didn't have enough information about what was known as growth or welfare, and they were in an aura of ascendancy and revival so that they could find a way to place in its path (PourAfkar, 2010, 56).

The first assumption of constant development is that natural and human systems depend on each other dynamically and can't be considered to resolve important problems separately. Human societies and environmental systems correlate each other in a set of feedbacks as an adaptive organization (Dal and Neumann, 1, 2005, 352).

According to the definition of the World Commission of Environment and Development (Brant Land Commission) in 1987, constant development is: The development that meets all the present necessities without endangering the future generations abilities to comply their needs.

Consistency in practice is an equation between environmental necessities and developmental needs. Constant development is a holistic development and involves all features such as social, economical, cultural, environmental dimensions and other human needs. In one word, the most important characteristic and attraction of constant development is its widespread outlook. Constant development complies human needs and ideals not only in one country or zone, but involve all people around the world at present and in future (Hedayati and Zeynali, , 2008). In new paradigm, constant development has been turned into the dominant converse in developed countries and developing ones as the multilateral luck of the human race without reducing the abilities of the environment and future generation. Achieving constant development requires modification in political, economical, social – cultural and management - administrative structures. Among these, the pivotal and central point that integrates all the aspects is human. Human actions as the focal point of constant development is meaningful in the intellectual rationality and a tool in management system type (Etaat and Mousavi, 2010). Ecological and

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environmental fields are inseparable components of the constant development approach to solve such complicated difficulties. But they will not succeed for they should be considered with social, economical problems and political control systems that are ultimately the source of these problems (Dal and Neumann, 2005)

3. Appearance of the Philosophy of Organic Agriculture

What is posed today as organic farming and a new field in agriculture has indeed a very long history and has been with human since the beginning of the agricultural activities. But that time human has treated regarding mutual respect against natural sources and life experience had proved to him that any damage or harm to environment creates unpleasant consequences. Gradually with larger needs of human being to farming and population growth, human access agricultural development emerged and was turned into the extreme-like state, just similar to most human activities. Men did any actions to get better conditions that it was sometimes performed with no logical consideration. The existence of such conditions was followed with further posing of moral points and providing organic philosophy (Arabi and Khademi, 2004).

Many of the toxins that are manifested over years as an agent for various types of diseases such as cancers to be created are still being used by farmers. Therefore, during the recent decades, in most developed and developing countries with increasing the public concern as for the food quality, public health, and destructing natural resources, organic farming has been noticed (Kianifar and Liaghati, 2007).

Organic agriculture is a set of operations that is fulfilled with the aim of consuming reduction of unnatural elements, and the consumption of fertilizers and pesticides, synthetic preservatives, chemical drugs in it are abandoned through the wastewater and genetic engineering method. Organic agriculture is the proper production management that develop and reinforce biological ecosystems health, biological cycles, and soil biological activities (Poursaied, et al, 2013).

4. The challenges of Industrial Farming

Despite good outcomes, industrial farming has some negative results with it, and the most important ones are:

- Negative affect on natural environment and settlements destruction
- Destruction, over-consumption, pollution and quality reduction of the resources
- Appearance of the economic and social problems, particularly about markets and prices
- Rise of the consuming wastes
- Division of the rural communities
- Negative impact on human health (such as direct poisoning or human diseases resistance against antibiotics), and development of special diseases such as cancer that is attributed to the presence of chemicals (Zahedi and Najafi, 2006).

5. The Principals of the Organic Agriculture :

Regarding to introducing its theory, organic farming has chosen some particular principals, and such principals are stated as follows according to International *Federation of Organic Agriculture Movements* (IFOAM):

- With high quality and enough quantity
- Coordination with nature rather than domination, overcoming and exploiting from it
- Reinforcing biological cycles and farming system
- Protecting renewable resources as much as possible
- Creating conditions for animals for all natural habits to be provided by them
- Keeping a long term increasing as for soil productivity
- Utilization of renewable resources as much as possible
- Preventing the appearance of all types of pollution originated from different farming operations
- Possibility of earning enough income for farmers, and satisfy them

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- Considering wider social impacts and ecology farming systems (Arabi and Khademi, 2004).
- Producing organic food is one of the sectors that has the highest growth over the world food industry, and at the same time, with the rise of organic products, in parallel, demanding to consume them is increased (Karimi, et al, 2011).

6.Organic Farming and Constant Development:

Organic farming is a suitable production management which develop and reinforce the soil biological ecosystems health, biological cycles, and biological activities. Among various methods, organic agriculture is one of the ways that protects environment. In biological or organic farming, suitable using of renewable resources provides possibility and ability of the production of acceptable levels of crop, livestock and food products for human need, and also creates conditions such as protection against diseases and pestilences for plants and animals. Thus, the purpose of constancy lies within the concept of biological farming, and is one of the main and determinant parameters to accept or implement of the particular production methods (Poursaied, et al, 2013).

Within the several past decades, excessive use of chemical pesticides to control pestilences and plant diseases has made lots of difficulties for humans, environment, and other living organisms colonized in natural settlements so that with using pesticides in farms of food productions, they enter the human food chain and then the problems of human affliction to hard diseases is one of its results. After consuming kinds of chemical pestilences on the products of the farms, the pestilence are washed out through irrigation or rain-washing, and transferred into ground water. Meanwhile, other ecologies of natural environment will be destructed by using strong and hazardous pesticides (Bigdeli and Sedighi, 2010).

Constancy issue in plant pests management has begun since 1971 in the form of the pests comparative management strategy in the U.S.A, and in it, the substantial purpose is reducing the consumption of chemical pesticides to the minimum possible extent. Instead, much focusing on biological and agricultural control ways and using pesticides as the last resort to control pests while pest density is high is considered (Bigdali and Sedighi, 2010).

7.Organic Agriculture and Vermicompost

Vermicompost is a kind of compost that contains a very active biological mixture of bacteria, enzymes, plant residuals and earthworm cocoons (Raknesh and Adaresh, 2010). The process of the compost production itself is also performed in several years that one of them is using earthworms to analyze organic wastes which is called Vermicompost. Through this method, rubbish is eaten and analyzed by the earthworms. There are various elements affecting on how Vermicompost process is performed, and one of the factors which enters the process is the organic materials as well (Gupta, 2004). The Vermicompost produced by such process is composed of the earthworm excrements, organic wastes during different stages of analyzing, the earthworm in different steps of growth, and the micro-organisms related to the compost process as well (Parvaresh, et al, 2004).

8.Constant Agriculture and Biological Pollution

Agricultural activities in general can be constant if they do not harm over the ecosystem function. So, utilizing the Green Revolution Technology has made an instability of the systems that is the result of a set of new elements which has entered the farming system of third world countries. Improved seeds which are entitled "*miraculous*" can not resist as the traditional numbers against pestilences and diseases so that the requirement of using fertilizers and pesticides is increased. The rise of consuming these materials has made groundwater and surface water resources and polluted. That is why the constant development strategy advocates believe that to prevent the so called complications we must follow the farming systems that need less consumption of chemical materials and are more compatible with environment and ecosystem (Soltani,2007).

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9. Transition Obstacles to Organic Agriculture

Researchers divide the limitations and barriers of modifying toward organic farming into three :

1. Economical obstacles: The first obstacles for a common region farming to be turned into an organic structure are the economical ones including:
 - Failure ensuring of the performance level and available appropriate markets after conversion
 - More payment to the working force of organic farming structure that makes a financial limitations
 - Duration of the transition period leads to a financial lost
 - Low demanding for organic products that have no proper market
 - Restrictions on financial aids when unanticipated economical problems happen
 - The low price of organic products
 - Restrictions on financial aid when unforeseen economic problems
2. Cognitive obstacles: cognitive obstacles acts as a limiting factor so that the farmers meet with low or lack of knowledge and information about agriculture for farms to be turned through organic method. Organic farming needs new methods and operations and farming efficient management that most farmers have little information about it. To some farmers, inspectors are very strict and the future of environmental policy is not so hopeful. This problem is correct particularly in countries that the policy related to constancy is not stable
3. Intuitional obstacles: Intuitional obstacles arise from the cultural and social differences of values and attitudes. Farmers try to not to be seemed so different in a society they live. In their villages, they consider that most people are waiting them to make a mistake. Thus, they deal such affairs with a very conservative approach (Karimi, et al, 2011)

10. Organic Farming in Developing Countries

The existence of thousands of hungry people, population rapid growth, uncontrolled erosion of soil, rise if desertification and so on are the problems and difficulties of such Third World Countries. Global competition markets and the possibility of offering the products with lower prices by developed countries have indeed taken competition ability away from developing countries and have propelled these countries toward the production of the requirement products (livestock requirement products) for industrial countries. This process leads to monoculture farming in many developing countries and then retreating from the farming development. However, it seems due to the organic agriculture qualities, it's not possible to implement this process in developing countries just like what is happening in industrialized ones, but relying on native resources, biological processes and so on while the protection of the soil productivity and removing food requirements, pestilences control and economical security for rural communities must be carried on. What makes the substantial extension of this form of farming necessary is that firstly, the destruction of environment and natural resources in developing countries is extremely increasing. At second, organic farming limits the requirement to oil imports by these countries. Thirdly, due to high volume of the activity, organic farming needs much human force, and this can provide suitable facilities to attract, employment and preventing the migrations (Arabi and Khademi, 2004).

11. Conclusions

Following the development of population, modern societies feel food requirement more, but this need must not be performed through non-organics and chemicals. As nowadays we are grappling some diseases that did not exist in the past, so organic agriculture is designed in the world as a type of farming which is produced through natural materials. But this new phenomenon has been met by some problems and obstacles. The obstacles solution requires farmers and governments cooperation with stepping toward

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biological constant development. I hope our government and people as well to pay adequate attention to this affair.

12.Suggestions

- Public culture formation for purchasing organic products to guarantee the people's health
- Government financial aid for farmers to produce organic products
- Promoting organic farming by the Department of Agriculture promoters
- Controlling the agricultural markets
- Determining the farmers of organic products as the country example farmers
- Creating a common belief in the case that the organic products have richer qualities and traits than non-organic ones

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