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# The Consolidating Mechanism of Food Security through Islamic Sustainability Agriculture: Malaysian Experience

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## Abstract

The increasing food demand, at par with the increasing number of the populace calls for the sustainability of the food production. The agricultural sector serves to be an important mechanism in ensuring the readiness of food materials. To fulfil the food production at a grand scale, the increased forestry activities, water pollution, land quality degradation and the emission of greenhouse gases to the air has taken place. Sustainable agricultural practice is seen to be an effort in addressing this issue in preserving natural resources at the same time ensuring food security to the locals. By making specific reference to the program implemented by the Ministry of Agriculture and Agro-Based Industry Malaysia, this paper work intends to look closely into the sustainable agricultural industry carried out to strengthen food security in Malaysia. This agricultural practice is further carried out based on the Islamic sustainable development. The observation towards the report, development plan and the website of the Ministry of Agriculture and Basic Farming Industry Malaysia finds that the implementation of the sustainable agricultural practice program in Malaysia fulfils the sustainable development namely the environment, economy and social. However, from the philosophical perspective, this sustainable agricultural practice is not connected to the spiritual element that has become the mainstay in the Islamic sustainable development.

**Keywords:** Sustainable Agriculture, Islamic Sustainable Development, Food Security

## Introduction

The challenges today is to achieve zero hunger due to the intense demographic pressure, increase in urbanization and the change of the climate to the point that the agricultural and food systems are altered (Food & Agriculture Organization, FAO, 2017). To face this situation, sufficient food supplies for all citizens must be fulfilled through productive and sustainable agricultural activities. At the international level, the effort to achieve sustainable agricultural practice starts to gain attention after the United Nations Association Conference for the Environment and Development in Rio de Janeiro in 1992 following the effect from the increased

pollution and excessive exploitation of natural resources that happened all over the world (Nijkamp & Vindigni, 2002).

Specifically in Malaysia, in the 11<sup>th</sup> Malaysia Plan (RMK-11) the agricultural sector is expected to experience growth by 3.5 percent annually by the year 2020. This percentage is smallest compared to the growth rate of the service sector (6.9 percent) and manufacturing sector (5.1 percent) it shows that the progress of other sectors is more advanced (Economic Planning Unit, 2015:23). Therefore, to enhance the agricultural sector and strengthen food security, there emerge various efforts by the government. The development agenda implemented should be on track, which takes into account sustainable development, namely social, economic, political and environmental developments.

To cater for the demand of the sustainable development and at the same time activating the national agricultural activity, sustainable agricultural practice starts to be introduced. This concept refers to the integrated system of the crop and animal production with special application in the long run which include; catering for humans' food requirements; increasing the quality of the environment and natural resources that are the source of dependence for the agricultural economy; using non-renewable resources efficiently and integrating it with the agricultural resources; natural biological cycle and regulating it; sustaining the economic capability in the farming operations and increasing the life quality of the farmers and the society as a whole (US Congress, 1990). Other than that, sustainable agricultural practice is also referred as organic agriculture as this practice is not a threat to the environment (Tiraieyari, Hamzah & Samah, 2014). This is because the preservation of the natural resources is an important thing to human life and sustainable development (Tiezzi, 2003:127).

## **Discussion**

The first section of this paper work it looks into sustainable agricultural practice in Malaysia by referring to the program done by the Ministry of Agriculture and Agro-Based Industry Malaysia specific towards the report, development plan and website of the Ministry of Agriculture and Agro-Based Industry Malaysia. For the next section, which is the second section, analyze the program from the Islamic development sustainability. Last but not least, the final part offers the conclusion to the discussion of the paper work.

## **Sustainable Agricultural Practice Program in Malaysia**

Food production requires a productive agricultural activity to ensure the food readiness and access to humans. However, according to the Senior Researcher Officer, Strategies Resource Research Center, Malaysian Agricultural Research Development Institute (MARDI), Rosliza Jajuli, food supplies can become lessened in the market when several types of crops were plagued by diseases. Sustainable agricultural method must be given emphasis to ensure that the safety of the food supplies can stay sustainable in times to come (Ishak, 2012). Through the agricultural practice, the ecology principle, has been adopted to balance the environment and organisms (Shobri, Sakip & Omar, 2016). To look into this clearly, Table 1 exhibits the sustainable development practice program in Malaysia identified from the Ministry of Agriculture and Agro-Based Industry Malaysia.

**Table 1: Sustainable Agricultural Practice Program in Malaysia**

Bil.	Program	Program Elaboration
1.	Malaysian Good Agricultural Practices (MyGAP)	<ul style="list-style-type: none"> <li>• These scheme is used for agricultural, aquaculture and farming activities</li> <li>• Benefits:               <ul style="list-style-type: none"> <li>• Producing agricultural products that are safe and of high quality</li> <li>• Minimizing environmental pollution, and helping to create environmentally friendly environment and sustainable national agricultural industry</li> <li>• Having the opportunity for the products to be exported</li> <li>• Ensuring the safety and welfare of the employees.</li> <li>• Encouraging and facilitating consumers to use the agricultural products, livestock and aquaculture that have a certification.</li> </ul> </li> </ul>
2.	Malaysia Organic Scheme (SOM)	<ul style="list-style-type: none"> <li>• Certification program to farmers who practice organic agriculture by fulfilling the national organic standard criteria, MS 1529 2001.</li> <li>• This criteria encompasses the food production, processing, labeling and marketing processes based on organic plants</li> <li>• Benefits:               <ul style="list-style-type: none"> <li>• Producers are able to use this certification by placing organic labels on the products at reasonable prices.</li> <li>• Consumers are more confident to use organic food products that do not have any chemical substances.</li> <li>• Able to minimize the environmental pollution because the use of pesticides and fertilizers is not allowed.</li> <li>• Safeguarding the farmers from adverse side effects.</li> </ul> </li> </ul>
3.	Good Farm Practice Scheme Malaysia (SALM)	<ul style="list-style-type: none"> <li>• The certification scheme granted to acknowledge the farm that practices Good Farm Practice (MyGAP)</li> </ul>

		<ul style="list-style-type: none"> <li>• Farm-based acknowledgment that is environmentally friendly, upholding the welfare and security of the employees</li> <li>• Benefit to the production of agricultural products that are quality and safe.</li> </ul>
4.	Livestock Farm Accreditation Scheme (SALT)	<ul style="list-style-type: none"> <li>• This scheme is specific to the breeders who carry out husbandry activities that adhere with Good Animal Husbandry Practice (GAHP).</li> <li>• The purpose of creating food products based on livestock products that are safe and quality to eat</li> </ul>

Source: Ministry of Agriculture and Agro-Based Industry Malaysia (2016)

Table 1 shows there are four accreditations and certifications given to the farmers and breeders involved as the effort by the Ministry of Agriculture and Agro-Based Industry Malaysia to encourage sustainable agricultural approach. Overall the certification is a form of driving program to spur the sustainable agricultural practice. There are three main elements found in the program outcome namely the preservation of the environment, increased quality and safety of the food and safety of farm workers. Apart from that, sustainable agricultural practice is closely related to the preservation of the environment and food security (Mohamed, Terano, Shamsudin & Latif, 2016).

The element of the environmental preservation between the main elements detected is successfully done through sustainable agricultural practice. MyGAP used in the agricultural, aquaculture and livestock industries that stress on environmentally friendly environment, also sustainable national agricultural industry. As the outcome, MyGAP certification is given to 746 farmers from 278,628 farmers (Mohamed, Terano, Shamsudin & Latif, 2016:2) who have successfully implemented sustainable agricultural practice in their respective agricultural activity. However, according to Shobri, Sakip and Omar (2016), good agricultural practice done in Malaysia can still be improved to ensure good quality of life.

The Malaysia Organic Scheme (SOM) and Good Farm Practice Scheme Malaysia (SALM) can be ascertained as the effort to increase the maintenance and the minimization of the negative externality to the environment. Organic agriculture gives an emphasis to the use of culture, biology and mechanical practice to preserve the land, water and air also minimizing the pollution as the effect of agricultural activities (Somasundram, Razali & Santhirasegaram, 2016). This can produce food materials that are safe and of good quality.

This can be seen through the benefits from MyGAP, Malaysia Organic Scheme (SOM) and Good Farm Practice Scheme Malaysia (SALM) and the Malaysia Livestock Farming Accreditation Scheme in terms of the food products quality. The food produced from this practice will create safer and more nutritious products to be consumed by consumers. With the certification, consumers will be more confident to use organic and safe products (Ministry of Agriculture and Agro-Based Industry Malaysia, 2016). Organic agriculture approach also minimizes the use of



external input like chemical fertilizers, pesticides to produce non-toxic crops (Tiraieyari, Hamzah & Samah, 2014:1).

Good working environment can also be formed using the sustainable practice. Based on the program done by the Ministry, all have exhibited the effort to bring good friendly environment to the point that a safe environment can be provided for the farmers and workers in the agriculture, livestock and aquaculture sectors. In the end, sustainable agricultural practice will serve as a holistic approach because there is an integration between social, economy and the environment (Murad, Mustapha & Siwar, 2008).

### **Analysis Based On Islamic Sustainable Development**

Sustainable agricultural practice in Malaysia shows the government's efforts in increasing food production. Observation finds that the element of the environmental preservation is given the same kind of attention in executing sustainable agricultural activities. In general, Islamic sustainable development translates the unification of the relationship between the Creator, humans and the environment (Baharuddin, 2017; Dariah, 2016; al-Jayyusi, 2012 & 2017).

The command of preserving the environment is compatible with the role of the humans as the Caliphs of Allah SWT and the servants of Allah SWT in the Islamic sustainable development. In line with this, the sustainable agricultural practice adheres with the Islamic sustainable development as the government has suggested that the farmers to use sustainable development practice through MyGAP, Malaysia Organic Scheme, Malaysia Good Farming Scheme and Malaysia Livestock Farming Accreditation Scheme which are seen as the best initiatives in preserving the environment. As established in al-A'raf verse 58, Karim (HAMKA) (1983) interprets that humans are commanded to regulate the natural resources granted by Allah SWT to develop both the agriculture and industry.

*And the good land - its vegetation emerges by permission of its Lord; but that which is bad - nothing emerges except sparsely, with difficulty. Thus do We diversify the signs for a people who are grateful. (al-A'araf, 7:58)*

Continuous and sufficient food production for the human needs is the main agenda that must be prioritised through agricultural activities. Thus, Allah SWT has granted various natural resources for human use. In An-Nahl, 16 verses 10 and 11 through the interpretation of the ayah (HAMKA), 1988:546), Allah SWT explains the benefit of rain to humans, for the drinking purpose, to grow plans and breed animals. Allah also creates fruits that show the prowess of Allah SWT.

*It is He who sends down rain from the sky; from it is drink and from it is foliage in which you pasture [animals]. He causes to grow for you thereby the crops, olives, palm trees, grapevines, and from all the fruits. Indeed in that is a sign for a people who give thought. (An-Nahl, 16: 10-11)*

HAMKA (1988) interpreted this verse also shows that the power of Allah SWT gives sustenance to humans to take the benefit from it to serve the agricultural and livestock activities. Allah SWT asks people to think and reflect in His creation for people to be aware and to appreciate the grandness of Allah SWT. Through this, people start building the confidence and believing in the

existence of Allah SWT. Through the agricultural activity, it creates a close relationship with the Creator through human observation towards the seedlings' growth until they grow and can produce (Norwawi, 2006:7).

People also have to ensure that the environment can be accessed by the future generations when using it for development (Ma'abdeh, t.t.). This shows that Islamic sustainable development prioritizes human to human relationships using the environment as the medium. As stressed in MyGAP, Malaysian Organic Scheme, Malaysian Good Farming Scheme and Malaysian Livestock Farming Accreditation Scheme will ensure the sustainability of the food production and simultaneously, preservation of the environment.

The emphasis on the elements of safety and quality in food products is harmonious with the commands of Allah SWT. The same is highlighted in the sustainable agricultural practice program in Malaysia. However, the element of halal stays as the priority and serves to be an obligation to all Muslims (Kashim, Majid, Adnan, Husni, Nasohah, Samsudin & Yahaya, 2015).

The concept of halal is related to the aspect of food quality and it involves the element of humans and their practices (Hasan & Dahlal, 2016:44). Referring to this emphasis, food quality should contain halal elements and they should be good to eat. The range of safe and quality food can be obtained through the implementation of organic agriculture. Organic-based food products still become the priority for consumers because they want food products that are free from chemical substance compared to conventional agriculture (Somasundram, Razali & Santhirasegaram, 2016:1).

As a whole, the sustainable agricultural practice program by the Ministry of Agriculture and Agro-Based Industry Malaysia showcases consistency with the Islamic sustainable development. However, philosophically, the program is not found to be connected with the emphasis towards the Creator who is Allah SWT. Nevertheless, the practical implementation establishes the effort to develop the natural resources granted by Allah SWT the best way possible using the sustainable agriculture approach. There are the elements of the environmental preservation, also social and economic preservation created through the sustainable agricultural practice program by the Ministry of Agriculture and Agro-Based Industry Malaysia.

### **Conclusion**

To conclude, the MyGAP, Malaysian Organic Scheme, Good Farming Scheme Malaysia and the Malaysian Husbandry Accreditation Scheme programs become an indicator to the national success where it is able to integrate the environment, economy and social. This integration closely caters for the Islamic sustainable development but there is still a gap from the philosophical stance because there is no connection with the Creator who is Allah SWT in executing sustainable agricultural practice. This effort should become catalytic to a more holistic approach by including the element of Allah SWT as the Creator and the element of halal in the implementation of the sustainable agricultural practice.

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