

EMPOWERING FARMERS' INDEPENDENCE AND BOOSTING LOCAL ECONOMY THROUGH REGENERATIVE FARMING AND ISLAMIC CONTRACTS IN GOA VILLAGE, WEST SUMBAWA

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Submit :	Received :	Review :	Published :
24 Oktober 2023	27 November 2023	26 Oktoberber 2023	15 Desember 2023
DOI	https://doi.org/10.47625/fitua.v4i2.538		

ABSTRACT

The current conventional agriculture practice cannot be separated from industrialized. This can be seen from farmers' dependence on input materials such as seeds, synthetic fertilizers, and synthetic pesticides. Industrialists then use the powerlessness of these farmers to continue to make them dependent and require planting costs that can be avoided, especially concerning these inputs. In Islam, the farmer is called *fallahun*, which means success, glory, and happiness. Through regenerative farming, farmers' problems related to dependence on planting inputs can be reduced or even eliminated. Besides, it can also develop the local economy and be ensured that regenerative farming cannot cause environmental damage as caused by conventional farming. In addition, Islam is very concerned with the development of agriculture, which is marked by the availability of specific agricultural contracts, such as *musaqah*, *muzara'ah*, and *mukhabarah*, also other partnership contracts, such as *mudharabah* and *musyarakah*. Therefore, this paper will discuss how Islam views conventional agriculture and how farmers can gain independence through regenerative farming and Islamic understanding, which can boost the local economy. This qualitative study uses the descriptive-analytical method and a literature review.

ABSTRAK

Praktik pertanian konvensional saat ini tidak bisa dipisahkan dari industri. Hal ini terlihat dari ketergantungan petani terhadap bahan input seperti benih, pupuk sintetik, dan pestisida sintetik. Para industrialis kemudian memanfaatkan ketidakberdayaan para petani tersebut untuk terus membuat mereka bergantung dan membutuhkan biaya tanam yang bisa dihindari, terutama terkait input tersebut. Dalam Islam, petani disebut *fallahun* yang artinya sukses, mulia, dan bahagia. Melalui pertanian regeneratif, permasalahan petani terkait ketergantungan terhadap input tanam dapat dikurangi bahkan dihilangkan. Selain itu juga dapat mengembangkan perekonomian lokal dan dipastikan pertanian regeneratif tidak menyebabkan kerusakan lingkungan seperti yang ditimbulkan oleh pertanian konvensional. Selain itu, Islam sangat memperhatikan pembangunan pertanian, yang ditandai dengan tersedianya akad pertanian tertentu, seperti *musaqah*, *muzara'ah*, dan *mukhabarah*, serta akad kemitraan lainnya, seperti *mudharabah* dan *musyarakah*. Oleh karena itu, tulisan ini akan membahas bagaimana Islam memandang pertanian konvensional dan bagaimana petani dapat memperoleh kemandirian melalui pertanian regeneratif dan pemahaman Islam, yang dapat meningkatkan perekonomian lokal. Penelitian kualitatif ini menggunakan metode deskriptif-analitis dan tinjauan pustaka.

Keywords : *Fallahun, Islamic Contracts, Agriculture, Organic Farming, Local Economy*

INTRODUCTION

It is said that Industrialization is part of the modernization process in which social change and economic development are closely related to technological innovation. The economic growth of a region can be seen from how much the industrial sector contributes to its economic growth. Because industry and economic growth are two sides of a coin, because industry is synonymous with added value, technology transfer and employment are prerequisites for economic growth.¹

Industrialization is characterized by transforming from a primarily agricultural economy into a more specialized and capital-intensive economy. Such a transformation called the Industrial Revolution in Western Europe and North America during the 18th and 19th centuries markedly increased material prosperity.² Therefore, since the end of the economic depression in 1929, especially since World War II, the economic development policies of a newly emerging country have been directed through Industrialization.

As an agrarian country, many villages in Indonesia still rely on their economy based on agriculture.³ However, conventional agriculture is still being industrialized by forcing farmers to become dependent on highly synthetic chemicals as inputs, including seeds.⁴ Those inputs, such as all kinds of fertilizers and pesticides, not only harm the environment and farmer's health but also lead to the high cost, which farmers need more capital to afford.^{5,6}

Conventional agriculture also can be defined as degenerative agriculture. Degenerative agriculture is an agricultural practice that causes productivity to decline due to a decrease in the carrying capacity of agroecosystems, including soil, plants, and other flora, fauna, microbes, climate, and society. The decrease in soil carrying capacity is shown, among other things, by land degradation, decreased organic matter content, and nutrient availability in the

¹ N. Wathan, "Industrialisasi: Masa Depan NTB," January 25, 2021, <https://Disperin.Ntbprov.Go.Id/?P=3190>.

² H. Heaton, "Industrial Revolution. En «Encyclopedia of Social Sciences». Vol," VIII. Londres (1932): 57.

³ Dyah Ita Mardiyangsih and Arya Hadi Dharmawan, "Dinamika Sistem Penghidupan Masyarakat Tani Tradisional Dan Modern Di Jawa Barat," *Sodality: Jurnal Sosiologi Pedesaan* 4, no. 1 (2010), accessed November 27, 2023, <https://journal.ipb.ac.id/index.php/sodality/article/view/5850>.

⁴ Ir Mubiar Purwasasmita and Ir Alik Sutaryat, *Padi Sri Organik Indonesia (Edisi Revisi)* (Penebar Swadaya Grup, 2014), accessed November 27, 2023, [https://books.google.com/books?hl=id&lr=&id=ixAwBwAAQBAJ&oi=fnd&pg=PA3&dq=Purwasasmita,+M.,+%26+Sutaryat,+A.+\(2014\).+Padi+SRI+Organik+Indoensia.+Penebar+Swadaya&ots=ei6FbuQZgA&sig=FhqMrLtEnoDbWgRSLxNs3jJ9VZk](https://books.google.com/books?hl=id&lr=&id=ixAwBwAAQBAJ&oi=fnd&pg=PA3&dq=Purwasasmita,+M.,+%26+Sutaryat,+A.+(2014).+Padi+SRI+Organik+Indoensia.+Penebar+Swadaya&ots=ei6FbuQZgA&sig=FhqMrLtEnoDbWgRSLxNs3jJ9VZk).

⁵ M. T. Luik, Ahlis Fatoni, and Muhammad Fakhrrurrazi Ahmad, "Utilising Permaculture to Develop Abandoned Waqf Land in Resolving Food Insecurity in Indonesia," *Albukhary Social Business Journal (ASBJ)* 2, no. 2 (2021): 60–70.

⁶ Purwasasmita and Sutaryat, *Padi Sri Organik Indonesia (Edisi Revisi)*.

soil due to depletion of nutrients transported by harvest, erosion, and inappropriate cultivation practices.⁷ Excessive application of inorganic fertilizers and pesticides will impact soil microbes⁸, meso, and soil macrofauna⁹.

In increasing and maintaining productivity so that it does not decrease, it is necessary to provide an ever-increasing number of inputs such as land preparation, use of water, fertilizers, and pesticides¹⁰ which can damage the environment. Hence, optimization is necessary. The dependence of farmers on the inputs which high cost resulted in the need for capital to the farmer. Unfortunately, many farmers' capital is based on the *riba* contract even though they are Muslim. This is another disaster caused by conventional agriculture where *riba* is against Shariah and proved that *riba* is unsuitable for the economy.¹¹

In contrast, Islam views farmers as *fallahun*, which means success, glory, and happiness.¹² In line with the surah al-Baqarah verse 30, Allah sends humans to earth to prosper the earth, not to cause damage as is caused by conventional agriculture. In addition, it is recorded in the book of *Al-Filaha* or the book of agriculture, written in the 6th century H (12 AD) by Abu Zakariyyah Yahya b. Muhammad, better known as Ibn Al-Awwam (died 580H or 1185 AD), about all the guidance in agriculture.¹³

In the scientific tradition, Ibn Khaldun, in his "*Mukhaddimah*," stated that agriculture is the oldest science and has been paid attention to by the Ulama' long ago. Then, during the "Golden Age," agricultural science and technology also developed.¹⁴ A dissertation entitled "Contribution of Medieval Arab, Muslim Scientists to Botany and Agriculture," written by Rohma at the Department of Islamic Studies, Aligarh Muslim University gives a clear picture of how Muslim agronomists contribute to the development of agricultural science in

⁷ Z. X. Tan, R. Lal, and K. D. Wiebe, "Global Soil Nutrient Depletion and Yield Reduction," *Journal of Sustainable Agriculture* 26, no. 1 (June 14, 2005): 123–146.

⁸ Pratibha Prashar and Shachi Shah, "Impact of Fertilizers and Pesticides on Soil Microflora in Agriculture," in *Sustainable Agriculture Reviews*, ed. Eric Lichtfouse, vol. 19, Sustainable Agriculture Reviews (Cham: Springer International Publishing, 2016), 331–361, accessed November 27, 2023, http://link.springer.com/10.1007/978-3-319-26777-7_8.

⁹ Samukelisiwe G. Zulu et al., "Soil Macrofauna Abundance and Taxonomic Richness under Long-Term No-till Conservation Agriculture in a Semi-Arid Environment of South Africa," *Agronomy* 12, no. 3 (2022): 722.

¹⁰ Christopher J. Rhodes, "The Imperative for Regenerative Agriculture," *Science Progress* 100, no. 1 (March 2017): 80–129.

¹¹ Mega TR Luik and Ahlis Fatoni, "Revisiting Analysis of the Root Causes on Financial Crisis in Islamic Perspective," *Journal of Islamic Monetary Economics and Finance* 4, no. 1 (2018): 39–60.

¹² Luik, Fatoni, and Ahmad, "Utilising Permaculture to Develop Abandoned Waqf Land in Resolving Food Insecurity in Indonesia."

¹³ M. Iqbal, "Ringkasan Kitab Al-Filaha (Jilid I)," 2015, <https://Hidayatullah.Com/Kolom/Ilahiyah-Finance/2015/05/08/69407/Ringkasan-Kitab-al-Filaha-Jilid-i.Html>.

¹⁴ D. Rita Nurmala, "Membangun Kejayaan Pertanian Dengan Al Quran," *Antologi Essay* 20 (2019).

civilization Islam during the Middle Ages where these Islamic agronomists took inspiration from the Koran to conduct studies on living plants well.¹⁵

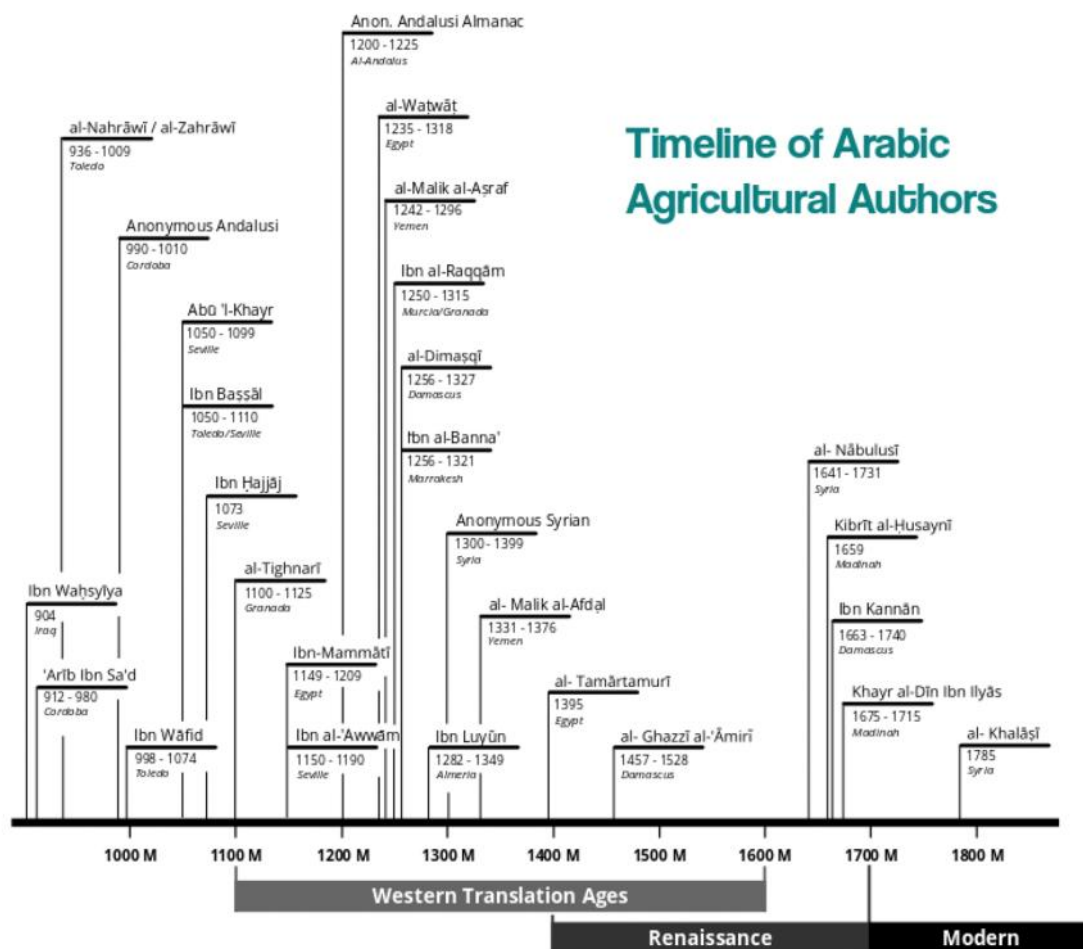


Figure 1. Timeline of Islamic Agronomists who wrote books on Agriculture¹⁶

In addition, Islam already had a specific agricultural contract, namely, *musaqah*, *muzara'ah*, and *mukhabarah*. Al-Zuhaili (n.d) defined *musaqah* as a contract of cooperation with other people, which applies to maintaining date palms or grapes only. The treatment includes watering and *al-tarbiyah* (land management) with a profit-sharing agreement on the successfully harvested/picked fruit. While *muzara'ah* and *mukhabarah* almost similar. The difference lies in the source of origin of the seed. If at *mukhabarah*, the seeds come from the manager. Meanwhile, in *muzara'ah*, the seeds come from the landowner.¹⁷

In the modern term, regenerative agriculture (RA) is close to the meaning of *al-filaha* or tries to bring the meaning of *fallahun*. Regenerative agriculture is the latest phrase from the

¹⁵ Rohma, “Contribution of Medieval Arab, Muslim Scientists to Botany and Agriculture” (Aligarh Muslim University, 2008).

¹⁶ Filaha.org

¹⁷ Rita Nurmala, “Membangun Kejayaan Pertanian Dengan Al Quran.”

concept of sustainable agriculture (SA). The initial idea of this concept emerged in the 80s but has been widely discussed since 2016, especially since it has been widely adopted by NGOs (Non-Government Organizations), corporations, and foundations.¹⁸¹⁹ This concept's fundamental principles include conservation agriculture, integrated agriculture, soil health restoration, and the terrestrial biosphere's recarbonization.²⁰ In summary, Regenerative agriculture is a systems approach to farming that builds soil health by supporting biodiversity above and below ground to return carbon and nutrients to the soil, achieving yields without any synthetic chemicals input.²¹

Diversity can maintain and increase soil fertility and reduce the impact of pests and diseases. Agricultural biodiversity will also be critical to addressing the predicted impact of climate change, not only as a resource for traits but as the foundation for more resilient agricultural ecosystems.²² The interactions between plants, herbivorous insects, and their natural enemies are related to the availability of food sources. These trophic interactions are related to the emergence and development of certain pests.²³ In addition²⁴, stated that the conventional paddy plantation yields 4.5 tons per hectare. However, it may reach a minimum of 7 tons per hectare by implementing the non-synthetic fertilizer and pesticides, meaning there is an increase of 55% yield.

Goa village is located in Jereweh District at the western tip of Sumbawa Island with 17km²²⁵. As an agricultural area, where Goa is primarily agricultural land, it is very appropriate if the government seeks to develop the agricultural sector in its development. Based on²⁶, there is 858.4 ha of harvested paddy area in Jereweh, while all the agriculture area is 1,274 ha. Apart from the fact that most of its territory is an agricultural area, it is also because it cannot be separated from the agricultural products themselves, where the superior agricultural

¹⁸ John Ikerd, "THE ECONOMIC PAMPHLETEER: Realities of Regenerative Agriculture," *Journal of Agriculture, Food Systems, and Community Development* 10, no. 2 (2021): 7–10.

¹⁹ Ken E Giller et al., "Regenerative Agriculture: An Agronomic Perspective," *Outlook on Agriculture* 50, no. 1 (March 2021): 13–25.

²⁰ Rattan Lal, "Regenerative Agriculture for Food and Climate," *Journal of soil and water conservation* 75, no. 5 (2020): 123A-124A.

²¹ Ravjit Khangura et al., "Regenerative Agriculture—A Literature Review on the Practices and Mechanisms Used to Improve Soil Health," *Sustainability* 15, no. 3 (2023): 2338.

²² Emile A. Frison, Jeremy Cherfas, and Toby Hodgkin, "Agricultural Biodiversity Is Essential for a Sustainable Improvement in Food and Nutrition Security," *Sustainability* 3, no. 1 (2011): 238–253.

²³ A. Wenda-Piesik and D. Piesik, "Diversity of Species and the Occurrence and Development of a Specialized Pest Population—A Review Article. Agriculture 2021, 11, 16," *Productive and Ecological Aspects of Mixed Cropping System* (2020): 103.

²⁴ Purwasmita and Sutaryat, *Padi Sri Organik Indonesia (Edisi Revisi)*.

²⁵ Badan Pusat Statistik Kabupaten Sumbawa Barat, *Kabupaten Sumbawa Barat Dalam Angka 2023* (Sumbawa Barat, February 28, 2023), <https://sumbawabaratkab.bps.go.id/publication/2023/02/28/33a3d801d87cab8e3c50428b/kabupaten-sumbawa-barat-dalam-angka-2023.html>.

²⁶ Badan Pusat Statistik Kabupaten Sumbawa Barat, *Kabupaten Sumbawa Barat Dalam Angka 2023*.

commodity to Goa is paddy.²⁷ Therefore if the farmer in Goa can shift from conventional agriculture to regenerative agriculture with Islamic contracts, it will surpass the capital. At the same time, the yield will increase and may boost the local economy.

METHODOLOGY

This qualitative study uses the descriptive-analytical method and a literature review. The library research method is a way to collect data by studying and understanding information closely related to the problem from books, theories, and documents. This study collected data from secondary sources such as journals, books, official websites, and other related materials about Islamic agriculture, Islamic contracts on agriculture, regenerative agriculture, and conventional agriculture. The use of these two research methods will further clarify the urgency of research in the context of its novelty. so that the results shown are not only theoretical, but also real conditions in the field.

RESULTS AND DISCUSSION

Islam's Views on Conventional/Degenerative Agriculture

Islam, the religion that hundreds of millions of Muslims profess and adhere to, is a way of life that guarantees the happiness of its adherents in this world and the hereafter. It has one main joint essential to give the best possible directions. This is in line with the word of Allah ta'ala in Surah Al-Isra verse 9

Indeed, this Qur'an guides to that which is most suitable and gives good tidings to the believers who do righteous deeds that they will have a great reward.

Islam teaches that humans have two predicates: a servant of Allah (*'abduallah*) and a representative of Allah (*khalifatullah*) on earth. As servants of God, he only has to worship and surrender to Him. But as *khalifatullah*, humans, as His representatives on earth, have enormous responsibility and authority, as stated in al-Baqarah verse 30. However, Allah ta'ala already reminds us not to do corruption to the earth, as in surah al-A'rah 56-58,

Do not spread corruption in the land after it has been set in order. And call upon Him with hope and fear. Indeed, Allah's mercy is always close to the good-doers. He is the One Who sends the winds ushering in His mercy. When they bear heavy clouds, We drive them to a lifeless land and then cause rain to fall, producing every type of fruit. Similarly, We will bring the dead to life, so perhaps you will be mindful. The fertile land produces abundantly by the Will of its Lord, whereas the infertile land hardly produces anything. This is how We vary 'Our' lessons to those who are thankful. (QS. Al-a'raf:56-58)²⁸

²⁷ Binar Dwiyanto Pamungkas, A. Asmini, and Muhammad Kevin, "Identifikasi Komoditas Unggulan Pertanian Untuk Pengembangan Ekonomi Daerah Tertinggal Di Kabupaten Sumbawa Barat," *Jurnal Ekonomi & Bisnis* 10, no. 1 (2022): 19–30.

²⁸ Al-Qur'an Kementerian Agama RI, *Al-Qur'an Dan Terjemahannya* (Jakarta: Lajnah, 2015).

It aligns with conventional or degenerative agriculture, which has many environmental costs. For instance, It may increase toxic in environment²⁹ soil pollution,^{30,31,32} water pollution^{33,34,35}, and air pollution. It also incurred health costs for both farmers and consumers. It may lead to cancer^{36,37}, diabetes³⁸ and chronic respiratory diseases.³⁹

In addition, conventional farming also requires high costs to obtain inputs. So the majority of agricultural credit was held based on interest. Agricultural credit for farmers is not a blessing but a disaster. The situation will be even more deplorable for landless farm workers. Even though it is still accepted to work in the fields, the conditions are very different compared to the period before the modernization of agriculture. Because of new technology in rice cultivation, their labor is no longer needed as much as in the past. As a result, their wages tend to fall behind. Even in parts of Java, they have fallen by up to 30% for several years. Thus, instead of helping small farmers and farm workers, agricultural credit causes suffering. Because of the modernization of agriculture, there is a change in the behavior of rice production. If before there was agricultural modernization, every villager had the right to participate in the process of planting and harvesting rice in his village. After modernization, landowners can limit and choose the closest neighbors to participate in planting and harvesting rice.⁴⁰

Two factors cause this condition. The first factor, using artificial fertilizers obtained through credit, has caused land-owning farmers to become 'greedy'. They are required to return

²⁹ Les G. Firbank and Frank Forcella, "Genetically Modified Crops and Farmland Biodiversity," *Science* 289, no. 5484 (September 2000): 1481–1482.

³⁰ Niva Dutta and Manashi Bortamuly, "Pesticides and Its Effect on Health and Environment," *International Journal of Research and Analytical Reviews* 5, no. 4 (2018): 57–59.

³¹ Y. Habib, "Effect of Agrochemicals on Environment, Health, and Safety: Assessment from Smallholder Farmers Standpoint," *Elixir Agric* 138 (2020): 54069–54075.

³² IAEA, "Agrochemicals: Fate in Food and The Environment," 1982.

³³ Assouman Amadou et al., "Impacts of Agrochemicals on Water Quality Parameters in Aboisso Region (South-East of Cote d'Ivoire)," *Current Journal of Applied Science and Technology* 39, no. 46 (2020): 1–19.

³⁴ Alex Medani, "Pola Hubungan Agama Dengan Negara Menurut Farag Faouda Dalam Siyayah Syar'iyah," *Jurnal al-Hurriyah* 2, no. 2 (2017).

³⁵ O. D. Jimoh, M. A. Ayodeji, and B. Mohammed, "Effects of Agrochemicals on Surface Waters and Groundwaters in the Tunga-Kawo (Nigeria) Irrigation Scheme," *Hydrological Sciences Journal* 48, no. 6 (December 2003): 1013–1023.

³⁶ Joseph A. Adeyemi et al., "Pesticides-Induced Cardiovascular Dysfunctions: Prevalence and Associated Mechanisms," *Current Hypertension Reviews* 17, no. 1 (2021): 27–34.

³⁷ Giller et al., "Regenerative Agriculture."

³⁸ Martin Rune Hassan Hansen, "Exposure to Pesticides in Present-Day Use, Diabetes Mellitus and Lung Function Impairment," *Aarhus, Denmark: Environment, Work and Health, Danish Ramazzini Centre, Department of Public Health, Aarhus University* 10 (2020), accessed November 27, 2023, https://www.researchgate.net/profile/Martin-Hansen-6/publication/341000967_Exposure_to_pesticides_in_present-day_use_diabetes_mellitus_and_lung_function_impairment/links/5ea9513e92851cb26763041b/Exposure-to-pesticides-in-present-day-use-diabetes-mellitus-and-lung-function-impairment.pdf.

³⁹ Neice Müller Xavier Faria et al., "Pesticides and Respiratory Symptoms among Farmers," *Revista de saúde pública* 39, no. 6 (2005): 973–981.

⁴⁰ William L. Collier et al., "Acceleration of Rural Development of Java," *Bulletin of Indonesian Economic Studies* 18, no. 3 (November 1982): 84–101.

the credit they have received so that their agricultural land is cultivated to be more productive and give maximum results. This condition makes them neglect their traditional obligations because landowners can rely on a new power source to replace the traditional ties previously used together. Village social sanctions can no longer be used to force landowners to hire neighbors to work in their fields.⁴¹

Thus, current conventional agriculture can be categorized as a tyranny or injustice system that does not comply with the Shariah. Injustice is putting something out of place. Allah forbids tyranny among His servants. Likewise, Allah forbids it in Himself Because this nature is contrary to the justice of Allah, contrary to the name of Allah Al-Hakim (The Most Wise). From Abu Dzar *radhiallahu' anhu*, from the Messenger of Allah ta'ala about what the Messenger of Allah narrated from Allah ta'ala that Allah said,

"O My servants, verily I have forbidden injustice to Myself, and I have forbidden injustice among all of you, so do not wronged each other." (Muslim, no. 2577)⁴²

Thus, regenerative agriculture is a solution to degenerative agriculture. Degenerative agriculture is a type of farming that depletes the soil and the environment. It uses tillage, chemical fertilizers, and pesticides, which can damage the soil, pollute the water, and harm wildlife. Regenerative agriculture, on the other hand, is a type of farming that restores the soil's and the environment's health. It uses practices such as cover cropping, crop rotation, and no-till farming, which can improve the soil, clean the water, and increase biodiversity. Add again with Islamic agricultural contracts that can prevent the practice of *riba* will make the agriculture system justice for farmers.

Regenerative Agriculture Model Based on Islamic Contracts in Empowering Farmer's Independence and Boosting Local Economy

The proposed Model to be applied in Goa is a holistic approach that combines regenerative agriculture practices with Islamic contracts to empower farmers and boost the local economy. With its rich agricultural heritage and diverse ecosystem, Goa provides an ideal environment for implementing this innovative Model. By prioritizing regenerative agricultural techniques such as organic farming, agroforestry, and soil conservation, farmers in Goa can restore soil health, enhance biodiversity, and reduce dependence on harmful chemical inputs. This sustainable approach protects the environment and improves agricultural produce's quality and nutritional value, benefiting both farmers and consumers.

⁴¹ Gordon P. Temple, "Munduranya Involusi Pertanian: Migrasi, Kerja Dan Pembagian Pendapatan Di Pedesaan Jawa," *Prisma* 5, no. 3 (1976): 18.

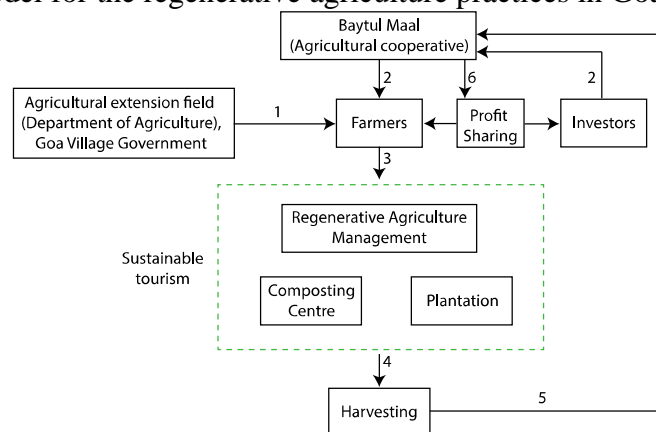
⁴² Terjemah Shahih Muslim, "Shahih Muslim," *STUDI KITAB HADIS: Dari Muwaththa' Imam Malik Hingga Mustadrak Al Hakim* 54 (2020), accessed November 27, 2023, <https://books.google.com/books?hl=id&lr=&id=VeoOEAAAQBAJ&oi=fnd&pg=PA54&dq=kitab+muslim&ots=wbnV-GOUPB&sig=9pTd9SnWcz-EYeC2g2Fag5S9rT8>.

In addition to regenerative agriculture, integrating Islamic contracts into the local economic framework offers a fair and transparent system for financial transactions. Not only limited to the *musaqah*, *muzara'ah*, and *mukhabarah*, other Islamic contracts, such as the concept of Mudarabah (profit-sharing)⁴³ and Musharakah (partnership)⁴⁴, emphasize shared risks and rewards. These principles promote equitable distribution of wealth and discourage exploitative practices, fostering a more inclusive and just economic environment. By incorporating Islamic financial principles into agricultural transactions, farmers in Goa can access capital for investment, while investors can contribute to the development of the local agricultural sector.

The proposed Model enhances the resilience and profitability of farming operations and has a multiplier effect on the local economy. As farmers adopt regenerative practices and experience improved yields and product quality, they can expand their market reach and generate higher incomes. This, in turn, leads to increased economic activity within the community, with farmers reinvesting their profits locally. The Model also encourages the establishment of value-added processing industries, creating job opportunities and boosting the overall economic development of Goa.

Moreover, Goa can promote sustainable tourism and eco-friendly practices by embracing regenerative agriculture and Islamic contracts. Visitors will appreciate the region's commitment to environmental stewardship and ethical agriculture, resulting in increased tourist engagement and revenue. The Model also supports the preservation of Goa's cultural heritage, as it aligns with the principles of sustainable and ethical living deeply rooted in the local traditions.

The proposed Model for the regenerative agriculture practices in Goa is,



⁴³ Dewan Syariah Majelis Ulama Indonesia, “Fatwa MUI Nomor 07/DSN-MUI/IV/2000 Tentang Pembiayaan Mudharabah (Qiradh)” (Jakarta, 1420), accessed November 27, 2023, <https://tafsirq.com/fatwa/dsn-mui/pembiayaan-mudharabah-qiradh>.

⁴⁴ Dewan Syariah Majelis Ulama Indonesia, “Fatwa MUI Nomor 08/DSN-MUI/IV/2000 Tentang Pembiayaan Musyarakah” (Jakarta, 1421), accessed November 27, 2023, <https://tafsirq.com/fatwa/dsn-mui/pembiayaan-musyarakah>.

Figure 2. Proposed Model for the regenerative agriculture practices in Goa Village

1. The Agricultural Extension Field of the Department of Agriculture in Goa and the Village Government will collaborate to launch an extensive campaign to educate farmers and investors about the benefits and principles of regenerative agriculture. Through workshops, seminars, and training sessions, farmers will know the importance of sustainable farming practices, soil health, biodiversity conservation, and water resource management. Investors will also be informed about the potential of regenerative agriculture and its positive impact on the local economy.
2. The campaign will introduce various agricultural contracts, such as Mudarabah and Musharakah contracts, in collaboration with Baytul Maal or agricultural cooperatives to attract interested investors. These contracts will outline the terms of investment and profit-sharing, ensuring transparency and ethical financial transactions. Interested investors can choose to invest in regenerative agriculture projects through these contracts, which will pool funds into a centralized investment pool.
3. Once the investment funds are available, farmers can access the capital to implement regenerative agriculture practices on their farms. The investment can be utilized to purchase organic seeds, adopt sustainable farming techniques, implement agroforestry, establish composting centers, and develop plantation sites. Promoting sustainable tourism, mainly through plantation and composting centers, can attract visitors, contributing to additional farmer revenue streams.
4. After implementing regenerative agricultural practices, farmers will harvest their crops. Implementing regenerative agriculture practices in Goa is expected to significantly increase the yield by approximately 55% compared to conventional agriculture methods. The significant increase in yield resulting from regenerative agriculture directly translates into higher revenue for the farmers. With a 55% boost in productivity, farmers can sell more crops and generate more income from their harvest. This increased revenue can uplift farmers' socio-economic status, enhance their financial independence, and contribute to the overall development of the local economy in Goa.
5. The harvested produce can be handed over to Baytul Maal or agricultural cooperatives for further processing and marketing or sold directly to customers. In the case of processing and marketing through Baytul Maal, revenue generated from the sales will be shared among the farmers and investors based on the agreed profit-sharing ratios. Alternatively, Baytul Maal can directly purchase the produce from farmers, providing them instant funds to distribute to the farmers and investors.
6. The revenue generated from the sales of processed agricultural products or the direct purchase by Baytul Maal will be utilized to distribute profits to the farmers and investors

involved in the regenerative agriculture project. Based on the predetermined terms in the agricultural contracts, the profit-sharing mechanism will ensure that farmers and investors receive a fair share of the generated profits, promoting a sense of equity and shared prosperity.

By following this comprehensive Model, which encompasses awareness campaigns, financial support through Islamic contracts, implementation of regenerative agriculture practices, and fair profit-sharing, Goa can create a sustainable agricultural ecosystem that empowers farmers, attracts investors, and boosts the local economy.

CONCLUSION

Regenerative agriculture is a solution to conventional agriculture. It can lead farmers to independently manage their land without needing external input such as chemical fertilizer, pesticides, and seeds. The combination of regenerative agriculture and Islamic contracts can be a powerful way to boost the local economy of Goa village. By using regenerative agriculture practices, farmers can improve the soil and the environment's health, leading to increased crop yields and improved water quality. By using Islamic contracts, farmers can access financing for their businesses and ensure that their profits are used ethically and sustainably. By embracing regenerative agriculture and its associated practices, farmers in Goa can tap into the full potential of their land while simultaneously fostering environmental sustainability. The substantial increase in crop yield is a testament to the effectiveness and viability of regenerative agriculture to improve farmer livelihoods and create a prosperous agricultural sector in the region.

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