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GLOBAL OVERVIEW OF ORGANIC FARMING: POST COVID-19 PANDEMIC

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ABSTRACT

In the dynamic field of organic agriculture, access to good quality data on organic farming helps to measure success toward achieving the Sustainable Development Goals and serves as a resource for sound analysis and informed decision-making by researchers, policymakers, industry actors and other stakeholders along the whole value chain. Data can also support the development of a favourable policy environment, reliable regulations and standards, as well as transparency in the organic sector. The current article disscuss an overview of organic farming from COVID 19 pandemic to the post pandemic era. The latest available data on organic agriculture worldwide show that 2021 was another good year for global organic agriculture. According to the latest FiBL survey on organic agriculture worldwide, organic farmland and organic retail sales continued to grow and reached another all-time high, as shown by the data from 191 countries.

Keywords: organic farming, organic produce, Tamil Nadu, benefits, sustainability.

1. INTRODUCTION

The COVID-19 pandemic has significantly impacted various aspects of our lives, with more emphasis on sustainability and positive psychology (Paul and Devi, 2021) including our food systems. As the world continues to grapple with the effects of the pandemic, there has been an increased interest and focus on organic farming as a sustainable and resilient approach to agriculture. Organic farming, which avoids the use of synthetic fertilizers, pesticides, and genetically modified organisms (GMOs), has gained momentum worldwide due to its potential to address various environmental, social, and economic challenges that have been highlighted by the pandemic. In this essay, we will provide a global overview of organic farming in the post-COVID-19 pandemic era, exploring its current status, challenges, and opportunities, as well as its potential to contribute to a more sustainable and resilient food system. Given that organic agriculture contributes substantially to all of the goals and strategies, this book not only shows the land area, number of producers and market figures; it also highlights the contribution of organic agriculture to tackling climate change, ensuring food and nutrition security, halting biodiversity loss, and promoting sustainable consumption and therewith its contribution to transforming food systems as a whole. Overall, the current article shows the potential of organic farming to contribute to a sustainable future. The latest available data on organic agriculture worldwide show that 2021 was another good year for global organic agriculture. According to the latest FiBL survey on organic agriculture worldwide, organic farmland and organic retail sales continued to grow and reached another all-time high, as shown by the data from 191 countries (data as of the end of 2021). Organic farming has been practiced for centuries, but it gained significant attention in the past few decades due to concerns about the negative impacts of conventional agriculture on the environment, public health, and rural livelihoods. The COVID-19 pandemic has further underscored these concerns and highlighted the need for more sustainable and resilient food systems that can adapt to shocks and crises. The pandemic has disrupted global food supply chains, exposed vulnerabilities in conventional agriculture, and heightened awareness about the importance of safe and nutritious food for human health. As a result, many consumers, farmers, and policymakers are turning to organic farming as a viable alternative that can help address these challenges and build a more sustainable and resilient food system in the post-pandemic world. The global organic farming sector has been growing steadily in recent years, and the pandemic has further accelerated this trend. According to the latest data from the Research Institute of Organic Agriculture (FiBL) and the International Federation of Organic Agriculture Movements (IFOAM), the global organic agricultural land reached 72.3 million hectares in 2020, representing a 1.5 million hectare increase compared to 2019. This growth has been observed in all continents, with Europe, Asia, and Latin America showing the highest increases in organic land. In terms of the number of organic producers, Asia has the largest share, followed by Africa and Europe. The top organic markets are in Europe and North America, with countries like Germany, France, and the United States leading in terms of organic retail sales. The global organic food and beverage market is projected to reach USD 327.8 billion by 2027, with a compound annual growth rate (CAGR) of 9.5% from 2020 to 2027, indicating a strong demand for organic products.One of the key drivers of the increasing demand for organic products is the growing consumer awareness and concern about the environmental and health impacts of conventional agriculture. The pandemic has heightened consumer awareness about the importance of safe and healthy food, and many consumers are turning to organic

products as a way to reduce their exposure to synthetic chemicals and promote a healthier lifestyle. Organic food is perceived to be free from harmful pesticides, GMOs, and antibiotics, and is often associated with improved taste, freshness, and nutritional value. Moreover, organic farming practices, such as crop rotation, composting, and agroforestry, are believed to promote biodiversity, soil health, and water conservation, which are critical for mitigating climate change and preserving natural resources. As a result, consumers are willing to pay a premium for organic products, and many retailers and food service providers are expanding their organic offerings to meet the growing demand. In addition to consumer demand, the COVID-19 pandemic has also highlighted the importance of local food systems and food sovereignty. The disruption of global food supply chains during the pandemic has exposed vulnerabilities in the conventional agriculture model, which relies heavily on long-distance transportation, centralized processing, and global trade. In contrast, organic farming often emphasizes local production, distribution, and consumption, which can reduce the reliance

2. CURRENT GLOBAL SCENARIO

In 2021, over 76.4 million hectares of organic agricultural land, including in-conversion areas, were recorded. The regions with the largest organic agricultural land areas are Oceania (36.0 million hectares – almost half the world's organic agricultural land pr 47 percent) and Europe (17.8 million hectares, 23 percent). Latin America had 9.9 million hectares (13 percent), followed by Asia (6.5 million hectares, 8.5 percent), Northern America (3.5 million hectares, 4.6 percent) and Africa (2.7 million hectares, 3.5 percent). Countries with the most organic agricultural land were Australia (35.7 million hectares), Argentina (4.1 million hectares) and France (2.8 million hectares). In 2021, 1.6 percent of the world's agricultural land was organic. The highest organic shares of the total agricultural land, by region, were in Oceania (9.7 percent) and in Europe (3.6 percent; European Union: 9.6 percent). Some countries reach far higher shares than the global share: Liechtenstein (40.2 percent), Samoa (29.1 percent) and Austria (26.5 percent) had the highest organic shares. In 20 countries, 10 percent or more of the agricultural land was organic – a new record. Organic farmland increased by 1.3 million hectares (1.7 percent) in 2021. Many countries reported a significant increase. In absolute terms, the biggest increases were in China, France and Spain: in China, organic farmland increased by almost 320'000 hectares (+13.1 percent), in France by nearly 228'000 hectares (+8.9 percent) and in Spain by almost 198'000 hectares (+8.1 percent). However, some countries also reported decreases. The most notable decrease occurred in Argentina, which reported almost 0.38 million hectares less (mainly grazing areas). In 2021, organic agricultural land increased in Africa, Asia, Europe and Oceania. The highest absolute growth was in Europe (+4.4 percent, +0.75 million hectares), followed by Africa (+17.3 percent, +0.39 million hectares) and Asia (+5.8 percent, +0.36 million hectares), while Latin America and North America reported a decrease of organic farmland. Land use and crop details were available for over 92 percent of the organic agricultural land. Some countries with very large organic areas, such as Brazil and India, had little or no information on their land use. Nearly two-thirds of the organic agricultural land was grassland/grazing areas (almost 50 million hectares), which decreased by 2.5 percent in 2021. With almost 14.8 million hectares, arable land constituted 19 percent of the organic agricultural land. An increase of 11.4 percent since 2020 was reported. Most of this category of land was used for cereals, including rice, followed by green fodder from arable land, oilseeds, textile crops and dry pulses. Permanent crops accounted for 8.1 percent of the organic agricultural land, amounting to over 6.2 million hectares. Compared to the previous survey, an increase of almost 829'000 hectares, or 15.4 percent, was reported. The most important crops were coffee, olives, nuts, grapes and cocoa. Apart from land dedicated to organic agriculture, there are further areas of organic land dedicated to other activities. The largest parts of these are wild collection areas and beekeeping areas. Further non-agricultural areas include aquaculture, forests and grazing areas on non-agricultural land. These areas totalled 31.8 million hectares, and all the organic areas together summed up to 108.3 million hectares.

3. ORGANIC COTTON

Based on our estimates, the 2020/21 global harvest saw 342'265 tonnes of organic cotton fibre produced on 621'691 hectares of certified organic land and 180'726 tonnes of inconversion cotton fibre produced on 293'204 hectares of land in-conversion to organic. Compared to 2019/20, this represents an estimated 37 percent growth in organic cotton fibre, meaning that 1.4 percent of all cotton grown is estimated to have been organic. Cotton is a crucial cash crop that provides livelihoods for millions of farmers and workers worldwide. However, conventional cotton production has been associated with significant environmental and social issues, such as excessive use of synthetic fertilizers and pesticides, water pollution, soil degradation, and labor abuses. In contrast, organic cotton is grown using environmentally-friendly and socially-responsible practices, making it an essential contributor to the economy in several ways. First and foremost, organic cotton meets the growing demand for sustainable and responsible textiles from consumers, retailers, and brands. There is an increasing awareness and concern about the negative impacts of conventional cotton production on the environment and society. Many consumers are seeking alternatives that are

produced without harmful chemicals and promote sustainability. Organic cotton is grown without the use of synthetic fertilizers, pesticides, or GMOs, and it adheres to strict organic certification standards that ensure its sustainability and traceability. This makes organic cotton a preferred choice for eco-conscious consumers, leading to increased market demand, higher sales, and improved brand reputation for businesses that offer organic cotton products.Second, organic cotton production promotes environmental sustainability, which is crucial for the long-term economic stability of cotton-producing regions. Conventional cotton production is heavily dependent on synthetic fertilizers and pesticides, which can cause soil degradation, water pollution, and loss of biodiversity. In contrast, organic cotton production relies on natural methods such as crop rotation, composting, and biological pest control, which promote soil health, water conservation, and biodiversity conservation. This helps to preserve the productivity and resilience of cotton fields, ensuring sustainable cotton production in the long run and contributing to the economic well-being of farmers. Third, organic cotton supports social responsibility and fair labor practices, which are important for the welfare of farmers and workers in cotton-producing regions. Conventional cotton production has been associated with labor abuses, including child labor, unsafe working conditions, and low wages, leading to human rights violations and negative impacts on local communities. In contrast, organic cotton production adheres to strict social and labor standards, including fair wages, safe working conditions, and respect for land rights and indigenous rights. This promotes social responsibility, social equity, and community development, contributing to inclusive and sustainable economic growth in cotton-producing regions.Furthermore, the shift towards organic cotton production can also lead to reduced healthcare costs for cotton farmers and workers. Conventional cotton production involves the use of hazardous chemicals, which can pose health risks to farmers and workers who are exposed to them. Organic cotton production eliminates the use of these harmful chemicals, reducing the risk of health issues associated with chemical exposure and thus lowering healthcare costs for cotton farmers and workers. In conclusion, organic cotton plays a vital role in the economy by providing a sustainable and responsible alternative to conventional cotton production. It addresses the growing demand for sustainable textiles, promotes environmental sustainability, supports social responsibility and fair labor practices, and reduces healthcare costs for farmers and workers. Organic cotton is not only a responsible choice for businesses and consumers, but it also contributes to the long-term economic stability and well-being of cotton-producing regions.

5. ORGANIC PALM OIL

Bernet and van den Berge(2021) provide an analysis of the current market situation of organic palm oil, of which more than 20’000 metric tons were imported into the European Union in 2021. They expect the efforts to promote the production of sustainable palm oil to continue and that in countries where this debate is more advanced, consumers will be increasingly aware that private organic standards help ensure that palm oil is produced in contexts and ways that are favourable for having positive environmental and social impacts. Palm oil is one of the most widely used vegetable oils in the world, with a wide range of applications in various industries such as food, cosmetics, and biofuels. However, the conventional production of palm oil has been associated with deforestation, habitat destruction, social conflicts, and labor abuses, leading to increasing demand for sustainable alternatives such as organic palm oil. Organic palm oil is produced using environmentally-friendly and socially-responsible practices that prioritize biodiversity conservation, soil health, and fair labor practices. Organic palm oil is cultivated without the use of synthetic fertilizers, pesticides, or genetically modified organisms (GMOs), and it adheres to strict organic certification standards that ensure its sustainability and traceability. This makes organic palm oil an important contributor to the economy in several ways.First, organic palm oil provides a viable alternative for consumers who are concerned about the environmental and social impacts of conventional palm oil production. The demand for sustainable and responsibly-produced palm oil has been growing steadily, with many food and consumer goods companies committing to sourcing certified sustainable palm oil (CSPO) to meet consumer expectations and comply with sustainability commitments. Organic palm oil offers a premium product that meets these requirements and allows businesses to access niche markets that value sustainability, contributing to increased sales and brand reputation. Second, organic palm oil promotes biodiversity conservation and environmental sustainability, which are crucial for long-term economic stability. Conventional palm oil production has been linked to deforestation, habitat destruction, and loss of biodiversity, resulting in negative impacts on ecosystems, wildlife, and climate change. In contrast, organic palm oil production practices prioritize biodiversity conservation, including the protection of native forests, wildlife habitats, and water resources. This contributes to the preservation of ecosystem services that are vital for agriculture, such as pollination, pest control, and climate regulation, ensuring the resilience and sustainability of the agricultural sector in the long run.Third, organic palm oil supports social responsibility and fair labor practices, which are important for the well-being of farmers and workers in palm oil-producing regions. Conventional palm oil production has been associated with land grabbing, labor abuses, and social conflicts, leading to human rights violations and

negative impacts on local communities. Organic palm oil production adheres to strict social and labor standards, including fair wages, safe working conditions, and respect for land rights and indigenous rights. This promotes social responsibility, social equity, and community development, contributing to inclusive and sustainable economic growth in palm oil-producing regions. In summary, organic palm oil plays an important role in the economy by providing a sustainable and responsible alternative to conventional palm oil production. It contributes to increased market demand, biodiversity conservation, environmental sustainability, and social responsibility, which are essential for the long-term economic stability and well-being of farmers, workers, and local communities.

6. ORGANIC FRUITS AND VEGETABLES

Organic agriculture has gained significant attention in recent years as consumers and farmers alike seek more sustainable and healthy food options. Organic fruits and vegetables, in particular, have become increasingly popular due to their numerous benefits for human health, the environment, and local economies. In this article, we will explore the importance of organic fruits and vegetables in the economy. First and foremost, organic fruits and vegetables are considered healthier options for consumers. Organic farming practices prohibit the use of synthetic pesticides, herbicides, and genetically modified organisms (GMOs), resulting in produce that is free from harmful residues. Organic fruits and vegetables are also grown using natural methods such as composting, crop rotation, and biological pest control, which promote soil health, biodiversity, and nutrient-rich produce. As a result, organic fruits and vegetables are often perceived as being more nutritious, flavorful, and safer for consumption, leading to increased demand and higher prices in the market. This provides economic opportunities for farmers who choose to grow organic fruits and vegetables, as they can command premium prices and potentially higher profits.Second, organic fruit and vegetable production promotes environmental sustainability, which is crucial for the long-term economic viability of agriculture. Conventional agriculture often relies heavily on synthetic inputs, such as chemical fertilizers and pesticides, which can have detrimental effects on the environment, including soil erosion, water pollution, and loss of biodiversity. In contrast, organic farming practices prioritize the use of natural inputs and practices that promote soil health, water conservation, and biodiversity conservation. This helps to protect and preserve the environment, ensuring the sustainability of farming systems for future generations. Additionally, organic farms often prioritize local and regional markets, reducing the carbon footprint associated with transportation and supporting local economies. This can create economic opportunities for farmers and communities, contributing to the economic development of the region. Third, organic fruit and vegetable production promotes sustainable and responsible farming practices, which can benefit farmers and farm workers. Organic certification standards require farmers to follow strict guidelines for soil health, pest management, and crop rotation, among others. These practices can improve the overall productivity and resilience of farming systems, reducing the reliance on costly external inputs and increasing the long-term profitability of farms. Moreover, organic farming practices prioritize the use of non-GMO seeds, which can help to protect farmers' rights to save, exchange, and sell seeds, as well as preserve traditional and indigenous crop varieties. Additionally, organic farming often emphasizes fair labor practices, such as fair wages, safe working conditions, and respect for workers' rights, leading to improved social equity and well-being for farm workers. This can contribute to the economic stability and prosperity of farming communities, supporting local economies and livelihoods.Furthermore, the demand for organic fruits and vegetables has been steadily increasing in both local and global markets. Consumers are becoming more aware of the potential health and environmental risks associated with conventional farming practices, and are increasingly choosing organic options as a way to support sustainable and responsible agriculture. This growing demand for organic produce presents economic opportunities for farmers who choose to transition to organic farming practices or expand their organic operations. It can also contribute to job creation in the organic farming sector, including farming, processing, distribution, and marketing, which can stimulate local and regional economies. In conclusion, organic fruits and vegetables play a crucial role in the economy by providing sustainable, healthy, and environmentally-friendly food options. They contribute to the economic well-being of farmers and farm workers, support local economies, promote environmental sustainability, and meet the growing demand for organic produce from consumers. Organic farming practices prioritize responsible and sustainable farming methods, which can lead to improved productivity, profitability, and resilience of farming systems. As consumers continue to prioritize health, sustainability, and social responsibility, the demand for organic fruits and vegetables is expected to continue to grow

7. DISCUSSIONS

Organic farming is an agricultural practice that emphasizes the use of natural methods and avoids synthetic inputs such as chemical fertilizers, pesticides, and genetically modified organisms (GMOs). It promotes sustainable and environmentally-friendly farming practices, and aims to produce healthy and nutritious food while minimizing the

impact on the environment. Organic farming has gained increasing attention in recent years due to its potential benefits for human health, the environment, and rural communities.. Below are the benefits of organic farming:

7.1 Environmental Sustainability: Organic farming promotes practices that protect and preserve the environment. It prohibits the use of synthetic pesticides and chemical fertilizers, which can have detrimental effects on soil health, water quality, and biodiversity. Instead, organic farmers use natural methods such as composting, crop rotation, and biological pest control to maintain healthy soils, conserve water, and promote biodiversity. These practices can help to reduce soil erosion, water pollution, and the loss of biodiversity, leading to more sustainable farming systems that are beneficial for the environment.

7.2 Healthier Food: Organic farming prohibits the use of synthetic inputs, resulting in produce that is free from harmful residues. Organic fruits and vegetables are grown without the use of synthetic pesticides, herbicides, and GMOs, which can potentially have negative impacts on human health. Instead, organic farming practices prioritize the use of natural inputs and methods, resulting in produce that is often perceived as being more nutritious, flavorful, and safer for consumption. This can lead to improved human health outcomes and contribute to a healthier population.

7.3 Soil Health and Fertility: Organic farming places a strong emphasis on maintaining healthy soils. Organic farmers use practices such as crop rotation, cover cropping, and composting to enhance soil fertility and structure. These practices promote the biological activity of the soil, including the growth of beneficial microorganisms, which can improve soil health, nutrient cycling, and water retention. Healthy soils are the foundation of sustainable agriculture and can lead to higher yields, better crop resilience, and reduced dependency on external inputs.

7.4 Local and Regional Markets: Organic farming often prioritizes local and regional markets, which can benefit local economies. Organic farmers may sell their produce directly to local consumers, farmers' markets, or through community-supported agriculture (CSA) programs. This can create economic opportunities for local farmers, support rural communities, and contribute to the economic development of the region. Additionally, organic farming often promotes fair trade and fair labor practices, which can contribute to social equity and well-being for farmers and farm workers.

7.5 Biodiversity Conservation: Organic farming encourages practices that promote biodiversity on and around farms. Organic farmers often use diverse crop rotations, intercropping, and agroforestry practices, which can provide habitat for beneficial insects, birds, and other wildlife. This can help to maintain or enhance biodiversity, including the preservation of traditional and indigenous crop varieties, which are often better adapted to local conditions. Biodiversity conservation is essential for maintaining ecosystem resilience, pollination services, and long-term food security.

8. CONCLUSION

In conclusion, the global overview of organic farming post the COVID-19 pandemic presents both opportunities and challenges. The pandemic has highlighted the importance of sustainable and resilient food systems, and organic farming has emerged as a viable solution that promotes environmental sustainability, human health, and local economies. The benefits of organic farming, such as promoting biodiversity, conserving soil health, and providing healthier food, have become even more relevant in the post-pandemic world. However, organic farming also faces challenges, including lower yields, pest and disease management, and access to resources. Addressing these challenges will require continued research, innovation, and policy support to ensure the success and scalability of organic farming systems. Additionally, organic farming needs to be accessible and affordable for farmers of all scales, including smallholder farmers in developing countries, to promote inclusive and equitable food systems. As the world rebuilds and recovers from the COVID-19 pandemic, there is an opportunity to prioritize and invest in sustainable farming practices like organic farming. This can contribute to building resilient food systems, protecting the environment, improving human health, and supporting local communities. By recognizing the potential of organic farming and addressing its challenges, we can work towards a more sustainable, healthy, and equitable future for agriculture and food production.

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