



CHAPTER 1

ORGANIC AGRICULTURE: ORIGINS, PRINCIPLES AND DEFINITION

| | |
|---|---|
| 1.1 ORIGINS | 3 |
| 1.1.1. THE ORIGINS OF THE TERM "ORGANIC AGRICULTURE" | 3 |
| 1.1.2. THE ORIGINS OF THE MOVEMENT | 3 |
| 1.1.3. THE ORIGINS OF THE FORMAL INTERNATIONAL MOVEMENT | 7 |

| | |
|---|-----------|
| 1.2. ORGANIC AGRICULTURE: PRINCIPLES AND DEFINITIONS | 8 |
| 1.2.1. THE PRINCIPLES OF ORGANIC AGRICULTURE | 8 |
| 1.2.2. THE DEFINITION OF ORGANIC AGRICULTURE | 10 |
| 1.3. BENEFITS OF ORGANIC AGRICULTURE | 11 |
| 1.3.1. MULTIPLE BENEFITS | 11 |
| 1.3.2. BENEFITS OF ORGANIC AGRICULTURE IN AFRICA | 13 |
| 1.3.3. CLIMATE CHANGE MITIGATION | 13 |
| 1.3.4. AN OPPORTUNITY FOR DEVELOPMENT | 13 |
| 1.3.5. MARKET ACCESS | 14 |

ORGANIC AGRICULTURE: ORIGINS, PRINCIPLES AND BENEFITS



1.1. Origins

1.1.1. The origins of the term “organic agriculture”



Jerome Irving Rodale

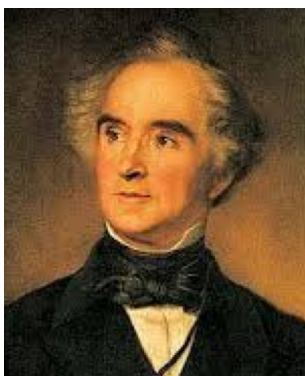
Jerome Irving Rodale was the first major international author and publisher of books and magazines on organic farming. His primary magazine was called “Organic Farming and Gardening”. Although he was based in the USA, this publication was widely read by many thousands of people around the world. He actively promoted the name “organic farming”

in this and other publications after which time use of the term “organic” quickly became commonplace and usurped other terms such as natural, permanent and ecological. These were the terms were being used at the time to describe this type of farming system.

Rodale’s use of the term ‘organic farming’ was specific to the farming system’s use of organic matter as the primary source of soil health and plant nutrition in contrast with the use of synthetic chemical fertilisers in conventional farming. He repeatedly stated that the fundamental basis of organic farming was to improve soil health and build up humus through a variety of practices that recycled organic matter (Rodale, 2011).

1.1.2. The origins of the movement

In the 1840s, Baron Justus Von Liebig from Germany became the first modern chemist to look at plant growth in a laboratory. He



Baron Justus von Liebig

determined that plants needed minerals from the soil and carbon dioxide from the air and showed that although plants are surrounded by nitrogen in the air, they in fact needed to take up nitrogen in the form of ammonia through the root system. Von Liebig stated that nitrogen was the most important mineral and proved that synthetic chemical fertilisers could be replaced with natural ones such as animal manures as a source of nitrogen.

Because many of his experiments were done in a laboratory in sand and other soilless potting media that did not contain humus and organic matter, Liebig believed that humus did not have a significant role in plant nutrition. He believed that plants only needed minerals in the certain types of water-soluble chemical forms and in the correct ratios.

Von Liebig's research fundamentally changed the direction of agriculture and became the basis of conventional agriculture practiced around the world.

In the latter part of his life however, he saw that his research was being used out of context and that the very same chemicals used in conventional farming were actually damaging soil and crop quality.

After the introduction of chemical fertilisers in the latter part of the 1800's in Europe and USA, a concern for the loss of crop quality

as well as an increase in pests and diseases, these affecting crop yields, saw the birth of the organic agriculture movement.

The people involved in the movements that would lead to modern organic agriculture believed that there was a direct relationship between the health of the soil, the crops that were grown in it and ultimately with the animals and people who consumed these crops.

In the midst of this concern by farmers and researchers, several key books were published, providing alternatives to chemical fertilisers. These books are still used today by the organic movement as key reference texts. Two such critical texts are *"Bread from Stones"*, by Julius Hensel published in Germany in 1893 and *"Farmers of Forty Centuries – Permanent Agriculture in Japan, China and Korea"*, by F.H. King, written around 1900 and published posthumously in the USA in 1911.



Rudolf Steiner

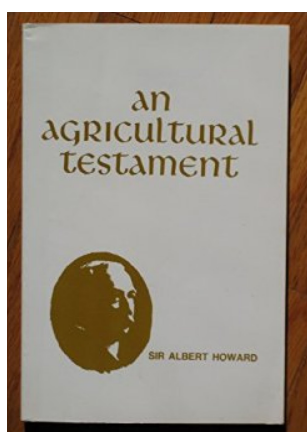
The most significant origins of the formal movement began in Germany in 1924 when the philosopher Rudolf Steiner gave a series of lectures on agriculture. This was in response to the repeated requests from a group of farmers who were concerned about the declining quality of their soils and crops since the introduction of synthetic fertilisers and pesticides. The lectures were published later that year in a book titled *"Agriculture"*.

Steiner then tasked Ehrenfried Pfeiffer to develop the specific preparations and farming

methods based on the broader, philosophical concepts that he taught in his lectures.

Pfeiffer developed the preparations and also the name "Biodynamic" to describe this new farming concept. He gave numerous lectures throughout Europe and started the Biodynamic movement. This is why many European countries use the words "bio" or "biological" to describe organic farming. Biodynamic practices and preparations have since spread worldwide.

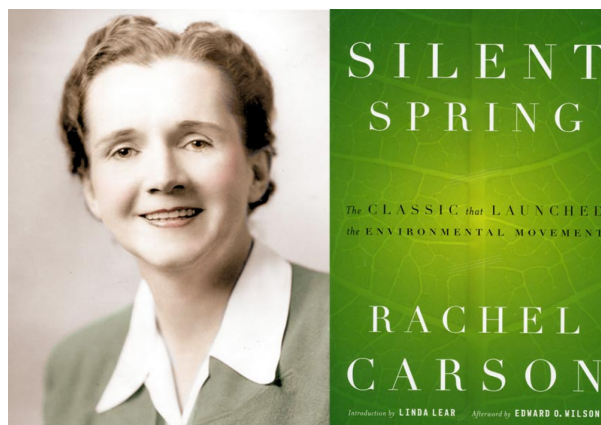
In the 1930 and 40's, not long after the beginning of the Biodynamic movement, a range of other organisations concerned about the link between soil health and human health, began to develop. These organisations, based on the concept of soil health, arose primarily in the English speaking countries or ex colonies of the United Kingdom (UK) such as Australia, New Zealand, USA, India and South Africa. *The Soil Association, Healthy Soil Society, Soil and Health* are some examples. The most significant of these is the UK Soil Association which still continues to play a leading role in the organic movement in that country as well as internationally.



"An Agricultural Testament", by Sir Albert Howard

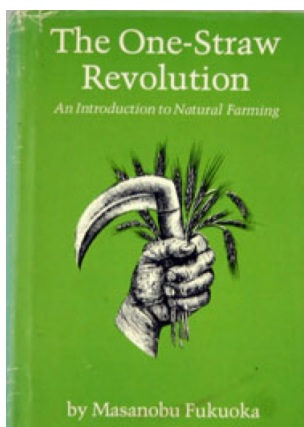
Although most of these organisations produced magazines and books that were widely read, the book from that time that had the most significant influence on the development of organic agriculture, was *"An Agricultural Testament"* by Sir Albert Howard. Howard had spent much of his time in India and had

pioneered efficient forms of composting that achieved high yields of healthy plants. He had an enormous influence on Rodale who widely publicised his methods and disseminated the term "organic farming" as a method based upon the widespread use of recycling organic matter through composting.



"Silent Spring", by Rachel Carson

The publication of *"Silent Spring"* in 1962 by Rachel Carson had a significant effect in raising public awareness about the dangers of pesticides that were being used in farming at the time. It created a huge controversy and a massive concern about the chemical residues in food as well as in the environment. Public pressure realised the strengthening of pesticide regulations and most importantly, the beginning of the consumer movement that demanded food be grown without toxic chemicals. It also saw the beginning of awareness on how farming was impacting on the environment and gave rise to a number of "whole systems" approaches that fitted within the broad organic paradigm.



The One-Straw Revolution

Examples of these are *“The One Straw Revolution”* by the Japanese farmer Masanobu Fukuoka. Published for the first time in English in 1978 it quickly became one of the most influential books of the time. His “Natural Farming” methods were based on observing how nature works and designing a system to allow nature to do the work for you. This is why it was sometimes called “Do-nothing farming”. Unfortunately, some people misunderstood the concept and instead of creating carefully planned systems where nature did the work for you, they did nothing. When crops failed, this fuelled criticism of Fukuoka’s philosophy. He was also one of the pioneers of organic no-till grain systems that did not use herbicides, a system that is easily applied to small-holder farms.

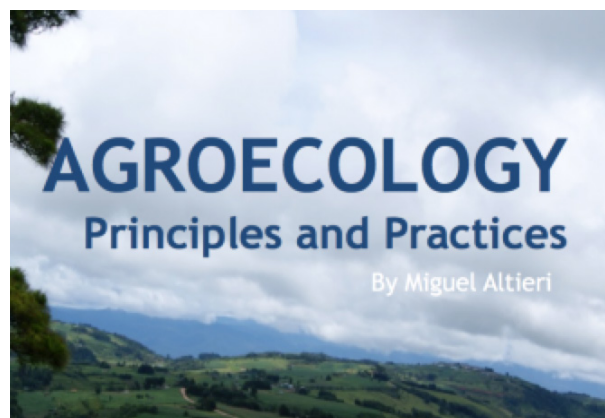


Bill Mollison

Quite independently of Fukuoka, two Australian researchers, Bill Mollison and David Holmgren published a book in 1979 called *“Permaculture One”*. This was essentially an

abbreviation for Permanent Agriculture, the concept first put forward by FH King in the book *“Farmers of Forty Centuries”* in 1911.

Permaculture is a comprehensive whole systems approach with the concept of designing completely integrated systems that not only include cropping but also working with the ecology, horticulture, stacking production systems vertically to maximise solar capture, integrating animals, water systems, architecture, energy use efficiency and numerous other concepts. The ideal was to start with a vacant block of land and design the new system based on the specifics of that block, its climate, topography and other attributes. It figures that each permaculture farm would, as a result, be unique.



Agroecology

In 1979 a number of important books on the concept of Agro ecology were published. Gliessman published *“Agroecosistemas y tecnologia agricola tradicional”*, Cox and Atkins published *“Agricultural Ecology: An Analysis of World Food Production Systems”*, and Hart published *“Agroecosistemas: conceptos básicos”*.

This saw the beginning of the agro ecology movement which, as the Laboratory of Agro Ecology definition below shows, also supported a whole farming approach:

“Agro ecology is both a science and a set of practices. As a science, agro ecology consists

of the application of ecological science to the study, design and management of sustainable agro ecosystems” (Altieri, 2002). “This implies the diversification of farms in order to promote beneficial biological interactions and synergies among the components of the agro ecosystem so that these may allow for the regeneration of soil fertility, and maintain productivity and crop protection” (Altieri, 2002).

All of these farming systems fit within the broad paradigm of organic farming and are seen as part of its history and a contribution towards its on-going evolution.

1.1.3. The origins of the formal international movement

The formal international movement began in Versailles, France on November 5th 1972 when at the invitation of Roland Chevriot of “Nature et Progrès” in France, Lady Eve Balfour, a founder of the UK Soil Association in the UK, Kjell Arman from the Swedish Biodynamic Association, Pauline Raphaely from the Soil Association of South Africa and Jerome Goldstein from the Rodale Institute held a meeting and formed the International Federation of Organic Agricultural Movement (IFOAM).



INTERNATIONAL FEDERATION OF
ORGANIC AGRICULTURE MOVEMENTS

IFOAM is the international umbrella movement whose role it is to both lead and unite the organic sector around world. It is the organisation that, through consultation with its worldwide membership base within

the whole spectrum of the sector, sets the international standards, policies, definitions and positions regarding the multi-functionality of organic agriculture. Consequently, IFOAM documents are seen as some of the most credible source texts for reference material. (www.ifoam.com).

The Namibian movement began when high consumer demand and a limited supply of organic products provided the impetus to develop the organic sector within Namibia. In response to this increased demand the Namibian Organic Association (NOA), a membership-based association of farmers, consumers and organisations was established in 2009 with the aim of developing the Namibian organic sector. (www.noa.org.na).



Enabling Sustainable Organic Agriculture

Part of developing the sector would be to create an enabling environment in which horticultural farmers could enter the sector as, unlike the USA and Europe where farmers receive subsidies during the conversion period from conventional to organic agriculture, Namibian farmers do not. They thus have to carry the conversion risk themselves, all the while trying to maintain economic viability. NOA therefore identified the need to build capacity amongst farmers through the development of Namibian-specific organic production guidelines in an attempt to assist and attract more farmers to enter organic agriculture.

1.2. Organic Agriculture: Principles and Definitions

1.2.1. The principles of organic agriculture

Through extensive worldwide consultation based on current practices, IFOAM developed the four principles of organic agriculture. The major concerns and concepts as advocated by the founders and key opinion makers of the organic movement over the past century, combined with new technologies, have been articulated in these principles, internationally agreed as the fundamental basis of organic production. They are used by IFOAM and other organic organisations to inform the development of all practices, positions, programmes and standards.

Organic agriculture is based on the following principles:

- The Principle of Health
- The Principle of Ecology
- The Principle of Fairness
- The Principle of Care

1.2.1.1. Principle of Health

Organic agriculture should sustain and enhance the principle that health of soil, plant, animal, human and planet are one and indivisible. This principle points out that the health of individuals and communities cannot be separated from the health of ecosystems. Healthy soils produce healthy crops which foster the health of animals and people.

Health is the wholeness and integrity of living systems. It is not simply the absence of illness, but the maintenance of physical,

mental, social and ecological well-being. Immunity, resilience and regeneration are key characteristics of health.

The role of organic agriculture, whether in farming, processing, distribution or consumption is to sustain and enhance the health of ecosystems and organisms from the smallest in the soil to human beings. In particular, organic agriculture is intended to produce high quality, nutritious food that contributes to preventive health care and well-being. In view of this it should avoid the use of fertilisers, pesticides, animal drugs and food additives with potentially adverse health effects.

In organic agriculture, health and welfare of animals should be promoted at all levels, and animals should never be placed under conditions which can cause illness.

1.2.1.2. Principle of Ecology

Organic agriculture should be based on living ecological systems and cycles, working with them, emulating them and helping to sustain them.

This principle roots organic agriculture within living ecological systems. It states that production is to be based on ecological processes and recycling. Nourishment and well-being are achieved through the ecology of the specific production environment. For example, in the case of crops this is the living soil; in the case of animals it is the farm ecosystem; in the case of fish and marine organisms, the aquatic environment.

Organic farming, pastoral and wild harvest systems should fit the cycles and ecological balances in nature. These cycles are universal but their operation is site-specific. Organic management must be adapted to local conditions, ecology, culture and scale. Inputs should be reduced either through re-using, recycling or efficient management of materials and energy in order to maintain

and improve environmental quality and to conserve resources.

Organic agriculture should attain ecological balance through the design of farming systems, establishment of habitats and maintenance of genetic and agricultural diversity. Those who produce, process, trade, or consume organic products should protect and benefit the common environment including landscapes, climate, habitats, biodiversity, air and water.

In relation to health and welfare, this principle emphasises the importance of allowing animals to meet their natural needs. The harmony with the environment in an ecological system also implies that they live according to their nature.

1.2.1.3. Principle of Fairness



Organic agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities. Fairness is characterised by equity, respect, justice and stewardship of the shared world, both amongst people and in their relations to other living organisms.

This principle emphasises that those involved in organic agriculture should conduct human relationships in a manner that ensures fairness at all levels and to all parties – farmers, workers, processors, distributors, traders and consumers. It should provide everyone involved with

a good quality of life, and contribute to food sovereignty and reduction of poverty. It aims to produce a sufficient supply of good quality food and other products and insists that animals should be provided with the conditions and opportunities of life which accord with their physiology, natural behaviour and well-being.

Natural and environmental resources that are used for production and consumption should be managed in a way that is socially and ecologically just and should be held in trust for future generations. Fairness requires systems of production, distribution and trade that are open and equitable and account for real environmental and social costs.

This principle insists that animals should be provided with the conditions and opportunities of life that harmonises with their physiology, natural behaviour and well-being.

1.2.1.4. Principle of Care

Organic agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.

It is a living and dynamic system that responds to internal and external demands and conditions. Practitioners of organic agriculture can enhance efficiency and increase productivity, but this should not be at the risk of jeopardising health and well-being. Consequently, new technologies need to be assessed and existing methods reviewed. Given the incomplete understanding of ecosystems and agriculture, care must be taken.

The Principle of Care states that precaution and responsibility are the key concerns in management, development and technology choices in organic agriculture. Science is necessary to ensure that organic agriculture is healthy, safe and ecologically sound.

However, scientific knowledge alone is not sufficient. Practical experience, accumulated wisdom and traditional and indigenous knowledge offer valid solutions, as tested by time. Organic agriculture should prevent significant risks by adopting appropriate technologies and rejecting unpredictable ones, such as genetic engineering. Decisions should reflect the values and needs of all who might be affected, through transparent and participatory processes.

Animals are respected as sentient beings whose natural needs should be met. When allowing them to meet their natural needs, we practice the principle of precaution towards the animals: our knowledge about what they need may be incomplete, but we let them guide us when we allow them as much freedom as possible to perform their natural behaviour and meet their needs.

This principle emphasises that we intervene whenever is necessary, when something is wrong or risky for the animals, but do not intervene when things are fine.

1.2.2. The definition of organic agriculture

IFOAM defines organic agriculture as follows (IFOAM, 2009):

“A production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved”.

Thus, organic farming is based on a number of objectives and principles designed

to minimise the human impact on the environment, while ensuring the agricultural systems operate as naturally as possible. Furthermore, organic farming is also part of a larger supply chain, which encompasses food processing, distribution and retailing sectors (Lampkin, 1990; IFOAM, 2006).

The United Nations Food and Agriculture Organization (FAO) international standard for the trade in food products, the *Codex Alimentarius*, includes a section on organic production, the *Codex Alimentarius Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods*. Although it does not have a single definition for organic agriculture, it instead offers an overview of the types of practices and principles that it considers comprise an organic system.

“Organic agriculture is based on minimizing minimising the use of external inputs, avoiding the use of synthetic fertilizers and pesticides. Organic agriculture practices cannot ensure that products are completely free of residues, due to general environmental pollution. However, methods are used to minimize pollution of air, soil and water. Organic food handlers, processors and retailers adhere to standards to maintain the integrity of organic agriculture products. The primary goal of organic agriculture is to optimize the health and productivity of interdependent communities of soil life, plants, animals and people”.

and

“Organic agriculture is a holistic production management system which promotes and enhances agro ecosystem health, including biodiversity, biological cycles, and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using, where possible,

cultural, biological and mechanical methods, as opposed to using synthetic materials, to fulfil any specific function within the system”.

1.3. Benefits of organic agriculture

As the world’s population increases and with it the number of affluent people, the demand for food and renewable energy crops are also expected to increase. The rising cost of fossil fuel based chemical fertilisers, herbicides and pesticides, as well as the increasing severity and frequency of climate change is putting pressure on agricultural production.

Current agricultural production is already failing to feed the world’s poorest and despite sufficient food being produced at global level, the number of hungry people in the world continues to increase, and more so if ‘business as usual’ prevails.

There is growing acceptance that existing policies and practices have failed to feed the world’s most vulnerable people, failed to adapt to continuously changing environmental conditions, and failed to protect the very ecosystems that sustain us.

Climate change and the global food crisis have put a spotlight on the vulnerability, unsustainability and social inequity of agriculture and food production but organic agriculture has a significant role to play in addressing both of these most urgent issues.

Given its affordability and the valuable tool-kit provided by organic agriculture, government policies could significantly benefit from the integration of organic practices into their agriculture, climate change, food security,

and rural development policies and action plans. Policy makers are now referring to ‘soil organic matter’, to ‘soil carbon,’ to ‘ecosystem services’ and to ‘holistic’ approaches, all of which are long established core pillars of Organic Agriculture.

The International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) report acknowledged that people have benefited unevenly from conventional agriculture yield increases across regions resulting in inequity, poverty, health, nutrition and trade. This productivity increase has come with many costs including environmental un-sustainability, soil loss and degradation, over-utilisation of water, water pollution, habitat and biodiversity loss, global warming and climate change. IAASTD recommended core organic management techniques for successful climate change mitigation and adaptation; including the use of legumes in crop rotations, supporting low external input agriculture, applying water-conserving practices, promoting agro-biodiversity for increased resilience of agricultural systems and the diversification of agriculture.

1.3.1. Multiple benefits

Organic Agriculture enhances biodiversity, protects our fragile soils, improves the nutritional quality of food, ensures high standards of animal welfare and provides increased employment in rural areas. At the same time, Organic Agriculture reduces greenhouse gas emissions and fossil fuel energy use, cuts nutrient and pesticide pollution and stops potentially harmful pesticide residues entering our food chain.

In line with the four IFOAM principles organic agriculture is and continues to offer a wide range of economic, environmental, social and market benefits:

Environmental benefits

| | |
|---------------------------|---|
| Soil | <p>Soil fertility is maintained and improved</p> <p>Water infiltration and retention is improved</p> |
| Water | <p>Water quality is improved since no harmful agrochemicals are used</p> <p>Water quantity and availability is increased through improved soil water retention. The result is higher yields in dry land cropping, and less water requirements for irrigated lands</p> |
| Climate change mitigation | <p>Greenhouse gas emissions are reduced since no fertilizer applications are used.</p> <p>Organic soil management increases carbon sequestration</p> <p>Farms are more resilient which leads to a lower susceptibility to negative impacts of temperature increases, droughts and high rainfall events</p> <p>Agro-eco systems are improved so that they can cope with pests and diseases</p> |
| Bio-diversity | <p>A higher diversity of micro-organisms leads to a more diverse soil life – a critical element for healthy crops</p> <p>Crop rotation and agro-forestry leads to crop diversity</p> <p>Genetic diversity is increased through the promotion of traditional varieties and seed sovereignty</p> <p>Eco-system services are improved through the presence of wildlife and pollinators</p> |
| Energy | <p>Energy intensive substances such as artificial nitrogen fertilisers are not used which leads to lower demands on energy usage</p> |

Social benefits

| | |
|--------------------------------|--|
| Food security and health | <p>More diverse farms produce more food for local use through organic ecological intensification</p> <p>Products of high nutritional value are produced, without harmful agrochemicals or genetically modified organisms</p> |
| Cultural and social dimensions | <p>Agricultural communities are strengthened and local cooperation is improved</p> <p>Traditions and local knowledge are valued, which is linked with modern science</p> <p>Behavioural change of consumers are induced by buying healthier food, less highly processed food, non-GMO food etc</p> |

Market benefits

| | |
|--------------------------|---|
| Income and employment | <p>Farm income is increased through reduced inputs costs and fairer prices</p> <p>Diversified organic farms are more resilient to adverse weather and market conditions – which reduces risk</p> <p>More jobs on farms and in local processing provide livelihoods for rural people</p> |
| Macro-economic viability | <p>Less external costs like environmental rehabilitation and water treatment expenses</p> |

1.3.2. Benefits of organic agriculture in Africa

In Africa specifically the multiple benefits of organic agriculture are evident. According to the 2008 UNCTAD-UNEP study on Organic Agriculture and Food Security in Africa, it was demonstrated that organic agriculture can be equal or better for food security than most conventional systems and is more likely to be sustainable in the longer term, as it builds up levels of natural, human, social, financial and physical capital in farming communities. It also favours the use of low carbon footprint production methods and local resources.

- Increased yields in the long term through the use of affordable inputs largely based on local biodiversity
- Improved livelihoods and food security
- Much greater resilience of the farming systems in times of climate extremes such as drought and heavy rains
- Reduced financial risk by replacing expensive chemical inputs with locally available renewable resources
- Integration of traditional farming practices
- Access to new market opportunities both at home and abroad
- Potential for improving human health
- A contribution to climate change mitigation, as it reduces greenhouse gas emissions and affordably sequesters carbon in the soil

1.3.3. Climate change mitigation

Agriculture is said to currently account for 10–12% of global greenhouse gas (GHG) emissions and this figure is expected to rise. Emissions are mostly from soils, from the digestion process of ruminant animals,

rice production, biomass burning and manure management. Other 'indirect' sources such as those generated from land-use changes; using fossil fuels for mechanisation, transport and agro-chemical and fertiliser production also contribute to GHG emissions. The most significant indirect emissions are changes in natural vegetation and traditional land use including deforestation, a common land-preparation practice in many agricultural regions. Since 1850, soil carbon losses caused by agriculture account for one tenth of total CO₂ emissions.

Whilst conventional agriculture produces emissions, organic agriculture has been shown to remove carbon dioxide emissions quickly and affordably. An on-going 30 year study at the Rodale Institute (*The Farming Systems Trial*), has demonstrated the potential of organic agriculture to sequester an equivalent of up to 30% of all annual world greenhouse gas emissions. Organic agriculture with cover crops, crop rotation, and natural sources of nutrition pulls carbon out of the atmosphere and stores it in soils.

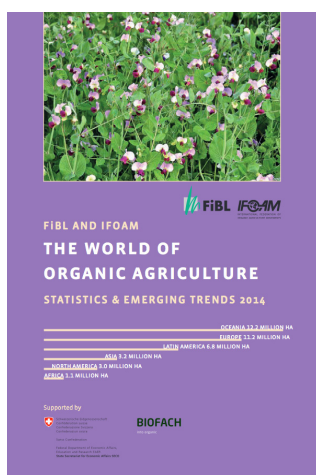
The Food and Agriculture Organization of the United Nations (FAO) regards organic agriculture as an effective strategy for moderating climate change and building robust soils that are better adapted to cope with extreme weather conditions associated with climate change.

1.3.4. An opportunity for development

Organic Agriculture is practiced worldwide by millions of producers with production of organically grown food continuing to increase steadily. The annual global market continues to show an increase year on year. While most of

the organic markets are in developed countries, developing countries are becoming important suppliers, this as organic practice are being found to be particularly suited for the conditions of these farmers.

“The World of Organic Agriculture 2014” is the annual book on organic statistics produced by FiBL and IFOAM. The data shows that, except for a few countries showing a slight decrease in hectares from 2011 to 2012, on the whole the growth in markets for organic product sales continues to increase and defy the global market slowdown in many countries.



The World of Organic Agriculture

Some significant statistics are:

- The number of producers have increased from 1 791 283 million in 2011 to 1 927 018 million in 2012, although this said to be even higher
- Worldwide in 1999 there were 11 million certified organic hectares (including in-conversion land), in 2012 there were 69 025 742 million hectares
- The global value of certified organic market sales has grown from US\$10 to over US\$60 billion in 2012, showing a consistent growth rate

- Although showing a slight decrease in 2012, down to 30 359 009 million hectares from 31 695 827 million hectares in 2011, wild collection areas remain a very important activity as, besides conservation of high biodiversity ecosystems, it provides an income to those who often live in the collection areas, have collection rights and thus manage the resources critical to their survival. It is one of the most successful examples of a market based system that rewards landholders for ecosystem services and provides an economic incentive to conserve the ecosystems so that they remain sustainable sources of income

1.3.5. Market access

Organic is the fastest growing agricultural based industry in the world A snapshot of the 2014 data of several key countries shows that the rate of growth continues to increase.

In Namibia, only 124ha of land, under custodianship of 6 farmers, was under organic production in 2009. The 2014 World of Organic Agriculture shows that by 2012, this had exploded to 14 123ha. These hectares represent a 0.04% share of agricultural land. Wild collection areas in Namibia are in excess of 2 million hectares.

According to The World of Organic Agriculture 2014 healthy growth is continuing in the global market for organic products with these produced in all four corners of the globe. International sales of organic products have grown from almost nothing to over US\$60 billion within a 30 year period as organic products resonated with consumers who wanted food from sustainable agricultural practices and production methods.

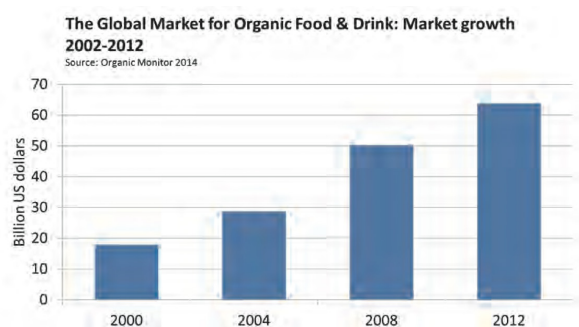


Figure 44: Growth of the global market for organic food & drink, 2000-2012
Source: The Global Market for Organic Food & Drink (Organic Monitor)
Note: All figures are rounded

Global market

Put food on the table first and work from the market backwards

The most critical issue for hundreds of millions of smallholder farmers is the need to feed their families. They need food security and this is done by *Putting Food on the Table First*. However these farmers, just like all other farmers, need more than just a subsistence income. They need to have an income which allows them to send their children to school, pay for medicines and health care, veterinary care for their livestock, clothes, a house and the usual basic life necessities. They need to have markets for some of their produce so that they can earn the necessary money.



The issue for smallholder right through to the large plantation farmer is markets that return viable prices. In many instances, farmers grow crops and send the surplus to the markets or to wholesale agents, only to find that they receive very little or almost nothing for it because of oversupply in that market. The best farmers, however, work together with

their markets to develop a professional and trusting relationship with their buyers. It is fairly common amongst grower groups to have in place supplier agreements with their buyer who might also be the processor and exporter. This type of arrangement secures a market for the otherwise vulnerable smallholder.

It is important that farmers work with their markets and make plans to ensure the types, the volumes and the timing of the crops that they will supply along with prices that they will receive before the first seeds are planted.



Expanding markets from local to export

Export markets for Namibian wild collected products were established before local markets were. In this instance the export market demanded bulk volumes whereas such volumes were not demanded within Namibia itself. A small local market slowly developed and still continues to as the brand becomes more recognised.

The best time to enter any market is when they are still small and growing. This means that it is easier to get market penetration and brand recognition in a sector that is only 2 or 3% of the overall market than to try and do this over a significantly large sector. The other key issue is that it is usually best for smaller producers to access high value small volume niche markets rather than trying to compete with the large multi-national corporations in the low value high volume commodity markets. Usually however, organic crops are cultivated for a specific, mostly niche market.

The organic sector offers numerous markets that may be utilised to sell produce. These can be short supply chain sectors such as direct farm gate sales, organic box schemes and local farmers markets through to regional and national wholesalers, supermarket outlets and exports around the world. All of these outlets are expanding and offering a range of choices.

Good farmers should do their homework and identify a list of suitable markets. It is important to have multiple markets as these fluctuate. If a producer has only one market and should that market neither accept nor pay for the produce, it means that the producer will incur a loss of income. However when they have multiple markets, should a problem occur with any one of the markets, they would still be able to spread the produce amongst these and not incur a loss of income.