

## Organic agriculture: enhancing food security – sustainably



*'A person, household or community, region or nation is food secure when all members have physical and economic access at all times to buy, produce, obtain or consume sufficient, safe and nutritious food to meet their dietary needs and food preferences for a healthy and active life'<sup>1</sup>*

In simple terms food security is the easy-access and availability of healthy and nutritious food to every human being at all times. Industrial or commercial agriculture currently claims to be the sole solution to increase food security, producing more and more manufactured foods and turning towards genetically modified crops to improve yields. Due to a number of complex factors, however, many people still remain hungry and / or malnourished. These factors include the high cost of some manufactured foods and the increasing reliance on a farming system that is dependent on external purchased inputs – including seeds. Historically it is the ability and flexibility of over three million small scale food producers that has built the backbone of local and international food security, and the ongoing role of small scale producers cannot be ignored if we are to remain food secure in the future. The Pacific Islands have maintained food security through traditional mixed cropping practices, ensuring diversity of crops, resilient production systems and care of the soil and environment. But while Pacific smallholders still provide a large degree of food security for our communities, it is coming increasingly under threat. Some reasons for this are listed below.

- Rapid population growth is leading to increases in demand for food resources and land for residential and other purposes.
- Climate change and more extreme weather conditions such as tropical cyclones and drought are having adverse effects on agricultural land, coastal areas and fresh water quality.
- Urbanisation is leading to limited land in urban areas to grow healthy, nutritious vegetables/food and increased consumption of frozen and processed food by urban communities.
- The impact of mass media and advertising has contributed to a shift in consumption from traditional staple and fresh local foods to processed foods.
- Reliance on imported food is increasing and the sometimes poor nutritional quality of it increases the risk of getting non-communicable diseases
- Low incomes and unemployment reduces household access to adequate safe, nutritious food.
- Economic shocks lead to increases in food and fuel costs, which puts more stress on small household budgets, especially in urban areas.

<sup>1</sup> *The International Federations Global Agenda. (2007). Global food security assessment guidelines. Geneva: International Federation of Red Cross and Red Crescent Societies.*

There is, therefore an urgent need to increase the efficiency of present resource use and at the same time conserve – and where possible enhance – the productive capacity of our agricultural resources. Organic agriculture is 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.<sup>2</sup> It can also play a major role in addressing food security, ensuring an adequate and stable food supply for most of the population in our region, and is a means of alleviating poverty. These are some of the ways in which organic agriculture helps sustain food security.

- Organic agriculture can increase and stabilise yields, particularly from land that is less productive or marginal.
- Building capacity in organic farm management can assist farmers, fishers and pastoralists build resource management skills.
- Increased organic production can improve the variety, availability and affordability of clean, safe local foods in our diet, thereby contributing to controlling NCDs and other diseases.
- Unemployment can be reduced by providing jobs in the organic agricultural sector and enabling cash-poor households to obtain enough good quality food – organic agriculture can provide 32% more jobs per farm than conventional farms.<sup>3</sup>
- Organic systems are more resilient to climate change and extreme weather events. For example, organic farms survive cyclone damage much better, retaining 20–40% more topsoil and sustaining smaller economic losses than their neighbours.<sup>4</sup>
- Organic systems improve water uptake and retention, and reduce soil erosion, thereby helping to overcome land aridity/desertification. A 2003 study found that, during drought years, organic farms can have yields that are 20-40% higher than conventional farms.<sup>5</sup>
- Organic systems ensure availability and sustainability of resources for future generations.
- Organic systems protect our coastal fisheries from run-off and siltation.

A 2014 study released by the International Federation of Organic Agriculture Movements (IFOAM) noted that Organic Participatory Guarantee Systems (PGS)<sup>6</sup> enhance food security. Of the respondents in the study, 78 % stated that their farm performs better today than prior to joining the PGS; 92% claimed that they now have access to sufficient food all year, while 84% believe that their families have more diverse meals now than before joining the PGS.

Farmers pointed to a number of ways PGS enables them to improve their food security. While some reasons can certainly be directly attributed to PGS, others are more related to the general benefits of organic agriculture. As an example, farmers of the Green Foundation PGS in India mentioned the setting up of kitchen gardens and the increased cultivation of indigenous seeds that are suited to local agro-climatic zones. These practices contributed to increased yields, diversity and nutrient content of meals. The expansion in the diversity of crop and livestock production also contributes to food security. In a region studied in Brazil, farmers who used to grow only soybeans, beans and corn as monocultures, or raised only pigs, poultry or dairy cattle, began to diversify their crop and livestock production. This led to increased productivity and food availability. In the Philippines, PGS and increased diversification opened up markets and this improved access led farmers to improve the productivity of both their cash and subsistence food crops, thereby improving households' nutritional intake and their ability to feed their families. The opportunity to join a PGS also provides farmers with new opportunities for exchange of products within local and regional groups, thereby enabling a wide diversification in the diet of the families involved.<sup>7</sup>

Agriculture based on organic principles has now been recognised as an important aspect of overcoming poverty and enhancing food security in developing countries. Therefore, it is essential that developing and developed country governments centre their support and policies for the improvement of organic agriculture's role in combating food insecurity.

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<sup>2</sup> International Federation of Organic Agriculture Movements (IFOAM), 2008

<sup>3</sup> Soil Association. (2006) *Organic Works. Providing jobs through organic farming and local food supply*. Bristol. the Soils Association. <sup>4</sup> A study of 1,804 organic farms in Central America hit by Hurricane Mitch: Holt-Gimenez, E. (2000)

<sup>5</sup> Lotter, D. W., Seidel, R. & Liebhardt W. (2003). *The performance of organic and conventional cropping systems in an extreme climate year*. *American Journal of Alternative Agriculture* 18 (3): 146–154

<sup>6</sup> PGS are a low cost method of organic certification based on farmer engagement and peer reviews

<sup>7</sup> Global comparative study on interactions between social processes and Participatory Guarantee Systems. IFOAM (2014)

