



ORGANIC AGRICULTURE – PROMOTING AND SUSTAINING BIODIVERSITY



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.

Biodiversity, the variety of life on earth, is the foundation for all agriculture - from the food we eat to the ecosystem services we rely on for production. It is the foundation of human survival in terms of:

- Supporting food and nutritional security and sustainable livelihoods
- Building well balanced and resilient ecosystems that can contribute to preventing climate impacts and recover better from climate events
- Providing plants which are the basis of many of our traditional medicines and

from which new medicinal drugs may be derived.

On land, the Pacific Islands are home to approximately 5,330 native plant species, 242 native bird species, 61 native terrestrial reptiles, 15 native mammals, three endemic native amphibians and some 4,000 snail species. The majority of these creatures are found nowhere else on earth, are found on small specific island habitats, and are vulnerable to extinction. Climate change impacts and climate events, deforestation, invasive species, and industrial agricultural practices have greatly impacted on the Pacific's biodiversity. Traditional agro-forestry systems in the Pacific are naturally diverse but can also be improved by increasing agro-biodiversity through organic agriculture practices such as integrated crop-tree animal systems, use of microorganisms and



companion or other useful plants. This, together with inter-cropping, the use of traditional and underutilized food and fodder species creates habitats, attracts pest enemies and pollinators and also reduces the risk of crop failure across the agro-ecosystem.

Organic agriculture has the potential to improve and restore the health of ecosystems by employing sustainable farming techniques that promote and sustain biodiversity – from the diversity of microorganisms and biological activity in the soil to a diverse selection of perennial, hardy and resilient crops and trees.

Organic agriculture sustains biodiversity by promoting:

- Farmyard and green manuring which restores nitrogen content of soil, building up organic matter and providing food for soil invertebrates (eg. Earthworms)
- Minimum tillage which reduces physical changes made to the soil that results from over ploughing and so avoids harmful impacts on soil life caused by physical destruction, drying out, erosion, depletion of food and increased exposure to predators.
- Protection of soils through mulching and / or ground covers which boost beneficial biological activity.
- Mechanical weeding which contributes to greater abundance of non-crop flora in cultivated lands and indirectly supports large population of beneficial insects.
- Intercropping and under-sowing which are effective in reducing/eliminating weeds, increase crop yields, increase vegetation structure and diversity therefore provide more invertebrate food resources for birds and mammals.
- Crop-rotation which functions as a tool for pest

management and soil fertility, improving populations of beneficial insects as well as increasing crop diversity.

- Mixed-farming increases habitat diversity in localised environments.
- Use of natural substances and microorganisms instead of chemicals, preventing harm/damage to plant and animal habitat and avoids long-term negative impacts on soil, air or environment where all living things thrive.
- Promoting 'In Situ' conservation where agricultural biodiversity is conserved and developed through the regeneration and sharing of locally adapted species and the improvement of genotypes of many plant varieties and animal species.

These practices enhance not only biodiversity, but strengthen natural cycles and improve environmental performance that in turn increases the sustainability of organic farms.

Organic Agriculture is proven to be an effective method for conserving biodiversity. Support from governments and development partners is required to include Organic Agriculture in policies for biodiversity conservation. Research and extension to develop long-term examples of biodiversity friendly organic farming and to promote and exchange successful techniques amongst farmers and technicians are also required to take full advantage of the benefits organic agriculture can bring to promoting and sustaining biodiversity.

The Pacific Organic and Ethical Trade Community urges you to embrace organic agriculture as a solution in international agreements on our shared future, in national planning and policy making and in the choices you make every day.