

# How Organic Agriculture Helps Achieve

## SUSTAINABLE DEVELOPMENT GOALS



**GOAL #2**  
END HUNGER,  
ACHIEVE FOOD  
SECURITY AND  
IMPROVED  
NUTRITION,  
AND PROMOTE  
SUSTAINABLE  
AGRICULTURE

**Organic agriculture** supports and enhances ecologically sound systems of food production that **can achieve food security** by increasing and stabilizing yields, improving resistance to pests and diseases, and battling poverty through reducing debt incurred by the purchase of expensive chemical inputs. By training farmers in low cost agroecological farming methods, building on local management skills and resources, we can **enable farmers to grow healthy and nutritious food and combat hunger in their communities.**

When increasing yield, we have to look at how this can be done without further exacerbating the negative environmental impacts of industrial agriculture. A recent Berkeley analysis has shown **"The yields of organic farms, particularly those growing multiple crops, compare well to those of chemically intensive agriculture."** Thus, sustainably increasing productivity and incomes can best be done by increasing the knowledge of how to farm organically. Engaging with farmers particularly female farmers will also be of great importance as it has been shown by FAO that "If women had the same access to productive resources as men, they could increase yields on their farms by 20–30 percent." Finally, **paying farmers a fair price** for their produce will go a long way **toward ensuring farmers can live off the land.**

Sustainable farming systems facilitate sustainable food production. To date the effects of industrial agriculture include air and water pollution, soil degradation, and loss of biodiversity. **Organic agriculture can help adapt to**

**climate change and weather extremities** by preventing nutrient and water loss through high organic matter content and soil covers, thus making soils more resilient to floods, droughts and land degradation processes. **Organic farming contributes to the maintenance of ecosystems** and provides services such as soil forming and conditioning, soil stabilization, waste recycling, carbon sequestration, nutrients cycling, predation, pollination and habitats. **A key factor to making food production more sustainable and farmlands more resilient will be the reduced use of chemical inputs and capacity building on how to successfully farm without them.**



**GOAL #3**  
ENSURE  
HEALTHY LIVES  
AND PROMOTE  
WELL-BEING  
FOR ALL  
AT ALL AGES

Unlike chemical-based agriculture, **organic agriculture does not use harmful chemicals** such as the weed killer Glyphosate, which the World Health Organization has recently defined as a "probable carcinogen". Traces of Glyphosate have been found in food, water and the air. In addition, the World Health Organization estimates that there are **"3 million cases of pesticide poisoning each year and up to 220,000 deaths, primarily in developing countries."** Pesticide use has also been linked to headaches and nausea to chronic impacts such as cancer, reproductive harm, diabetes and endocrine disruption. Incessant use of chemicals in farming is depleting soils and contaminating water. Thus by **working with farmers to eliminate the use of chemicals in growing food, we can make a significant contribution to reducing their harmful effects on people and the planet and contribute to wellbeing for all.**



**GOAL #6**  
ENSURE  
AVAILABILITY  
& SUSTAINABLE  
MANAGEMENT  
OF WATER AND  
SANITATION  
FOR ALL

Eliminating the use of toxic chemicals in agriculture will hinder pesticide runoff into waterways, which can affect the fish we eat and water we drink.



**GOAL #12**  
ENSURE  
SUSTAINABLE  
CONSUMPTION  
& PRODUCTION  
PATTERNS

A shift toward organic farming practices would bring many benefits to the efficient use of natural resources such as soil, water and air. To encourage such a shift, national procurement policies can stipulate that the food served in schools, hospitals etc. are from sustainable production e.g. In Denmark, the government has announced that 60% of food served in public institutions should be organic. Denmark has also set the target of doubling organic farmland by 2020, which will contribute significantly to ensuring sustainable food production and thus sustainable food consumption.

We are producing enough to feed the world yet wasting food that could feed millions. We are losing food to standards dictating weight and appearance of fruit and vegetables as well as inadequate storage and distribution systems. Here action can be taken from various angles e.g. in France, supermarkets are to be prohibited from throwing away food and investments can be made in reducing post-harvest losses at the point of food production. We also need to raise awareness of the true cost of food production as increased awareness of this issue could play a major role in reducing retail and consumer waste of food.



**GOAL #13**  
TAKE URGENT  
ACTION TO  
COMBAT CLIMATE  
CHANGE AND  
ITS IMPACTS

A recent paper<sup>1</sup> suggests “even were we to stop burning fossil fuels tomorrow, the greenhouse gases already released will continue to raise global temperatures and set free more harmful gases many years into the future.” A key part to **organic farming practices** is **soil management**. The degradation of soil through unsustainable farming has released huge amounts of carbon into the atmosphere. **By not using chemical fertilizers and organic farming practices** such as minimum tillage, returning crop residues to the soil, the use of cover crops and rotations, and the greater integration of nitrogen fixing legumes, **increase the return of carbon to the soil**. Furthermore, a study<sup>2</sup> shows that with the “**use of cover crops, compost, crop rotation and reduced tillage, we can actually sequester more carbon than is currently emitted, tipping the needle past 100% to reverse climate change.**”

1 [www.nofamass.org/sites/default/files/2015\\_White\\_Paper\\_web.pdf](http://www.nofamass.org/sites/default/files/2015_White_Paper_web.pdf)

2 <http://rodaleinstitute.org/assets/WhitePaper.pdf>



**GOAL #15**  
PROTECT, RESTORE  
AND PROMOTE  
SUSTAINABLE USE  
OF TERRESTRIAL  
ECOSYSTEMS,  
SUSTAINABLY  
MANAGE  
FORESTS, COMBAT  
DESERTIFICATION,

AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS

According to the International Union for Conservation of Nature, the current biodiversity loss can be considered “the greatest extinction crisis since dinosaurs disappeared.” The causes range from excessive use of fertilizers to the effects of human-induced climate change. A study<sup>3</sup> has shown that **organically managed lands have up to “46 and 72 percent more semi-natural habitats and host 30 percent more species and 50 percent more individuals than non-organic farms.”**

3 [www.fibl.org/en/themes/biodiversity.html#c11843](http://www.fibl.org/en/themes/biodiversity.html#c11843)