

# Agricultural Strategies

Sustainable Natural Farming Overview

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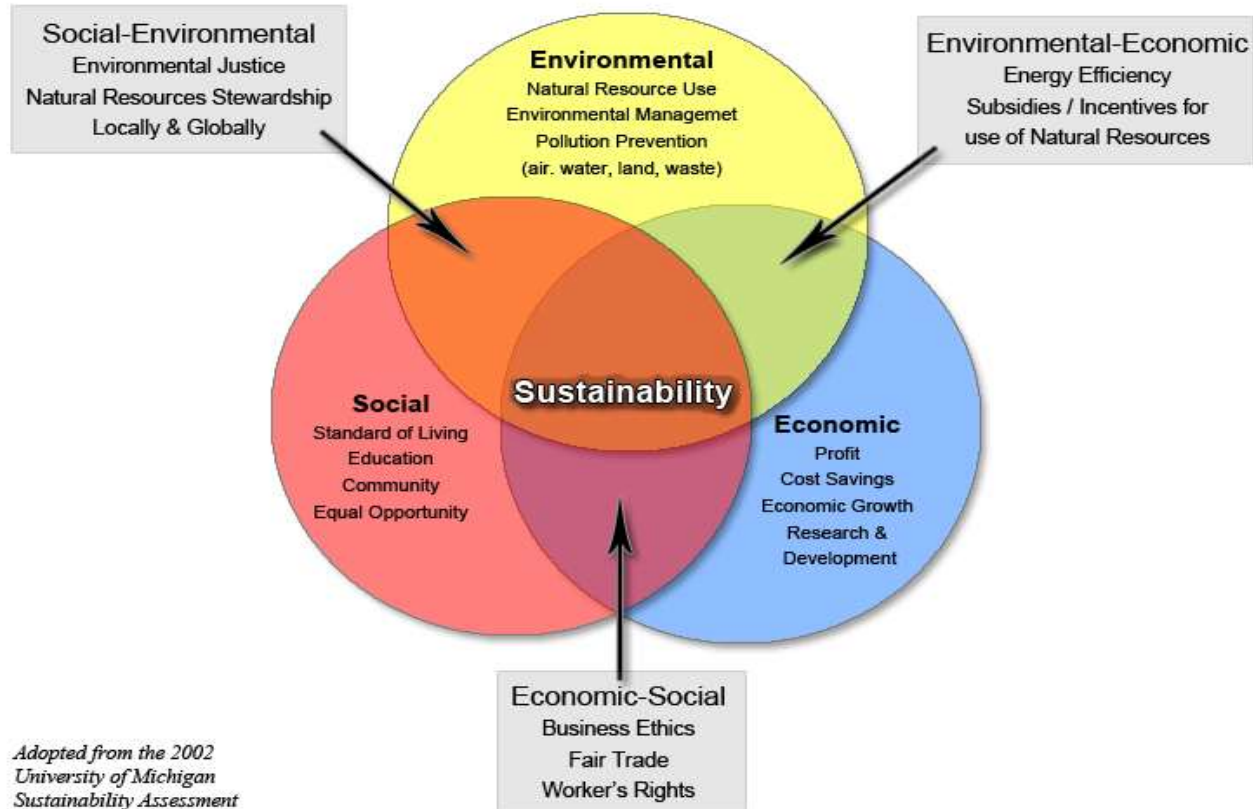
# Sustainable Agriculture 永续农业

## 3 spheres of Sustainability 永续农业的三个方面

- ▶ Environment 环境
  - ▶ Natural Resources 自然资源
  - ▶ Environmental Management 环境管理
  - ▶ Pollution Prevention 污染防治
- ▶ Social 社会
  - ▶ Standard of living 生活水平
  - ▶ Education 教育
  - ▶ Community Development 社会发展
  - ▶ Equal Opportunity 机会均等
- ▶ Economic 经济
  - ▶ Profit 利润
  - ▶ Cost Savings 节约成本
  - ▶ Economic Growth 提高效益

# Natural Farming is Sustainable Agriculture

## *The Three Spheres of Sustainability*



*Adopted from the 2002  
University of Michigan  
Sustainability Assessment*

# Natural Farming

## What is Natural Farming?

Natural Farming is a holistic view of farming. Its goals is to provide a sustainable farming method that protects the environment and uses local resources to produce healthy crops and raise healthy animals. It takes advantage of local microorganisms to produce fertile soils that yield high output without the use of synthetic herbicides or pesticides.

自然农业是一种农业整体现，它充分利用当地的微生物来提供一种以生产健康作物，健康动物，充分利用当地资源并且环保的可持续耕作方法，无需使用人工合成除草剂或杀虫剂来处理土壤问题

# Natural Farming

## Benefits:

- ▶ Increases yields and produces a high quality product. 提高产量和生产高品质的产品。
- ▶ Requires less labor and expenses 需要人工和费用更低
- ▶ Creates healthy environments 创造健康的环境
- ▶ Increases profits and standard of living. 利润增加和生活水平提高

**Natural Farming is being implemented around the world.** 自然农业正在世界各地兴起

- ▶ Thailand, Philippines, South Korea, USA, China, Mongolia and many other countries. 泰国, 菲律宾, 韩国, 美国, 中国, 蒙古等许多国家

## Successes

- ▶ In Hawaii, crop productivity increased 2-fold with the use of KNF, while reducing water use by 30% and eliminating the use of pesticides. 在夏威夷, 作物产量增加了2倍, 同时减少用水30%, 杜绝使用农药
- ▶ Natural Farming was adopted by the South Korean government after successful trials growing rice in one county, where every farmer followed the practice. They increased yields, saved money on inputs and obtained a price premium. Rivers and coastal waters experienced environmental benefits. <sup>[2]</sup>



# Natural Farming



The Aloha Natural  
Farm, Puerto Princesa  
City, Palawan,  
Philippines

# Natural Farming

**Natural farming can be applied to both family gardens and larger multiple mu farms.**

- ▶ One can use natural farming to provide healthy food for their family with as little as 150m<sup>2</sup> of space. Eight rows of vegetables with the addition of a few chickens and pigs should be enough to provide for a family of five throughout the year without additional income.
- ▶ When applied to larger farms Natural farming can produce healthy produce that requires less time and inputs to grow but can be sold at a premium price.

## **What can be grown using natural farming?**

In general natural farming methods can be applied to any fruits and vegetables that are being grown using conventional methods. Natural farming has been used to grow mangos, papaya, rice, melons, lettuces, peppers, tomatoes, herbs and many other vegetables around the world.

# Components of Natural Farming 构成

Natural farming is an integrated approach to farming which includes management of the following: 包括以下几个综合途径

- ▶ Soil health 土壤健康状况
  - ▶ Indigenous Microbes 土著微生物
  - ▶ Organic matter (CRH, Composting, Rice hulls, Manure) 有机质 (炭化物、堆肥、米壳、动物粪便)
  - ▶ Mulching 地上覆盖
  - ▶ Minimal Tillage 少耕
  - ▶ Cover Cropping 覆盖作物
  - ▶ Vermiculture 蚯蚓培养
- ▶ Crop Management 农作物管理
  - ▶ Green Fertilizers and Indigenous Microbes 绿肥和土著微生物
  - ▶ Seed storing and Preparation 种子贮存和准备
  - ▶ Crop Rotation 轮作
  - ▶ Companion Planting 混栽
  - ▶ Natural Pest Management 自然虫害管理
- ▶ Livestock Management 家畜管理
- ▶ Forestry Management 树木管理