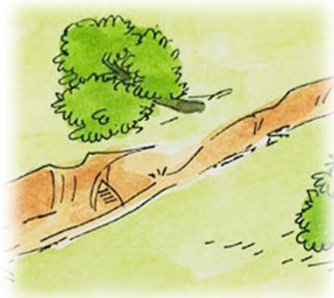


# Challenges of agriculture in Africa



**Low soil fertility**



**Effects of climate change**



**Limited access to safe and sustainable inputs**



**Shortage of land**



**Low yield**

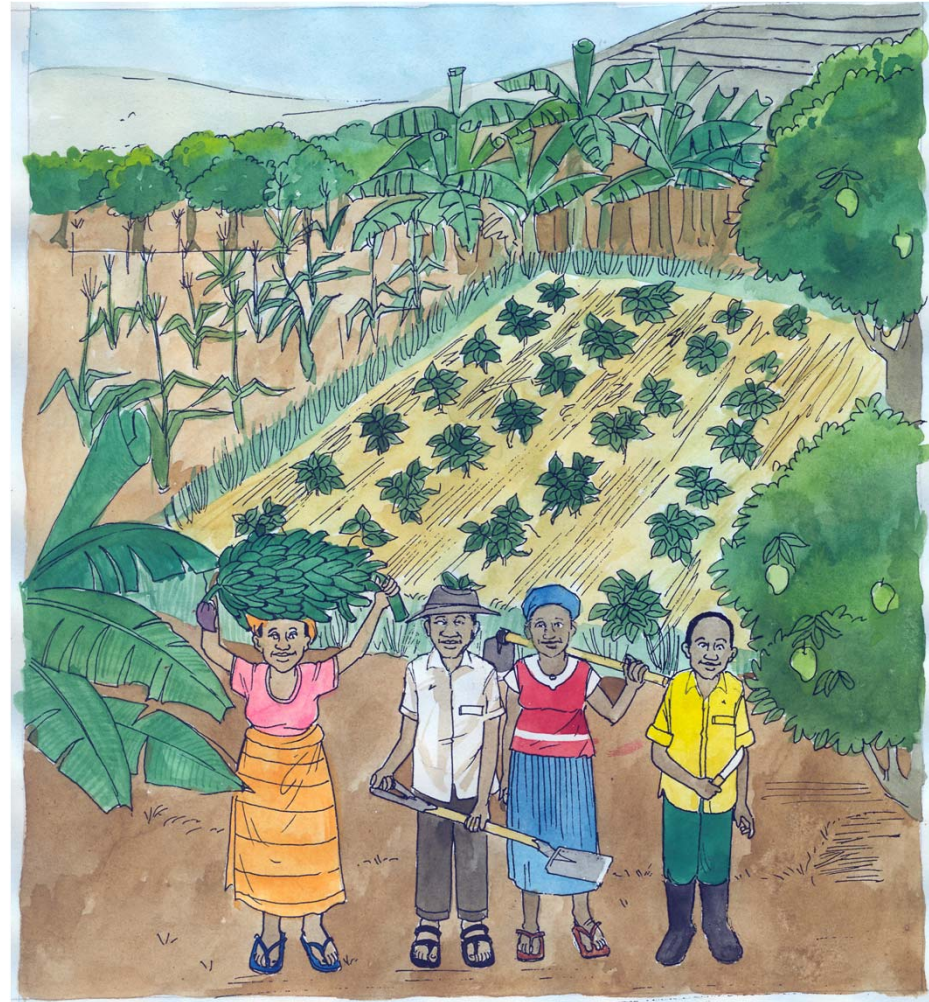


**Limited access to reliable markets**



# Key questions for food security in Africa

- › How can we increase yield security using natural resources efficiently and sustainably?
- › How can we avoid negative effects of intensified agricultural production systems?
- › How can we facilitate learning from each other?



# Characteristics of the best agricultural system



**Considers multiple functions of agriculture**

**Has a value chain and regional perspective**

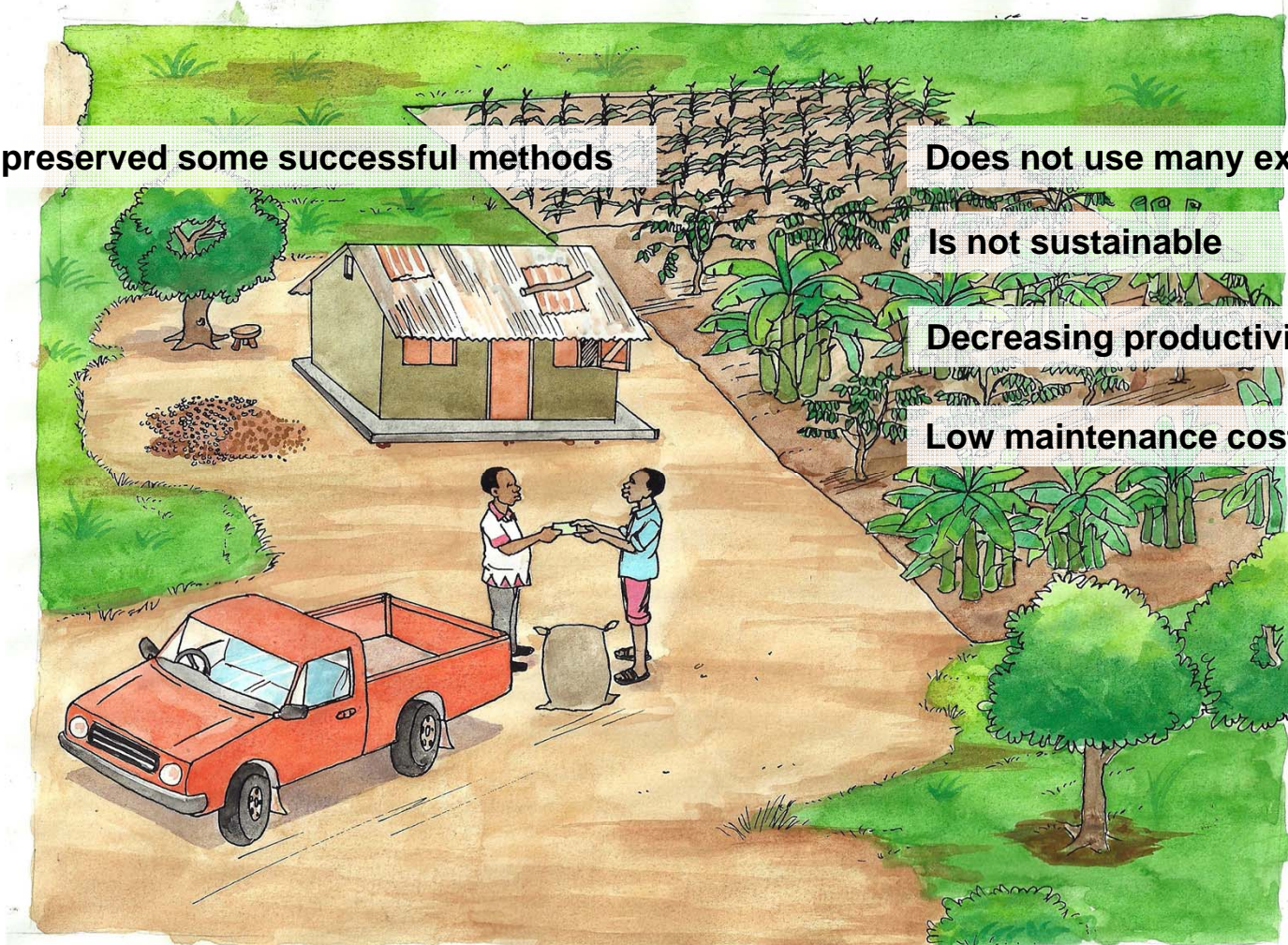
**Improves soil fertility, reduces soil degradation**

**Improves education, research and extension**

**Recognizes the important role of women**



# What is traditional agriculture?



Have preserved some successful methods

Does not use many external inputs

Is not sustainable

Decreasing productivity

Low maintenance costs



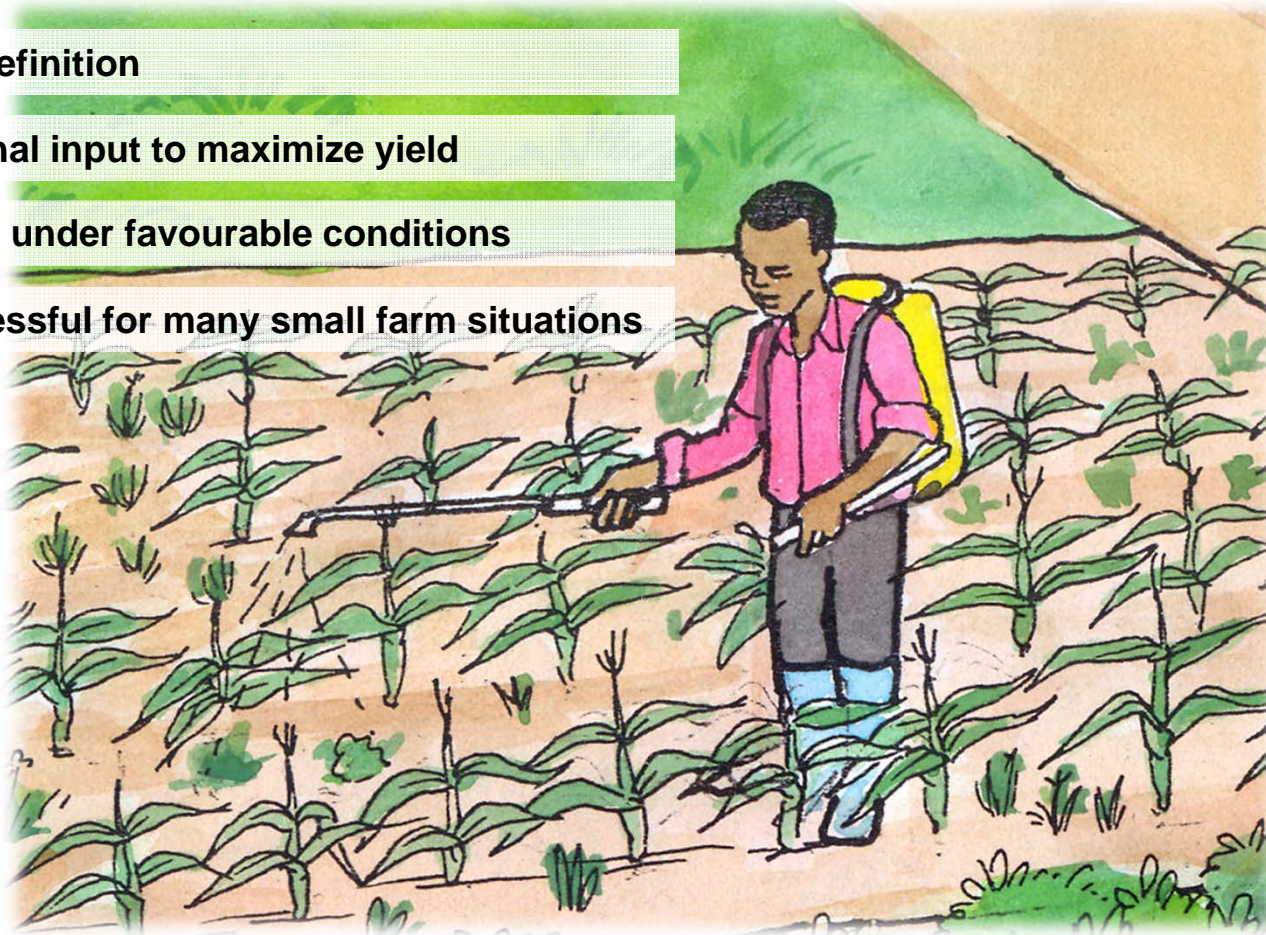
# What is conventional agriculture?

No exact definition

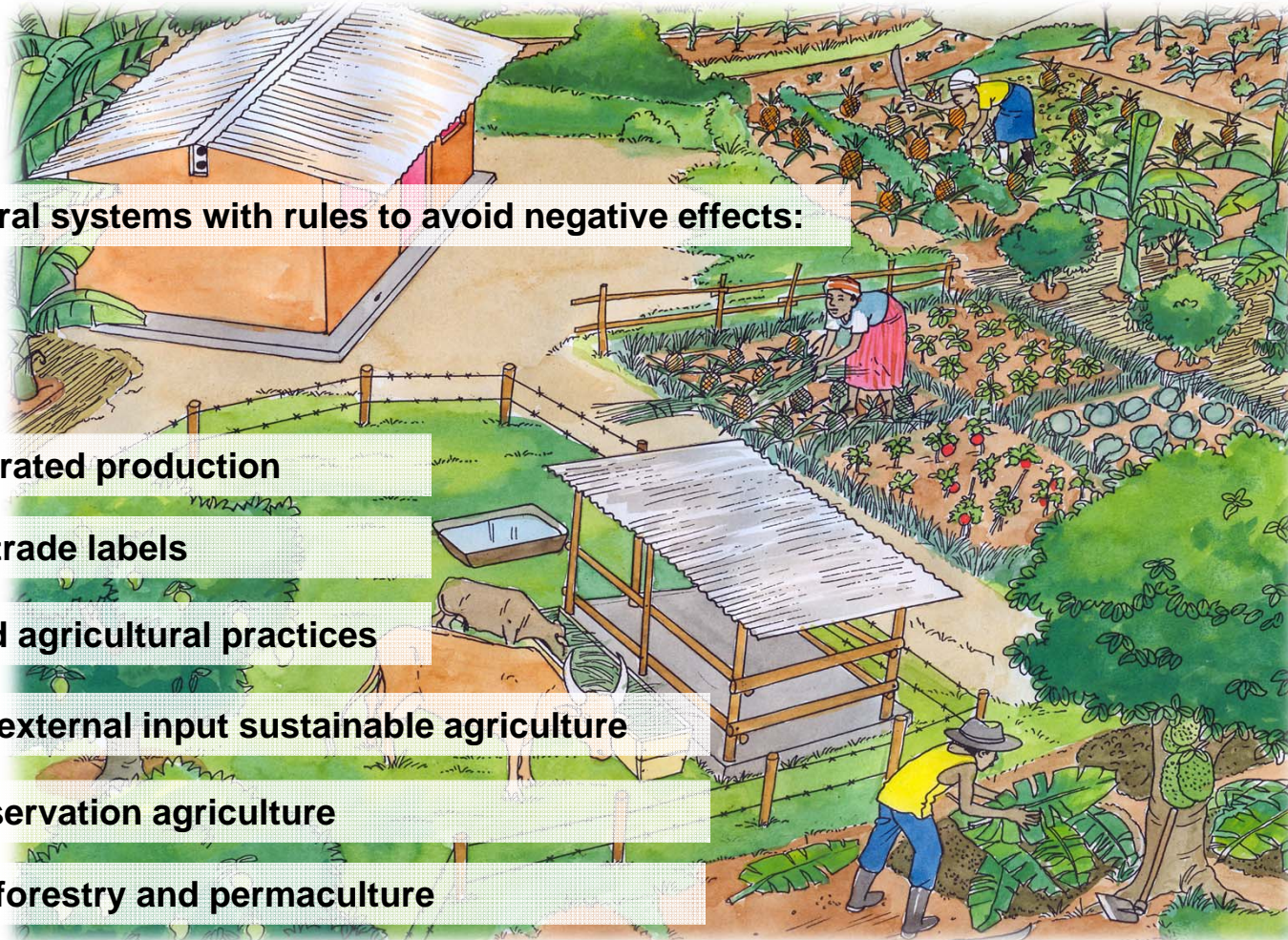
High external input to maximize yield

Successful under favourable conditions

Less successful for many small farm situations



# What is sustainable agriculture?



Several systems with rules to avoid negative effects:

Integrated production

Fair trade labels

Good agricultural practices

Low external input sustainable agriculture

Conservation agriculture

Agroforestry and permaculture



# What is organic agriculture?

Does not use chemical-synthetic pesticides and fertilizers

Improves soil fertility

No livestock feed additives and minimal use of synthetic animal drugs

Preventive pest and disease management

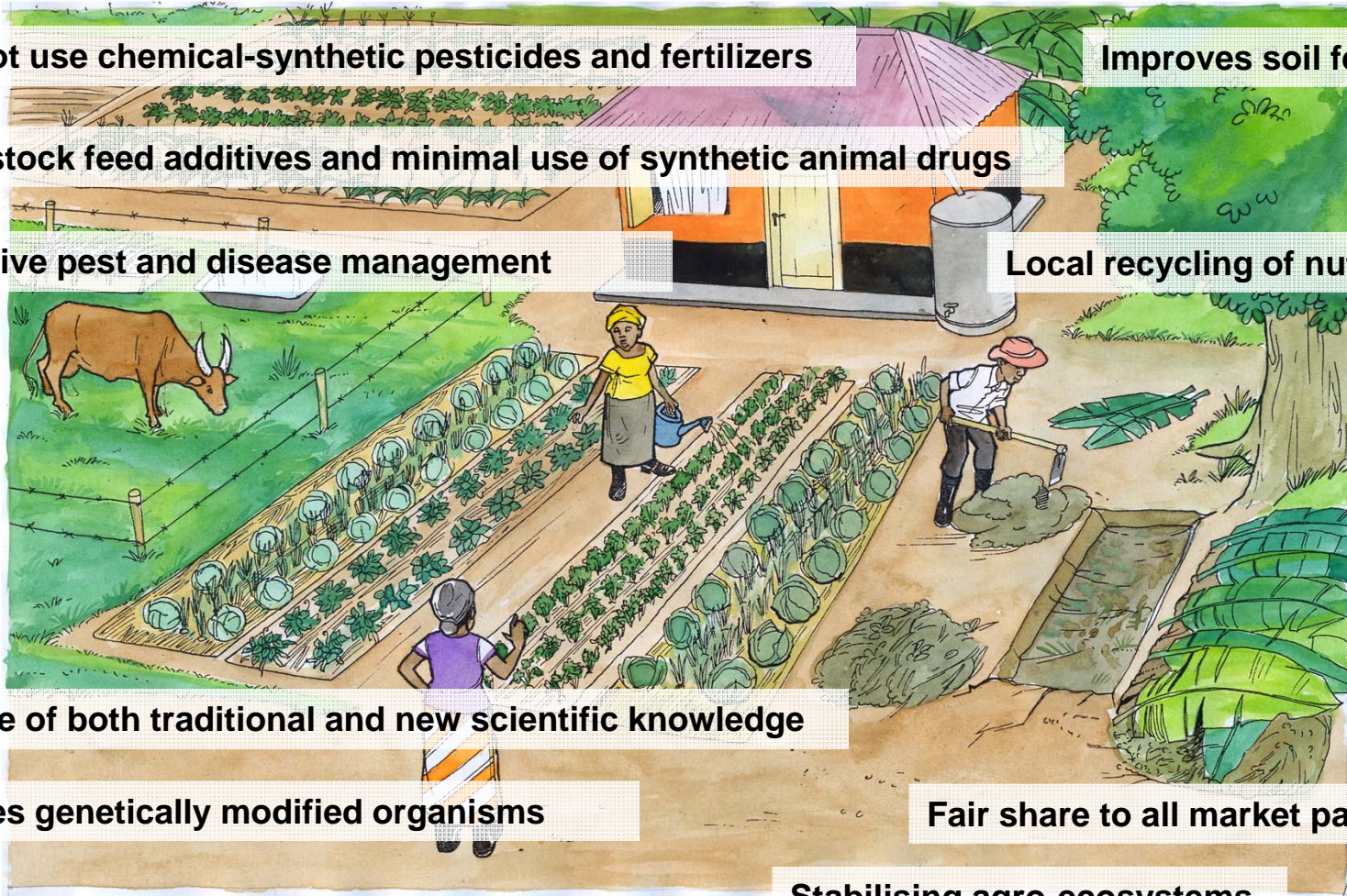
Local recycling of nutrients

Best use of both traditional and new scientific knowledge

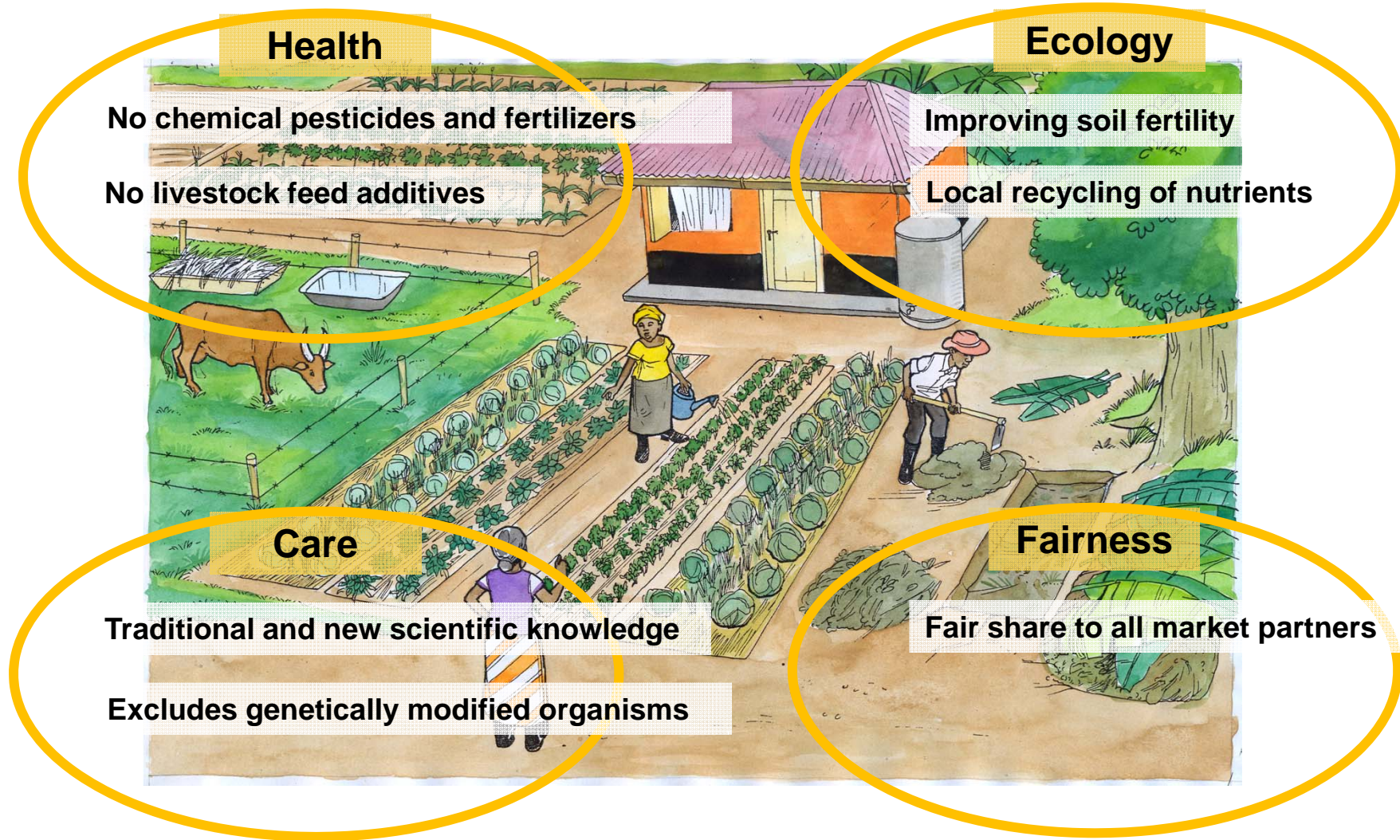
Excludes genetically modified organisms

Fair share to all market partners

Stabilising agro-ecosystems

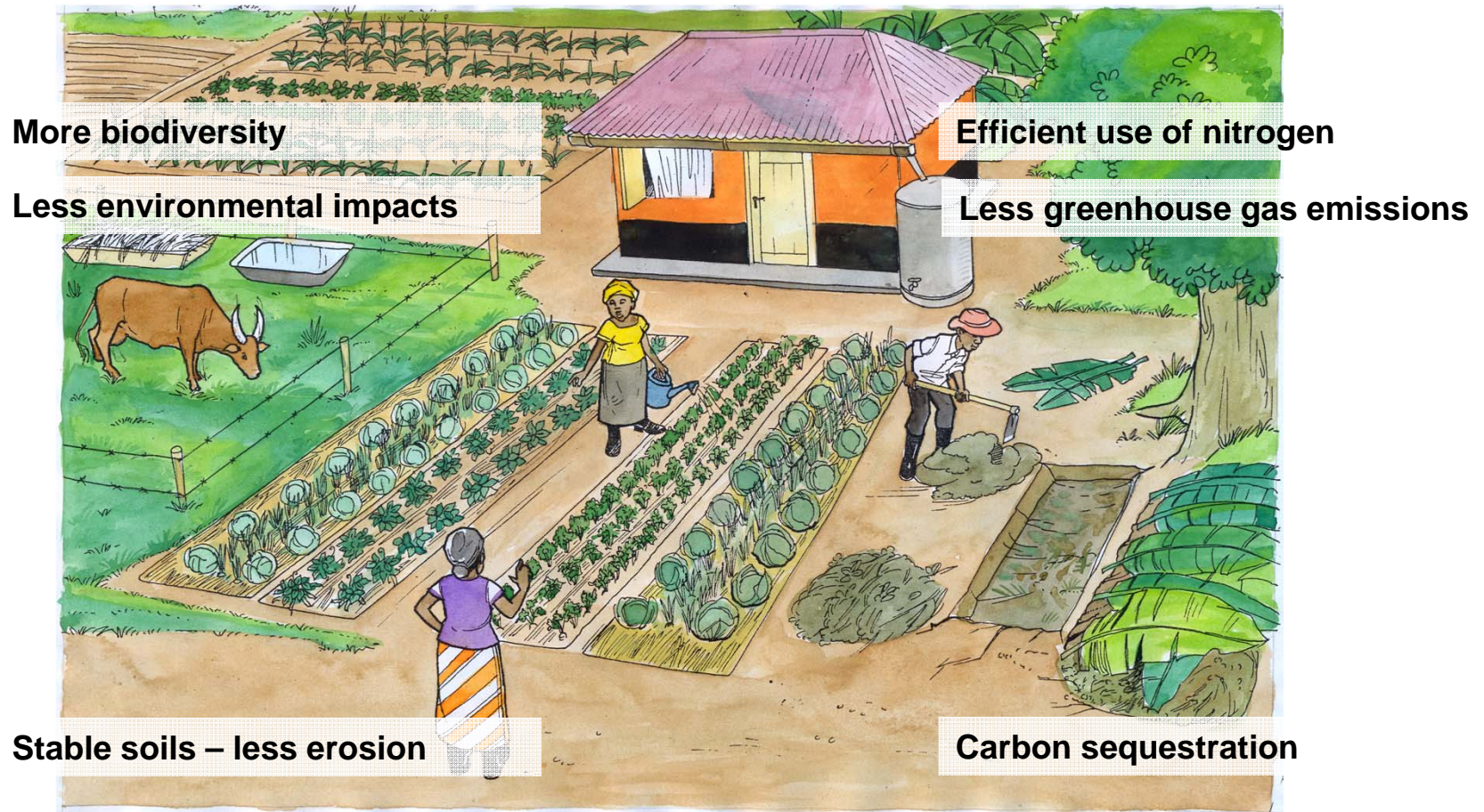


# Principles of organic agriculture





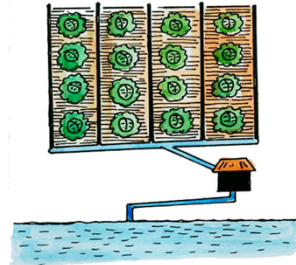
# Benefits of organic farms



# Solutions for agriculture in Africa



**Compost making**



**Water harvesting**



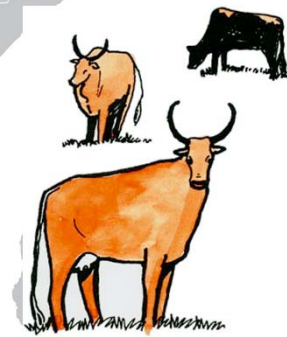
**Agroforestry**



**Soil fertility management**



**Cooperation**



**Organic animal husbandry**

