



**Organic  
Cost-competitiveness  
-  
Cheaper Today,  
Mainstream Tomorrow?**

**Bonn, 16 September 2010**

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# Greening the Desert

**The first SEKEM building in 1979**



**The same building in 2009**



**A SEKEM field in 1987**



**The same fields in 2009**



# SEKEM-Initiative for Holistic Sustainable Development

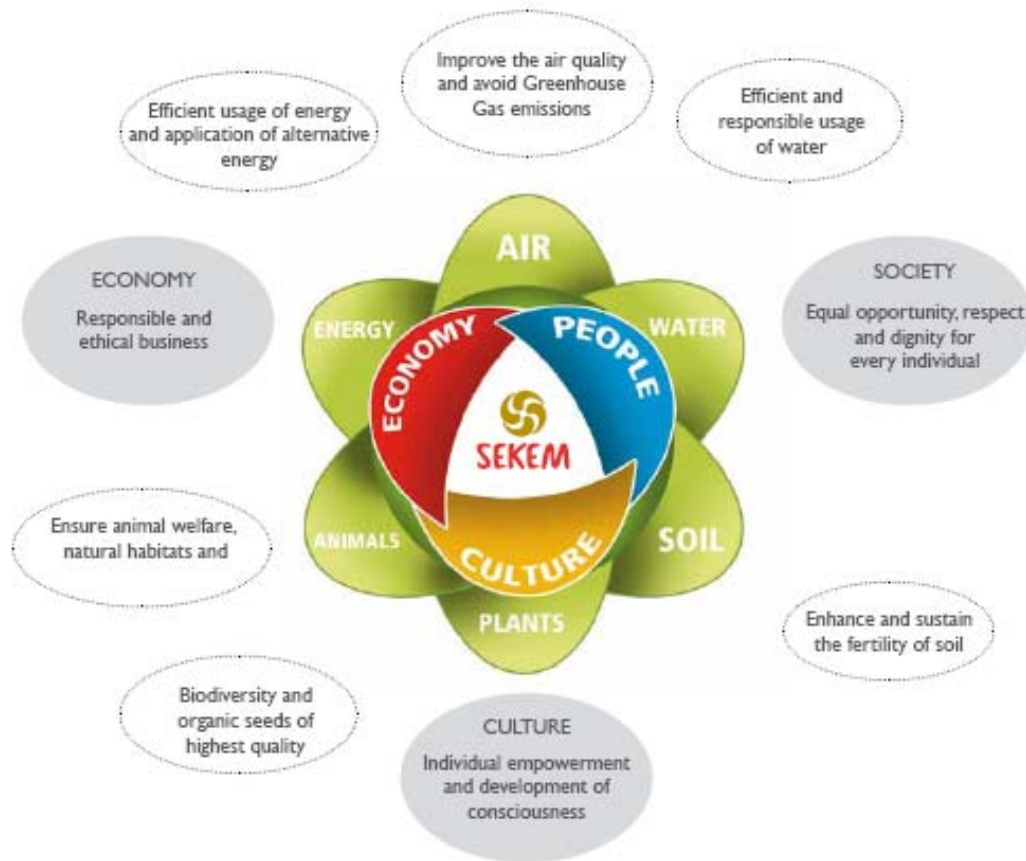


### Culture

- The SEKEM Development Foundation (SDF) operates a broad range of educational institutions, provides health services, and supports the cultural and artistic development of SEKEM employees and members of the surrounding communities
- To spread knowledge about biodynamic agriculture, SEKEM actively supports the Egyptian Biodynamic Association (EBDA)
- SEKEM engages heavily in research & development for sustainable innovations

### Economy

- The core businesses of the SEKEM Group are land reclamation, organic farming, food, pharmaceutical, and textile production
- The SEKEM companies include the largest packer of organic tea and the leading producer of herbs in the Middle East
- The SEKEM companies are compliant with 14 international standards and certificates (Demeter, Fairtrade, ISO, etc.)
- The SEKEM Group has implemented a comprehensive management system, integrating the four dimensions of sustainable development and annually reports on progress and achievements



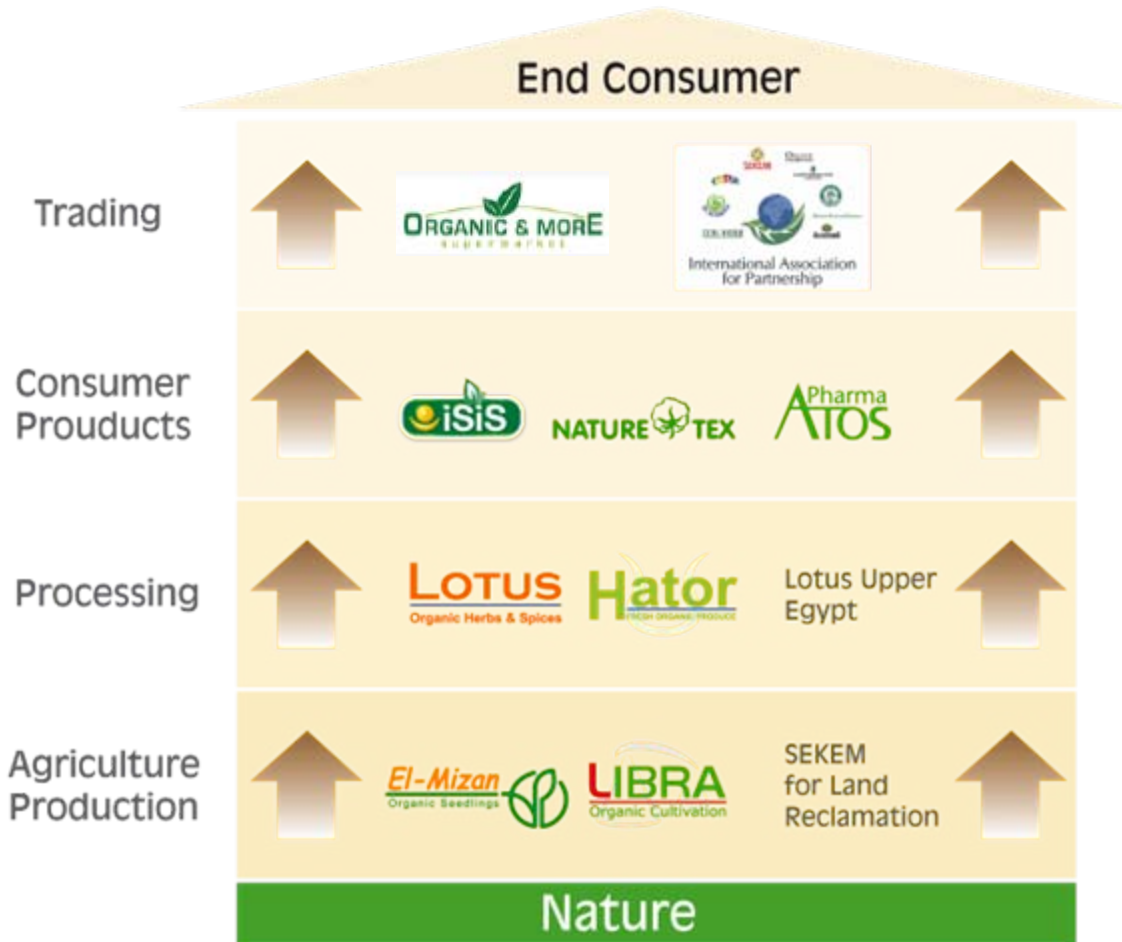
### People

- SEKEM engages with all its stakeholders in a holistic and transparent way
- In 2009, the SEKEM Companies and Foundation employed 1,973 people (of which 1,549 employees belong to the companies covered by this report)
- SEKEM actively endorses the UN Global Compact principles and promotes human rights together with the Cooperative of SEKEM Employees (CSE)
- SEKEM is certified by Unifem to provide all its employees with equal opportunities
- SEKEM is at the forefront of national and international initiatives for sustainable development

### Ecology

- SEKEM cultivates more than 1,000 acres of farmland whereas suppliers sources raw material from more than 8,000 acres
- Roughly 30 percent of raw materials used in processing come from SEKEM firms
- SEKEM focusses on Organic products
- SEKEM constantly monitors and improves the efficiency of water usage and energy consumption
- One of the major priorities of SEKEM is caring about the fertility of soil and the biodiversity of plants and the related ecosystem
- Animal husbandry at SEKEM includes cattle, sheep, chicken, bees, pigeons - all living according to Demeter standards

# SEKEM Value Chain based on Biodynamic Agriculture





SEKEM DEVELOPMENT  
FOUNDATION



- Kindergarten and school
- Medical centre
- Vocational training
- Community school
- Children with special needs
- Adult education
- Heliopolis Academy for research and training
- Heliopolis University for Sustainable Development

# SEKEM - a learning, living community



- About 2,000 employees in SEKEM Group and Foundation
- Safe workplaces, respect for the dignity of every employee
- Women empowerment and religious tolerance



United Nations Development Fund for Women



Working for Women's  
Empowerment and  
Gender Equality



# Biodynamic Agriculture and other Ecosystem Services



- 110.000 t Bio-Compost (CMC-Process)  
→ avoid emissions of 100.000 t CO<sub>2</sub>e (methane)
  - 11.000 h newly cultivated land  
→ sequester 286.000 t within 30 years  
→ more than 1 m t CO<sub>2</sub>e
- 0.86 TONS PER HECTARE AND YEAR**
- Enhanced humus structure – enhanced resilience against pests and erosion  
→ higher yields, long-term productivity
- SUSTAINABLE FOOD SECURITY**

- Water Efficiency
  - Living soils resulting in higher water holding capacity
  - Advanced irrigation systems
  - No excess irrigation
  
- New Technologies
  - Agro-forestry and intercropping
  - Predators
  - Grafting
  
- Energy Efficiency
  - No chemical fertilizers

*'Production of 1 ton of Nitrogen fertilizer consumes 1 – 1.5 tons of gasoline equivalent.' Defra (2005)*
  
- Rural employment
  - Substitution of fertilizer, energy input and chemical pest control by human labor

## **Too expensive?**

→ In true cost prices, Sustainable Agriculture is cheaper!

## **Not enough?**

→ Only Sustainable Agriculture can feed the world!

## **Not really Sustainable?**

→ Just 'organic' is not sufficient.

**Comprehensive Sustainability approaches will lead the way.**

# Sustainable Agriculture is cheaper!



- Today
  - ≈20% premium in Egypt vanishes from a macro perspective.
    - ≈ 3% result from subsidized water usage in agriculture
    - ≈ 6% from subsidized energy usage (on farm & fertilizer production)
- Short to medium term
  - cost competitive with conventional products
- Medium to long term
  - even cheaper
  
- True costs!
  - (taking into account: reduced pollution, health of farmers/consumers)

# Only Sustainable Agriculture can feed the world!



- Studies show that sustainable agriculture can feed the world
  - C. Badgley et al. (2006)
    - Average yield ratio (organic : non-organic) for ten individual food categories recognized by the FAO show for:
      - Developed world: slightly  $<1.0$
      - Developing world:  $>1.0$
- Sustainable Agriculture can feed the world!
- But: Food security depends on policies and prices as much as on yields.

# Just 'organic' is not enough.

- Organic Agriculture = best practice
  - BUT: not always sustainable
  - Examples
    - There is no regulatory framework that asks set guidelines for water management: you can use as much water as you want in organic agriculture
    - No one prohibits you to use very old tractors that consume a lot of diesel: no energy efficiency standards in organic agriculture
- ➔ Organic Standards must be amended with sustainability indicators!

## **Eco-Intensification**

- Increasing productivity
  - Improved pest control techniques
  - Significant increase of yields per hectare
  - Improved resource-efficiency and eco-efficiency

## **Awareness and Advocacy**

- Re-defining Sustainable Agriculture
  - Pointing out dangers of unsustainable alternatives (Carbon Sequestration via GMO crops, ...)
  - Highlighting Best Practice, Knowledge Exchange