WHY SOIL?
90% of food comes from soil.
DO YOU EAT FOOD?
30
PER MINUTE
SOIL DEGRADATION

World Soil Information Map
Planetary Boundaries, Stockholm Resilience Center
Projected impact of climate change on agricultural yields

A key culprit in climate change – carbon emissions – can also help agriculture by enhancing photosynthesis in many important (...) crops such as wheat, rice, and soybeans. The science, however, is far from certain on the benefits of carbon fertilisation. *

This map represents the case of beneficial carbon fertilisation processes.

Change in agricultural productivity between 2003 and the 2080s

Source: Cline W., 2007, Global Warming and Agriculture.
POPULATION GROWTH

POPULATION OF THE EARTH

Number of people living worldwide since 1700 in billions

1804: 1 bln
1927: 2 bln
1960: 3 bln
1974: 4 bln
1987: 5 bln
1999: 6 bln
2012: 7 bln
2024: 8 bln
2048: 9 bln

Source: United Nations World Population Prospects, Deutsche Stiftung Weltbevölkerung
For further information please visit: www.knowledge.allianz.com
CURRENT DRIVERS

- INCREASE LAND USE FOR AGRICULTURE
- INCREASE IN PRODUCTION OF FOOD
- INCREASE IN CONSUMPTION OF FOOD
- INCREASE IN FOOD WASTE
75% OF SOIL DEGRADATION = DRIVEN BY AGRICULTURE
MAIN THREATS

1. BIODIVERSITY DECLINE
2. CONTAMINATION

MAIN THREATS

- METALS
- OIL
3. Compaction
5. ORGANIC MATTER DECLINE
MAIN THREATS

NaCl

6. SALINISATION
PLANET EARTH = PLANET SOIL
SUMMER OF SOIL

7 JULY - 9 AUGUST 2013
40+ YEARS OF REGENERATIVE AGRICULTURE & SOIL RESEARCH
LIVING SOIL EXHIBITION
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LIVING SOIL EXHIBITION
LIVING SOIL EXHIBITION

• IN SWEDISH & ENGLISH
LIVING SOIL EXHIBITION

- IN SWEDISH & ENGLISH
- OVER 4000 VISITORS IN 2 MONTHS
LIVING SOIL EXHIBITION

- In Swedish & English
- Over 4000 visitors in 2 months
- Build with 98% recycled material
LIVING SOIL EXHIBITION

- In Swedish & English
- Over 4000 visitors in 2 months
- Build with 98% recycled material
- Designed and build by young volunteers
LIVING SOIL EXHIBITION

- IN SWEDISH & ENGLISH
- OVER 4000 VISITORS IN 2 MONTHS
- BUILD WITH 98% RECYCLE MATERIAL
- DESIGNED AND BUILD BY YOUNG VOLUNTEERS
- 5 NEWSPAPER ARTICLES, 1 FULL-PAGE
LIVING SOIL EXHIBITION

- In Swedish & English
- Over 4000 Visitors in 2 Months
- Build with 98% Recycled Material
- Designed and Build by Young Volunteers
- 5 Newspaper Articles, 1 Full-Page
- Invited to Mexico & Israel
COURSES
COURSES

Permaculture Design Course
Urban Gardening
Aquaponics

Cooking
Forest Gardening

Farmers University

Beekeeping

LIVING SOIL FORUM
22-26 JULY
COURSES
COURSES

- 101 PARTICIPANTS FROM 15 COUNTRIES
COURSES

- 101 PARTICIPANTS FROM 15 COUNTRIES
- 7 COURSES BY 15 TEACHERS
COURSES

• 101 PARTICIPANTS FROM 15 COUNTRIES
• 7 COURSES BY 15 TEACHERS
• 80% YOUTH PARTICIPATION
COURSES

- 101 PARTICIPANTS FROM 15 COUNTRIES
- 7 COURSES BY 15 TEACHERS
- 80% YOUTH PARTICIPATION
- ORGANISED BY YOUNG VOLUNTEERS
COURSES
COURSES
COURSES
LIVING SOIL FORUM
22 - 26 JULY 2013
FOCUS AREAS

- Choice & Consumption
- Research & Legislation
- Economy & Distribution
- Practice & Production
OBJECTIVES

• BUILD A SOIL MOVEMENT
OBJECTIVES

- BUILD A SOIL MOVEMENT
- INSPIRE CONSUMERS AND YOUTH TO BECOME ACTIVE STEWARDS
OBJECTIVES

• BUILD A SOIL MOVEMENT

• INSPIRE CONSUMERS AND YOUTH TO BECOME ACTIVE STEWARDS

• CREATE AND PROMOTE SOIL AWARENESS
OBJECTIVES

• BUILD A SOIL MOVEMENT
• INSPIRE CONSUMERS AND YOUTH TO BECOME ACTIVE STEWARDS
• CREATE AND PROMOTE SOIL AWARENESS
• EXCHANGE, SHARE AND INITIATE REAL PROJECTS
OBJECTIVES

- BUILD A SOIL MOVEMENT
- INSPIRE CONSUMERS AND YOUTH TO BECOME ACTIVE STEWARDS
- CREATE AND PROMOTE SOIL AWARENESS
- EXCHANGE, SHARE AND INITIATE REAL PROJECTS
- SHOWCASE INSPIRATIONAL PROJECTS AND CAMPAIGNS
INTERACTIVE SESSIONS
INTERACTIVE SESSIONS

• INSPIRATIONAL SHORT KEYNOTES
INTERACTIVE SESSIONS

• INSPIRATIONAL SHORT KEYNOTES
• WORLD CAFE
INTERACTIVE SESSIONS

• INSPIRATIONAL SHORT KEYNOTES
• WORLD CAFE
• OPEN SPACE TECHNOLOGY
INTERACTIVE SESSIONS

- Inspirational Short Keynotes
- World Cafe
- Open Space Technology
- Designing for Action Workshops
INTERACTIVE SESSIONS

- Inspirational Short Keynotes
- World Cafe
- Open Space Technology
- Designing for Action Workshops
- Pro-Action Cafe & Peer Coaching
INTERACTIVE SESSIONS

- INSPIRATIONAL SHORT KEYNOTES
- WORLD CAFE
- OPEN SPACE TECHNOLOGY
- DESIGNING FOR ACTION WORKSHOPS
- PRO-ACTION CAFE & PEER COACHING
- FIELD WORK, ARTISTS IN RESIDENCE, SOILICIOUS CATERING
OUTCOMES

- 130 PARTICIPANTS, OVER 60% YOUTH
OUTCOMES

- 130 PARTICIPANTS, OVER 60% YOUTH
- 14 KEYNOTE SPEECHES
OUTCOMES

- 130 PARTICIPANTS, OVER 60% YOUTH
- 14 KEYNOTE SPEECHES
- 11 INSPIRATIONAL EXAMPLES SHOWCASED
OUTCOMES

- 130 PARTICIPANTS, OVER 60% YOUTH
- 14 KEYNOTE SPEECHES
- 11 INSPIRATIONAL EXAMPLES SHOWCASED
- 14 PARTICIPANT DESIGNED PROJECTS
OUTCOMES

- 130 PARTICIPANTS, OVER 60% YOUTH
- 14 KEYNOTE SPEECHES
- 11 INSPIRATIONAL EXAMPLES SHOWCASED
- 14 PARTICIPANT DESIGNED PROJECTS
- ONLINE REACH TO 15,000 PEOPLE
PROJECT EXAMPLES

- ‘SOILIDARITY’ VOLUNTEER PROGRAM
PROJECT EXAMPLES

- ‘SOILIDARITY’ VOLUNTEER PROGRAM
- ALLVERSITY FREE ONLINE SOIL COURSE
PROJECT EXAMPLES

- 'SOLIDARITY' VOLUNTEER PROGRAM
- ALLVERSITY FREE ONLINE SOIL COURSE
- RESEARCH, TRAINING & INNOVATION CENTRES FOR LARGE-SCALE ECOSYSTEM RESTORATION
PROJECT EXAMPLES

• ‘SOILIDARITY’ VOLUNTEER PROGRAM
• ALLVERSITY FREE ONLINE SOIL COURSE
• RESEARCH, TRAINING & INNOVATION CENTRES FOR LARGE-SCALE ECOSYSTEM RESTORATION
• NETWORK OF EXAMPLE FARMS
LIVING SOIL FORUM
LIVING SOIL FORUM
LIVING SOIL FORUM
LIVING SOIL FORUM
FUNDERS

Pie chart showing 33% for Fees and 67% for Funding.
FUNDERS

- VIDARSTIFTELSEN, SWEDEN

- Fees: 33%
- Funding: 67%
FUNDERS

- VIDARSTIFTELSEN, SWEDEN
- TRIODOS BANK, NETHERLANDS
FUNDERS

- VIDARSTIFTELSEN, SWEDEN
- TRIODOS BANK, NETHERLANDS
- STIFTUNG SOFTWARE AG, GERMANY

33% Fees
67% Funding
FUNDERS

- VIDARSTIFTELSEN, SWEDEN
- TRIODOS BANK, NETHERLANDS
- STIFTUNG SOFTWARE AG, GERMANY
- GLS TREUHANDSTELLE, GERMANY
FUNDERS

- VIDARSTIFTELSEN, SWEDEN
- TRIODOS BANK, NETHERLANDS
- STIFTUNG SOFTWARE AG, GERMANY
- GLS TREUHANDSTELLE, GERMANY
- MERKUR FONDEN, DENMARK
FUNDERS

- VIDARSTIFTELSEN, SWEDEN
- TRIODOS BANK, NETHERLANDS
- STIFTUNG SOFTWARE AG, GERMANY
- GLS TREUHANDSTELLE, GERMANY
- MERKUR FONDEN, DENMARK
- MAHLE STIFTUNG, GERMANY

33% Fees 67% Funding
WHAT WE LEARNED:

WE NEED

REGENERATIVE AGRICULTURE
SOIL AGENDA

1. INCREASE BIODIVERSITY
SOIL AGENDA

2. STOP CONTAMINATION
3. REDUCE COMPACTION
4. PREVENT EROSION
5. INCREASE ORGANIC MATTER
6. DECREASE SALINISATION
SOIL AGENDA

7. STOP SEALING
PRACTICE & PRODUCTION

- SCALE REGENERATIVE AGRICULTURE:
PRACTICE & PRODUCTION

• SCALE REGENERATIVE AGRICULTURE:
  • AGRO-ECOLOGY
PRACTICE & PRODUCTION

• SCALE REGENERATIVE AGRICULTURE:
  • AGRO-ECOLOGY
  • INTEGRATED FARMING
PRACTICE & PRODUCTION

• SCALE REGENERATIVE AGRICULTURE:
  • AGRO-ECOLOGY
  • INTEGRATED FARMING
  • ORGANIC AGRICULTURE
PRACTICE & PRODUCTION

- SCALE REGENERATIVE AGRICULTURE:
  - AGRO-ECOLOGY
  - INTEGRATED FARMING
  - ORGANIC AGRICULTURE
  - PERMACULTURE
PRACTICE & PRODUCTION

- SCALE REGENERATIVE AGRICULTURE:
  - AGRO-ECOLOGY
  - INTEGRATED FARMING
  - ORGANIC AGRICULTURE
  - PERMACULTURE
  - ECOLOGICAL RECYCLING AGRICULTURE
PRACTICE & PRODUCTION

• SCALE REGENERATIVE AGRICULTURE:
  • AGRO-ECOLOGY
  • INTEGRATED FARMING
  • ORGANIC AGRICULTURE
  • PERMACULTURE
  • ECOLOGICAL RECYCLING AGRICULTURE
  • NO-TILL, PERMANENT PLANT COVER
PRACTICE & PRODUCTION

- SCALE REGENERATIVE AGRICULTURE:
  - AGRO-ECOLOGY
  - INTEGRATED FARMING
  - ORGANIC AGRICULTURE
  - PERMACULTURE
  - ECOLOGICAL RECYCLING AGRICULTURE
  - NO-TILL, PERMANENT PLANT COVER
  - BIO-INTENSIVE FARMING
PRACTICE & PRODUCTION

• SCALE REGENERATIVE AGRICULTURE:
  • AGRO-ECOLOGY
  • INTEGRATED FARMING
  • ORGANIC AGRICULTURE
  • PERMACULTURE
  • ECOLOGICAL RECYCLING AGRICULTURE
  • NO-TILL, PERMANENT PLANT COVER
  • BIO-INTENSIVE FARMING
  • PERENNIAL & PASTURE CROPPING
PRACTICE & PRODUCTION

- SCALE REGENERATIVE AGRICULTURE:
  - AGRO-ECOLOGY
  - INTEGRATED FARMING
  - ORGANIC AGRICULTURE
  - PERMACULTURE
  - ECOLOGICAL RECYCLING AGRICULTURE
  - NO-TILL, PERMANENT PLANT COVER
  - BIO-INTENSIVE FARMING
  - PERENNIAL & PASTURE CROPPING
  - HOLISTIC GRAZING & LAND MANAGEMENT
PRACTICE & PRODUCTION

- SCALE REGENERATIVE AGRICULTURE:
  - AGRO-ECOLOGY
  - INTEGRATED FARMING
  - ORGANIC AGRICULTURE
  - PERMACULTURE
  - ECOLOGICAL RECYCLING AGRICULTURE
  - NO-TILL, PERMANENT PLANT COVER
  - BIO-INTENSIVE FARMING
  - PERENNIAL & PASTURE CROPPING
  - HOLISTIC GRAZING & LAND MANAGEMENT
  - COMPOST, SOIL BUILDING
PRACTICE & PRODUCTION

- Scale regenerative agriculture:
  - Agro-ecology
  - Integrated farming
  - Organic agriculture
  - Permaculture
  - Ecological recycling agriculture
  - No-till, permanent plant cover
  - Bio-intensive farming
  - Perennial & pasture cropping
  - Holistic grazing & land management
  - Compost, soil building

- Soil restoration & regeneration projects
ECONOMY & DISTRIBUTION
ECONOMY & DISTRIBUTION

• AIM FOR TRUE COST PRICING
ECONOMY & DISTRIBUTION

- AIM FOR TRUE COST PRICING
- DEVELOP NUTRIENT ECONOMY
ECONOMY & DISTRIBUTION

- Aim for true cost pricing
- Develop nutrient economy
- Create food price understanding
ECONOMY & DISTRIBUTION

• AIM FOR TRUE COST PRICING
• DEVELOP NUTRIENT ECONOMY
• CREATE FOOD PRICE UNDERSTANDING
• INCLUDE ECOSYSTEM SERVICES IN FOOD PRICE
ECONOMY & DISTRIBUTION

- AIM FOR TRUE COST PRICING
- DEVELOP NUTRIENT ECONOMY
- CREATE FOOD PRICE UNDERSTANDING
- INCLUDE ECOSYSTEM SERVICES IN FOOD PRICE
- TRUE TRANSPARENCY (BEYOND LABELING)
ECONOMY & DISTRIBUTION

- Aim for true cost pricing
- Develop nutrient economy
- Create food price understanding
- Include ecosystem services in food price
- True transparency (beyond labeling)
- Intelligent distribution models
ECONOMY & DISTRIBUTION

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- Develop nutrient economy
- Create food price understanding
- Include ecosystem services in food price
- True transparency (beyond labeling)
- Intelligent distribution models
- Funding for young farmers
ECONOMY & DISTRIBUTION

- Aim for true cost pricing
- Develop nutrient economy
- Create food price understanding
- Include ecosystem services in food price
- True transparency (beyond labeling)
- Intelligent distribution models
- Funding for young farmers
- Funding for soil restoration projects
ECONOMY & DISTRIBUTION

- AIM FOR TRUE COST PRICING
- DEVELOP NUTRIENT ECONOMY
- CREATE FOOD PRICE UNDERSTANDING
- INCLUDE ECOSYSTEM SERVICES IN FOOD PRICE
- TRUE TRANSPARENCY (BEYOND LABELING)
- INTELLIGENT DISTRIBUTION MODELS
- FUNDING FOR YOUNG FARMERS
- FUNDING FOR SOIL RESTORATION PROJECTS
- PAY FARMERS FOR SAVING SOIL, INCREASING BIODIVERSITY, CLEANING WATER, CAPTURING CARBON, ETC
CHOICE & CONSUMPTION
CHOICE & CONSUMPTION

- CHOOSE ORGANIC:
CHOICE & CONSUMPTION

• CHOOSE ORGANIC:
  • INCREASE BIODIVERSITY & ORGANIC MATTER, DECREASE CONTAMINATION & SALINISATION
CHOICE & CONSUMPTION

- CHOOSE ORGANIC:
  - INCREASE BIODIVERSITY & ORGANIC MATTER, DECREASE CONTAMINATION & SALINISATION

- EAT LESS MEAT:
CHOICE & CONSUMPTION

- **CHOOSE ORGANIC:**
  - INCREASE BIODIVERSITY & ORGANIC MATTER, DECREASE CONTAMINATION & SALINISATION

- **EAT LESS MEAT:**
  - DECREASE YIELD NEEDS & LAND AREA NEEDS, INCREASE FARM RECYCLING & INTEGRATION, DECREASE ENERGY INPUTS & OUTPUTS
CHOICE & CONSUMPTION

• CHOOSE ORGANIC:
  • INCREASE BIODIVERSITY & ORGANIC MATTER, DECREASE CONTAMINATION & SALINISATION

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• CHOOSE SEASONAL AND LOCAL:
CHOICE & CONSUMPTION

● CHOOSE ORGANIC:
  ● INCREASE BIODIVERSITY & ORGANIC MATTER, DECREASE CONTAMINATION & SALINISATION

● EAT LESS MEAT:
  ● DECREASE YIELD NEEDS & LAND AREA NEEDS, INCREASE FARM RECYCLING & INTEGRATION, DECREASE ENERGY INPUTS & OUTPUTS

● CHOOSE SEASONAL AND LOCAL:
  ● "KNOW THY FARMER", REDUCE ENERGY NEEDS, INCREASE
CHOICE & CONSUMPTION

- CHOOSE ORGANIC:
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- REDUCE WASTE
CHOICE & CONSUMPTION

• CHOOSE ORGANIC:
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• EAT LESS MEAT:
  • DECREASE YIELD NEEDS & LAND AREA NEEDS, INCREASE FARM RECycling & INTEGRATION, DECREASE ENERGY INPUTS & OUTPUTS

• CHOOSE SEASONAL AND LOCAL:
  • “KNOW THy FARMER”, REDUCE ENERGY NEEDS, INCREASE

• REDUCE WASTE
  • REDUCE FOOD WASTE = DECREASE YIELD NEEDS = DECREASE DEMAND ON SOIL
RESEARCH & LEGISLATION
RESEARCH & LEGISLATION

• RESEARCH:
RESEARCH & LEGISLATION

- RESEARCH:
  - WE NEED SOIL BUILDING, RESTORATION AND REGENERATION RESOURCES
RESEARCH & LEGISLATION

• RESEARCH:
  • WE NEED SOIL BUILDING, RESTORATION AND REGENERATION RESOURCES
  • WE NEED STUDIES ON REGENERATIVE AGRICULTURE PRACTICES; AGGREGATION OF RESULTS
RESEARCH & LEGISLATION

• RESEARCH:

• WE NEED SOIL BUILDING, RESTORATION AND REGENERATION RESOURCES

• WE NEED STUDIES ON REGENERATIVE AGRICULTURE PRACTICES; AGGREGATION OF RESULTS

• WE NEED MODELS FOR REGENERATION STRATEGIES, CONCRETE AIDS TO ACHIEVE ZERO-NET LAND DEGRADATION
RESEARCH & LEGISLATION

• RESEARCH:
  • WE NEED SOIL BUILDING, RESTORATION AND REGENERATION RESOURCES
  • WE NEED STUDIES ON REGENERATIVE AGRICULTURE PRACTICES; AGGREGATION OF RESULTS
  • WE NEED MODELS FOR REGENERATION STRATEGIES, CONCRETE AIMS TO ACHIEVE ZERO-NET LAND DEGRADATION

• LEGISLATION:
RESEARCH & LEGISLATION

- **RESEARCH:**
  - We need soil building, restoration and regeneration resources
  - We need studies on regenerative agriculture practices; aggregation of results
  - We need models for regeneration strategies, concrete aims to achieve zero-net land degradation

- **LEGISLATION:**
  - Create support funding for young sustainable farmers
RESEARCH & LEGISLATION

**RESEARCH:**

- We need soil building, restoration and regeneration resources.
- We need studies on regenerative agriculture practices; aggregation of results.
- We need models for regeneration strategies, concrete aims to achieve zero-net land degradation.

**LEGISLATION:**

- Create support funding for young sustainable farmers.
- Limit use of chemical fertiliser and pesticides, herbicides and fungicides in agriculture.
RESEARCH & LEGISLATION

RESEARCH:

- We need soil building, restoration and regeneration resources.
- We need studies on regenerative agriculture practices; aggregation of results.
- We need models for regeneration strategies, concrete aims to achieve zero-net land degradation.

LEGISLATION:

- Create support funding for young sustainable farmers.
- Limit use of chemical fertiliser and pesticides, herbicides and fungicides in agriculture.
- Limit over-consumption & food waste.