Small Scale Farming

- concept and guidelines on how to achieve an average income with an available area of 6000 m² in Lower Austria

BOKU

Why is this topic so important?

- 2050 world population of 9 billion people
- more food has to be produced
- Problems about conventional farming
 - Monocultures
 - massive amount of pesticides and herbicides
 - contaminate soil and waters
 - Soil degredation
- → Micro-Farming as a solution



Input influenceable factors non-influenceable factors environmental factors seed-quality + fertilizer + (climate + pests + soil) irrigation + energy + working tools Output Soil Yield Compost 3 pillars of sustainability **ECOLOGICAL** ECONOMIC SOCIAL

System of

our

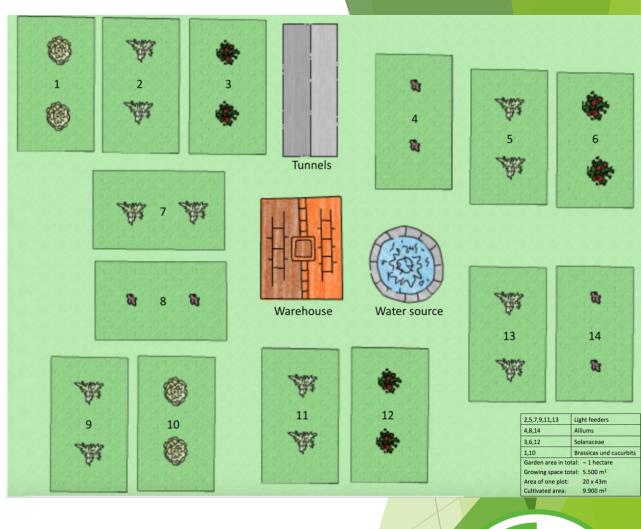
micro-

farm



General assumptions

- land of 6000 m²
- ▶ 29 types of vegetables
- Principle of crop rotation
- No usage of heavy machinerie
- ► No usage of chemical pesticides, herbicides
- No costs for delivery
- ▶ 100% yield





Non- influenceable & influenceable factors

- Climate and soil conditions in Tulln
- Pests, diseases, beneficial insects
- Seeds
- Water
- Energy
- Working tools
- Workload
- Fertilizer





Output - yield

Total costs first year	132.000 €
Total costs following years	115.000 €
Average yearly revenue	144.000 €
Income first year	12.000 €
Income following years	30.000 €



Three pillars of sustainability

- Ecological dimension:
 - ► No chemical pesticides
 - No electrical machineries
 - Cycle of crop rotation
 - Additional land use for compost

- Social dimension:
 - ▶ Workload of 45 hours a week
 - Satisfaction through organic farming

- Economic dimension:
 - Average income in the first year
 - ...in the following years



What do we conclude?

- Early stage
- More research needed
- Fascinating topic
- Become more important in the future





