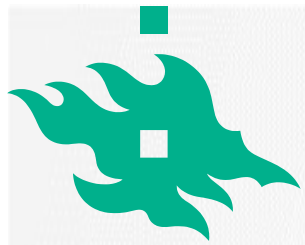




ORGANIC DIVERSITY FOR RESILIENT FOOD SYSTEMS

Dr. Jaakko Nuutila
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Global shocks

2008 Financial Crisis

- Easy availability of liquidity leading to
- Liquidity shortage of financial institutions
- Decrease in trade, lack of export credit
- Global, developing world

Russian Embargo

- Ukraine crisis and MH17 plane crash, casualties
- Western sanctions and Russian countersanctions
- To punish West or to increase own self-sufficiency

Impact into the food systems

- Weakened access to **finances, development** opportunities
- Decreased **purchasing power** affected to **volumes**
- Increased **unemployment, poverty and food insecurity**
- Increased **trade unbalances** and volatility of markets

- EU, U.S., Canada, Norway, Australia
- **Milk, fruit, vegetable, fish and meat** value chains.
- In **EU 5,2 billion €** damage and impact on **9,5 M people**
- In Russia increase in **self-sufficiency** and development in **food value chains**



Global shocks

COVID-19

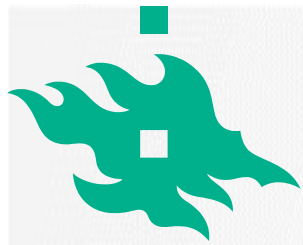
- Coronavirus pandemic spread fast, casualties
- Diverse negative impact into all levels of societies
- Lock-downs and restrictions

Climate Change

- Emissions from burning coal, oil and gas
- Deforestation
- Increasing livestock farming
- Emissions from Nitrogen fertilizer

Impact into the food systems

- Change in **purchasing and consumption behaviours**
- Lack on **manpower** due to infected people
- Increase in **unemployment** due to restrictions
- Increase in social **inequalities, food insecurity**
- Disruptions in **transportation and inputs**
- Extreme weather conditions
- **Decreased food security and rural livelihoods**
- **Increased inequalities**
- **Unsuitable plants, methods and equipment**
- **Increase of intensified farming**



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- Milk, wheat, vegetable, fish and meat value chains.
- Milk: 5,2 billion € damage and impact on 9,5 M people
- In Russia increase in self-sufficiency and development in food value chains

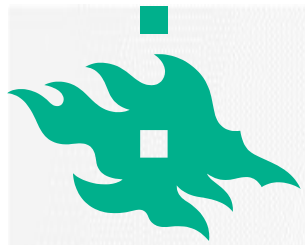
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High self-sufficiency

Social capital

Overall diversity



Cornerstones of a resilient food system

Self-sufficiency in inputs, production and knowledge

Diversity in methods, products, supply chains, markets and trade partners

Social capital: networks, collaboration, shared values and goals

What has organics to offer?

Remarquably low dependency on external inputs, worth €€€

Diversity in farm production, supply chains enhance the plurality of SME's

By nature, dependence on networks, knowledge-transfer and shared organic values



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Intersections of organic of resilience activities

