

Promoting rural green economy - Suggestions for transition steps

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Green **economy** functions in a **socially** sustainable way within the boundaries set by the **ecological** system of the globe.

In addition to the use of renewable resources, resource efficiency and carbon neutrality, it requires **social justice and place-based solutions**.

Green economy provides new opportunity structures, growth and jobs for rural areas.



Transition to green economy in three steps

A generic green economy model; based on a case
study in a rural municipality in the North of
Finland

Green economy step 1

Starting the systemic change:
identifying ecological boundaries
locally

RDP-connection: research, in cooperation with
the local administration needed

How to do this in practice?

'Natural Step' -method

- Identifying locally the borders of ecological sustainability (research)
- Four predefined Sustainability Principles:

In a sustainable society, nature is not subject to systematically increasing...



...concentrations of substances extracted from the Earth's crust,



...concentrations of substances produced by society,



...degradation by physical means,

and, in that society...



...people are not subject to conditions that systematically undermine their capacity to meet their needs.

Examples:

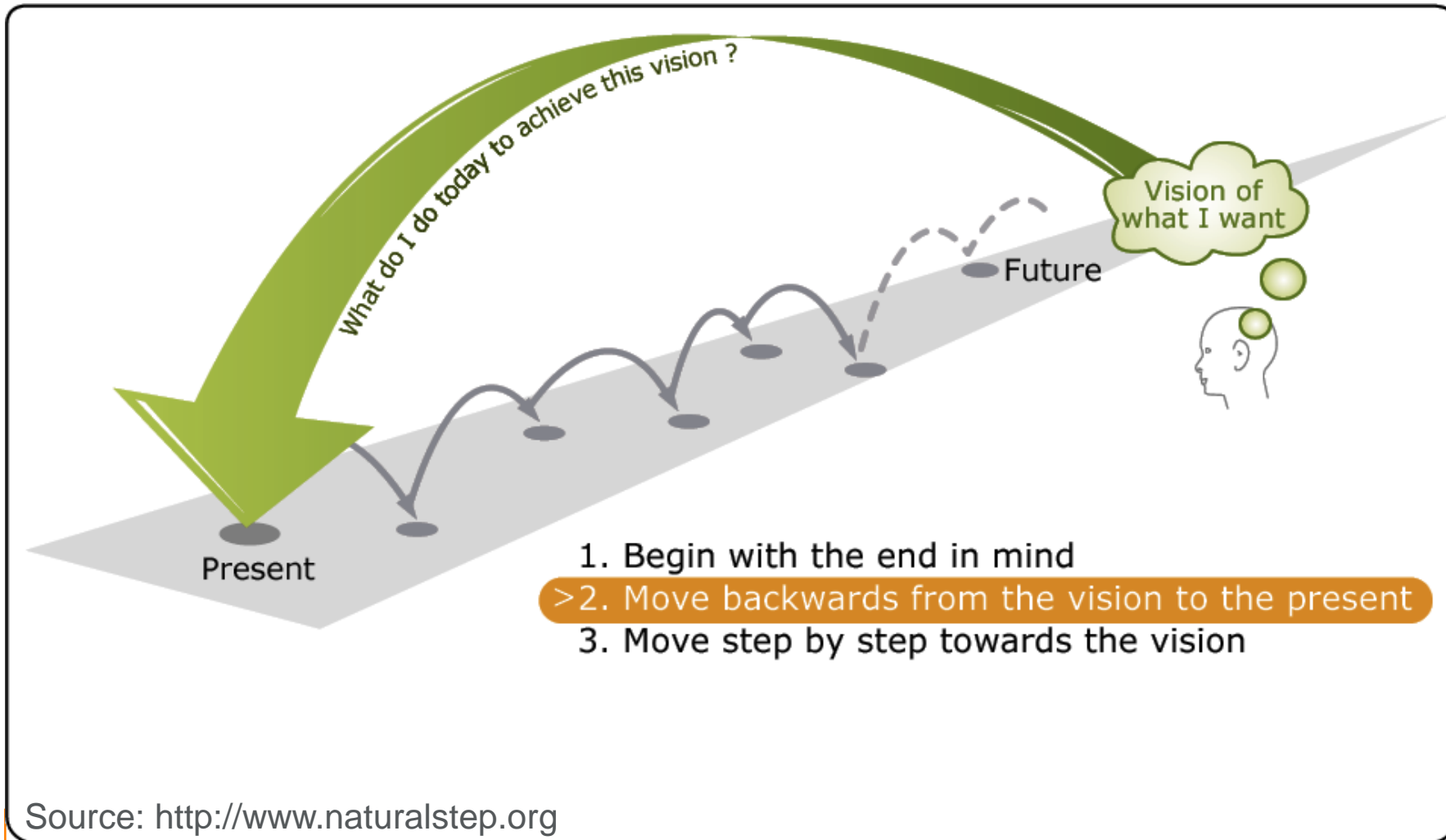
= No accumulation of heavy metals, fossil fuels

= No accumulation of plastics, DDT

= No overharvesting (forests, fisheries), destroying habitat

= Not endangering people's right to safety & sufficient payment

Using participatory 'Visioning' & 'Backcasting'



Commitment to and operationalization of green economy locally



Sustainability principles
(Natural Step)



Backcasting

Present

Strategic programs
Action plans



Green economy step 2

Launching the social process

RDP-connection: Leader-involvement

Attention to the social feasibility of green economy

- Essential to negotiate and agree on objectives and tools to reach them **within the community**.
- Create a participatory process, which is socially sustainable, captured by the community itself, and realised by its own agency.
- Leads to a resilient, systematically self-adjusting social system which is
 - understandable
 - credible
 - acceptable
 - including all different interests.

Green economy step 3

Economy and businesses

RDP-connection: innovations and investment in all relevant businesses – agriculture, forestry, energy production, food procurement, building, logistics, health and other services; circular economy

Economy and businesses in green economy

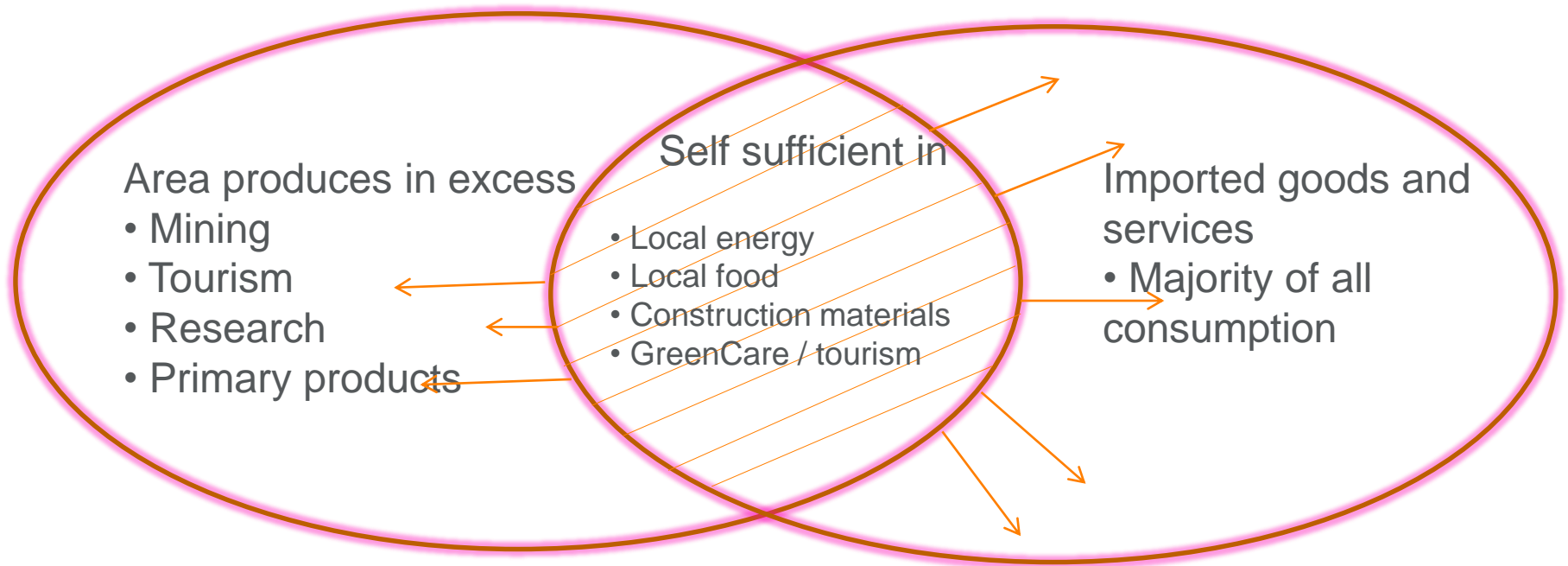
- Simultaneously emerging centralized **and** decentralized, local markets (e.g. in energy production)
- Hybrid solutions are likely: centralized systems realize the gains of mass production, while decentralized systems can utilize resources more accurately and holistically, short local economy chains are more resilient
- **Green economy matches the two systems**
- Because of price changes, circular economy and new technology, **rural areas can become more self-sufficient**, which means that the multiplier impact can lead to stronger local economies and more growth and jobs

Green rural economy

- an example at the municipal level

Production in the area

Consumption in the area



Green Economy development vision for the case study municipality 2030

The municipality aims at:

- increasingly managing waste in closed circuits (minimizing non-recyclable waste outputs) and sustainable use of materials,
- self-sufficiency in energy production, general carbon-neutrality, and distributed and renewable energy solutions.
- All business sectors, trade and services will favor and develop **networked solutions** and **novel technologies** that enable **community participation**, and **short value chains** that support **local value creation**.
- All industries will be managed responsibly; they do not restrict the possibilities to use natural resources for other purposes.
- The number of inhabitants will increase steadily and the **identity and cultural heritage** of local villages will be respected and maintained.
- The development strategy and its **status of progress will be actively evaluated** and maintained.

Finnish Forest Centre

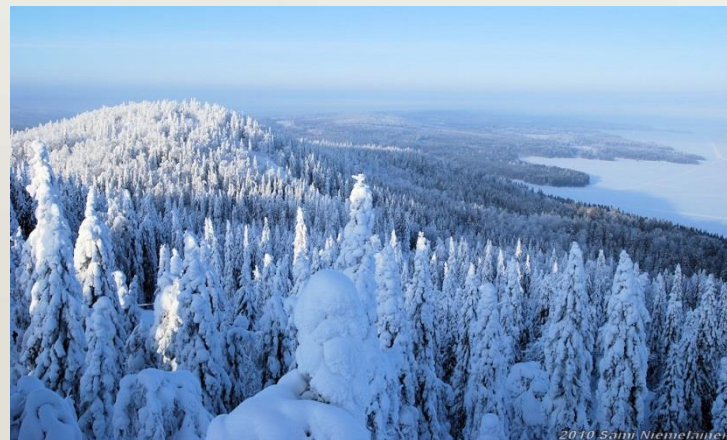
Nationwide advisory organization for forest owners and operators

Funded and guided by ministry of agriculture and forestry

- implementation of forest act
- geographic and forest data
- to promote forest based livelihoods

Case bioenergy

Markku Granander/Teemu Hauhia 26.11.2015



We need energy for heating

- Fossil fuels (oil and peat)
- Nuclear power
- Or renewable bioenergy (local wood from forests)

Roles in increasing the use of renewables

Forest Centre

survey suitable properties

Negotiated with investors and thermal entrepreneurs

built up/promote wood supply chains

Several projects funded by European rural development programs

Entrepreneurs

invest for thermal power plants and service

conducting the business

Contributions for investments from ERDP

advantages

Primary objective to strengthen local rural economy by replacing imported energy with local alternative (new jobs, incomes, sme's)

Almost all the capital investment stays within the municipality
Positive effects on the area's local forestry and landscape

side effects

Local energy source brings safety and independence in possible crisis
Replacing fossil fuels restrains global warming
The ashes and its nutrients can be returned back to the forest

More opportunities

We are only on early stages in moving towards circular economy where using of renewables is only one part

Wood based fuels for traffic (biodiesel) is a huge potential

Production of electricity

More pulp production for example packaging

Essential questions for forest operator are:

- **how to increase wood supply remarkably**
- **And to do it sustainably**



Green economy