Landscape effects on human health and well-being as elements of social innovation in marginalized rural areas: Reflections on why and how to evaluate them

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1. Intro: EU H2020 SIMRA project
2. Theoretical background
3. Objectives
4. Methodology
5. Preliminary results
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1. Introduction

Horizon2020 SIMRA project

- 4-years Research and Innovation Action (RIA) project
- 26 partners (coordinator: James Hutton Institute, UK)
- Objective: to fill the significant knowledge gap in understanding and enhancing Social Innovation in Marginalized Rural Areas.
- Focus on:
  - agriculture, forestry and rural development
  - Marginalized Rural Areas (MRAs)
  - Mediterranean region (including non-EU)
  - Case studies
  - Innovation Actions
1. Introduction

Horizon2020 SIMRA project: WPs

WP 1 Scientific coordination

WP 2 Theoretical and operational approaches to SI in MRAs (stakeholders engagement)

WP 3 Holistic analysis and categorisation of SI examples

WP 4 Building an integrated set of methods to evaluate SI

WP 5 Evaluation of SI case studies in MRAs

WP 6 Policy analysis and responses

WP 7 Communication, dissemination, and innovation actions

WP 8 Administrative coordination

SIMRA partners

26 in total (24 funded + 2 with own funds from Switzerland)

Key-partners:

- JHI (UK) ➔ WP1, 8
- UNIPD (IT) ➔ WP4
- BOKU (Austria) ➔ WP6
- PERTHCOLLEGE (UK) ➔ WP3
- IFE SAS (Slovak Rep) ➔ WP2
- EFI (int.) ➔ WP5
- IAMZ-CIHEAM (int.) ➔ WP7
- EUROMONTANA (int.) ➔ WP7
2.
Theoretical background

SI as a key issue for Europe

https://ec.europa.eu/growth/industry/innovation/policy/social_en
2. Theoretical background

Social Innovation (SI) definition

Many definitions for social innovation:

- “those changes in agendas, agency and institutions that lead to a better inclusion of excluded groups and individuals in various spheres of society at various spatial scales” (Moulaert et al., 2005, 1978)
- “innovative activities and services that are motivated by the goal of meeting a social need and that are predominantly developed and diffused through organisations whose primary purposes are social” (Mulgan, 2007, 8)
- “changes in the cultural, normative or regulative structures [or classes] of the society which enhance its collective power resources and improve its economic and social performance” (Hämäläinen and Heiskala, 2007, 74)
- SI is the capacity to create and implement new ideas that are likely to deliver value (thus meeting individual economic interests), contemporarily responding to social demands (thus meeting societal needs), that are traditionally not addressed by markets or existing institutions (e.g. BEPA, 2011; Anderson et al., 2015).

Our SI definition

Several definitions in literature: another “fuzzy” word - risk of misleading

Preliminary SIMRA definition:
The reconfiguring of social practices in response to challenges associated with society, economy or environment based on novel ideas and values. These new practices include the creation of new institutions, networks and governance arrangements, and seek to enhance societal outcomes, especially but not exclusively for disadvantaged groups and recognizing the likelihood of trade-offs among competing interests and outcomes. These practices necessarily include the voluntary engagement of civil society actors.
2. Theoretical background

Societal challenges

Emerging and increasing social needs and societal challenges:

- **generalized effects on (an increasing) urban population:** “confusing environments (such as crowded urban ones)... mental fatigue” (Kaplan and Kaplan, 1989)

- **increasing and new vulnerable groups:**
  - People with health problems connected to stress related illnesses, mental problems and cardiovascular health problems (e.g. Health Council of the Netherlands, 2004; Bowler et al., 2010; Tsunetsugu et al., 2013; GPH, 2014, 9)
  - disabled, (e.g. BEPA, 2011).
  - elders (ageing) and youth (too intensive IT connection),
  - women (employment-family stress management),
  - unemployed (social exclusion) and poor persons (social exclusion),
  - immigrants, refugees and prisoners (social exclusion, unemployment)

Landscape benefits

“The natural environment seems to have some special relationship to each of the factors important to a restorative environment” (Kaplan and Kaplan, 1989)

- In general: exposure to natural environments enhances ability to cope with and recover from stress (e.g. Health Council of the Netherlands, 2004; Bowler et al., 2010; Tsunetsugu et al., 2013; GPH, 2014, 9)
- **Emotional and physiological health** (Bodin and Hartig, 2003; Hug et al., 2009)
- **Physical health and prevention**
- **Social wellbeing**
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3. Objectives

Our objectives in relation to this conference

1. Identify whether and how existing methods, approaches and tools can be used or adapted to evaluate SI and the impacts of new social uses of forests and MRAs.

2. What approaches and indicators would best capture the multifaceted aspects of new social uses of forests and landscapes, with a focus on the specificities of health and human well-being in marginalized rural area?

3. Reflect on whether and how evaluation of SI can support more effective policies promoting new social uses of forests and MRAs.
2. Theoretical background

Why do we evaluate?

- Need evidence on what works
  - Limited budget and bad policies could hurt

- Improve policy/programme implementation
  - Design (eligibility, benefits)
  - Operations (efficiency and targeting)

- Information is key to sustainability
  - Budget negotiations
  - Informing beliefs and the press

Evaluation and impact evaluation

- **Evaluation** is a periodic, objective assessment of an ongoing or completed project, programme or policy, which asks specific questions regarding implementation, management and results.

- **Impact evaluation** is an assessment of the causal effect of a project, programme or policy on beneficiaries. It answers the questions:
  - “What was the effect of the program on outcomes?”
  - “How much better off are the beneficiaries because of the program/policy?”
  - “How would outcomes change if changed program design?”
  - “Is the program cost-effective?”

In our case, the project to be evaluated can be a social innovation initiative in a natural environment, which takes advantage of landscape benefits for a certain social need (e.g. a group of person with mental health problems).
4. Methodology

- **Stakeholders consultation** (discussed issues on methods: qualitative vs. quantitative, process vs. outcome-oriented, participatory vs. expert-based, primary vs. secondary data)

- **Identification and analysis (based on a standardized approach) of existing methods** to be used or adapted for assessing SI and its impacts
  - UNIPD (Italy): coordination
  - ICRE8 (Greece): economic aspects
  - UNIFG (Italy): social aspects
  - EFI (Finland): environmental aspects
  - DLO (The Netherlands): governance/institutional aspects
  - BOKU (Austria): policy implications (out of scope of this presentation)
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5. Preliminary results

Examples of studies on evaluation of landscape effects

<table>
<thead>
<tr>
<th>Reference</th>
<th>Method</th>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Di Iacovo et al. (2014). Transition management and social innovation in rural areas: lessons from social farming</td>
<td>Investigate role of social services in rural development through collective learning</td>
<td>Public-private partnerships; New rules and attitudes</td>
</tr>
<tr>
<td>Slade et al. (2013). Evaluating the impact of forest schools: A collaboration between a university and a primary school</td>
<td>Interviews</td>
<td>Characteristics of Effective Learning’ (Early Education, 2012)</td>
</tr>
<tr>
<td>Tsunetsugu, et al. (2013). Physiological and psychological effects of viewing urban forest landscapes assessed by multiple measurements</td>
<td>Experimental, 48 male participants; test and physiological testing</td>
<td>Profile of Mood States questionnaire; Heart beat and systolic and diastolic blood pressure</td>
</tr>
<tr>
<td>Iwata et al. (2016). The psychological and physical impacts of spending time in forests: a case study of two forests in Ireland</td>
<td>Questionnaire to 179 visitors to broadleaf and coniferous forests</td>
<td>Physiological well-being (mental relaxation, enjoyment and fun); Mood; Level of physical activity</td>
</tr>
</tbody>
</table>
5. Preliminary results

Experiences in SI evaluation: general characteristics

- 103 frameworks/approaches/methods + 200 tools collected and fully analysed (governance/institutional approaches missing)
  - 33% in Europe
  - 28% in rural areas
- 23% specific to assess social innovation issues
- 42.3% propose a participatory approaches assessment involving multi-stakeholders: beneficiaries, policy makers, citizens, experts, community representatives, farmers, decision makers, NGOs, companies, suppliers, public operators, households, etc.
- At least 54.6% of methods needs an external evaluators, while 24% of methods can be used for self-assessment
- 63% use indicators (of different types: outcome, impact, etc.)

Experiences in SI evaluation: use of a structured methodology

- 60.6% mention “framework” and “approach”, 67.3% “method”, and 58.7% “tool”
- 27.9% consider the use of counterfactual analysis
- Few methods adopt specific evaluation criteria:
  - Relevance 44.2%
  - Efficiency 35.6%
  - Effectiveness 48.1%
  - Impact 58.7%
  - Others: equity, capacity, sustainability
- 33.7% need the use of specific software (for modelling, SNA, mapping, etc.)
### 5. Preliminary results

#### Experiences in SI evaluation:
**general characteristics**

<table>
<thead>
<tr>
<th>Target users</th>
<th>Developers</th>
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<tbody>
<tr>
<td>Scientist</td>
<td>30%</td>
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<td>Policy and project evaluator</td>
<td>40%</td>
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<tr>
<td>Consultant</td>
<td>10%</td>
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<td>Community-level organisation</td>
<td>20%</td>
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<tr>
<th>Funding entities</th>
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<tr>
<td>Public science and research</td>
<td>30%</td>
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<td>Institutional organisation</td>
<td>20%</td>
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<td>Not-for-profit</td>
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<tr>
<td>Private enterprise</td>
<td>10%</td>
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#### Evaluation characteristics

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<thead>
<tr>
<th>Evaluation phase</th>
<th>25.5%</th>
<th>41.1%</th>
<th>33.3%</th>
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<tbody>
<tr>
<td>ex ante</td>
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<td>in course</td>
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<td>ex post</td>
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<td>not specified</td>
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<tr>
<th>Final use</th>
<th>15.0%</th>
<th>44.4%</th>
<th>40.5%</th>
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<tr>
<td>transformative</td>
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<td>innovative</td>
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<td>both</td>
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<tr>
<th>Policy cycle phase</th>
<th>34.8%</th>
<th>41.1%</th>
<th>24.1%</th>
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<tr>
<td>conception</td>
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<td>formulation</td>
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<td>implementation</td>
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<tr>
<td>evaluation</td>
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<tr>
<td>all phases</td>
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#### Spatial scale and Scope of application

| Local               | 75.0% |
| Regional            | 22.3% |
| Country             | 35.4% |
| International       | 18.8% |

| Africa              | 33.3% |
| Asia                | 44.4% |
| Middle East         | 22.3% |
An example in details


Framework adapted from the ‘Characteristics of Effective Learning’ (Early Education, 2012)

Evaluation characteristics

- 66.3% explicitly use indicators
- Among them:
Features of the tools

- We collected and analysed 200 tools

- Only 11.2% include the text of questions
6. Final reflections

- It is not easy to find a clear cause-effect chain (theory of change)
- A very few cases of existing methods and tools specifically focused on impacts of landscape benefits!
- Main results presented in the literature are on immediate effects on small groups of beneficiaries
- Finding the overall impacts on wellbeing over the long term and generalise them is much more complex!

Final reflections: the result-chain as key tool

At the basis of any cause-effect evaluation, the theory of change provides a description of how an intervention delivers the desired results.

- Students spend very little time outdoors, with consequences on their mental and physical health
  - IDEA
  - Promote courses for teachers to spend more time outdoors, by following the model of Forest Schools
  - Activity
  - Teacher training courses developed for Forest Schools
  - Output
  - Teachers trained in new methods (SUPPLY SIDE)
  - Outcome
  - New methods used (DEMAND SIDE)
  - • Increased completion rates
  - • Increased test scores
  - • Decreased impact of ADHD
  - • Decreased stress levels

Impact
6. Final reflections

SI is interlinked with several landscape benefits!

SI initiatives promote new uses of forests, and thus provide options for landscape benefits:

- Community volunteering (e.g. tree planting)
- Nature therapy: Wilderness therapy (e.g. “Montagnaterapia.it”, Horticultural therapy, Animal assisted therapy)
- Work integration → Social farms focus on the health of specific population groups
- Diverse forms of access (e.g. physical exercise, contemplation)
- ...

SI initiatives promote new uses of forests, and thus provide options for landscape benefits:

We need to improve our understanding of what types of effects of new social uses of forests and rural landscapes should be evaluated and how (e.g. find new, more comprehensive and easy-to-detect indicators – or are those already existing enough?)

We need to measure the real, long term and broader impacts on the society to better guide policy makers and practitioners

→ Work in progress for SIMRA!
Join our discussions in SIMRA!
Find (soon) useful material, tell us about cases of SI in MRA, contribute to our blog and more!!!

www.simra-h2020.eu

Thanks for your attention!

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