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## **WHEN ARE COLLABORATIVE INTERVENTIONS FOR A MORE SUSTAINABLE AGRICULTURE SUCCESSFUL? TOWARDS AN ANALYTICAL FRAMEWORK**

4th World Sustainability Forum, 1-30 November 2014



# Agenda

- **Introduction**

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- Methods
- Defining a case
- Operationalization of 'success'
- Identification of potential success factors through literature review
- First verification of the applicability and completeness of the findings
- The analytical framework
- Conclusions



## Introduction

- Much **research** seeking to find solutions for a more sustainable agriculture is **focused on the farm level**.
- BUT it has often been argued that research and work for sustainable agriculture **has to go beyond the farm gate**, because **many issues** are located and can be addressed only **at higher levels**.
- Addressing issues at higher levels requires **joint action of different actors**.
- There is **vast research** on **why and under which circumstances joint action** of different actors aiming at the achievement of a set of common goals is **successful**, BUT
  - **no research** about conditions for **success specifically** of collaborative interventions aiming at the improvement of the **sustainability of agriculture**;
  - most of the research conceptual work or empirical work based on one or few case studies
    - **overall patterns? generalizability?**
- **Solution**: comparative, integrative **analyses across several cases** of collaborative interventions for a more sustainable agriculture (e.g. case survey, comparative case studies)
- Requires the development of an **analytical scheme**:
  - **guides analysis** and makes results of the different case studies **comparable**;
  - has to be **carefully designed** to not neglect important aspects in the analysis.



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- 
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## Methods

- Demarcation of the scope of the analytical scheme  
→ **case definition** for cases to which the analytical scheme should be applicable.
- Success of collaborative interventions = **dependent variable** of the analysis  
→ **operationalization of 'success'** to include it in the analytical scheme.
- Review of related literature (conceptual & empirical)  
→ collection of **potential factors** influencing **failure or success** of collaborative interventions in agricultural and sustainability contexts (= **independent variables**).
- Qualitative analysis of test case studies → **comparison** of the results with the findings from the literature review.  
→ first conclusions on **applicability** of the success factors obtained from the review to the cases of interest,  
→ first hints on **completeness** of the collection of success factors.
- Formulation of the **final analytical scheme**.



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## Defining a case

### Purpose of the analytical scheme:

Assessment of which factors were under which circumstances most crucial for success or failure of collaborative interventions trying to improve the sustainability of agriculture.

### Case definition:

- 
- Intervention (initiative, project, legislation etc.),
  - implemented or realized on the local or regional level (i.e. any level above farm-level and below national level),
  - aim: **improvement of the sustainability of agriculture** in the concerned locality or region,
  - carried out under active **involvement of several actors**.



## Defining a case

- Two unclear concepts in the definition:
  - **'improvement of the sustainability of agriculture'** → working definition:
    - Intervention seeks simultaneous improvement or maintenance of an already good status quo in environmental, economic, and social aspects of agriculture.
    - Intervention does not need to place equal concern on each of these aspects but must not neglect any of them.
  - **'active involvement'**:
    - Actors are seen as actively involved in an intervention if they invest resources (time, money etc.) in order to achieve the goals of the intervention.
    - Examples of actors who have a stake in the intervention (stakeholders) but are not actively involved:
      - consumers that only purchase products of the intervention and are not involved with the intervention in any other way,
      - Authorities that merely grant permits or provide funds without any further interaction with the intervention.





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- 
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## Operationalization of 'success'

- Policy success (according to McConnell [1]):
  1. The policy/intervention achieves its original goals or **intended effects**;
  2. the policy/intervention attracts **no criticism** and/or there is virtually universal **support** of the policy.
- Good basic definition, but neglects important aspects regarding the **intended effects** (no. 1):
  - **ambitiousness** of the goals:  
partial achievement of ambitious goals can deliver a better outcome than the full achievement of unambitious goals.
  - **durability** of the achievement of the goals:  
achievements that last for a long time are more successful than achievements that cease to exist after a short time.
- **Criticism / support** of the policy/intervention (no. 2) can be expressed and operationalized differently :
  - Criticism/support occurs if:
    1. Policy/intervention does not/does achieve its goals (already covered by no. 1)
    2. Policy/intervention creates negatively/positively evaluated side-effects
  - Instead of evaluating presence of criticism/support, the existence of **positive or negative side-effects** can be assessed.



## Operationalization of 'success'

— Final evaluation criteria for the success of an intervention:

1. achievement of the goals of the intervention (intended effects),
2. ambitiousness of the goals of the intervention,
3. durability of the achievement of the intended effects,
4. existence of positive-side effects,
5. existence of negative side effects.

— Integration of these single aspects of success into one measure for the success of an intervention:

$$G(i) = \frac{\sum a_{ji} \cdot g_{ji}}{\sum a_{ji}}$$

$$IE(i) = \sqrt[3]{A_i \cdot G(i) \cdot D_i}$$

$$SE(i) = PS_i - NS_i$$

$$S(i) = IE(i) + SE(i)$$

*S(i): success of intervention i*

*IE(i): intended effects of intervention i*

*SE(i): net side-effects of intervention i*

*G(i): total degree of achievement of the goals of intervention i*

*a<sub>ji</sub>: ambitiousness of goal j of intervention i*

*g<sub>ji</sub>: degree of achievement of goal j of intervention i*

*A<sub>i</sub>: total ambitiousness of the goals of intervention i*

*D<sub>i</sub>: durability of the achievements of intervention i*

*PS<sub>i</sub>: total positive side-effects of intervention i*

*NS<sub>i</sub>: total negative side-effects of intervention i*



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---

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## Identification of potential success factors through literature review

- Review of conceptual & empirical literature about
  - community-based natural resource management,
  - collective action
    - for the achievement of environmental outcomes in agriculture,
    - for the improvement of the marketing of agricultural goods,
    - for regional development,
  - social networks in agricultural and sustainability contexts,
  - advocacy coalitions,
  - partnerships for environmental outcomes in agriculture,
  - policy design for a more sustainable land management.
  
- Great number and diversity of potential factors that influence success/failure of collaborative interventions in agricultural & sustainability contexts.



## Identification of potential success factors through literature review

Identified types of potential success factors:

- **characteristics of the issue,**
- **characteristics of the policy to be implemented,**
- **characteristics of individual involved actors:**
  - knowledge and skills,
  - attitudes,
  - economic assets of non-state actors,
- **characteristics of the group of involved actors:**
  - group size and composition,
  - social capital: Shared norms, objectives, and social learning,
  - social capital: existing relations and trust,
  - competition & conflict,
  - group dysfunctions,
- **structure and organization of the intervention:**
  - tasks & objectives,
  - conditions enabling collaboration,
  - group structure,
  - communication & interaction,
  - internal decision-making & participation
  - ...
- **factors of external conditions and support:**
  - political environment,
  - forms of support,
- **factors for interventions that include the marketing of products and/or services:**
  - competitiveness,
  - market integration,
  - ...



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## First verification of the applicability and completeness of the findings

- Qualitative analysis of 5 case studies of collaborative interventions that aim at the realization of a more sustainable agriculture; selection criteria:
  - Cases have to meet the case definition of the analytical scheme
  - Cases have to show a great variety of characteristics

	<b>Manchester Food Futures</b>	<b>Palermo Organic Farmers' Market</b>	<b>Uckermark Soil Erosion</b>	<b>Biomelk Vlaanderen</b>	<b>Gailtaler Almkäse</b>
<b>Country</b>	United Kingdom	Italy	Germany	Belgium	Austria
<b>Scale</b>	City and surrounding region, > 115 km <sup>2</sup>	City and surrounding region, > 158 km <sup>2</sup>	County, 3058 km <sup>2</sup>	Region/state, 13522 km <sup>2</sup>	Region, <808 km <sup>2</sup>
<b>Initiation type</b>	Mixed	Bottom-up	Top-down	Bottom-up	Top-down
<b>Intervention type</b>	Network of food initiatives to support alternative forms of production and distribution	Establishment of an organic farmers' market	Implementation of soil conservation policies	Establishment of an organic dairy farmer cooperative	Introduction of a Protected Denomination of Origin (PDO)
<b>Success/failure</b>	Success	Failure	Success	Success	Success





# First verification of the applicability and completeness of the findings

## Factors at work in each case

	Manchester Food Futures	Palermo Organic Farmers' Market	Uckermark Soil Erosion	Biemelk Vlaanderen	Gailtaler Almkäse
<b>Issue characteristics</b>	0	0	0	0	0
<b>Policy characteristics</b>	0	0	(+/-)	0	0
<b>Characteristics of the involved actors</b>	attitudes (+)	attitudes (+)	0	attitudes (+)	attitudes (+)
<b>Characteristics of the group of actors</b>	social capital: existing relations and trust (+)	0	0	social capital: existing relations and trust (+)	social capital: existing relations and trust (+)
<b>Structure &amp; organization of the intervention</b>	0	relations to external actors (+)	communication and interaction (+), human resources (-), other organizational factors (+)	communication and interaction (+), relations to external actors (+/-)	other organizational factors (+)
<b>External conditions &amp; support</b>	Political environment (+)	Political environment (-)	Forms of support (-)	Political environment (+/-), Forms of support (+/-)	Political environment (+), Forms of support (+)
<b>Marketing-related factors</b>	0	competitiveness (-), market-related factors (+/-)	0	competitiveness (+), logistics (-), marketing & business strategy(-) market-related factors (+/-)	0



## First verification of the applicability and completeness of the findings

### — **Applicability:**

- Many of the factors identified through the literature had an effect in one or more of the 5 test cases.
  - **first confirmation of the applicability** of the collection of potential success factors to cases of collaborative intervention for a more sustainable agriculture
- Factors that did not appear in the 5 test cases might still be relevant (especially ,issue characteristics') for types of cases that are not covered by the 5 test cases

### — **Completeness:**

- Only two additional factors regarding the characteristics of the policy to be implemented came up in the analysis of the 5 test cases
  - collection of potential success factors seems of a **high degree of completeness**



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- 
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## The analytical framework

Apart from the potential success factors, the analytical scheme needs to capture further information, especially to be able to distinguish between different types of cases (for which different kinds of factors could be relevant):

1. General Information (case name, references, country in which the case took place, case start and end dates ...),
2. Case Type (level of the intervention, initiation type, type of actors involved...),
3. Goals of the intervention (incl. their ambitiousness),
4. Factors supporting or hindering the success of the intervention:
  - a. Characteristics of the issue,
  - b. Characteristics of the policy to be implemented (where applicable),
  - c. Characteristics of the individual involved actors,
  - d. Characteristics of the group of involved actors,
  - e. Structure and organization of the intervention,
  - f. Factors of external conditions and support,
  - g. Factors for interventions that include the marketing of products and/or services (where applicable),
  - h. Other factors (to be able to include further factors not yet included in the analytical scheme),
5. Evaluation of the success of the intervention.



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-



## Conclusions

- Operationalization of the concept of '**success**' to be able to include in the analytical scheme is feasible.
- There is **great number and diversity of factors** that have a potential influence on the outcome (success/failure) of collaborative interventions in agricultural contexts.
- A **first qualitative test** leads to the conclusion that the collection of potential success factors seems to be of a **high degree of completeness** and also seems to be **applicable** to the cases of interest (collaborative interventions seeking to improve the sustainability of agriculture).
- Apart from the list of potential success factors, the **analytical scheme** has to capture **further aspects** to allow for a thorough case analysis and a distinction between different kinds of cases
  - for **different types of cases, different success factors** could be relevant
- Finally, the applicability and completeness of the analytical scheme would have to be **tested** in a **more systematic way** and with a **greater number of cases**.



## References and image sources

[1] - McConnell, A. Policy Success, Policy Failure and Grey Areas In-Between. *J. Pub. Pol.* **2010**, 30, 345–362

Slide 1:

[http://streamafrica.com/wp-content/uploads/2013/09/fresh\\_fruits\\_vegetables\\_24193\\_19649600.jpg](http://streamafrica.com/wp-content/uploads/2013/09/fresh_fruits_vegetables_24193_19649600.jpg)

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