# PARTICIPATORY PLANNING AND GOVERNANCE INDICATORS - CORE

CONNECTING NATURE

## Reflexivity - identified learning outcomes

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### Description

This indicator is defined in terms of the number of reflexive learning outcomes identified throughout nature-based solutions process. Reflexive learning outcomes are changes in the existing 1) rules guiding actors' practices, 2) relations between actors, and between the initiative and context, 3) practices as the common ways of working and 4) discourse related to the future of the initiative's sector (Beers & van Mierlo, 2017).

### Methodology

Quantitative Procedure:
Counting number of learning outcomes identified

Qualitative Procedure:
Reflexive monitoring tools, case study methodology or participatory data collections

### Level of expertise

.Methodology and data analysis require high expertise understanding of reflexivity and analytical skills but also knowledge about the context to ensure the changes are reflexive and not optimizing existing structures, cultures and practices.
. Quantitative data collection (counting number of learning outcomes and innovations) requires no expertise
. Qualitative data collection (facilitation of participatory sessions to identify reflexive learning outcomes) require high expertise in action-research and basic training in participatory data collection, appreciative inquiry and critical analysis.

### Data collection

#### Required data

Essential:
. Group of practitioners with experiences in implementing the large-scale nature-based solution
. Goals they want to achieve with their nature-based solution
. Barriers and opportunities they faced and what they did to overcome or take them
Desirable: participatory identification of learning outcomes and the assessment of the type of reflexivity

#### Data input type

Quantitative (number of learning outcomes) and qualitative if data on the types and implications of learning outcomes are considered

#### Data collection frequency

Depending on experience of actors involved they can organize time to reflect upon their experiences and formulate learning outcomes themselves ones every 1-3 months to identify and every 6 months to revisit. When other methods are selected, and the analysis is done by experts, every 6 months to once a year is possible too.



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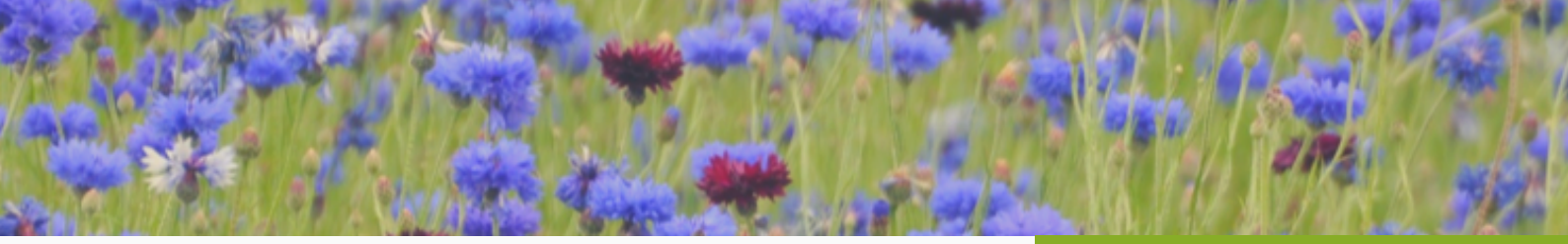

# Extended description

Conventional governance, policy-making, planning and project management approaches aim to optimize existing processes starting from pre-defined problems and solutions. Only after a problem or solution is identified, a monitoring and evaluation process is designed. For example, indicators are selected to measure the effectiveness of the project(s) after implementation. This is done by experts and involves little participation of other actors. However, implementing nature-based solutions – especially on a large scale in cities – is complex: it touches on multiple goals and interests and requires innovative processes for collaboration, financing and design etc. It cannot be 'blueprint' planned beforehand. In addition, the context might change, new opportunities and barriers may present themselves. Therefore, the existing evaluation methods are not sufficient because they leave little room for collaborative learning, experimentation and adaptations during the planning, delivery and stewardship phase of the nature-based solution.
Nature-based solutions planning, delivery and stewardship requires ongoing reflection about who is involved, who isn't, and who benefits and who doesn't, as well as adaptability to respond to new insights, demands and needs (Chatterton, Owen, Cutter, Dymski, & Unsworth, 2018; Ferlie, Pegan, Pluchinotta, & Shaw, 2019; Muñoz-Erickson, Miller, & Miller, 2017). This learning process is reflexive when participants are self-critical and reflect on the inherent political nature of how they build knowledge, the assumptions they make and the normative premises that guide them (Miller & Wyborn, 2018; Muñoz-Erickson et al., 2017). This requires a process of learning-by-doing and doing-by-learning in terms of goals achievement, adopt lessons learned into new or existing structures, strategies or practices and identify needs for adaptation (Beers & van Mierlo, 2017; Dentoni, Bitzer, & Pascucci, 2016; Frantzeskaki, Kabisch, & McPhearson, 2016). To support this process reflexive monitoring was developed as a method with specific tools developed for practitioners (van Mierlo et al., 2010), but there are other ways to increase the reflexivity of a learning process.
The learning process results in 'reflexivelearning outcomes' when knowledge (the what), actions (the how) and relations (the who) become substantively interwoven (Beers, Van Mierlo, & Hoes, 2016) as a result of a shared experience in how to overcome barriers or use opportunities and learning about how to deal with them. Thus, learning outcomes are reflexive, when not only new insights are gained, but when these insights are implemented into the context within which the learning actors operate.

## Participatory process

Participatory methods (e.g., narrative studies, participatory data collection methods, and/or participatory action research) are crucial for this indicator to collect relevant information on learning outcomes and how these affect the context and different types of actors.

## Connection with SDGs

Goal 11 Goal 17
Goal 16

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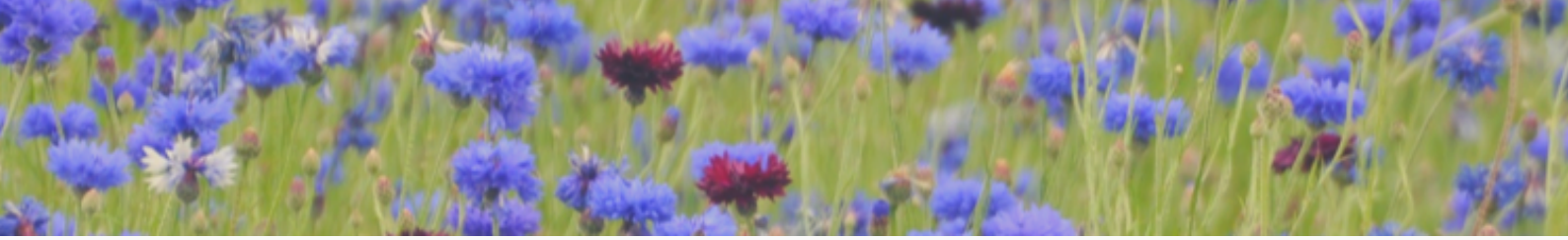

Reflexive learning outcomes can be operationalized in terms of changes in the existing 1) rules guiding actors' practices, 2) relations between actors, and between the initiative and context, 3) practices as the common ways of working and 4) discourse related to the future of the initiative's sector (Beers & van Mierlo, 2017). For application by the cities in the Connecting Nature project we developed a method to track and distill learning outcomes and reflect upon their reflexivity (Lodder, Sillen, Frantzeskaki, Hölscher, & Notermans, 2019).

## Strengths and weaknesses

+ The learning process that results in reflexive learning outcomes is a practice-driven process in which the involved actors steer the direction in which the changes are needed.
+ Harvesting learning outcomes can work empowering for practitioners as these illustrate the innovative processes in the achievements in terms of barriers that are overcome, or opportunities taken.
+ Learning outcomes are rich qualitative data sources as they describe not only one experience but also how the experience influenced its context.
- The learning process and creating space for reflection to formulate learning outcomes can be challenging and complex to manage.
- The process can be a time intensive process for practitioners, facilitators and experts involved.
- Formulating reflexive learning outcomes requires practice from practitioners and facilitators.

# Extended methodology

Quantitative procedure (counting number of learning outcomes identified)

Tool: Involved actors can start to list experiences in terms of how they overcame the barriers and used the opportunities they encountered. Then they can organise time to reflect upon the changes they established in terms of novel rules, relations, practices and discourses. In this way they can be reformulate their experiences as reflexive learning outcomes. This can be done by the practitioners themselves or by (external) experts who facilitate the learning process. The number of learning outcomes can then be counted per month or year.

Scale of measurement

Number of identified reflexive learning outcomes per month or year that can be specified in number of changes in the context based on reflexivity type (rules, and/or relations, and/or practices and/or discourse).

Qualitative procedure

Tool 1: Case study methodology – semi-structured interviews, case study analysis, participant and non-participant observation – can be used as a data source to formulate reflexive learning outcomes by (external) experts.

Tool 2: Other participatory data collections methods, such as focus groups can also be organised to collectively reflect upon the learning process and to formulate reflexive learning outcomes facilitated by (external) experts if needed.



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