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# Factsheet 1
# Restoration outcome evaluation – the key points in brief

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**Authors:** Christine Weber, Lucie Sprecher, Ulrika Åberg (Eawag), Gregor Thomas, Simone Baumgartner, Susanne Haertel-Borer (FOEN)

**Technical advice:**
*National advisory group:* Marco Baumann (TG), Anna Belser (FOEN), Nanina Blank (AG), Arielle Cordonier (GE), Roger Dürrenmatt (SO), Claudia Eisenring (TG), Martin Huber-Gysi (FOEN), Lukas Hunzinger (Flussbau AG), Manuela Krähenbühl (ZH), Vinzenz Maurer (BE), Nathalie Menetrey (VD), Erik Olbrecht (GR), Eva Schager (NW), Pascal Vonlanthen (Aquabios), Heiko Wehse (Hunziker Betatech), Hansjürg Wüthrich (BE)
*International advisory group:* Tom Buijse (Deltares, NL), Francine Hughes (Anglia Ruskin University, UK), Brendan McKie (Swedish University of Agricultural Sciences, SWE), Hervé Piégay (Université de Lyon, FR), Phil Roni (Cramer Fish Sciences, Washington, USA)
*Eawag advisory group:* Manuel Fischer, Ivana Logar, Bänz Lundsgaard, Katja Räsänen, Dirk Radny, Chris Robinson, Nele Schuwirth, Christian Stamm
*WA21*: Rolf Gall, Stefan Vollenweider

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**Editing of the gerrman version:** Evi Binderheim (Sponsolim Umweltconsulting)

**Illustrations:** Laurence Rickett (Firstbrand), Eliane Scharmin (Eawag)

**Cover picture:** Eliane Scharmin (Eawag), Laurence Rickett (Firstbrand)

**English translation:** Jeff Acheson (Acheson Translations & Editing)

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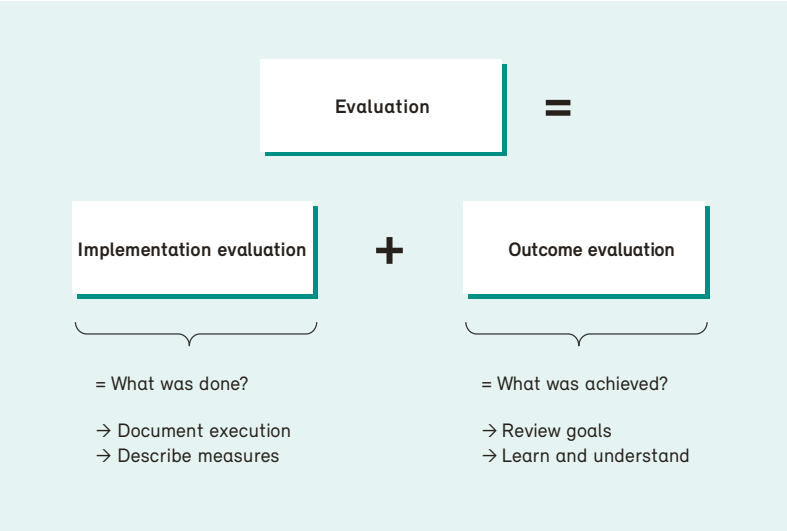
*This factsheet explains the goals pursued by the FOEN through the standardisation of restoration outcome evaluation. It also provides a brief profile of the STANDARD and EXTENDED outcome evaluations, which are described in more detail in Factsheets 2 and 3.*

## 1.1 Background

Under the revised Swiss waters protection legislation, watercourses and lakeshores are to be restored (Article 38a WPA). By 2090, around a quarter of the 16,000 km of degraded watercourses and lakeshores are to be restored. Each year, the federal government invests CHF 40 m in restoration measures. The financing is provided under four-year Programme Agreements (PAs) – the five-year period 2020–2024 being an exception – and via individual projects (BAFU 2018). The federal government covers 35–80% of the costs per project, depending on the quality indicators taken into account (e.g. increased space provided for waters). The remaining financing is provided by cantons, communes and third parties such as foundations, funds or environmental associations. By 2090, total expenditure will amount to approx. CHF 5 bn. These resources need to be deployed as effectively as possible. This can be verified by means of an evaluation.
An evaluation comprises two elements – the implementation evaluation and the outcome evaluation (BAFU 2012; Fig. 1.1). An implementation evaluation is used to review the number and type of projects initiated; it also provides information on the measures implemented (BAFU 2012). In contrast, an outcome evaluation is used to investigate whether a restoration project which has been implemented shows the desired effects, i.e. whether the defined objectives have been met and the resources have been effectively deployed (BAFU 2012).

**Figure 1.1:** The two components of an evaluation




## 1.2 Standardisation of implementation and outcome evaluation

Since 2017, the FOEN has requested the cantons to provide implementation evaluation data in a standard form: as well as general project data (e.g. name of waterbody, reach end coordinates), other characteristics of the measures implemented are recorded (e.g. types of measures implemented). With the third PA period starting in 2020, outcome evaluation for watercourse restoration measures has also been standardised across Switzerland. The goals pursued by the FOEN through the cross-project standardisation of implementation and outcome evaluation are threefold:

- **Reviewing implementation and outcomes:** implementation and outcome evaluations are carried out in order to demonstrate that the legal mandate is being fulfilled and the desired effects are being achieved. Nationally comparable implementation and outcome evaluation data from restoration projects is required in order to provide policymakers and the public with a convincing and detailed account of how resources have been invested and what changes and goals have been achieved with these investments.
- **Learning from experience:** The results of implementation and outcome evaluations facilitate learning from experience and continuous optimisation of project planning and implementation, thus ensuring effective deployment of resources. The collaborative learning process provides good

examples, motivation and arguments supporting the case for restoration. Moving from project-specific individual observations to a cross-project overview permits an improved, more generalised understanding of the processes involved and of the factors inhibiting or promoting the effectiveness of restoration projects.

- **Ensuring coordination:** Restoration implementation and outcome evaluations are coordinated to the greatest possible extent with related monitoring programmes, and with other implementation and outcome evaluations, so that synergies can be utilised and duplication avoided. This coordination encompasses the compatibility of methods or data formats, as well as synergies in data exchange and archiving.

### 1.3 STANDARD and EXTENDED outcome evaluation

From 2020, the restoration outcome evaluation comprises two elements – the STANDARD and EXTENDED outcome evaluations (Table 1.1). These are described in detail in Factsheets 2 and 3. The two elements complement each other: with the STANDARD outcome evaluation, developments are followed over a relatively long period through before-after comparisons. Here, as far as possible, the entire spectrum of restoration measures, types of watercourse and regions are covered. In contrast, with the EXTENDED outcome evaluation, specific questions, with particular project requirements, can be addressed in a timely manner. The FOEN is responsible for combining the results from STANDARD and EXTENDED and developing recommendations for action.

To sum up: with the **STANDARD outcome evaluation**, typical goals of restoration measures, derived from the legislation, are assessed on the basis of a large number of projects. For this purpose, the cantons select restoration projects implemented under the Programme Agreement or as individual projects. These are either restoration-only projects or flood protection projects with additional financing under the WPA (combined projects). The STANDARD outcome evaluation uses predefined indicator sets. These are determined once before and once or twice after implementation, depending on the project size. The PA period 2020–2024 is the first in which the STANDARD outcome evaluation is to be carried out. This period thus also represents a test phase in which experience is to be learned from and unresolved questions are to be addressed. From 2025, STANDARD is to shift to a 12-year cycle, similar to, but not coinciding with, the strategic planning for watercourse restoration.

The **EXTENDED outcome evaluation** is designed to answer specific questions relating to restoration practice. In the PA period 2020–2024, the focus is on the medium-term development of restoration projects in small watercourses, with six indicator sets from the STANDARD outcome evaluation being tested. The EXTENDED outcome evaluation will involve suitable small watercourse restoration projects dating back 4–12 years.

The framework for the STANDARD and EXTENDED outcome evaluation was developed at Eawag, on behalf of the FOEN, in close consultation with three advisory groups (internal, national, international) and through discussion at several Water Agenda 21 events (see Factsheet 7).

**Table 1.1:** Summary of the STANDARD and EXTENDED outcome evaluations

| | **STANDARD outcome evaluation** | **EXTENDED outcome evaluation** |
|---|---|---|
| Why? | Assessment of typical restoration goals | Answering specific practice-related questions 2020–2024: medium-term development of small watercourse restoration projects; testing of indicators from STANDARD |
| Where? | As many PA restoration projects as possible, plus individual projects | PA restoration projects or individual projects 2020–2024: suitable small watercourse restoration projects dating back 4–12 years |
| What? | 10 predefined indicator sets | Indicators selected according to questions studied 2020–2024: using six indicator sets from STANDARD |
| How? | Before-after survey | After survey, plus control reaches |
| How much? | 60% financed by FOEN | 80% financed by FOEN |
| How long? | 2020–2024: test phase<br>2025 ff.: 12 years (1 cycle of strategic planning) | 4-8 years (1-2 PA phases) |

**List of modifications**

Relevant changes are marked in green.

| Date (mm/yy) | Version | Change | Responsibility |
|---|---|---|---|
| 4/2020 | 1.02 | Correction of spelling errors, minor terminological modifications | Eawag |
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