Data Management for Evaluation

Big Data, Small Data, Short Data, Long Data?

When it comes to evaluation one of the main pieces that can often determine whether an evaluation is even possible or not is data, but data often sounds like a boring or complicated topic, and so we instead often times focus our attention only on how we are going to implement great programmes that create jobs or better preserve our landscape and biodiversity. But how can we assess the results and impacts of these great ideas? We need data. And most likely we need a lot of it. But while this may sound like a daunting task if prepared properly and in advance Member States can make sure they have the data needed in order to make sure they know if they really are achieving what they intended.

The legal requirements in the 2014-2020 programming period underline the need for the Member States and programmes to put into place more systematic approaches for evaluation related data collection and the provision of data to evaluators. These problems suggest the need for a comprehensive data management strategy developed by the Member States and programmes.
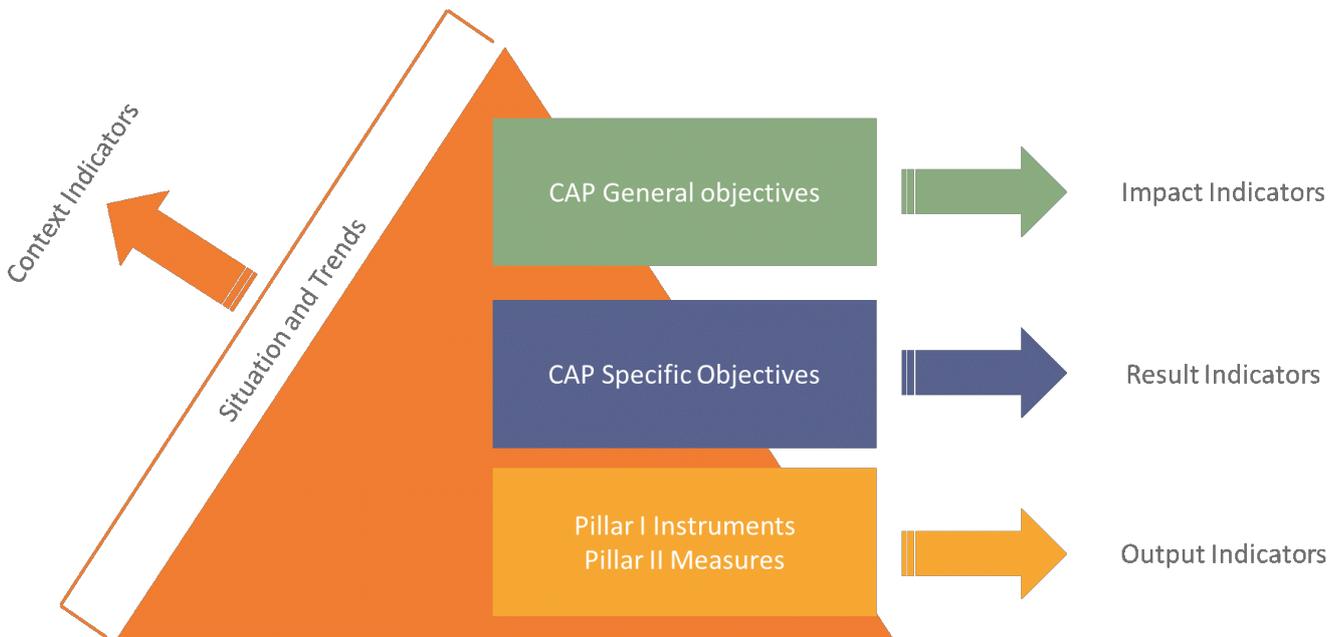
When conceptualising evidenced-based evaluations of Rural Development Programmes (RDPs), one must not begin with the technical details but instead, first assess the overarching purpose of data management for evaluation. The aim of data management for evidence-based evaluations is to demonstrate the progress, achievements, results, impacts, relevance, effectiveness and efficiency of the EU's rural development policy. With this stated, one quickly realises that evaluations are both vital to the policy process and challenging endeavours.

RDP evaluations begin with focus area-related and horizontal common evaluation questions (30), which have to be answered at regular milestones during the programming period and reported to EU institutions to meet the information needs at the European level. Evaluation questions are answered by means of a set of common indicators agreed upon between the EC and Member States. The common indicator list encompasses different types of data sets, which are linked to a variety of data sources.

- **Output indicators** [1] (26) collected from the operations database on beneficiaries.
- **Result indicators** [2] (25) including the complementary ones: collected through different data sources such as the operations database, secondary data sources, and field research by evaluators.
- **Target indicators** [2] and performance framework indicators: a subset of output and result indicators, which must be thoroughly matched and synchronised with the operations data.

- **Context indicators** [3] (45) collected from regional/national/ EU statistics.
- **Impact indicators** [4](16): form a part of the context indicators set and collect macro data (on the territory, and the sector). Impact indicators are updated together with context indicators. However, impact indicators are also used in the RDP assessment.
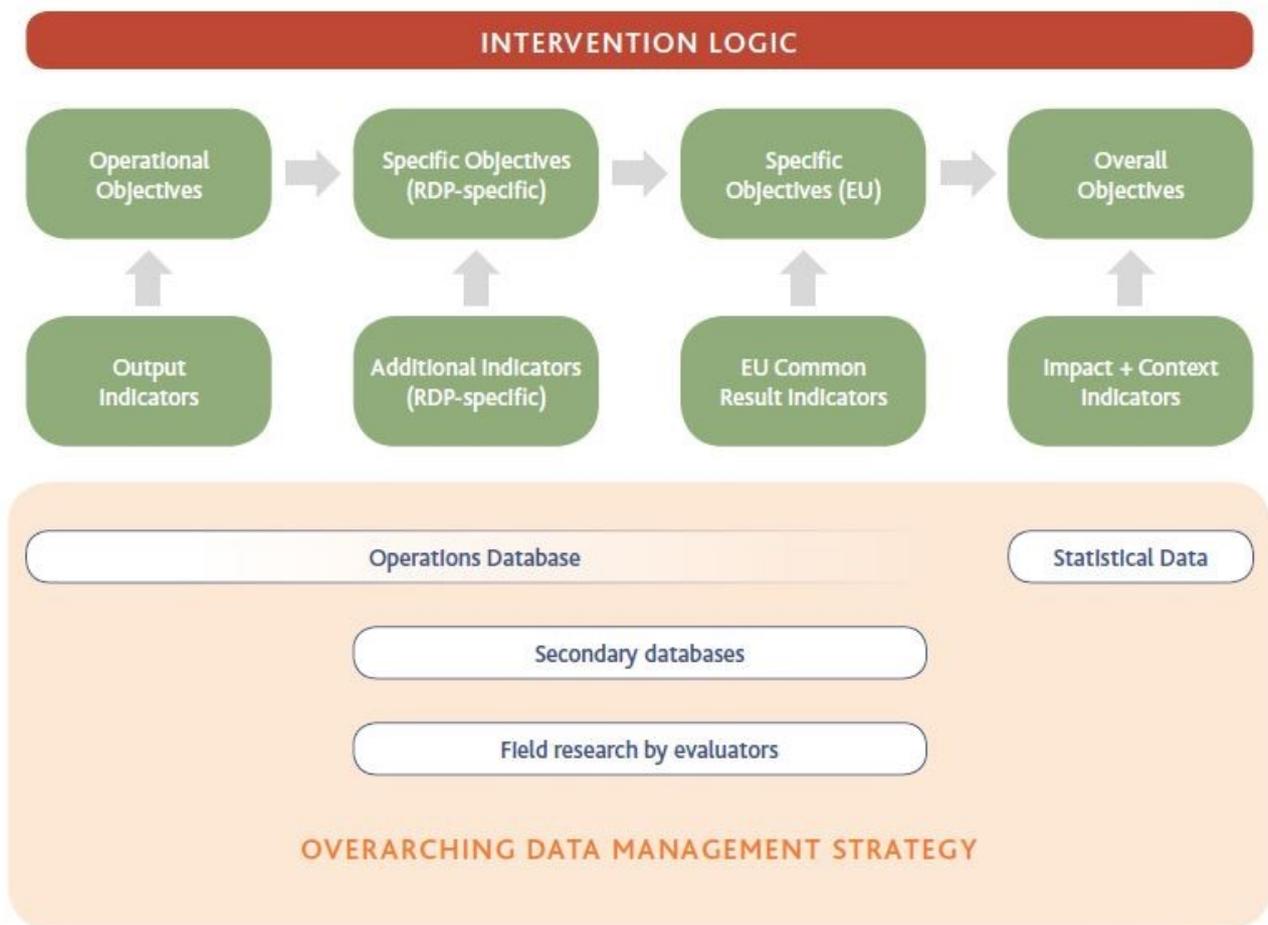
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The comprehensive sets of common evaluation questions and the related indicator groups were designed to capture the broad thematic scope of the Rural Development Programmes represented by 18 focus areas and numerous key measures. These indicators also reflect an increased focus on a results-oriented approach for programmes using EU funds represented by target indicators, the performance framework and the requirement to isolate programme-specific effects measured by result, and impact indicators resulting from other influencing factors.

The set of common indicators are designed to meet the reporting needs at the EU level (for the EC, Council and European Parliament), but they were not devised for a fully developed evaluation at the national or local levels. Therefore, programmes need to develop programme-specific elements to assess aspects that are of particular interest to stakeholders. The European Commission encourages programme bodies to develop indicators 'in addition' to common indicators whenever the common indicators cannot fully answer the evaluation questions in a satisfactory manner. A list of roughly 20 to 30 agricultural, environmental and social data sources are necessary to answer the common evaluation questions taking into account programme-specific elements. This leads to specific data needs and an increase in the complexity of the data sources needed for evaluation.

The figure illustrates how the various indicators relate to objectives at different levels and where data for these indicators can be drawn from.

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INTERVENTION LOGIC

Operational Objectives → Specific Objectives (RDP-specific) → Specific Objectives (EU) → Overall Objectives

Output Indicators | Additional Indicators (RDP-specific) | EU Common Result Indicators | Impact + Context Indicators

Operations Database

Statistical Data

Secondary databases

Field research by evaluators

OVERARCHING DATA MANAGEMENT STRATEGY

Source: Evaluation Helpdesk, 2016

When building a data strategy some key topics for data management should be considered. This table breaks these topics down by those which are cross-cutting which relate to data management for all themes and then further considers some specificities by theme.

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KEY TOPICS IN DATA MANAGEMENT FOR RDP EVALUATION

CROSS CUTTING TOPICS IN DATA MANAGEMENT

Development of a data management framework / strategy
- Screening of data sources used for evaluation to answer common and programme-specific evaluation questions
- Establishment of data hubs
- Foster e-cohesion
- Management of data protection issues
- Approaches to fill data gaps and collect missing information
- Collection of evaluation related data in the operations database / monitoring system through application forms, progress reports, payment requests
- Matching of different data sources in order to establish control groups to conduct counterfactual evaluations
- Approaches to identify secondary contributions in the operations database

Organisational arrangements
- Arrangements with data providers to ensure the availability of evaluation data
- Improved coordination of key actors in the data management system

Financial and human resources
- Costs to outsource IT support
- Secure sufficient financial and staff resources for data management
- Provide guidance and trainings to data operators

Implementation
- Quality control of collected data
- On time availability of data for programme steering and reporting needs

Use of collected data
- Data flow to evaluators at certain evaluation points

THEMATIC TOPICS IN DATA MANAGEMENT

Knowledge transfer and innovation
- Information needs to evaluate knowledge transfer and innovation across the RDP
- Set up of control groups in vocational training

Competitiveness of agriculture
- Collection of data after the completion of the investment (2 or 3 years)
- Collection of data to assess secondary contributions

Sustainable management of natural resources
- Availability of environmental data on water, soil, FBI, HNVF
- Availability of geographic information system data on land use and landscape structures

Resource efficiency and climate action
- Availability of environmental data on climate emissions

Local development in rural areas
- Provision of data for LEADER/CLLD evaluation
- Provision of data on the non-agricultural sector

Source: Evaluation Helpdesk 2016

This practical example can shed light on how one might look at evaluating a specific evaluation question related to a specific focus area in this case (FA 2A).

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Practical example: evaluating the EQ related to FA 2A

When evaluators assess the classical evaluation question related to focus area 2A ("To what extent have RDP interventions contributed to improving the economic performance, restructuring and modernisation of supported farms?") they have to undergo different data intensive working steps:

- In order to quantify the common complementary result indicator R2, which is key for focus area 2A (Change in agricultural output on supported farms/AWU), evaluators have to combine different data sources. The net-value of the R2 indicator should also be estimated (e.g. using the operations database, anonymised paying agency data, farm bookkeeping data, standard outputs and FADN data).

- Evaluators must additionally assess the result indicators (e.g. gross farm income) by analysing regional/national agricultural statistics (e.g. farm bookkeeping data).

- Evaluators should collect qualitative information through a survey, e.g. whether farms have increased their market participation with the help of the RDP support to validate or triangulate other statistical information.

Find more information on data management in the Helpdesk's eLibrary [5].

For more information on indicators please refer to DG AGRI's 'CAP Interactive Dashboard' [6] recently updated with 2017 data.

Source URL: https://enrd.ec.europa.eu/evaluation/back-basics/data-management-evaluation_es?2nd-language=en

Links
[1] https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key_policies/documents/output-indicator-fiches-pillar-ii_en.pdf
[2] https://ec.europa.eu/info/files/target-and-result-indicator-fiches-pillar-ii_en
[3] https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key_policies/documents/context-indicator-fiches_en.pdf
[4] https://ec.europa.eu/info/files/impact-indicator-fiches_en
[5] https://enrd.ec.europa.eu/evaluation/publications/data_en

[6] https://agridata.ec.europa.eu/extensions/DataPortal/cmef_indicators.html