



WORKING DOCUMENT

UPDATED FICHES FOR ANSWERING COMMON EVALUATION QUESTIONS 4 AND 6 FOR RDPs 2014-2020

WORKING PACKAGE 3

THEMATIC WORKING GROUP No 8

‘EX POST EVALUATION OF RDPs 2014-2020: LEARNING FROM
PRACTICE’

MARCH 2021

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INTRODUCTION

This Working Document is one of the outcomes of Working Package 3 '**Assessment of RDP effects on fostering the competitiveness of agriculture**' which analyses the emerging evaluation issues particularly related to the evaluation of RDP effects on competitiveness of agriculture. It is a response to the various reported challenges related to answering Common Evaluation Questions 4 and 6¹ with the means of common evaluation elements (e.g., result indicators):

- CEQ 4 'To what extent have RDP interventions contributed to improving the economic performance, restructuring and modernisation of supported farms in particular through increasing their market participation and agricultural diversification?'
- CEQ 6 'To what extent have RDP interventions contributed to improving the competitiveness of supported primary producers by better integrating them into the agri-food chain through quality schemes, adding value to the agricultural products, promoting local markets and short supply circuits, producer groups and inter-branch organisation?'

This document includes **the updated version of the [fiches for answering Common Evaluation Questions 4 and 6 for RDPs 2014 - 2020](#)** by providing a **non-exhaustive list of possible additional evaluation elements** that Managing Authorities and evaluators may consider when preparing and conducting the assessment of competitiveness of agriculture. The examples of additional evaluation elements are **not mandatory**, and they are considered as recommendations stemming from the exchange of experiences and lessons from current practices in Member States with a view to improve the quality of evaluations when preparing for the ex post evaluation of RDPs 2014-2020.

The drafting of this document has been carried out in the context of the Evaluation Helpdesk's Thematic Working Group, '**[Ex post evaluation of RDPs 2014-2020: Learning from practice](#)**'. It has been prepared by evaluation experts using existing documentation ([Working document on evaluation questions](#), Annual Implementation Reports submitted in 2019, [Synthesis of the Evaluation Components of the Enhanced AIRs 2019](#)) as well as examples collected from the Member States in the course of this Thematic Working Group. This document is also based on suggestions for additional evaluation elements and feedback from evaluation stakeholders provided during and after the Good Practice Workshop '**[Assessing the contribution of RDPs to a competitive and viable agricultural sector](#)**' (9-10 December 2020).

¹ The common evaluation questions with their respective judgment criteria and indicators can be found in the [Working Paper 'Common Evaluation Questions for Rural Development Programmes 2015'](#).

1 FOCUS AREA 2A, EVALUATION QUESTION 4

1.1 Common evaluation question

To what extent have RDP interventions contributed to improving the economic performance, restructuring and modernisation of supported farms in particular through increasing their market participation and agricultural diversification?

1.2 List of measures contributing to the Focus Area 2A

Primarily programmed measures/sub-measures (proposed by EC)²:

- Measures and sub-measures of Art. ³ 35 Co-operation
- Measures and sub-measures of Art. 19 Farm and business development
- Measures and sub-measures of Art. 17 Investments in physical assets
- Measures and sub-measures of Art. 15 Advisory services, farm management and farm relief services
- Measures and sub-measures of Art. 14 Knowledge transfer and information actions.

Examples of measures/sub-measures programmed under the other Focus Area (FA) but potentially **showing the secondary contribution** to this FA:

- All above measures if programmed under other FAs than FA 2A and contributing to improving the economic performance, restructuring and modernisation of supported farms
- Measures and sub-measures of Art. 16, Quality schemes for agriculture products and food stuff
- Measures and sub-measures of Art. 27 Setting up of producers groups and organisations
- Measures and sub-measures of Art. 30 Natura 2000 and Water framework directive payments
- Measures and sub-measures of Art. 31 Payments to areas facing natural or other specific constraints
- Measures and sub-measures of Art. 35 of Regulation (EU) no 1303/2013, Support for Leader local development.

1.3 Consistency check between CEQ, judgement criteria and indicators

1.3.1 Judgement criteria

Judgement criteria (JC) proposed by the Working Document: Common Evaluation Questions for Rural Development Programmes 2014- 2020:

- Agricultural output per annual working unit of supported agricultural holdings has increased
- Farms have been modernised
- Farms have been restructured.

² WP: Guidelines for strategic programming for the period 2014-2020, European Commission, 04/03/2014, published on ECAS/circabc.

³ All articles mentioned in this section of each fiche for answering CEQ 1 – 18 are of Regulation (EU) No 1305/2013, unless it is stated otherwise in the text directly.

The above judgment criteria could be complemented, if they do not specify sufficiently the expected success of the intervention, with **additional judgment criteria**, which could include:

- Economic performance of farms has improved or other related judgment criteria, such as:
 - Productivity has increased
 - Agricultural production has increased
 - Gross and net margins of the supported farms have increased
 - Gross value added (GVA) of supported agricultural holdings has increased.
- Market participation of farms has increased or other related judgment criteria, such as:
 - The market access has improved for supported agricultural holdings
 - The market share of agricultural holdings has increased
 - New markets developed by supported farms.
- Agricultural diversification of farms has increased or other related judgment criteria, such as:
 - Investments in infrastructure that improve accessibility of farms has increased.
- The innovation capacity of farms has improved or other related judgment criteria, such as:
 - Farmers have benefited from tools to improve their knowledge and capacity for innovation and adaptation to change
 - The capacity of farmers to collaborate has increased.

Note: stakeholders in the Member States might add/change judgement criteria in line with the intervention logic of the FA (selection and combination of measures).

1.3.2 Indicators

The following *common indicators should* be used to answer the CEQ:

- R1/T4 - % of agriculture holdings with RDP support for investments in restructuring or modernisation
- R2 - Change in agricultural output on supported farms/AWU (Complementary result indicator).

The following other *common indicators might* be used to answer the CEQ:

Common output indicators⁴ (Data are collected via Pillar II operations database):

- O3 – Number of operations supported
- O4 – Number of holdings supported for investment in agriculture holdings (for calculation of R1).

Common context indicators⁵:

- CCI 26 Agriculture entrepreneurial income
- CCI 27 Total factor productivity income

⁴ WD: Data item list for Pillar II operations database and WD RD programming and target setting

⁵ Data needs and data sources for common context indicators are described in the Working document: Proposed list of common context indicators.

- CCI 14 Labour productivity in agriculture.

Additional indicators and information:

Additional indicators/information may be used, depending on the availability of data, whenever the common indicators are not sufficient to answer the evaluation question or when specific aspects should be covered in the answer (e.g., economic performance, market participation).

For measuring **economic performance**, the following indicators could be used:

- Economic farm size structure of supported farms (Source: Working Document: Common Evaluation Questions for Rural Development Programmes 2014-2020)
- Gross or net farm income
- Family farm income
- Gross investment on fixed assets per agriculture output
- Agricultural production / output
- Net added value or income per AWU
- EBITDA (earnings before interest, taxes, depreciation, and amortisation) per AWU
- Change in the gross or net margin of farms
- Agricultural labour input (% annual rate of change)
- Change of GVA in supported holdings
- Return on sales, assets or investments of supported agricultural holdings, as well as changes in these returns.

For measuring **restructuring or modernisation of farms**, the following indicators could be used:

- Net investment on fixed assets and/or agricultural output
- Change in investments devoted to restructuring, modernisation, digitalisation and innovation
- Volume and/or type of investment in infrastructure.

For measuring **farm diversification**, the following indicators could be used:

- % of agricultural output (by product)
- % of agricultural income to total income
- % of agricultural holdings that changed or diversified production activities.

For measuring **market participation of farms**, the following indicators could be used:

- Sales per total output
- Membership to cooperatives or to a farmers' organisation
- Change in net turnover against total output
- Number of agricultural holdings that entered new markets with RDP support.

For measuring the **innovation capacity of farms**, the following indicators could be used:

- Number of farms benefiting from tools to improve their knowledge and capacity for innovation and/or adaptation to change
- Number of farms participating in training actions
- Number of farmers participating in cooperation projects.

Note: More additional indicators can be developed when judgement criteria are added to specify the evaluation question in MS.

Qualitative information

The proposal is to collect also qualitative information, e.g. whether farms have increased their market participation with the help of the RDP support (Likert scale).

1.4 Data needs and data sources

1.4.1 Common indicators

R1/T4% of agriculture holdings with RDP support for investments in restructuring or modernisation

Data needed	Data source
<ul style="list-style-type: none"> Total number of farm holdings receiving support for investment in restructuring and/or modernisation under measure 4 (collected via Pillar II operation database as O4 indicator). Total number of agricultural holdings in base year for the RDP area (CCI 17) collected via statistics (national, Eurostat). 	<p>Beneficiaries:</p> <ul style="list-style-type: none"> Application forms/payment request (Operations Database). <p>Total farm population:</p> <ul style="list-style-type: none"> Eurostat or national statistics: Farm Structure Survey.

R2 (Complementary result indicator)

Data needed	Data source
<p>Calculation of programme effects using indicator R2 requires collection of data for both beneficiaries of RD measures affecting P2A and appropriate control groups:</p> <ul style="list-style-type: none"> Numerator: Agricultural output = SE131 = (output of crops and crops products, livestock and livestock products = value of sales + balance of stocks + own use or consumption) per farm in years prior to receiving support from the RDP (i.e. 2013) and after support (i.e. 2016, 2018 and ex post) Denominator: Total labour input of holding expressed in annual work units = SE010 = (AWU full-time person equivalents) (= family and unpaid labour AWU + paid labour AWU) per farm in years prior to receiving support from RDP (i.e. 2014) and after support (i.e. 2016, 2018 and ex post). 	<p>Beneficiaries:</p> <ul style="list-style-type: none"> Application forms/payment request (Operations Database) <p>Beneficiaries and non-beneficiaries:</p> <ul style="list-style-type: none"> Survey FADN data base and anonymised paying agency data (no information which could identify entity or person) needed to identify beneficiaries of RDP measures linked to focus area 2A6 Eurostat: Farm structure survey Standard outputs per MS and region and year: http://ec.europa.eu/eurostat/web/agriculture/so-coefficients Total standard outputs (overall economic size of farm) per MS and region and per year: http://ec.europa.eu/agriculture/rca/database/report_en.cfm?dwh=SO Regional/National agricultural statistics, e.g. farm bookkeeping data, standard outputs National institutions: GIS data

⁶ Questionnaire of FADN for 2014: to see what data are available for the rural development measures - table M Subsidies: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012R0385&rid=1>

Data needed	Data source
<ul style="list-style-type: none"> Relevant GIS data (to be used for evaluation of environmentally related measures) Information on the total amount of subsidies (RDP subsidies directly related to focus area 2A + RDP subsidies non-directly related to focus area 2A + non-RDP subsidies) obtained by a farm in respective periods before the current programme and during its implementation (2014-2016; or 2014-2018; or 2014-2020 <+2 years>) – to be used as control variables and for the calculation of programme efficiency In order to calculate effect of RD measures on the focus area P2A using result indicator R2 the change of the net-value of the R2 indicator should be estimated, see: description of methodology. 	

1.4.2 Additional indicators

The evaluator should judge if the common indicators are sufficient to answer the evaluation question and if they are not, the evaluator should gather additional quantitative or qualitative information (e.g. through additional indicators). Examples of the additional indicators and the data needed to answer them as well as data sources are provided in the following table.

Additional indicators and data needed	Data source
<p>Economic farm size structure of supported farms</p> <p><i>To be collected for beneficiaries and non-beneficiaries (control groups)</i></p> <p>Economic size = SE005 = economic size of holding expressed in European size units (on the basis of Community typology) = Total standard output (SO) of the holding expressed in Euro. The SO of the holding is calculated as the sum of the SO of each agricultural product present in the holding multiplied by the relevant number of hectares or heads of livestock of the holding.</p>	<p>Beneficiaries:</p> <ul style="list-style-type: none"> Operations Database <p>Beneficiaries and non-beneficiaries:</p> <ul style="list-style-type: none"> FADN http://ec.europa.eu/agriculture/rca/database/database_en.cfm Eurostat: Farm structure survey Eurostat: Economic accounts for agriculture (EAA) for computation of context indicators Eurostat: Agriculture Labour Input statistics (ALI) for computation of context indicators Regional/National agricultural statistics (e.g. farm bookkeeping data)
<p>Gross Farm Income</p> <p><i>To be collected for beneficiaries and non-beneficiaries (control groups)</i></p> <p>Gross Farm Income (GFI) = SE410 = Output – intermediate consumption + balance current subsidies & taxes</p>	<p>Beneficiaries:</p> <ul style="list-style-type: none"> Operations Database <p>Beneficiaries and non-beneficiaries:</p> <ul style="list-style-type: none"> FADN; Eurostat: Farms structure surveys Regional/National agricultural statistics (e.g. farm bookkeeping data)

Additional indicators and data needed	Data source
Farm Net income <i>To be collected for beneficiaries and non-beneficiaries (control groups)</i> Farm Net Income = SE420 = farm net value added – total external factors + balance on subsidies and taxes on investment	Beneficiaries: <ul style="list-style-type: none"> Operations Database Beneficiaries and non-beneficiaries: <ul style="list-style-type: none"> FADN; Eurostat: Farm structure surveys Eurostat: Economic accounts for agriculture (EAA) for computation of context indicators Eurostat: Agriculture Labour Input statistics (ALI) for computation of context indicators http://ec.europa.eu/eurostat/data/statistics-a-z/abc <ul style="list-style-type: none"> Regional/National agricultural statistics, e.g. farm bookkeeping data
Gross investment on fixed assets / agricultural output <i>To be collected for beneficiaries and non-beneficiaries (control groups)</i> Gross investment on fixed assets = SE516 = Purchases – sales of fixed assets + breeding livestock change of valuation (divided by total agric. Output)	Beneficiaries: <ul style="list-style-type: none"> Operations Database Beneficiaries and non-beneficiaries: <ul style="list-style-type: none"> FADN; Eurostat: Farm structure surveys, Regional/National agricultural statistics, e.g. farm bookkeeping data
Net investment on fixed assets / agric. Output <i>To be collected for beneficiaries and non-beneficiaries (control groups)</i> Net investment on fixed assets = SE521 = gross investment – depreciation (divided per total agric. Output)	Beneficiaries: <ul style="list-style-type: none"> Operations Database Beneficiaries and non-beneficiaries: <ul style="list-style-type: none"> FADN Eurostat: Farm structure survey Regional/National agricultural statistics
Sales/total output <i>To be collected for beneficiaries and non-beneficiaries (control groups)</i> Sales / Total output = share of marketed agricultural output	Beneficiaries: <ul style="list-style-type: none"> Operations Database Survey of beneficiaries Beneficiaries and non-beneficiaries: <ul style="list-style-type: none"> FADN Eurostat: Farm structure survey Regional/National agricultural statistics Survey on beneficiaries and non-beneficiaries

For all other additional indicators, it is advisable to collect data for both beneficiaries and non-beneficiaries (control groups) through a range of information and data sources:

For beneficiaries:

- Operations Database
- Surveys of beneficiaries
- National Tax Offices
- Audited accounts of beneficiaries

For beneficiaries and non-beneficiaries:

- FADN
- Eurostat: Farm structure survey
- Eurostat: Agricultural output, price indices and income
- Regional/National agricultural statistics
- Business registers
- National Tax Offices
- Survey on beneficiaries and non-beneficiaries

1.5 Timing of data collection

Proposed data on beneficiaries and non-beneficiaries should be collected prior to the RDP implementation (i.e., years 2010-2013) and during RDP implementation (i.e. 2014-2020: 1st call for proposal, operations database, national/regional statistics, EU sources)

1.6 Quantitative method to calculate the complementary result indicator R2 - change in Agricultural output/AWU (= farm labour productivity)⁷

Complementary result indicator **R2** (Agricultural output/AWU) = farm labour productivity) can be interpreted as a partial measurement of the competitiveness of the agricultural sector. Both **primary** (programmed directly under the FA 2A) and **secondary** (programmed under other FAs than 2A, but contributing to 2A) contributions of all relevant RDP measures to this indicator have to be taken in consideration.

The main challenge of the use of the R2 in the evaluation of RDPs is to be seen as a fact that an observed change (e.g., in period 2013-2016) of this indicator in supported projects may result from a number of various factors, e.g.:

- a) **Primary contributions** of investment support received **by a given farm** from RDP measures linked directly to the **focus area 2A** (e.g., M3, M4, M6);
- b) **Primary contributions** of non-investment support received **by a given farm** from RDP measures associated with the **focus area 2A** (e.g., M1, M2, M9, i.e., training and advisory services, producer groups);
- c) **Secondary contributions** of support received **by a given farm** from RDP measures linked to **other focus areas**, e.g., FA4 or FA5 (e.g., via M10, M11, M12, M14, etc.);
- d) **Direct and indirect effects** of other **subsidies not related to RDPs** received **by a given farm** (e.g., from Pillar I);
- e) **Direct and indirect effects** of other subsidies **not related to the CAP** (e.g., from regional funds - via migration of labour from agriculture to the non-agricultural sector);
- f) Effects of **other exogenous factors** not related to the RDP, e.g., change in agricultural prices, change of price ratios between agricultural outputs and inputs which provide an incentive for an increase/decrease of agricultural output; etc.

In order to calculate the extent to which changes in the R2 indicator was caused by RDP measures = net effect of the RDP programme in supported projects, the evaluator has to divide the observed total change of R2 into two independent components: i) a change of R2 which was due to the RDP programme (cases: a-c); and ii) a change in R2 caused by other factors (cases: d-f as one aggregate). Considering the extent to which RDP measures affect R2 cannot be directly observed, separation of these effects must be carried out using advanced quantitative evaluation methodologies. Application of methodologies recommended below further allows for the analysis of various indirect programme effects: deadweight loss effect, substitution effect, etc.

The proposed approach for assessing the extent to which RDP measures contributed to a change in the R2 indicator involves three stages, each implemented in several steps:

⁷ The stages and steps for calculation of CRI (adjusted) can be also used for calculation of additional indicators if relevant).

Stage 1: Estimation of **primary contributions** of RDP measures **directly attributable to the focus area 2A** (i.e., measures: M1, M2, M3, M4, M6, M9, M16) (Note: all measures directly attributable to the focus area 2A are expected inter alia to affect the farm labour productivity (indicator R2) of the direct programme beneficiary.

Steps for the calculation of primary contributions:

Step 1: Find a sample of farms/farmers who received in a given period, e.g., 2014-2016 support from measures M1, M2, M3, M4, M6, M9 or M16 ('beneficiaries').

Note: In case indicator R2 is calculated on a constant sample, please be aware that about 60% of the sample is the same after 4 years (for instance from 2009 to 2012). This is just an average: the % of constant sample goes from 20% to 90%, depending on the Member State.

Step 2: Select from all farms/farmers who in the same period didn't received support from measures M1, M2, M3, M4, M6, M9 and M16 ('non-beneficiaries') a sample which is at least 2-3 times larger than the sample of 'beneficiaries', *Note: MS should be aware of the FADN sample size and see if the sample is sufficient to conduct the counterfactual analysis, in case not the stakeholders in the Member States might have already developed or develop national FADN which would enlarge the sample.*

Step 3: For all farms in both groups collect data on agricultural output and employment (AWU) as well as data on other farms' major characteristics, e.g., farm area, rented area, total inputs used, gross farms income, family farm income, total assets, gross investments in fixed assets, other subsidies received, etc.

Step 4: Apply appropriate techniques (e.g., matching) which enables one to identify from the sample of 'non-beneficiaries' (see: step 2) a suitable 'control group' for a sample of 'beneficiaries' (some of 'non-beneficiaries' and/or 'beneficiaries' will be dropped from the analysis due to the lack of adequate control units).

Step 5: Check statistically the 'similarity' of both groups prior to receiving support from the programme, e.g. by performing statistical tests (average values of farms characteristics in the group of 'beneficiaries' should not significantly differ from the 'control group').

Step 6: Compute for the group of 'beneficiaries' and 'control group' the average value of R2 indicator prior to the support (e.g. in year 2013) and after support (e.g. year 2016).

Step 7: Perform a calculation of the specific policy indicators, e.g., Average Treatment Effects on Treated (ATT), using R2 as the result indicator. Compute programme **net effect on R2** (by combining calculated ATTs with Difference in Differences (DID) method).⁸

Step 8: Perform sensitivity of obtained results.

Step 9: Calculate the aggregated value of the net indicator at a **programme area level** by applying extrapolation techniques (e.g., by multiplying average micro-results computed at a farm level by a number of supported farms).

Note: application of the methodology described above allows inter alia analysing programme **deadweight loss effects**.

⁸ Capturing the success of your RDP: Guidelines for the ex-post evaluation of 2007-2013 RDP, PART II, Chapter 4: Methods, part 4.3.3.2 Quantitative approaches, page 94, http://enrd.ec.europa.eu/enrd-static/evaluation/library/evaluation-helpdesk-publications/en/evaluation-helpdesk-publications_en.html

Stage 2: Estimation of **secondary contributions** of those RDP measures in which the **main objective is linked to another focus area** (e.g. **renewable energy, water efficiency** e.g. M10, M11, M12) but which also are expected to contribute on farm restructuring and competitiveness. This also includes those operations implemented via CLLD strategies, which show secondary contributions to the farm competitiveness. The most significant contributions should be taken in consideration. Calculation of the above contributions (mainly environmentally oriented) requires additional data on the environmental variables linked to the location of those supported (and non-supported farms). If there is not sufficient uptake to calculate the secondary contributions in a robust way a qualitative assessment is also possible (see the Annex 10 of the Guidelines: Assessment of RDP results: how to prepare for reporting on evaluation 2017).

Steps for the calculation of secondary effects:

Step 1: Find a sample of farms/farmers who received in a given period, e.g., 2014-2016 support from measures M10, M11, M12, M13 and M14 ('beneficiaries').

Step 2: Select from all farms/farmers who in the same period did not receive support from measures M10, M11, M12, M13 and M14 ('non-beneficiaries'). This sample should be at least 2-3 times larger than the sample of 'beneficiaries'.

Step 3: For all farms in both groups collect data on agricultural output and employment as well as data on the farm's major characteristics (used to construct the control groups), e.g., farm area, rented area, total inputs used, gross farms income, family farm income, total assets, gross investments in fixed assets, other subsidies received, etc. as well as other environmentally relevant characteristics of the farms location, e.g. using GIS data.

Step 4: Apply appropriate techniques (e.g., matching) which enables one to identify from the group of 'non-beneficiaries' a suitable 'control group' (some of the non-beneficiary farms and/or beneficiaries will be dropped from the analysis due to the lack of adequate control units).

Step 5: Check statistically the 'similarity' of both groups prior to receiving support from the programme, e.g. by performing statistical tests (average values of farms characteristics in the group of 'beneficiaries' should not significantly differ from the 'control group').

Step 6: Compute for the group of beneficiaries and control group the value of the R2 indicator prior to the support (e.g. in year 2013) and after support (e.g. year 2016).

Step 7: Perform calculation of specific policy indicators, e.g., Average Treatment Effects on Treated (ATT), using R2 as the result indicator. Compute programme net effect on R2 (by combining calculated ATTs with Difference in Differences (DID) method).

Step 8: Perform sensitivity of obtained results.

Step 9: Calculate the aggregated value of the net indicator at a programme area level by applying extrapolation techniques (e.g., by multiplying average micro-results computed at a farm level by a number of supported farms).

Note: application of the methodology described above allows inter alia analysis of deadweight loss effects of measures included in the analysis (i.e. M10, M11, M12, M13 and M14)

Stage 3. Estimation of **indirect effects** of the RDP measures identified at **Stage 1 and Stage 2** (Note: it can be expected that support obtained by beneficiaries of RDP measures attributable to the focus area 2A, e.g. M4, may have expected/unexpected general equilibrium effects, e.g. negative effects on non-beneficiaries located in a close neighbourhood of programme beneficiaries. For example, due to intensive support of farm investment (M4) the price of land and investment goods in this region may increase and therefore may affect negatively labour productivity of programme non-beneficiaries):

substitution effect. Similarly, <expected/unexpected> indirect effects on labour productivity of programme non-beneficiaries may occur during implementation of measures linked to other focus areas (renewable energy, water efficiency, etc.)

Steps for calculation of indirect effects:

Programme **indirect effects**, e.g., **substitution, displacement, multiplier**, etc. of RDP measures identified in Stage 1 and Stage 2 should be computed and shown **separately**. The methodology which can be applied to analysis of programme indirect effects has been described in: 'Approaches for Assessing the Impacts of the RDP in the context of multiple intervening factors', Brussels, 2010.

Note: The quantitative values resulting from the above methodology can be validated and interpreted with qualitative approaches, involving interviews and focus groups with the managers of measures and/or with representatives of beneficiaries and non-beneficiaries.

1.7 Challenges/Risks/Issues

Although building valid counterfactuals is the most promising technique for the separation of RDP measures' effects from other programme independent factors, the empirical application of the recommended methodology to the evaluation of RDP measures expected to affect the net value of the R2 indicator (i.e., labour productivity) requires an abundant database (especially when analysing effects of measures linked to environmental targets/focus areas). For the same reason, the institutional entities (MA, regional and/or national institutes of statistics...) and evaluators should not underestimate the role of a systematic collection of data on programme non-beneficiaries enabling the construction of valid counterfactuals. Also, the proposed method will not generate reasonable results if there are other important observable characteristics explaining the differences in performance of programme beneficiaries and control groups, but they were **not** included into the model (it is therefore important that all stakeholders who can facilitate to collect respective information as early as possible collaborate, in order to insert into the model several indicators showing the farms' main characteristic and performance). Furthermore, some techniques can be statistically complex and require advanced quantitative skills (econometrics, modelling, etc.).

1.8 Proposed solutions

Low number of non-beneficiaries (or small programmes) and proposed solutions

In case in a given programme area a great deal of farms received RDP support a counterfactual analysis of the effectiveness of programme support on indicator R2 should involve other quantitative methods, e.g. generalised propensity score matching (GPSM). Given explicit information on the intensity of investment support (e.g. financial flows into a public investment programme per farm). The effect of the RDP measures on the R2 indicator can be analysed by means of a dose-response function and derivative dose-response function (part of GPSM). Generally speaking, GPSM method not only allows to estimate the average effect of public investment support on the selected result/impact indicator (e.g. GVA/farm or GVA/region), but also to assess the **marginal effects** of the programmes or measures, depending on the support intensity level obtained.

Application in 2017 and low RDP up-take and short time-lags and proposed solutions

The selection of an appropriate time period (after implementation of a given programme) may be crucial for estimating the programme results. Generally, the period which is chosen should not be too short (unfolding outcomes) nor too long, as other confounding factors or policies (specifically targeting either

programme beneficiaries or programme non-beneficiaries) may systematically influence the effects. As evaluation methodologies described above are quite flexible regarding the selection of an 'end period', it is advisable to undertake re-estimations of outcomes by including the successive years, in order to verify the stability of the estimated effects. Another possibility is to build 2 or 3 year averages to represent the 'end period'. Unfortunately, there is usually a trade-off between advantages and disadvantage from re-estimations using successive years namely from worsening of the quality of the database resulting from dropping units/observations from the balanced panel. The marginal effectiveness of such an exercise is to be estimated in each individual case by an evaluator.

Solutions to a low uptake at the beginning of the programme can be similar as for slowly unfolding results. A solution is a re-estimation of results in the successive years (or building averages of years as the end period). The cost-effectiveness of using this approach in slow-uptake situations or for a very short period of time of one or two programme years needs to be reviewed on a case by case basis.

1.9 Examples of use of CRI R2

'Approaches for Assessing the Impact of the Rural Development Programmes in the Context of Multiple Intervening Factors', The European Evaluation Network for Rural Development, March 2010, pp. 1-225, https://webgate.ec.europa.eu/myenrd/app_templates/filedownload.cfm?id=699C6181-0006-31E9-DDFD-E9C9FFC0E30A.

'Guidelines for the ex-post evaluation of 2007-2013 Rural Development Programmes', The European Network for Rural Development, pp 1-196, April 2014, http://enrd.ec.europa.eu/enrd-static/app_templates/enrd_assets/pdf/evaluation/epe_master.pdf

'Investment support under Rural Development Policy'; final report; Metis, WIFO, AEIDL; November 2014; http://ec.europa.eu/agriculture/evaluation/rural-development-reports/investment-support-rdp-2014_en.htm

Michalek J. (2012), 'Counterfactual impact evaluation of EU rural development programmes - Propensity Score Matching methodology applied to selected EU Member States', Volume 1 – A micro-level approach.', European Commission, JRC Scientific and Policy Reports, pp 1-95, <http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=5379>

Michalek, J. et. al. (2015), 'Investment Crowding Out: Farm-level Evidence from Northern Germany', Regional Studies – DOI: 10.1080/00343404.2015.1044957

Examples of application of GPSM method

Michalek J. et. al. (2014), 'Capitalization of CAP Single Payment Scheme into Land Value: Generalized Propensity Score Evidence from the EU', Land Economics, University of Wisconsin Press, May 2014 vol. 90:260-289. <http://le.uwpress.org/content/90/2/260.full.pdf+html>

1.10 Answer to CEQ

The answer is provided based on the calculated values of indicators, on the collected qualitative information or on the qualitative assessment.

Conclusions	Recommendations
Main conclusions are stated here for the FA based on the evaluation findings.	Main recommendations linked to the conclusions are stated here for the FA.

2 FOCUS AREA 3A, EVALUATION QUESTION 6

2.1 Common evaluation question

To what extent have RDP interventions contributed to improving the competitiveness of supported primary producers by better integrating them into the agri-food chain through quality schemes, adding value to the agricultural products, promoting local markets and short supply circuits, producer groups and inter-branch organisation?⁹

2.2 List of measures contributing to the FA 3A

Primarily programmed measures/sub-measures (proposed by EC)¹⁰:

- Measures and sub-measures of Art.¹¹ 15 Advisory services, farm management and farm relief services
- Measures and sub-measures of Art. 14 Knowledge transfer and information actions
- Measures and sub-measures of Art. 35 Co-operation
- Measures and sub-measures of Art. 33 Animal welfare
- Measures and sub-measures of Art. 20 Basic services and village renewal in rural areas
- Measures and sub-measures of Art. 19 Farm and business development
- Measures and sub-measures of Art. 27 Setting up producer groups and organisations
- Measures and sub-measures of Art. 17 Investments in physical assets
- Measures and sub-measures of Art. 16 Quality schemes for agriculture products and food stuffs.

Examples of measures/sub-measures programmed under the other FA but potentially **showing the secondary contribution** to this FA:

- All above measures if programmed under a different FA other than focus area 3A and contributing to improving the competitiveness of supported primary producers by better integrating them into the agri-food chain through quality schemes, adding value to the agricultural products, and promoting local markets and short supply circuits, or producer groups and inter-branch organisation.
- Measures and sub-measures of Art. 35 of Regulation (EU) no 1303/2013, Support for Leader local development.

2.3 Consistency check between CEQ, judgement criteria and indicators

2.3.1 Judgement criteria

Judgement criteria (JC) proposed by the WD Common Evaluation Questions for Rural Development Programmes 2014- 2020:

- Competitiveness of supported primary producers has improved

⁹ The questions concern the share of primary producers at the final price of the agricultural products proposing various scenarios, e.g., quality schemes, adding value to primary products, participation in short supply circuits, promoting local markets etc.

¹⁰ WP: Guidelines for strategic programming for the period 2014-2020, European Commission, 04/03/2014, published on ECAS/circabc.

¹¹ All articles mentioned in this section of each fiche for answering CEQ 1 – 18 are of Regulation (EU) No 1305/2013, unless it is stated otherwise in the text directly.

- The share of the final price of agriculture products retained with primary producers has increased
- The added value of agricultural products of primary producers has increased
- Implementation of quality schemes by primary producers has increased
- Participation of primary producers in short circuit schemes, quality-oriented producer group and/or inter branch organisation has increased.

The above judgment criteria could be complemented with the following additional judgment criteria if they cannot sufficiently measure the effects of the intervention:

- Labour productivity of beneficiaries have increased (compared to the whole population)
- Sales of agricultural products have increased
- The demand for agricultural products by processing and marketing companies has increased
- The RDP has encouraged investments in agri-food industries
- The integration of producers in the food chain has been supported
- Existing/new groupings of actors in agri-food chain are reinforced/created by RDP support
- Income of supported primary producers has increased by implementing measures addressing quality of agricultural products
- The development of local sectors and new markets has been facilitated
- The RDP has fostered the strengthening or development of high added value markets.

Note: stakeholders in the Member State might add/change judgement criteria in line with the intervention logic of the FA (selection and combination of measures).

2.3.2 Indicators

The following *common indicators should* be used to answer the CEQ:

Common result/target indicator:

- R4/T6 - % of agricultural holdings receiving support for participating in quality schemes, local markets and short supply circuits, and producer groups/organisations.

The following other *common indicators might* be used to answer the CEQ:

Common output indicators¹² (data collected via the operations database):

- O4 Number of holdings supported
- O9 Number of holdings participating in producer groups supported
- O9 Number of agriculture holdings participating in cooperation/local promotion among supply chain actors.

¹² WD: Data item list for Pillar II operation database and WD RD programming and target setting.

Common context indicators (Data need and data sources are described in the Working document: Proposed list of common context indicators):

- CCI 14 Labour productivity in agriculture
- CCI 16 Labour productivity in the food industry.

Additional indicators and information

Additional indicators/information may be used, depending on the availability of data, whenever the common indicators are not sufficient to answer the evaluation questions or when specific aspects should be further covered in the answer (e.g., participation in quality schemes, promotion of local markets).

Suggested in the Working Document Common Evaluation Questions for Rural Development Programmes 2014-2020:

- Agricultural output on supported farms
- Margin of primary producers in the final price of agricultural products
- % of primary producers introducing quality schemes with RDP support.

For measuring **participation in quality schemes**:

- Change in income or GVA of supported primary producers participating in quality schemes.

For measuring the **promotion of local markets**:

- Number of emerging sectors reinforcing their market position
- Share of agricultural raw material acquired on local markets by the processing industry.

For measuring **participation in groupings**:

- Number of new groupings created or existing groupings reinforced with RDP support
- Number of processing and/or marketing projects supported by RDP promoted by producers or producer groups.

For measuring the **added value to agricultural products**:

- Change in gross value added of supported agricultural holdings participating in local markets scheme, producer groups
- % of primary producers, farmers, agri-food industries investing in marketing and/or processing processes, by sector
- Share of product development, technology development, market diversification, etc. of investments in agri-food industries.

For measuring **improvements in competitiveness**:

- Comparison between the margins of producers involved and those not involved in quality schemes, short supply circuits, producer groups and inter-branch organisations
- Labour productivity in supported holdings participating in quality schemes, local markets, producer groups
- Variation in the unit price and/or in the production cost of agricultural products.

Note: More additional indicators can be developed when judgement criteria are added to specify the evaluation question in MS.

Qualitative indicators

For qualitative assessment the following information can be gathered:

- types and description of local markets;
- types and description of short supply chains;
- description of the key factors that motivate farmers to participate in quality schemes (other than the financial support) etc.

2.4 Data needs and data sources

2.4.1 Common indicators

R4/T6 - % of agricultural holdings receiving support for participating in quality schemes, local markets and short supply circuits, and producer groups/organisations

Data needed	Data source
<ul style="list-style-type: none"> • Total number of agricultural holdings receiving support under measure 3.1 'Participation to quality schemes' (data item O.4). • Total number of agricultural holdings receiving support under measure 9 'Setting-up producer groups and organisations' (data item O.9). • Total number of agricultural holdings receiving support under measure 16.4 'Cooperation among supply-chain actors' (data item O.9). • Total number of agricultural holdings in base year for the RDP area. 	<p>Beneficiaries:</p> <ul style="list-style-type: none"> • Application form (project start) • Payment request (project end). <p>For total number of agriculture holdings:</p> <ul style="list-style-type: none"> • National/regional statistics • Eurostat: Farm structure survey, etc. (for the total number of holdings): http://ec.europa.eu/eurostat/web/agriculture/data/main-tables

2.4.2 Additional indicators

The evaluator should judge if the common indicators are sufficient to answer the evaluation question and if they are not, the evaluator should gather additional quantitative or qualitative information (e.g., through additional indicators). Examples of the additional indicators and the data needed to answer them as well as data sources are provided in the following table.

Additional indicators and data needed	Data source
<p>Changes in agricultural output on supported farms</p> <p><i>To be collected for beneficiaries and non-beneficiaries (control groups)</i></p> <ul style="list-style-type: none"> • Agricultural output on supported farms • Total number of agriculture holdings divided by sector 	<p>Beneficiaries:</p> <ul style="list-style-type: none"> • Operations Database <p>Beneficiaries and non-beneficiaries:</p> <ul style="list-style-type: none"> • Survey on beneficiaries and non-beneficiaries and/or • National/regional statistics • Eurostat: Agricultural output, price indices and income: http://ec.europa.eu/eurostat/statistics-explained/index.php/Agricultural_output_price_indices_and_income • Eurostat: Farm structure survey, etc. (for the total number of holdings): http://ec.europa.eu/eurostat/web/agriculture/data/main-tables • FADN

Additional indicators and data needed	Data source
<p>Margin of primary producers in the final price of agricultural products</p> <p><i>To be collected for beneficiaries and non-beneficiaries (control groups)</i></p> <ul style="list-style-type: none"> Final price of agricultural products Primary producer margins <p>[useful the comparison with farmers which are not involved in quality schemes, short supply circuits, producer groups and inter-branch organisation]</p>	<p>Beneficiaries:</p> <ul style="list-style-type: none"> Operations Database Survey Audited accounts of beneficiaries <p>Beneficiaries and non-beneficiaries:</p> <ul style="list-style-type: none"> Survey on beneficiaries and non-beneficiaries National Tax Office National/regional statistics FADN Business register
<p>% of primary producers introducing quality schemes with RDP support</p> <ul style="list-style-type: none"> Number of supported primary producers introducing quality schemes divided by sector Total number of agriculture holdings divided by sector 	<p>Beneficiaries:</p> <ul style="list-style-type: none"> Operations Database <p>For total number of agriculture holdings:</p> <ul style="list-style-type: none"> National/regional statistics
<p>Comparison between the margins of producers involved and not involved in quality schemes, short supply circuits, producer groups and inter-branch organisation</p>	<p>Beneficiaries:</p> <ul style="list-style-type: none"> Operations Database Survey of supported primary producers <p>Beneficiaries and non-beneficiaries:</p> <ul style="list-style-type: none"> Survey on beneficiaries and non-beneficiaries and/or National/regional statistics FADN Eurostat: Agricultural output, price indices and income: http://ec.europa.eu/eurostat/statistics-explained/index.php/Agricultural_output_price_indices_and_income Eurostat: Farm structure survey, etc. (for the total number of holdings): http://ec.europa.eu/eurostat/web/agriculture/data/main-tables

For all other additional indicators, it is advisable to collect data for both beneficiaries and non-beneficiaries (control groups) through a range of information and data sources:

For beneficiaries:

- Operations Database
- Surveys of beneficiaries
- National Tax Offices
- Audited accounts of beneficiaries

For beneficiaries and non-beneficiaries:

- FADN
- Eurostat: Farm structure survey
- Eurostat: Agricultural output, price indices and income
- Regional/National agricultural statistics
- Business registers
- National Tax Offices
- Survey on beneficiaries and non-beneficiaries

2.5 Timing of data collection

Proposed data on beneficiaries and non-beneficiaries should be collected prior to RDP implementation (i.e. years 2010-2013) and during RDP implementation (i.e. 2014-2020: 1st call for proposal, operations database, national/regional statistics, EU sources).

2.6 Methodology to calculate common and additional indicators

2.6.1 Common indicators

The common indicator R4/T6 is collected via the operations database and calculated as a ratio of agriculture holdings receiving support for participating in quality schemes, local markets and short supply circuits, and producer groups/organisations of total number of holdings.

Secondary contributions

Secondary contributions to the value of R4/T6 can be tracked also directly through the operations database if in the project applications is indicated that the project is participating in quality schemes, support local markets and enables short supply circuits. This also includes those operations implemented via CLLD strategies. The monitoring should be able to eliminate double counting.

2.6.2 Additional indicators

Counterfactuals are proposed in the calculation of the two additional indicators suggested in the Working Document Common Evaluation Questions for Rural Development Programmes 2014-2020:

- Agricultural output on supported farms
- Margin of primary producers in the final price of agricultural products

As techniques, PSM in combination with DID are proposed by the Guidelines for the ex post evaluation of 2007-2013 RDPs¹³.

For the rest of the additional indicators, evaluators may choose the method of calculation based on the available data but should always attempt to implement a counterfactual analysis whenever it is possible.

Secondary contributions

Secondary contributions of operations which are programmed under other FAs than P3A should also be considered for the calculation of additional result indicators (if relevant) linked to the CEQ for FA 3A when answering it. This also includes those operations implemented via CLLD strategies, which show secondary contributions to the objectives of FA 3A. Secondary contributions to the value of result indicators are calculated based on a survey with samples of those beneficiaries who are implementing operations in the scope of different focus areas (e.g. 2A, 6A, 6B etc.), but have flagged additional contribution to FA 3A. The assessment may also look at the significance of contributions of different types of operations: e.g., farm investment measures, of farm diversification measures etc. to the participation in quality schemes, producer groups, promoting local markets and short supply circuit and compare the contributions. The most significant contributions should be taken in consideration. In the case of a low number of beneficiaries flagging the additional contribution to the FA 3A the total population of beneficiaries can be taken into consideration in the survey. If there is not sufficient uptake to calculate the secondary contributions in a robust way, the qualitative assessment is also possible (see the Annex 10 of the guidelines: Assessment of RDP results: how to prepare for reporting on evaluation 2017). Findings are also used when answering the CEQ 19.

¹³ For details on how to use surveys and focus groups, see 'Capturing the success of your RDP: Guidelines for ex post evaluation of 2007-2013 RDPs', Evaluation Helpdesk, June 2014

Qualitative assessment

For the qualitative assessment, the proposed methods will enable one to describe the types of local markets, types of short supply chains, key factors that motivate farmers to participate in quality schemes etc. Proposed methods are:

- Survey to supported and non-supported primary producers under measures 3.1, 9 and 16.4.
- Structured focus groups¹⁴, interviews with managers of these measures / producer groups / inter-branch organisations. In relation to focus groups, the MAPP method can be used to assess net effects.¹⁵

Triangulation of the findings from different sources (indicator values, findings from interviews, surveys, focus groups).

2.7 Challenges/Risks/Issues

- Low quality data that does not provide a robust answer to the EQ.
- Lack of data to answer the EQ (e.g., low RDP uptake/no uptake, small programmes etc.).

2.8 Proposed solutions

In case of a lack of data (low uptake, small programmes) this EQ can be answered based on data collected for the total population of contracted beneficiaries for the calculation of the respective indicator. In the case of no uptake the answer can be estimated based on qualitative approaches (via interviews and expert opinions) of the expected improvements in competitiveness of the supported primary producers and for what reasons (e.g., participation in quality schemes, adding value to agricultural products, participating in producer groups, etc.).

In case of low quality data, qualitative information can be sought through interviews, surveys, focus groups.

2.9 Answer to CEQ

The answer is provided based on the calculated values of indicators, on the collected qualitative information or on the qualitative assessment.

Conclusions	Recommendations
Main conclusions are stated here for the FA based on the evaluation findings.	Main recommendations linked to the conclusions are stated here for the FA.

¹⁴ For details on how to use surveys and focus groups, see 'Capturing the success of your RDP: Guidelines for ex post evaluation of 2007-2013 RDPs', Evaluation Helpdesk, June 2014

¹⁵ Investment support under Rural Development policy, DG Agri, 2014: http://ec.europa.eu/agriculture/evaluation/rural-development-reports/2014/investment-support-rdp/fulltext_en.pdf

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