EUROPEAN EVALUATION HELPDESK FOR RURAL DEVELOPMENT

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REPORT

APPROACHES TO ASSESS SOCIO-ECONOMIC AND SECTOR RELATED RDP IMPACTS IN 2019

GOOD PRACTICE WORKSHOP
WARSAW, 24 – 25 OCTOBER 2018

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The Evaluation Helpdesk is responsible for the evaluation function within the European Network for Rural Development (ENRD) by providing guidance on the evaluation of RDPs and policies falling under the remit and guidance of DG AGRI's Unit C.4 'Monitoring and Evaluation' of the European Commission (EC). In order to improve the evaluation of EU rural development policy the Evaluation Helpdesk supports all evaluation stakeholders, in particular DG AGRI, national authorities, RDP managing authorities and evaluators, through the development and dissemination of appropriate methodologies and tools; the collection and exchange of good practices; capacity building and communicating with network members on evaluation related topics.

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REPORT

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CONTENT

SUMMARY

The assessment of RDP impacts is a new task for many Managing Authorities and evaluators in 2019. Common impact indicators and, where relevant, additional indicators will be used to answer the Common Evaluation Questions (CEQs) related to the EU level objectives (i.e. CEQs 22-30). The quantification of net impacts is particularly challenging in situations where data is scarce, the RDP uptake is low, or where insufficient time and resources have been dedicated to the evaluation exercise. The Good Practice Workshop '*Approaches to assess socio-economic and sector related RDP impacts in 2019'* brought together 66 participants from 20 Member States, comprising various evaluation stakeholders. It set the evaluation context following the logic model approach proposed in the Guidelines 'Approaches to assess RDP achievements and impacts in 2019'. Four case studies from Latvia, Austria, Poland and Greece, were presented as practical examples of evaluation approaches with a focus on quantitative assessments. The main lessons learned from the presented case studies include:

- **Early panning and good management of evaluations help to increase the evaluation capacity and to improve the data situation**. In the Latvian case, the early planning and the long-lasting cooperation between the evaluator and Managing Authority helped to build evaluation capacity and to improve the data situation. In the case of Austria, early planning enabled the development of databases necessary for using quantitative methods in a timely and cost-effective manner.
- **Combining different evaluation methods helps to make the evaluation findings more robust.** At the micro level, the case studies indicate that advanced methods, such as Propensity Score Matching (PSM) combined with Difference in Difference (DiD) can overcome the limits of qualitative methods or macro models. A pre-condition, however, is the availability of data at the micro level. while other factors may influence the validity of findings such as the interaction of beneficiaries and non-beneficiaries, as well as the territorial bias in the allocation of RDP measures. At the macro level, the case studies illustrate the robustness of dynamic macro models (computational general equilibrium model for socio-economic impacts or national macro models for sectoral impacts) for assessing net impacts. However, as models are based on assumptions, these should be tested with sensitivity checks. The applicability of the approaches depends on the availability and quality of data, the RDP uptake, the number of beneficiaries and the existence of databases at the required territorial level. Integrated methodological approaches ensure consistency across various indicators and levels (e.g. inclusion of bio-physical model components as shown in the Austrian case study).
- **Alternative solutions can help to address various evaluation challenges.** The most frequent challenges are related to data availability. There are various alternatives for assessing net impacts in these cases, ranging from quantitative (e.g. input-output with matching approach) to qualitative methods. The latter can be used for developing hypotheses (that are then tested with quantitative methods), validating findings, identifying causalities, and even for constructing control groups (e.g. surveys to collect data on beneficiaries and non-beneficiaries). The use of FADN data linked with the beneficiary database was considered generally as a cost-effective solution. Additionally, beneficiary surveys can be useful in case of low numbers of beneficiaries in the FADN data base. The use of common and additional evaluation elements (indicators, judgement criteria) helps to make evaluations more robust and to tailor them to the needs of the client.

The workshop provided further insights into resource and data requirements for robust, evidence-based evaluation findings and discussed the challenges encountered and the lessons learned. Participants identified strengths and weaknesses of the presented evaluation approaches, as well as the conditions that ensure the applicability of the evaluation approaches/methods in different countries (see annex).

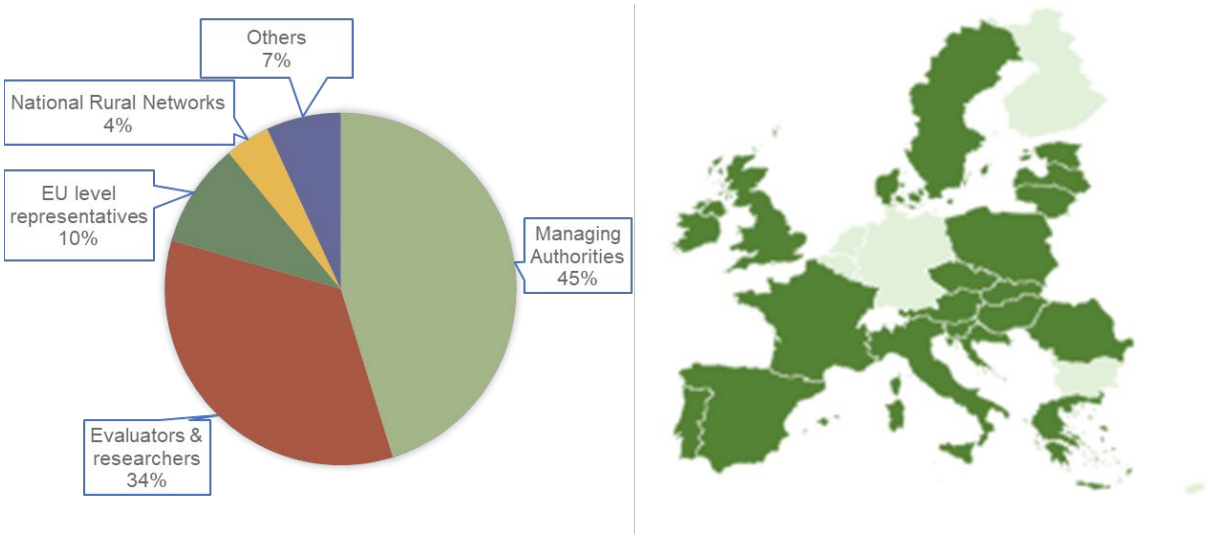
1. SETTING THE FRAME

1.1 Introduction

In 2019, Managing Authorities of Rural Development Programmes (RDP) are called to assess RDP impacts and achievements for the enhanced Annual Implementation Reports (AIRs) to be submitted to the Commission by June 2019. The 8th Good Practice Workshop '*Approaches to assess socio-economic and sector related RDP impacts in 2019'* took place in Warsaw (PL) with the aim of presenting evaluation approaches to assess RPD impacts, exchanging experiences from different Member States, and identifying challenges and recommendation for evaluators and Managing Authorities. The workshop was hosted by the Ministry of Agriculture and Rural Development of Poland.

66 participants from 20 different EU Member States attended the event, including RDP Managing Authorities, evaluators, researchers, EU level representatives (e.g. European Commission, European Evaluation Helpdesk), National Rural Networks, and other actors (e.g. Paying Agencies and NGOs).

Figure 1. Participants of the Good Practice Workshop by role and Member State



The workshop was opened by Mr Ryszard Zarudzki (Undersecretary of State, Ministry of Agriculture and Rural Development of Poland), who welcomed participants and explained the importance of having meetings among different stakeholders to address the challenges of quantifying RDP impacts and of reporting the related findings in the AIRs in 2019.

Following, Ms Joanna Kiszko (DG AGRI, Unit C.4 – Monitoring and Evaluation) introduced the focus and legal framework of the evaluation in 2019. For the first time in the programming period 2014 - 2020, the Managing Authorities will reply to all 30 Common Evaluation Questions set out in the Commission Implementing Regulation No 808/2014 and are asked to assess programmes' impacts using relevant common impact indicators. This task will be a key step before the ex post evaluation to be conducted in 2024. The workshop was prepared to support stakeholders in quantifying the common and additional impact indicators, bearing in mind also the importance of qualitative approaches to explain and validate quantitative findings.

Furthermore, Ms Kiszko informed that, following the feedback from the Member States, the structure of the SFC template to report the evaluation findings in 2019 has been simplified. It will give more flexibility to the Managing Authorities on the way they chose to structure their replies to the Common Evaluation Questions and to explain the methodology used.

1.2 Guidelines: Assessing RDP achievements and impacts in 2019

Mr Hannes Wimmer (Team Leader of the European Evaluation Helpdesk for Rural Development) introduced the guidelines 'Approaches to assess RDP achievements and impacts in 2019' published in August 2018. The guidelines have been drafted by eight thematic experts coordinated by the European Evaluation Helpdesk for Rural Development. Comments to draft versions of the guidelines were provided by 41 Sounding Board members, by the Expert Group on Monitoring and evaluating the CAP, and three peer reviewers. The drafts were shared for consultation, and around 400 comments were received and addressed.

Mr Wimmer explains that the guidelines recommend several evaluation approaches for assessing the Common CAP impact indicators of Pillar 2 in 2019 and the ex post. Possible approaches to be applied in an optimal data-situation as well in a situation of data gaps are described. Qualitative approaches are proposed particularly for the assessment of environmental impacts. The guidelines are structured in four parts and propose logic models to choose the most suitable evaluation approach in a specific situation.

Finally, the guidelines also show approaches to assess the contribution of the RDP towards the EU 2020 Strategy and Innovation, which consist of comparing potential contribution (estimation) with the factual one (observed contribution).

Link to the PPT: Assessing RDP achievements and impacts in 2019: Insight into the guidelines

Photo: Hannes Wimmer (Team Leader) introducing the Evaluation Helpdesk's guidelines

2. SHARING EXPERIENCES

2.1 Evaluation approaches to assess sector-related RDP impacts

Mr Juris Hāzners (researcher) presented the evaluation approach prepared by the Rural Development Evaluation Department of the Institute of Economics and Agricultural Resources in Latvia to assess the sector-related RDP impact indicators for the AIR in 2019.

While the preparation of the evaluation approach for 2019 started only in October 2018, in Latvia there is a solid collaboration between the evaluator and Managing Authority since the ex-post 2007 – 2013.

"A long-term contract between the evaluator and RDP Managing Authority (e.g. renewed every five years) allows to improve the evaluation capacity and learn lessons for preparing and conducting evaluations".

The approach covers both common and additional indicators. It combines a qualitative survey with the following quantitative methods applied at different levels of analysis:

- **Micro-level:** Propensity Score Matching (PSM) combined with Difference-in-Difference (DiD)
- **Macro-level:** Bottom-up approach upscaling micro-level findings

After the presentation, Mr Juris Hāzners addressed the following questions raised by the participants:

?	A
How did you design the sample for the qualitative survey?	*The sample for the qualitative survey has been selected randomly. A list of 24,703 beneficiaries and non-beneficiaries have been provided by the Paying Agency. From this list, 867 answered the survey (275 beneficiaries and 592 non-beneficiaries).*
What will be the most updated FADN data available in Latvia for the AIR in 2019?	*For the AIR in 2019, the most updated FADN data will be from 2017.*
What operations are considered in the level of RDP uptake in Latvia?	*The level of RDP uptake considers only completed operations.*
For the completed operations, do you include also those from the transition period?	*No, only completed operations from the current programming period are included in Latvia.*
Do you consider also RDP measures from Priority 1 in the assessment of sector-related RDP impacts?	*Yes, they are included in the qualitative survey, but not in the counterfactual assessment (i.e. PSM-DiD).*

Link to the PPT: Assessment of Latvian RDP 2014-2020 impacts on fostering the competitiveness in agriculture with PSM-DiD method

Mr Franz Sinabell (researcher) presented the evaluation approach designed and prepared by the Austrian Institute of Economic Research to answer a set of common and additional evaluation questions related to the sectorial RDP impacts.

Mr Sinabell explained that, in Austria, a robust quantitative assessment of impacts is possible thanks to the good access to databases at farm (e.g. FADN), municipality and NUTS-3 level. Moreover, complex models have been built over many years, starting already from the ex post evaluation of the RDP 2007 – 2013.

"In Austria, a team of evaluation experts meets every 4-5 months to work on methodologies, data, and produce robust evaluation findings. When databases are well prepared and managed, quantitative methods can be applied with few working days of some econometric experts."

The presented evaluation approach combines a set of methods within an integrated model. It is used to assess various dimensions of RDP impacts: economic, ecological, and social. Impacts are assessed at different levels through the following methods:

- **Micro-level:** PSM combined with DiD;
- **Macro-level:** agricultural sector model, regional input-output model, national dynamic macro model, and econometric models (e.g. fixed-effects, spatial).

In the future assessment of impacts, the Austrian Institute of Economic Research will aim to integrate other policies supported by the European Structural and Investment (ESI) funds.

After the presentation, Mr Sinabell addressed the following questions raised by the participants:

?	A
Do you shock the Input-Output model by using the findings of the PASMA model or RDP expenditure?	*The expenditure of RDP measures is used to shock the agricultural and forestry sector model "PASMA" used in Austria. Then, the findings of the PASMA model are used to shock the regional Input-Output model that measures the impact on the other sectors of the economy.*
You have mentioned an additional evaluation question on how the '*farm portfolio changes*'. What does it mean?	*With this question, we aim to assess how RDP measures support the diversification of farm activities.*
How do you use the concentration index of agricultural sector in your evaluation?	*The concentration index measures the market shares of economic actors within a sector. Only its trends are analysed (e.g. decreasing, increasing) and the policy makers decide on their interpretation.*

Link to the PPT: Assessing RDP impacts in Austria: Lessons learned from the ex-post evaluation 07-13 and the way ahead for AIR 2019

2.2 Evaluation approaches to assess socio-economic RDP impacts

Mr Jerzy Michalek (Core team member of the European Evaluation Helpdesk) presented the Generalised Propensity Score Matching (GPSM) used in Poland to estimate the socio-economic impacts of the RDP 2007 – 2013 on the food processing sector. While the food processing sector is used as an example in this presentation, the method is applicable to other sectors as well as to the whole RDP. He explained that the most common methods to assess socio-economic impacts are interviews or macro-models. While the first can lead to biased findings, the latter are usually not able to disentangle the factors contributing to the net effects.

More advanced methods, such as Propensity Score Matching (PSM) combined with Difference in Difference (DiD) run on regional data (e.g. NUTS-4), are capable to overcome these limits. However, every method is based on assumptions and presents some limits. For example, the combination of PSM-DiD relies on the assumption that beneficiaries and non-beneficiaries do not affect each other, and that the allocation of the RDP measures was affected by territorial/regional economic performance.

"Different solutions exist to match groups in the counterfactual analysis (e.g. spatial, coarsened-exact matching). It is important to know the RDP intervention logic and delivery mechanism, the limits of each method, and the possible solutions to obtain robust findings".

GPSM method allows to evaluate net impacts of the RDP in situation if all units (e.g. region, farm, etc.) received programme support, yet at various intensity levels. One of the essential conditions for the application of GPSM-DiD at a regional level is the availability of data (e.g. NUTS-4 or NUTS-5 level). The assessment of RDP effects on food processing sectors in Poland used data at NUTS-4 level. Other Member States do have the same data availability (e.g. Slovakia, Austria, Sweden, Germany, Hungary). The public availability of data allows to run advanced models on a large set of covariates (e.g. employment rate, gross salary, other public funds).

After the presentation, Mr Michalek addressed the following questions raised by the participants:

?	A
How do you control all the factors contributing to RDP impacts (e.g. other policies)?	*The comparison between groups should be done using control variables (model covariates) at the beginning of the programming period. Effects of other policies <exogenous variable> can be controlled in terms of amount of non-RDP funds received by each separate region during the analyzed period.*
How to construct a counterfactual situation when data is not available at regional level (e.g. NUTS-4 level)?	*When statistical information is missing (e.g. NUTS-4 level), one possible solution to build a counterfactual situation at regional level is to combine multiple regionalised RDPs. Firstly, one needs to check if various RDPs within a country are designed in a similar manner (e.g. similar intervention logic or target groups). Secondly, an existing set of a common control variables among different programmes/territories should be*

	identified. Finally, an additional 'control variable' can be built to compare different RDPs with a country.
Why did you look at the number of food processing enterprises to assess socio-economic impacts?	*This indicator provides good hints on the magnitude of the RDP effects and the growth of the sector (i.e. includes number of newly created enterprises minus number of enterprises crossed-off from the registry, e.g. due to bankruptcy).*
Why did you use different matching techniques to obtain the evaluation findings?	*The combination of different matching methods (e.g. coarsened exact matching <CEM> at the first stage and PSM-DID matching at the second stage) creates more robust findings and allows to match groups in an easier manner (e.g. greater computational efficiency).*
How to assess impacts when the number of RDP beneficiaries is low? (e.g. in Italy, FADN data from beneficiaries are not always available)	*A survey can be used to collect data on the variables to construct the control group. It is however important to frame well the survey questions well in order to reduce the subjectivity and bias in the answers. For example, ask questions about factual information (e.g. number of cows, turnover) rather than about the opinions.*

Link to the PPT: Estimation of socio-economic impacts of the RDP 2007-2013 on the food processing sector in Poland

Finally, Prof Demetris Psaltopoulos (University of Patras, Greece) presented a case-study on the application of the Recursive Dynamic Computational General Equilibrium (CGE) model to assess the socio-economic RDP impacts in Greece.

Modelling approaches try to predict and interpret reality, although this is not always possible. Their application requires a good knowledge about the structure and socio-economic characteristics of the economy under investigation. The Recursive Dynamic CGE applied in Greece focuses on both macro- and micro-level analysis and can generate findings on both common and additional impact indicators. Once the model has been set up, the approach is cost-effective because it can be applied over several years. The model is anchored on an optimization behavior adopted by economic actors and can provide analysis based on rigorous economic theory. However, as in the case of other complex modeling tools, it is also based on a number of assumptions. Another characteristic of the CGE approach is the "black box" problem, which does not allow the disaggregation of primary and secondary impacts of RDP policy shocks.

"The findings of the Recursive Dynamic CGE model are based on assumptions that can be tested with sensitivity checks. Sensitive checks increase the validity of findings".

After the presentation, Prof Psaltopoulos addressed the following questions raised by the participants:

?	A
Do you have any good examples of conclusions and recommendations derived from this approach?	*The purpose of evaluations is to produce evidence. This evaluation showed that RDP measures cannot target efficiency and equity at the same time. There is a trade-off between these two dimensions.*
Does this model account for counterfactual analysis?	*Yes, it does.*
Modelling approaches seem to be quite rigid (based on theory), and might not consider changes occurring on the ground (e.g. development of fair and social food system in Sweden)	*It is true that the coefficients of elasticity used in these models are exogenous and based on a long-term analysis. However, the coefficients used might be adapted to real situations.*
How did you consider the external factors influencing the RDP impacts on employment and growth (e.g. consumption price, price volatility)?	*There are different ways to consider external factors. For example, one can use the ´degree of urbanization’ as control or proxy for the structural diversities across the whole territory.*

Link to the PPT: Assessment of socio-economic RDP impacts in Greece

After the question and answer sessions, participants worked in groups to identify the main **strengths** and **weaknesses** of the presented evaluation approaches, as well as the necessary **conditions** to apply them. Moreover, participants were asked to identify possible **alternative approaches** to the assess the discussed impacts. The outcomes of the group work were shared in plenary.

The outcomes of the group works are summarised in the annex.

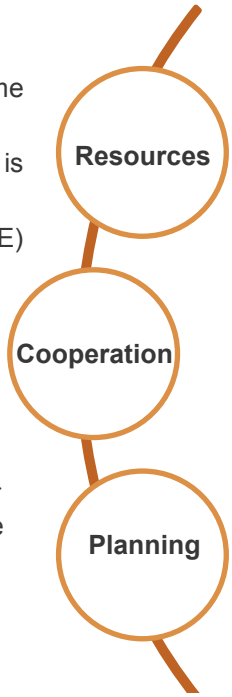
3. CONCLUDING REMARKS

The workshop made evident that there is no overarching approach or method to evaluate net RDP impacts. Which evaluation approach works best in a given RDP depends on a combination of factors, notably a cost-benefit analysis (i.e. considering the cost of the evaluation and the size of the RDP), the level of RDP uptake, the availability of data (including the territorial level at which data is available), the technical skills of the evaluator, and the available time and resources. A good coordination between evaluation stakeholders ensures the effectiveness of the approaches/methods applied.

A good understanding of the RDP intervention logic and context is the starting point for conducting evaluations. This is also reflected in the logic model approach suggested by the Guidelines and the case studies presented at this workshop.

The results of the workshop, including the discussions and group work outcomes, have helped to formulate some recommendations for the main RDP evaluation stakeholders.

Recommendations for Managing Authorities



- Long-term contracts with evaluators contribute to better data management, time efficiency and building evaluation capacity;
- Select evaluators with relevant skills → analytical and modelling capacity is important for applying robust quantitative approaches;
- Apply evaluation approaches/methods which are resource demanding (e.g. CGE) preferably when the level of uptake or the RDP size are large.

- Establish close cooperation and meetings amongst evaluators, as well as between evaluators and MAs → this helps develop and implement robust evaluation approaches and overcome data issues.

- Develop thoroughly at an early stage and continuously manage databases → this will ensure the right data is available and will make the work of the evaluators more cost-effective;
- Prepare the evaluation early → this saves time and resources.

Recommendations for Evaluators

- Use robust methods that rely on easily accessible data, such as PSM-DiD, CGE, input/output or other already developed models;
- However, try to strike a balance between robustness and cost-effectiveness → e.g. you may use sensitivity checks to test the validity of the CGE model's assumptions, but these may increase the cost of the evaluation.
- Use robust methods (e.g. PSM-DiD / CGE) to assess the counterfactual → provided databases exist and data is available for your country/region
- Be open to alternatives for constructing control groups → e.g. if data is missing at regional level, use 'control variables' to compare regionalised RDPs. Furthermore, when the number of RDP beneficiaries is low, you may use surveys to construct control groups.
- Do not underestimate the use of qualitative methods → they can be used for several purposes: validate and explain quantitative findings, obtain missing data, cover gaps in the indicators (e.g. socio-economic), analyse factors that influence the RDP effects, formulate hypotheses that are then tested with quantitative methods such as PSM-DiD.

4. ANNEX

4.1 Outcomes of group discussion on approaches to assess sector-related RDP impacts

Tables 1 and 2 show the strengths and weaknesses identified by the participants on the approaches prepared by Latvia and Austria to assess the sector-related RDP impacts for the AIRs in 2019. Boxes 1 and 2 show the conditions necessary for the application of these approaches in other Member States, and the possible alternatives. The presented approaches were based on the following methods: PSM-DiD, Sectorial Model, Input-Output model, and qualitative surveys.

Table 1. Main strengths identified by the participants for the approaches prepared in Latvia and Austria

Application	• PSM-DiD can be repeated over different time along the programme.
Data	• PSM-DiD is cost-effective because it uses the existing databases (e.g. FADN) which provide set of standardised data.
Resources	• Long lasting contracts with evaluators allow for better data management, increase time efficiency, and built evaluation capacity.
Findings	• PSM-DiD allows to assess the causality between RDP interventions and effects; • PSM-DiD can capture spillover effects.

Table 2. Main weaknesses identified by the participants for the approaches used in Latvia and Austria

Application	• Both approaches are not applicable for LEADER/CLLD; • Both approaches are mostly suitable for answering the CEQs related to the overall RDP objectives (CEQ 22 – 30) and not for those related to the RDP Focus Areas; • Qualitative surveys are not able to quantify impacts but could be used the explain quantitative findings.
Data	• PSM-DiD is based on data that is not always updated in due time (e.g. FADN data 2017 will be made available too late); • FADN does not help to construct a control group in case of low number of RDP beneficiaries (in some IT regions); • If qualitative surveys are sent to many actors (e.g. 24.703 questionnaires in Latvia), the respondents should be stratified.
Resources	• The approach prepared by Austria can be time and resource demanding for those RDPs that did not start to prepare the evaluation earlier.
Findings	• The application of PSM-DiD in case of low uptake can produce findings with low external validity, and difficult to be extrapolated for the whole RDP; • The application of PSM-DiD should consider the risk of aggregation bias when upscaling findings from micro- to macro level, or in case different data sources are used by different Member States for the same methods; • Findings might be too difficult to be understood by less technical RDP actors.

Box 1. Conditions identified by the participants to apply the presented approaches from Latvia and Austria

RDP Size and architecture

- The Austrian approach is applicable if the intervention is broadly distributed;
- Cost to apply the method should be proportionate to RDP size.

RDP uptake and completed operations

- All approaches can be used if there is at least a minimum level of completed operations;
- Methods cannot be used if there are many uncompleted operations in some regions.

Data availability

- There is a need to have a unique set of data/model available at national and regional level;
- Data shall allow to construct a sufficient control group;
- Availability of data is linked with the RDP uptake, Paying Agency's willingness to provide data, and FADN data availability.

Management and coordination

- Continuous collaboration between the Managing authority and evaluator across different programming periods;
- Good relationship with Paying Agency and other actors providing data;
- Early evaluation planning and enough time to prepare the data;
- For the application of PSM/DiD, it would be useful to set up common variables at the EU level.

Evaluators' skills and equipment

- Good analytical and modelling skills.

Box 2. Alternative approaches proposed by the participants to assess sector-related RDP impacts

- Alternative evaluation approaches should be selected based on a cost-benefit analysis;
- Other PSM matching techniques, such as Spatial PSM, exact matching, Mahalanobis matching, course and matching (CM), or combination of CM and PSM-DiD;
- Generalised propensity score matching (GPSM), which takes in consideration different level of RDP support intensity;
- Macro analysis and regional data;
- Surveys/focus groups to formulate hypothesis, which are then tested with PSM-DiD. The findings of PSM-DiD can be discussed again in focus groups;
- Robust qualitative methods e.g. case studies, focus groups, or interviews can be used – especially in case of data gaps – to explore different factors affecting RDP effects;
- Theory of change combined with output data.

4.2 Outcomes of group discussion on approaches to assess socio-economic RDP impacts

Tables 3 and 4 show the strengths and weaknesses identified by the participants on the approaches used in Poland and Greece to assess socio-economic RDP impacts, namely Generalised Propensity Score Matching (GPSM) and Recursive – Dynamic Computational General Equilibrium (CGE). Boxes 3 and 4 display the conditions to apply these approaches in other Member States, as well as possible alternatives.

Table 3. Main strengths identified by the participants for the approaches used in Poland and Greece

Cost-effectiveness	• Both approaches can be used in different times along the programme; • Both approaches do not require the collection of new data (e.g. through *ad hoc* survey); • Both approaches can be cost-effective if data is easily accessible.
Level of analysis	• CGE model can assess the RDP as whole; • If data is available, GPSM can also be applied at a lower level than NUTS-4 (e.g. municipality); • CGE can disaggregate impacts on income by different types of rural household based on their income level.
Data	• Both approaches are based on publicly available data; • If data is available, GPSM can consider also other policies, which is very important to assess the integrated territorial development; • Data collection has not issues with confidentiality.

Table 4. Main weaknesses identified by the participants for the approaches used in Poland and Greece

Model	• Modelling approaches require several sensitivity checks on the assumption on which they are based; • The coefficients used in modelling techniques (e.g. CGE) are based on theories, but they do not consider behavioural changes of economic actors occurring during the programming period; • GPSM can be complex due to the large number of variables to be considered.
Resources	• Both approaches can be very demanding in terms of skills and human resources; • The application of both approaches should consider the level of RDP uptake and RDP size.
Findings	• CGE needs to deal with the 'black-box' issues, such as disentangling the single factors intervening to the generated effects.

Box 3. Conditions identified by the participants to apply the presented approaches from Poland and Greece

- Good understanding of the RDP intervention logic and context;
- Time and specific skills on the methodology;
- Good level of RDP uptake in 2018 for applying these methods in AIR 2019;
- Data available at NUTS-4 or regional level is critical;
- CGE require social accounting matrixes (not always available in Member States);
- Knowledge about behavioural changes and other external factors to be captured by model updating (CGE);
- Good coordination between different operational programmes dealing with the same data collection.

Box 4. Alternative approaches proposed by the participants to assess socio-economic RDP impacts

- Input/Output model combined with a matching approach to get insights on the counterfactual;
- Input/Output approach
- Rural Development index[1]
- For small RDP size and low level of RDP uptake, qualitative surveys
- Qualitative methods (case-studies, surveys, focus group) to explain and triangulate quantitative findings

1 For more information, see Michalek, J. et Zarnekow, N. (2012) Construction and application of the Rural Development Index to analysis of rural regions. Available on: https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/construction-and-application-rural-development-index-analysis-rural-regions

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