



Thematic cluster of  
the Evaluation  
Knowledge Bank

EUROPEAN  
EVALUATION  
HELPDESK  
FOR RURAL DEVELOPMENT



# Monitoring and evaluation of biodiversity issues



# Policy evaluation context

Conservation and protection of nature and Biodiversity is a paramount policy objective of the EU's Green Deal expressed especially through the Biodiversity Strategy supported by Farm-to-Fork.

- **CMEF**

Impact indicator I.08 'Farmland bird index', (Eurostat's Agri-Environmental Indicators 25) and  
Impact indicator I.09 'High nature value (HNV) farming', (Eurostat's Agri-Environmental Indicator 23) :  
Common Evaluation Question 26

- **PMEF**

Impact indicators:

I.19 'Farmland Bird Index' and

I.20 'Percentage of species and habitats of Community interest related to agriculture with stable or increasing trends with a breakdown of the percentage for wild pollinators species'

Result indicators:

R.31<sup>PR</sup> - Preserving habitats and species

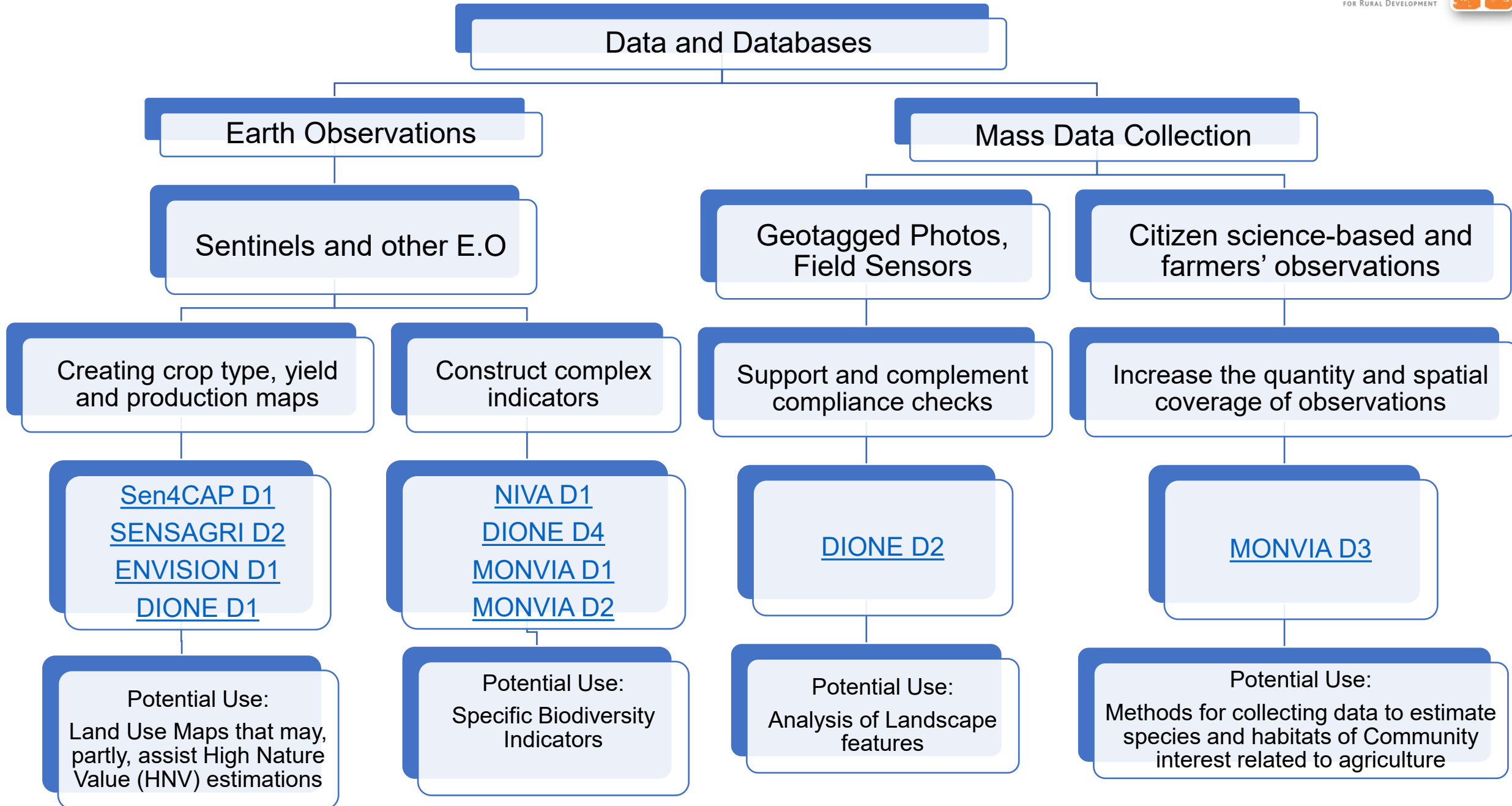
R.32 - Investments related to biodiversity

R.33 - Improving Natura 2000 management

R.34<sup>PR</sup> - Preserving landscape features

R.35 - Preserving beehives

# The Evaluation Knowledge Bank: The Big Picture



# Potential uses in biodiversity evaluation



Tools that record land cover and crop type maps through Earth Observations can support, at least partly, estimations of the type and extent of High Nature Value (HNV).



Earth Observations can support the estimation of specific biodiversity indicators which, may not directly estimate a CMEF/PMEF indicator, but can assist in answering the evaluation question. For example, the 'Biodiversity agro-environmental indicator' of NIV, the HNV indicator of the 'Earth Observations based Environmental Performance Tool' of DIONE or the nationwide land-use data based on remote sensing in MonViA.



Geotagged photos which can be used for the analysis of near view landscapes. Other uses also are possible.



MonViA will test methods for collecting data to estimate species and habitats of Community interest related to agriculture. This is an innovative way of data collection which, when carried out properly, can increase tremendously the number of observations. FLINT extents FADN data with sustainability indicators.

# Example: NIVA – Biodiversity Indicator - UC 1b

TIER 1: proportion of SNH



*SNH* (Semi-Natural Habitats)  
*Crop diversity, field size*  
*Artificial surfaces*



Easy, feasible, less accurate

TIER 2: proportion + type of SNH



*Woods, hedges, grassland, ponds*  
*Crop diversity, field size*  
*Artificial surfaces*



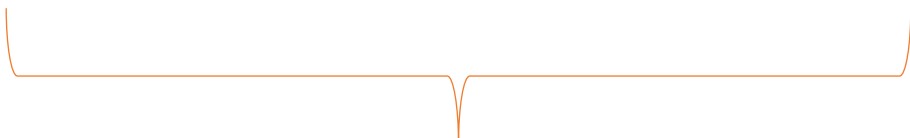
Better results, more difficult

TIER3:

Same as TIER 2  
+ data on pesticides intensity (FMIS)



Best results, less operational



Empirical approaches



Modelling approaches

# Caveats and limitations

- Earth Observations can provide a basis of agricultural fields and wider land cover maps including HNV and Natura 2000 areas. However, the study of biodiversity in agricultural land requires a combination of information and data sources.
- E.O. cannot be a stand alone data source for detailed and accurate estimations unless a quick and easy but less accurate estimation is acceptable.
- For E.O, the following potential caveats and limitations need more discussion. Access of Managing Authorities and of evaluators to Earth Observation data raise the following issues:
  - data proprietorship,
  - confidentiality and interoperability of IACS and LPIS,
  - transferability of algorithms and methods.
- For the evaluation of biodiversity, access to data recording the trends of species and habitats of Community interest related to agriculture is essential. Can citizen science-based methods provide a solution to the collection of such data?
- Access to Farm Management Information Systems (FMISs) is very important. Limitations may be related to access to FMIS and interoperability of FMIS with IACS/LPIS or other relevant databases.



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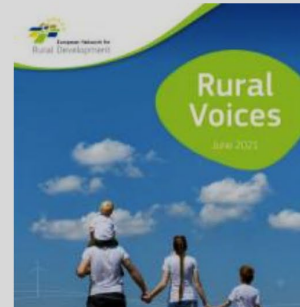
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### Rural Voices report

The 'Rural Voices' report provides a qualitative analysis of the findings from stakeholder workshops contributing to the long-term vision for rural areas.



This ENRD report records the hopes and dreams of more than 300 rural citizens from different EU countries who participated in a series of workshops aimed at encouraging rural citizens to reflect on the social, economic, and environmental conditions of their own rural area and how it might change over the next 20 years, what developments they would like to see and the conditions and policies needed to reach their future vision.

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Insights into various outputs developed in initiatives and projects at the EU and Member States levels concerning data infrastructures and data use.

A quick guide on potential use, showing how these outputs could be used for monitoring and evaluation of the CAP.