



NIVA WP 3 –SYKE interview

Date: 05 March 2021 - 14 h 30 – 15 h 30

Location: Teams meeting

Stakeholder description

1. Organisation name: Finnish Environment Institute
2. Person name:
3. Person position /role:

Removed for privacy reasons: senior coordinator – program of environmental information

With the help of:

- Removed for privacy reasons: data information centre
 - Removed for privacy reasons: data information centre
4. What is the general purpose of the organisation?
 - Research institute
 - Official tasks such as collecting environmental data and maintaining related registries; we are also technical coordinators for reports on environmental Directives, addressing various issues from biodiversity to circular economy. We depend on the Ministry of Environment, Forestry and Agriculture.
 5. What are the activities related to agriculture in general? What are the activities requiring use of data about agriculture?

We are using data about agriculture for various activities:

- Monitoring of land use and land cover ; IACS data contributes to the national Corine Land Cover layer; we make studies about Land Use changes (we are not responsible for LULUCF but we conduct similar activities).
- Reporting e.g. monitoring water protection (Marine Directive); we use data on land use (including agriculture) to assess its impact on fresh and marine waterbodies.

We get IACS data from the Finnish Food Authority.

Municipalities use some of the environmental and agricultural data for their official planning, they have reporting obligations.

User experience – User requirements

1. What current IACS data do you need?

- Reference and Agricultural Parcels

We get 2 types of polygons:

- smaller ones with relatively detailed information (such as crop type) - a priori, reference parcels
- bigger ones with aggregated information (such as crop group) – a priori, agricultural parcels

In general , we try to get information as detailed as possible and to make our own aggregations. However, we are using the aggregated land cover information (arable land, permanent crops, permanent grassland) for some application.

Regarding Agricultural parcels, we are interested by the geometry (the polygon) and by information about crop type, grasslands, wetlands. Our environmental models are assessing the quantity of agricultural land in a water basin. We have interest also in knowing all the cultivated plants (but I don't the number of possible values of the IACS crop type list)

LU types are also useful for economic targets .

We get data once the validation is done, which implies some delay. In 2021, we will get 2020 data. It is fine for the activities I am responsible for but I am not sure everyone in the Institute is happy with this. Having data closer to real-time would be better.

For the Land Use – Land Cover monitoring, our main goal is to detect changes so we need historical data. We have received IACS data already from long time (with some evolutions in the data) and never thrown anything: we are storing all received data. We work with time series so we need historical data.

- EFA- Landscape features

I don't remember I have seen this kind of data. But if it was available, we would be interested by it, for instance by data on hedges. There are lots of research (e.g. pollinators), for biodiversity, for reporting on Habitat Directive

- Animals

We are interested by number and types of animals, mainly for nitrification studies, i.e. to assess how much farms are polluting waters, to assess if there is a risk. It is not real monitoring but we estimate the pressure from Land Use on water bodies. Researchers are also using this kind of data. We are interested by all kinds of animals.

- Application & beneficiaries

We are not interested.

- Quality & controls

Yes, in a way, we would be interested, it is part of metadata to describe quality of ICAS data. I don't know if we already get it. It would be enough to get general information about how good the Finnish IACS data is.

We have the assumption that the IACS data quality is rather good, we have no complain.

The LPIS is not covering whole agricultural area but I don't remember any computation about the proportion of covered area.

- Entitlements

I have never heard about it.

- Payments

We are not interested.

2. What potential future IACS data do you need?

- Farm registry

We are interested by the whole list proposed in the questionnaire), except seed type that is out of our scope.

Data on fertilizers, plant protection products, cultivation practices or events are of main interest, e.g. for carbon stock and climate change activities.

For our studies on Land Use changes, we need to know if meadows have been grazed. A field without anything growing on is more harmful for water : intermediary crops have mitigating impact on the amount of nutrients going to water bodies . Satellite images may provide us information about plants grown during winter or about some agricultural events but if data was already collected in IACS, it would be easier.

We are also interested about knowing how heavily farmers have worked the land before sowing.

- EO monitoring

We might re-use this kind of information but there are lots of clouds on Sentinel images in Finland. We might be interested by the provisory crop maps coming from farmer declaration and/on satellite images.

NDVI measurements might also be useful both for research and for land monitoring: we have interest in following the phenology, the vegetation cycle.

We have not yet tested, we have still limited knowledge.

- Geotagged photos

It should be investigated. We are mainly trying to find source data to teach our programs, we need in-situ data for the automatic interpretation of Sentinel images. We are using mainly aerial photos; we made some trials with the geotagged photos used for LUCAS but they haven't been so useful for us.

- Agro-environmental indicators

Yes, we are interested by the method behind them but we can't promise to use them (there might be issues in quality)

Opinion about data sharing principles

1. What data do you think should be publicly available for use?

There is an open data policy in Finland. LPIS is partly confidential but public bodies can get most data.

IACS data should be publicly and freely available (except personal data).

2. What data do you think should not be shared and should only be used by Paying Agencies?

- What has made you feel this way/why do you think this way?

Confidential (i.e. mainly personal) data from farmers.

3. Who do you think most benefits from partially or open data sharing?

- Can you explain why you feel this way?

Society as a whole. Our Institute has published almost everything for 12 years.

We are just one user of IACS data among lots of other ones so it is difficult to say who is benefiting more. Clearly IACS data is very important for the environmental sector.

4. Do you have any idea about how the process of data sharing from farmer to wider stakeholder groups can be improved?

Metadata is not describing enough; it is often a bit difficult to understand the attribute content. We get metadata but it is not enough user-friendly., for instances, codes are not always explained. The situation has improved but there is still place for progress. Good metadata is key, it makes data more usable.

It is also important to have easy access, to be able to download data directly.

We would be also interested by richer data:

- Old fields or Parcels without subsidies not stored in the system
- Having more exhaustive data, some attributes not captured by everyone (e.g. on soil)