



LENs MRV Explainer

An overview of how Measurement, Reporting, and Verification works for farmers and supply chain stakeholders













How the system works

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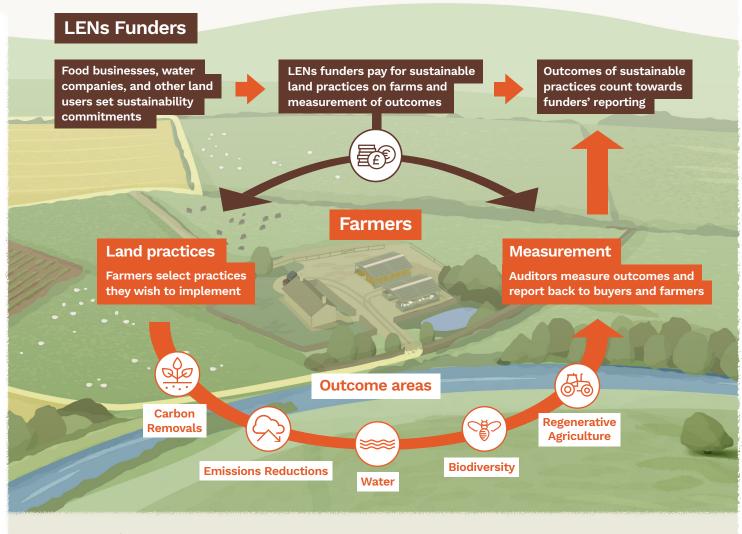
What is LENs, and why measuring outcomes matters

LENs funders (crop buyers, water and insurance companies, local government and other entities that have economic interest in a landscape) often have environmental and sustainability targets (both voluntary and regulatory) that they need to achieve. To help them reach these targets, they are willing to finance nature-based and regenerative landscape solutions.

Funders seek to improve the resilience and environmental performance of their supply chains – because it matters for the long term sustainability of their business – by funding practices which result in better soil health, reduced effects of drought or flood risk, lower GHG emissions, reductions in artificial and hydrocarbon-based farm inputs and improved biodiversity.



Visit the <u>LENs website</u> to learn more about LENs



Examples of practical outcome measurement include:



Carbon removals – measuring biomass from hedges and trees and measuring soil carbon using soil cores tested in a specialised lab



Water – Measuring water flows to assess effectiveness of natural flood management techniques



Biodiversity – Measuring the changes in species diversity looking at tree species diversity from satellite data

What sort of data will the auditor gather?





MRV stands for Measurement. Reporting and Verification

What MRV providers will measure and report back on

MRV is carried out according to rigorous standards. Auditors - also referred to as MRV providers - have been selected based on their approach and methodology.

We are working with a range of auditors, who each use different approaches to carrying out MRV. Some will have field technicians and advisors that physically come to visit farms, whilst others may be in contact with you remotely only (via email or phone for example). We anticipate all farms to be visited for soil sampling.

All auditors will assess and report back on the same list of outcomes across all farms. Data collection will seek to minimise the burden for the farmer and synergise where possible (for example soil sampling provides data for carbon sequestration, water quality and flood mitigation indicators). Examples of the type of data that auditors will collect, by asking farmers or through on-site assessment, is provided in the adjacent picture.



- ✓ Field Land uses and field dimensions
- ✓ Land management practices
- **✓** Countryside stewardship records
- ✓ Acoustic monitoring
- ✓ Plant recognition



Regenerative Agriculture

- ✓ Tillage practices
- ✓ Crop rotations
- ✓ Nutrient management



Carbon Removals

- ✓ Soil testing for bulk density, soil organic carbon
- ✓ Assessment of hedges and trees



Water

✓ soil sample testing for soil bulk density On farm

√ topsoil depth and soil texture visual assessment

Emissions Reductions

✓ Invoices on feed, fertilisers, fuel

✓ Permanent grassland data

√ Farm equipment inventory

✓ Waste and recycling invoices

✓ Water, gas and electricity meter readings.

✓ Cropping data

✓ Livestock records

Catchment ✓ nitrates ✓ phosphates ✓ water flows level

√ total suspended solids







When the MRV providers are likely to interact with farmers

MRV auditors need to gather information on a range of metrics which relate to flood mitigation, improving water quality, biodiversity, carbon footprinting, carbon sequestration and regenerative agriculture practices.

We understand that there are critical times where farmers are less available, or fields are inaccessible. Auditors will work around this. Best times to collect data will be discussed during initial contact and in consultation with your crop buyer.

In order to assess gains that can best be attributable to the practices put in place, typically a before and after assessment is carried out (or baseline versus projected incremental change). In other instances, water flow sensors could be installed and monitored by farmers or water utility companies.

The auditors are likely to engage with farmers at different points in time, either in person or via email and phone call. In most cases, MRV auditors will require less than 8 hours of farmer's time spread out across the year.



LENs trades are signed

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Initial assessment

To collect farm enterprise details, connect with existing farm management software and understand best times for the farmer to provide access to their farm or data

2 Dig

Digital Map

To create a digital map of your farm, collect data from you and the fields

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Pause during peak season

We anticipate most data collection will be carried out outside of harvest time, lambing season or silaging periods. 4

Feedback

To feedback results, reports and insights to you



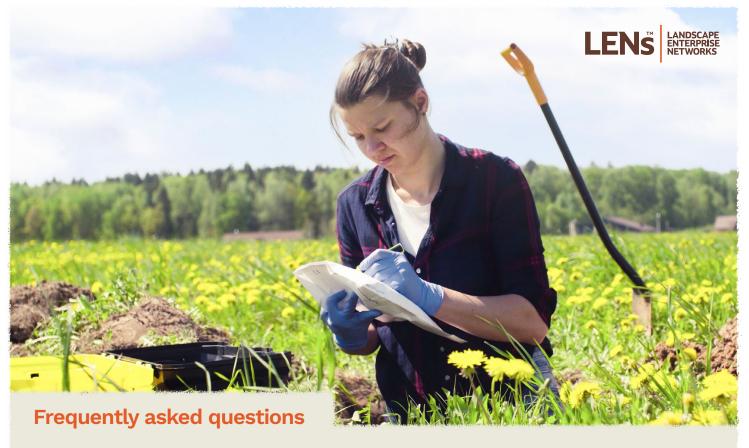
Benefits of the audit process for farmers

By being part of the LENs initiative, farmers will automatically benefit from the services provided through the auditors' platform, reporting and (if offered) advisory services.

Suggestions on improvements and other advice will be bespoke to the farm. There may also be financing opportunities identified for farmers. Farmers may receive advisory support and a proposed action plan to help to achieve improvements across the LENs outcomes areas.

The recommendations focus on simple steps to further reduce greenhouse gas emissions, increase carbon sequestration above ground and below soil, improve water quality in water courses and catchment flood reduction capacities, improve biodiversity on farm. Recommendations will also highlight the financial benefits to farmers and how these make their farm business more resilient for the long term.

To rapidly scale our MRV capacity, we are piloting different approaches in 2023. We value feedback – good or bad – to allow us to improve MRV in future years. In 2023, project management and local capacity building in the UK is provided by 3Keel.



Who carries out MRV?

Audit companies are independent from LENs operators to avoid conflict of interest and are specialised and efficient in handling data.

What background do the auditors have?

Many individual auditors are trained ecologists or work in the farming sector themselves.

How will the farm be assessed?

MRV auditors are not there to score down or report issues. They have been commissioned to capture projected benefits in terms of greenhouse gas emission reductions, carbon sequestration, water and biodiversity outcomes as a result of the practices that farms are implementing under the LENs initiative.

Will auditors also assess LENs practices on farm?

MRV auditors do not currently evaluate how the practices were implemented.

I am concerned that my farm data will end up in the wrong hands.

The information collected from you and your farm is never shared directly with the demand side partners, meaning that they cannot trace this information back to your farm. It will be aggregated at the

supply aggregator level and can not be traced back to the farm level by demand side partners.

What happens to the data?

MRV providers send farm level data to LENs Central MRV team, which then process this information into reportable data for funders. And farmers get a copy of their data and where available can also access this on the MRV provider's dashboard.

How to get in touch

Contact your supply aggregator or get in touch with the LENs MRV team at mrv@3keel.com.

