



ICN TOOLKIT · PROJECT DEVELOPERS · EDITION 1

Project Monitoring (dMRV) Kit

Buyers and verifiers now expect every tonne to be backed by evidence they can trace. This kit helps biochar, agroforestry, regenerative agriculture, cookstove and other nature-based project developers set up monitoring that verifiers accept and buyers trust, using simple tools you already have.

WHAT'S IN THE KIT

- This guide: what verifiers and buyers look for, how to build a monitoring plan, how to keep tamper-evident evidence, and quality checks
- Monitoring Plan & Evidence Register (Excel): parameters, frequencies, QA/QC, an evidence log with file fingerprints, and a period summary
- dMRV Monitoring Report Template (PDF): one report per monitoring period, ready for verifier sign-off

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Edition 1, 29 October 2026. Always follow the methodology and registry rules that apply to your project; where they differ from this kit, they win. General guidance, not legal advice. Licensed for use inside the buying organisation only.

01 Why monitoring decides your price

MRV stands for measurement, reporting and verification. “Digital” MRV (dMRV) simply means the evidence is captured and kept digitally, close to the moment it happens, so anyone checking can trace a number back to its source.

- **Verifiers** issue findings when numbers can't be traced. Each finding costs time, and sometimes credits.
- **Buyers**, especially removal buyers, now ask for monitoring data before they sign offtakes. Credits with strong evidence sell faster and at better prices.
- **Raters** look at measurement quality when judging over-crediting risk.

The rule of thumb: if a stranger can't follow a number from your report back to a photo, a meter reading, a lab result or a signed record in five minutes, it isn't ready for verification.

02 Build your monitoring plan

Your methodology lists the parameters you must monitor. For each one, write down six things. The workbook has a sheet laid out this way.

Field	What to write	Example (biochar)
Parameter	Name and symbol from the methodology	Mass of biochar produced (dry), M_{bc}
Unit and source	How it's measured or where it comes from	Tonnes, weighbridge at site gate
Frequency	How often	Every batch
Responsible person	A named role	Site supervisor
QA/QC	How you know it's right	Weighbridge calibrated yearly; 10% of batches re-weighed
Evidence kept	What proves it	Weighbridge slip photo with timestamp and GPS

TYPICAL PARAMETERS BY PROJECT TYPE

Project	Parameters you'll usually monitor
Biochar	Feedstock type and mass; moisture; biochar mass; carbon content and H/C_{org} ratio (lab); production energy use; end use and application site
Agroforestry / ARR	Planted area (GPS polygons); species and count; survival rate; tree measurements (diameter, height) in sample plots; land-use history
Regenerative agriculture	Field boundaries; practices adopted and dates; soil samples (carbon, bulk density); fertiliser and fuel use
Cookstoves	Stoves distributed (serial, household, GPS); usage surveys or sensors; fuel consumption tests

03 Keep evidence that can't be quietly changed

You don't need a blockchain to make evidence tamper-evident. You need a **fingerprint** of each file, recorded when it's created. A fingerprint (a SHA-256 hash) is a 64-character code that changes completely if even one pixel or digit in the file changes.

HOW TO FINGERPRINT A FILE

```
Windows (Command Prompt): certutil -hashfile "slip_0412.jpg" SHA256
Mac (Terminal): shasum -a 256 "slip_0412.jpg"
Linux: sha256sum slip_0412.jpg
```

Copy the code into the Evidence Register with the date, the parameter it supports and who captured it. Later, anyone can re-run the command on the file. If the code matches, the file is unchanged.

GOOD HABITS

- Photos with the phone's location and time stamps on. Don't edit or crop originals; keep edits as separate copies.
- One folder per monitoring period, one subfolder per parameter. Name files with date and site: 2026-11-04_siteB_weighbridge_0412.jpg.
- Record the fingerprint the same day. Evidence fingerprinted months later is weaker.
- Back up to two places, one of them off site.
- Lab results: keep the lab's signed PDF, not a retyped number.

04 Quality checks before the verifier sees it

- ☐ Every number in the report links to at least one evidence entry.
- ☐ Totals in the report match the sum of the register for the period.
- ☐ Outliers (more than 2× or less than half the usual value) are explained.
- ☐ No gaps: every batch, plot or household expected in the period is accounted for.
- ☐ Instruments' calibration certificates are on file and in date.
- ☐ Sample re-checks (re-weighs, repeat lab tests, plot re-measurements) are logged with results.
- ☐ Conservative choices are used wherever data is missing, and the choice is noted.
- ☐ A second person has reviewed the report and signed the QA line.

05 Getting ready for buyers

Once your monitoring runs cleanly, build a short buyer pack: a project summary, the latest monitoring report, the evidence register summary, verification status, expected issuance by year, and photos. Removal buyers are actively looking for well-documented Indian supply; good monitoring is what moves you to the front of the queue.

ICN's dMRV tool (built, in pilot) captures this evidence chain digitally, with fingerprints, quality checks and a verifier attestation step. If you'd like to pilot it on your project, write to us.