

- **Monitoring**

- 1. What technologies will be used for continuous monitoring (drones, satellite imagery, ground sensors)?**

Satellite data and soil data (NDVI, soil moisture, and vegetation cover across the entire area during the growing season) will be used.

Drone data will be used for control and verification purposes on selected sub-areas.

- 2. What type of drones will be used for continuous monitoring between the first and second sampling campaigns?**

DJI Mavic 3 drones will be used, customized specifically for our purposes.

- 3. How frequently is monitoring planned (monthly, quarterly)?**

The collection of baseline data and its integration into the monitoring system is a task for the first year of the project. Its frequency will depend on the efficiency of the technical cooperation.

Internal production data monitoring (operated by ICCS) will be carried out three times during the growing season, although the mandatory monitoring requirements of the certification body may affect this frequency.

- 4. Which specific parameters will be monitored (biomass, soil carbon content, vegetation status)?**

- Biomass
- Soil carbon content
- Vegetation status
- Quantity of agricultural operations

- 5. Which internationally recognized standards and protocols will be used for data collection and analysis?**

We use the protocols required and regularly updated by the certification body, which manages the data within a secure closed system.

For data analysis, we use our proprietary AFIC (Agriculture Food Industry Carbon Calculator) software.

- **Technology**

- 1. Will special sensors or cameras be required?**

ICCS provides all necessary technical equipment. Producers have no related responsibilities or expenses.

2. What type of drones will be used?

ICCS provides all necessary technical equipment. Producers have no related responsibilities or expenses.

3. Who is responsible for sample transportation and laboratory analysis?

ICCS is responsible for preparing the samples and arranging analyses by certified laboratories.

4. Are special conditions required for transporting samples?

This is the responsibility of ICCS.

5. What software will be used?

The latest HWSD software and the IPCC Inventory software will be used. Drone data will be analyzed using our proprietary software.

• Team

1. Team composition?

Approximately 7–10 ICCS team members will be present, including field technicians, experts and decision-makers. Interpreters will be required. English is the official language of communication and certification.

2. Laboratory equipment?

Accredited instruments used by the ICCS-selected accredited laboratory.

3. Special transport equipment?

Provided by ICCS.

4. Local laboratories?

Partly accredited Kazakh state laboratories and partly European accredited laboratories will be used.

5. Farmer liaison specialists?

To be determined after approval of the monitoring plan.

6. Additional farmer equipment and training?

Internet access, PC, Microsoft Word, Microsoft Excel and an FTP client. ICCS provides FTP guidance.

7. Additional local resources?

Personnel to facilitate access to project sites.

8. Additional local experts?

A designated specialist for validated data provision.

9. Responsibility for soil sample logistics?

ICCS.

• **Schedule**

10. Duration of site work?

Approximately 5–10 working days.

11. Laboratory turnaround time?

Typically 15–30 days.

12. Independent external verification?

Internal audits by ICCS; external verification by institutions such as Deloitte, Bureau Veritas, SGS or TÜV, subject to agreement with the validation body.

13. Additional visits?

An introductory meeting will precede fieldwork. The next planned personal visit is expected in 2025, with continuous data provision in between.

• **For Farmers**

14. Field preparation requirements?

Accessibility, identification and physical access. GPS field maps should be provided if available.

15. Required equipment?

220V power supply (inverter) and transportation support for personnel and soil samples.

16. Farmer interaction?

A designated representative should facilitate access to sampling locations.

17. Training?

Yes, in person or online according to certification requirements.

18. Land preparation?

No special preparation is required; obstacle-free areas are recommended.

19. Communication channels?

E-mail, webinars, FTP and, where required, in-person meetings.

20. Farmer data provision?

Production data must be submitted in a verified form to authorized ICCS personnel.