

Introduction to the SUSADICA data collection

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**Data Reuse on Sustainable Agricultural Development in Central Asia
(SUSADICA – Data Reuse)**

Purpose of the module

The main purpose of this module is to introduce the origins of the SUSADICA data and how they were collected. It covers:

- Methods of data collection and field implementation
- Study regions in Uzbekistan and Kazakhstan
- Sampling design of the 2019 and 2022 surveys
- Overview of the 2019 and 2022 survey samples

Background

SUSADICA collected two waves of survey data in 2019 and 2022 to equip the SUSADICA doctoral researchers with original micro-level data on agricultural development.

Surveys' main goals:

- To generate detailed micro-level evidence on irrigated crop farming systems in Uzbekistan and Kazakhstan, with a focus on the constraints and incentives shaping agricultural development and sustainability-related decisions at farm level.
- To support analysis of production and investment choices, adoption of sustainable agricultural practices, and the role of institutions and governance-related perceptions, including land tenure security and decision-making autonomy.

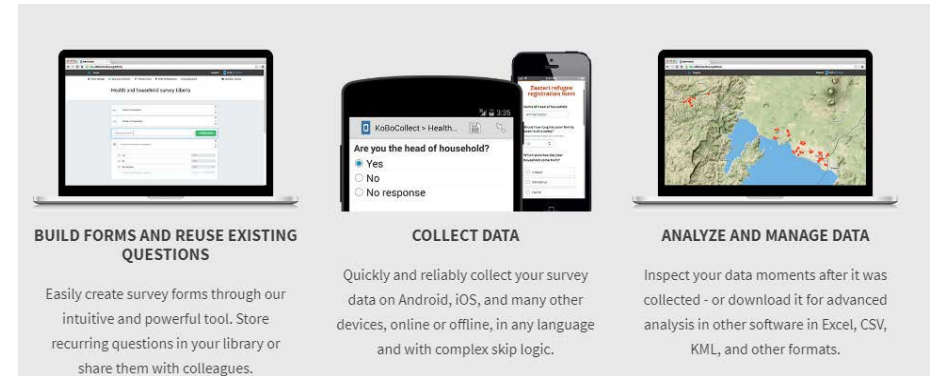


The Structured doctoral program on Sustainable Agricultural
Development in Central Asia (2018-2023)

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"Between Europe and the Orient – A
Focus on Research and Higher Education
in/on Central Asia and the Caucasus"

Data collection method

- **Face-to-face interviews** conducted in *March–April 2019* and *May–June 2022*
- **Computer-Assisted Personal Interviewing (CAPI)** using KoboToolbox platform
- Cloud sync, GPS, metadata, and real-time data monitoring integrated into the system



The diagram illustrates the KoboToolbox workflow in three stages:

- BUILD FORMS AND REUSE EXISTING QUESTIONS**
Easily create survey forms through our intuitive and powerful tool. Store recurring questions in your library or share them with colleagues.
- COLLECT DATA**
Quickly and reliably collect your survey data on Android, iOS, and many other devices, online or offline, in any language and with complex skip logic.
- ANALYZE AND MANAGE DATA**
Inspect your data moments after it was collected - or download it for advanced analysis in other software in Excel, CSV, KML, and other formats.



Field implementation and data collection



Nazar Business and Technology



Survey implementation in AGRICHANGE and SUSADUCA projects. © NBT

Roles in the 2019 & 2022 Surveys:



Questionnaire design, translation, and pilot testing



Programming of the CAPI questionnaire



Recruitment and training of enumerators



Execution of sampling protocols



Field monitoring and supervision



Cleaning, validation, and delivery of final datasets

Study regions

- Samarkand Province, **Uzbekistan**
- Turkestan Province, **Kazakhstan**
- Cross-country comparison focused on **cotton-growing irrigated areas**



The map is prepared based on database of Global Administrative Areas (2012) (GADM database of Global Administrative Areas, version 2.0. [online] URL: www.gadm.org).

Sampling design – 2019 Survey



Uzbekistan: *Simple Random Sampling*

- Small sampling frame (appr. 1,525 eligible farms) → direct random selection was feasible



Kazakhstan: *Two-stage Stratified Sampling*

- Large sampling frame (19,000+ farms) → required stratification
- **Stage 1:** Randomly selected *aul okrugs* (subdistricts) within each district
- **Stage 2:** Randomly selected farms within each sampled aul

Farm eligibility criteria (both countries)

- ✓ Legally registered farms
- ✓ ≥80% irrigated land
- ✓ Annual cropping (not livestock-only farms)
- ✓ Active operation during 2018–2019
- ✓ Farm head/manager (main decision maker, and the most knowledgeable about farm activities)

Lists of farms were obtained from *farm councils* and *subdistrict governments*

Sampling design – 2022 Survey

Panel Approach

- Main goal: **Re-interview farms surveyed in 2019** (panel sample)
- 2019 farm lists with contact numbers were prepared for interviewers



Uzbekistan

- About **20%** of 2019 farms were reorganized or closed by 2022
- A **randomly selected reserve list** was created within each district
- Unavailable 2019 farms were **replaced using the reserve list** from the same district



Kazakhstan

- Updated farm lists were **not available** in 2022
- Unavailable 2019 farms were replaced by selecting **another farm in the same subdistrict**
- Replacement farms had to meet the **original 2019 eligibility criteria**

Overview of the survey samples (2019 & 2022)

Location	Total registered farms in 2019	Interviewed in 2019	Interviewed in 2022	Interviewed in both years	% of 2019 respondents interviewed in 2022
Maktaaral	7,912	171	168	99	59
Sariagash	5,503	166	127	70	55
Shardara	5,809	166	156	100	64
Turkistan province	19,224	503	451	269	60
Jomboy	642	150	148	125	85
Pastdargom	351	154	152	88	58
Payarik	532	156	150	96	64
Samarkand province	1,525	460	450	309	69

Source: SUSADICA project



**END
THANK YOU!**