**TERMS OF REFERENCE**

**for the baseline survey on the ADB
funded Climate Resilient
Agricultural Value Chain Project**

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1. **Background information**

Approved by the Board of Directors of the Asian Development Bank (ADB) on 6 December 2023, the Climate–Resilient Agricultural Value Chain Development Project (the project) aims to enhance food security, within households and nationally, through resilient, climate-adaptive horticultural value chains. The project will assist participating financial institutions (PFIs) to provide better-structured loan products to small and medium-sized agribusiness enterprises—including aggregators, collectors, processors, and export enterprises—for horticulture products, including apple, apricot, cucumber, garlic, onion, pear, and potato etc. By creating modern and efficient facilities for processing, storage and cooling, the project will improve processing and storage capacity and reduce post-harvest handling and storage losses of fruit and vegetable business.

The project also will help (i) establish contract farming arrangements between farmers and processors and/or exporters, (ii) promote climate-adaptive agronomic techniques and product-handling practices to reduce food losses, (iii) train women enterprise owners and/or managers in business management and entrepreneurship, (iv) implement measures to facilitate cross-border trade for the Kyrgyz Republic’s agricultural produce, (v) build the institutional capacity and governance of PFIs, and (vi) promote private sector participation. This will increase profitability for fruit and vegetable business producers and agribusiness enterprises and strengthen market linkages to increase national food security.

The Asian Development Bank has approved a US$40 million loan and grant for the Climate–Resilient Agricultural Value Chain Development Project. The overall objective of the project is to reduce poverty by increasing rural productivity and generating income-generating activities. The proposed project will finance value chain facilities such as primary processing, storage and transportation and aimed at

1. Financing of fruit and vegetable chain operators taking into account environmental protection measures and climate-smart agriculture;
2. Improvement of primary processing of fruit and vegetable products and reduction of product losses throughout chain from producer to market;
3. Promoting reliable contractual relations between operators of the fruit and vegetable chain who are borrowers of loans from PFIs, in order to reduce production and market risks and timely repayment of the loan;
4. Developing the export of fruit and vegetable products.

ADB provided the proceeds of the Loan and Grant through the Ministry of Finance of the Kyrgyz Republic to qualified participating financial institutions (PFIs). They will be loaned to horticulture value chain operators (other than farmers) for eligible investments. These include refrigerated trucks, cold storage facilities, primary processing equipment (sorting platforms, washing units, packaging equipment) and additional processing equipment, as well as related fixed assets such as warehouses and buildings. The project will also support value chain operators in consolidating, sorting, packaging, and storing quality horticultural produce from participating farmer groups, including women’s groups, and key players in identified value chains. The project will significantly contribute to the creation of sustainable enterprises, increased inclusive employment with a special focus on women, and improved household incomes. The Project will conduct training on development of contractual relations for beneficiaries and relevant stakeholders, and will prioritise sub -lending financing of sub -projects.

The project has defined eligible investments as well as eligibility criteria for PFI participation. Working in parallel with credit institutions, value chain operators and farmers, the project will strengthen the links between farmers and traders/processors so that producers have a better understanding of commodity demand and associated quality requirements. The proposed project will result in “increased supply of fresh and processed horticultural produce to domestic and international markets.” The project will have two outcomes:

1. increasing lending from PFIs to support the development of production and distribution chains in fruit and vegetable growing and
2. strengthening the production and distribution chains of horticulture.

The project impact is consistent with the National Development Program and poverty reduction through increased rural productivity and creation of income generating activities (Table 1) a

**Table 1. Expected results of the project**

| **Chain of results**  | **Performance indicators** | **Data sources** | **Risks and critical assumptions** |
| --- | --- | --- | --- |
| **Result** | By 2029 |  |  |
| The supply of fresh and processed fruit and vegetable products to domestic and international markets has increased. | a. Farm-level horticulture production increased by 10% (2023 baseline: 2.94 million tonnes). b b. Processed fruit and vegetable products increased by 20% (2023 baseline: 13,199 tons of finished products)c. The value of fresh and processed fruit and vegetable exports increased by 25% in real terms (2022 baseline: US$205.2 million)d. Post-harvest losses reduced to 25% in targeted value chains (2022 baseline: 35%) | a-b. National Statistical Yearbooksd. Project Completion Survey and Project Monitoring System | A: Smallholder farmers see the benefits of collaborating with downstream actors in the value chain.A: Borrowing companies actively participate in regional export markets.R: Extended value chains limit the scope for higher farm gate prices given the high risk associated with perishable products and high aggregation and transportation costs. |
| **Results:** | By 2029 |  |  |
| 1. Lending to PFIs to support the development of the fruit and vegetable value chain has increased | 1a. An additional 70 sub -loans were provided to horticulture value chain enterprises, of which: (i) 25 for aggregation and/or procurement enterprises; (ii) 25 for storage and primary processing facilities; (iii) 18 for cold storage facilities; and (iv) 2 for integrated agri-logistics facilities (at least 5 enterprises owned or led by women) (2023 baseline: 0)1b. Sub-projects financed by PFI sub -loans employ at least 30% women workers (2023 baseline: 0)1c. All sub -loans have been tested for negative climate impact (2023 baseline: 0) | 1a–b. Quarterly reports on the progress of the project | R: The credit activity of PFIs is influenced by the state credit policy of loans for agriculture and related processing of agricultural products.A: Sub-borrowers are interested in the terms offered by PFIs to facilitate their planned investments.A: PFI readiness to implement an effective ESMP system |
| 2. Production and marketing chains in fruit and vegetable growing have been strengthened | 2a. At least 10 contract farming arrangements have been concluded between farmers and processors and/or exporters (2023 baseline: 0) | 2a–d. Quarterly reports on the progress of the project |
| 2b. Climate-adapted agronomic and processing practices promoted to reduce losses are supported by at least 500 farmers, including at least 30% women farmers (2023 baseline: 0)2c. Training and support for women's entrepreneurship of at least 10 women owners and/or managers (2023 baseline: 0) |
| 2d. Facilitating cross-border trade in agricultural products of Kyrgyzstan (baseline 2023: 0) |  |  |

Explanations: ADB = Asian Development Bank, ADF = Asian Development Fund, COL = concessional ordinary capital lending, ESMS = environmental and social management system, MOA = Ministry of Agriculture, OP = operational priority, PCR = project completion report, PFI = participating financial institution, PIU=project implementation unit, Q =quarter, A= assumption, R = risk.

a. The Government of the Kyrgyz Republic, the Ministry of Justice, the Centralized Database of Legal Information. National Development Program of the Kyrgyz Republic until 2026 to the Order of the President of the Kyrgyz Republic dated October 12, 2021 No. 435.

b. National Statistical Committee of the Kyrgyz Republic. 2022. Statistical Yearbook. Gross output: potatoes (1,275,012.3 tons), vegetables (1,163,633.8 tons), melons (226,078.9 tons), fruits and berries (275,547.4 tons). The total volume of horticultural output is 2,940,272.4 tons.

c National Statistical Committee of the Kyrgyz Republic. 2022. Living Standards of the Population of the Kyrgyz Republic 2017–2021. Annual publication. Table III.Aa Household Income by Place of Residence. The average monthly income per member of a rural household is 6,727.3 soms, the average annual exchange rate is 84.64 soms per 1 USD.

d Sub -loans are demand-driven. The distribution by sub-project type is indicative and is based on demand assessments during project development. Sub -loans may include equipment, machinery and refrigeration.

Source: Asian Development Bank.

The MWRAPI KR the Agricultural Projects Implementation Unit (APIU) which coordinates, manages and implements agricultural projects and any other future projects receiving financial support from the Asian Development Bank (ADB), the World Bank Group (WB), the International Fund for Agricultural Development (IFAD) and other donors. This project is being implemented by the APIU.

**Brief description of the survey**

**Objective of the survey:** To determine the current status of fruit and vegetable chain operators in Kyrgyzstan for subsequent impact assessment of the project, development of work plans and implementation of effective project activities.

**Geography of the survey:** The project covers the entire territory of the Kyrgyz Republic. The survey will be conducted in all seven regions of the Kyrgyz Republic: Chui, Issyk-Kul, Naryn, Talas, Jalal-Abad, Osh and Batken.

**Deadlines of the survey:** The survey will begin from the moment the contract is signed. The stages and their durations are as follows:

* Data collection and processing — 8 weeks;
* Preparation of the preliminary report — 2 weeks;
* Preparation of the final report — 2 weeks.

The total duration of the contract is 12 weeks.

**The respondents of** the survey are the operators of the fruit and vegetable chain, namely: aggregating and procurement enterprises (rural and district procurement companies); storage and primary processing facilities (sorting, washing, packaging); cold storage facilities; agro-logistics facilities; exporters, individual service providers and logistics companies for the transportation of fruit and vegetable products (including refrigerated trucks), producers and suppliers of materials and equipment for primary processing and storage, as well as fruit and vegetable producers (farmers and farmer groups); representatives of financial and consulting services; international and local development organizations involved in the development of the fruit and vegetable sector in the last five years and at present.

**Sampling frame. The sampling method** will be used to determine the sample, whereby all operators in the fruit and vegetable chain will have an equal chance of being part of the sample. The project will prepare for the Consultant a preliminary list of operators in the fruit and vegetable sector of Kyrgyzstan based on information from the Ministry of Water Resources, Agriculture and Processing Industry and the National Statistical Committee of the Kyrgyz Republic, from which the Consultant should provide the calculation and justification of a representative sample for the study, disaggregated by geography and gender.

**Survey tools**. Collection of secondary information through desk research from existing reports and reviews of the fruit and vegetable sector prepared by state and international development organizations, as well as statistical information on the sector (production and export/import of fruit and vegetable products) over the past 5 years to understand the current situation, existing trends and development prospects. Collection of primary information through fieldwork - structured interviews and focus group discussions in the regions. All collected primary information and secondary information relevant to the survey should be presented in electronic form on a separate [digital storage medium](https://www.multitran.com/m.exe?s=digital+storage+medium&l1=1&l2=2).

It is recommended to conduct a quantitative and qualitative assessment of respondents.

1. **For a quantitative evaluation**, it is proposed to conduct at least 400 structured interviews with fruit and vegetable chain operators, both men and women, in working and managerial positions in all regions of Kyrgyzstan.
2. **For a qualitative evaluation**, it is proposed to conduct at least 7 focus groups (one in each region), in which it is desirable to have representatives of all fruit and vegetable chain operators (procurers, assemblers, primary processors, storage, logistics, sellers, as well as cooperative managers). It is proposed during the focus groups to check the relevance and reliability of the information received from chain operators during the interviews, as well as to find out the interest and willingness of operators to have contractual relations with each other to minimize production and market risks.

# Procedure for carrying out work

1. When preparing the Survey Plan, it is necessary to take into account that some activities will require interaction with the APIU MWRAPI for:
2. Coordination of the plan for conducting Baseline survey;
3. Coordination of questionnaires for survey respondents and plans for conducting focus group discussions;
4. Coordination of the electronic form of collected primary information among respondents;
5. Coordination of report content;
6. Discussing the first draft of the report and providing comments;
7. Discussions of the final version of the report and its adoption by the APIU MWRAPI.

It is proposed to conduct a baseline survey in 4 stages.

**Stage 1. Initial analysis of available information**

- Initial analysis - review of project materials and data. The project will provide the consultant with available project documentation.

- Collection and analysis of secondary data (from several sources) including the National Statistical Committee of the Kyrgyz Republic and local government data.

- A sampling frame is a list of fruit and vegetable chain operators and (formal and informal) farmer associations, from which from which respondents are selected to construct the research sample.

**Stage 2 – Developing a sampling strategy and survey instruments**

**Development of a questionnaire for the survey.** If necessary, the contractor shall ensure an accurate and professional translation of the questionnaire into Kyrgyz. The questionnaire for chain operators will consist of questions regarding the operator’s production capacity, number of employees, annual sales volumes, market access, finances, credit needs, relationships with other chain operators and other items related to the project’s expected outcome indicators outlined in the Project Logical Framework. The question should be prepared electronically to collect information on electronic devices. Completing these questionnaires will take 30 to 40 minutes.

**Develop a sampling plan** in accordance with the above recommendations. This includes determining the sample size and composition, and selecting interview sites taking into account the distribution of project activities.

**Survey Plan**: The contractor should submit a research plan outlining the sample and methods to the project for approval. The plan should detail the strategy to be used, justify the methods, sample size, and measures to ensure representativeness and data processing. In addition, all calculations and data used in developing the plan should be cited and published.

**Sample Size Determination:** A list of respondents from among the horticultural chain operators by region, selected at random during the study sample selection. The consultant should determine the sample size based on relevant data and materials to ensure that the sample size is sufficient to detect the impact on the final outcome measures. The final sample should be agreed with the project.

**Develop an interview guide** and instructions for field staff.

**Test the questionnaire** and make any necessary changes. The consultant should identify questions that are difficult for respondents to understand and identify parts of the questionnaire that need to be improved.

**Develop the final questionnaire**. Approval of the final questionnaire and sample by the project and ADB.

**Stage 3. Fieldwork**

**Prepare for fieldwork** - recruit interviewers, print survey questionnaires and other field documents.

**Conduct interviews and focus groups**. The consultant interviews respondents approved in the survey sample and conducts at least one focus group in each region among fruit and vegetable chain operators to confirm the information collected during the interviews and to obtain the participants' opinions on the chain's operation in the region. Electronic devices and geo-referencing should be used for data collection. It is recommended to use CAPI data collection software, such as Survey Solution.

**Check data quality.** To ensure data quality control, it is necessary to provide the ability to sort the data to find missing data, use automation, for example, a drop-down menu; or format the database so that it only accepts numbers; and discuss data inconsistencies and / or conclusions with the implementers.

**Step 4. Data processing, analysis and preparation of the final report**

**Database formation.** The data obtained during the field work are entered into an electronic database. The collected data also need to be verified in some cases and clarified. The collected data should be aggregated by region and gender.

**Analysis of geo-referenced data and gender.** Conducting an analysis with separation by region and gender will provide the necessary information to understand the initial situation with fruit and vegetable chains on the ground and the possibility of achieving project results on gender.

**Preparation of a preliminary report.** The Consultant prepares a preliminary report on the conducted research and makes a presentation with the results of the work for the project. The project comments on the results of the research and the preliminary report, to which the consultant makes the necessary changes.

**Preparation of the final report.** The final report will also require translation into English. The consultant will submit the final version of the report, appendices and database in Excel format after receiving comments from the APIU and ADB. The final report is provided in Russian and English in 3 copies in printed and electronic versions. For clarity, the final report should include the results of measuring all indicators.

**Institutional organization**

The Consultant will work closely with the staff of the APIU, with all partners, implementing organizations implementing the project and its components, government agencies and other organizations directly related to the implementation of the project.

The Consultant will mobilize a team of experts capable of solving the assigned tasks and will be responsible for the high-quality and timely implementation of this Terms of Reference. The Consultant will manage the experts and field specialists.

The methodology, tools, template, work schedule, etc., as well as the intermediate and final versions of the baseline survey of the project will be sent to the APIU for coordination.

The APIU will provide feedback on each stage of this TOR no later than 10 days from the date of submission of comments by the owner.

The APIU will assist the Consultant in conducting the baseline survey.

**Qualification requirements and work evaluation criteria**

The selected consulting company must have the following qualifications:

* A mandatory requirement is experience in conducting evaluation studies in Kyrgyzstan during the previous 2 years, including demonstrated experience in designing and conducting evaluations and organizing research on the scale of this project (including survey and sample design);
* Previous research experience in the field of value chain development;
* Potential and experience in planning and organizing logistics research;
* An established network of experienced interviewers, supervisors and data entry clerks;
* Capacity has been built in the field of data management and statistics;
* Capacity has been created to analyze and present survey results;
* Experience in statistics and economics.

The proposed team for conducting survey should consist of an appropriate number of qualified and experienced individuals with a proven track record of developing and implementing economic, baseline, mid-term and end-of-year studies and/or assessments and in-depth understanding of rural development and gender and social inclusion. Bidders are expected to propose a coordinator/team leader and an appropriate number of experts, field supervisors, interviewers and support staff.

**The group leader** must have the following qualifications:

* experience (at least 5 years) in the field of agriculture, namely in surveying the development of the value chain, marketing of financial products, developing business plans in the agricultural sector, food industry.
* Academic degree (not lower than Master's) in economics, sociology, statistics, agricultural economics or related fields.
* experience in performing similar work (at least 3 contracts related to research and evaluation of international projects).
* great potential in data management and statistics.
* experience working with government and international organizations;

Other specialists in the group conducting the survey include:

**Research and field work supervision expert (Project manager)**: Minimum 5 years of experience in conducting large-scale research, experience in surveys is required. Experience in conducting agricultural businesses’ surveys in the Kyrgyz Republic is preferable.

**Social and Economic Researcher**: Degree in economics, sociology, agricultural economics or related field, with at least 5 years of experience analyzing survey data using Excel format or similar software. Strong knowledge and experience in statistical economics are essential. Ability to communicate clearly and concisely in Russian. Previous experience in conducting baseline surveys is preferred.

**Computerized Data Entry and Database Specialist**: At least 3 years of experience with large survey data sets and the necessary data entry software. The Data Specialist will design an appropriate data management system with adequate quality control and finalize the data management system before the data collection team goes to the site. The data management system will also be organized so that partial data sets are regularly handed over to the project team.

The minimum number of key support staff positions (recommended) is as follows:

* **Field Supervisors:** A minimum of 6-7 field supervisors (optimum ratio is 1 supervisor per 1 area) should be recruited, who should be selected based on the company's best practices. A minimum of 2 years of experience in conducting baseline surveys is required;
* **Interviewers:** At least 7 interviewers are required. Minimum qualifications include knowledge of the local language. Preference should be given to candidates with experience in conducting business interviews in rural areas of Kyrgyzstan.

APIU is not responsible for organizing the service provider's workplace to perform this assignment. The service provider will travel to the regions and areas of the republic to conduct field survey.