**Community Development and Investment Agency of the Kyrgyz Republic (ARIS)**

**Project: “Carbon Sequestration through Climate Investments in Forests and Rangelands in the Kyrgyz Republic”**  
**Funded by the Food and Agriculture Organization of the United Nations (FAO UN)**

**TERMS OF REFERENCE  
International Consultant for Market Assessment and Business Development**

**I. OVERVIEW**

**Introduction**

The project "Carbon Sequestration through Climate Investments in Forests and Rangelands in the Kyrgyz Republic" (CS-FOR) was approved during the 24th Green Climate Fund (GCF) Board Meeting on November 14, 2019, in Songdo, South Korea. The Project Agreement, signed on March 4, 2022, between UN FAO (an accredited organization of the GCF) and the Cabinet of Ministers of the Kyrgyz Republic, was ratified by the Resolution of the Jogorku Kenesh of the Kyrgyz Republic (No. 233-VII) on April 27, 2022, and declared effective by the GCF Secretariat on October 25, 2022.

The project aims to transform pasture and forest management at both national and local levels, promoting the sustainable management of natural resources through an integrated approach. It is supported by grants from the Green Climate Fund, UN FAO, the Cabinet of Ministers of the Kyrgyz Republic, the Russian-Kyrgyz Development Fund (RKDF), and ARIS.

The objective of the CS-FOR project is to enhance carbon sequestration by supporting climate investments in forests and rangelands while reducing the drivers of degradation and emissions. This will be achieved through ecosystem-based institutional support for sustainable natural resource management and investments in green growth.

The overarching goal of the CS-FOR project is to foster a low-carbon, climate-resilient economy, with an emphasis on capitalizing on co-benefits related to adaptation and disaster risk reduction. The project will sequester approximately 19.8 million tons of CO2 equivalent over a 20-year period. This reduction represents 7.6% of the country's total emissions and 22.6% of agricultural emissions.

The implementing agencies of the CS-FOR project are UN FAO, the Forest Service under the Ministry of Emergency Situations of the Kyrgyz Republic (MES KR), the Russian-Kyrgyz Development Fund (RKDF), and the Community Development and Investment Agency of the Kyrgyz Republic (ARIS). These organizations coordinate and oversee the planning and execution of project activities, with the roles of co-financing organizations as well.

**ARIS activities under the CS-FOR project will focus on the following components and activities:**

**Component 1: Evidence-Based Strengthening of Natural Resource Management Governance**

**Output 1.3.1:** Mobilize communities, establish Community Landscape Management Groups (CLMGs), and accompany in formulating Integrated Natural Resource Management and Climate Change Resilience Plans (INRMCRPs).

The Local Self-Governments (LSGs) will report to their communities on the preparation and implementation of the INRMCRPs.

**Component 2: Green Investments for Forest and Rangeland Rehabilitation**

**Output 2.1.3:** Conduct training of trainers on rangeland rotation and evidence-based rangeland monitoring and assessment for local personnel, and provide training for trainers on INRMCRP management and implementation. Additionally, training will be provided to Local Self-Governments (LSGs) and local stakeholders on the implementation of INRMCRP for rangeland management.  
**Output 2.1.5:** Develop and implement INRMCRP pasture investment plans to incentivize green investments in pasture restoration and livestock production. Specifically, the project will support investments in pasture restoration and livestock production.

**Component 3: Climate-Sensitive Value Chains Development**

**Output 3.1.1:** Select existing value chains and provide technical support to organizations and value chain actors for climate-sensitive business development.

As part of the implementation of these activities, ARIS has contracted a national consulting company to conduct a market assessment and value chain analysis in the project target areas. The assessment results are expected to be available by April 2025.

**Output 3.1.2:** Identify and mobilize existing agribusinesses in selected value chains through an information campaign and value chain mapping for climate-smart business practices.

**ARIS is one of the implementing agencies of the CS-FOR project. To support the implementation of the project activities, ARIS plans to hire an international consultant to prepare a training module on the green economy (Consultant). This Terms of Reference outlines the Consultant's scope of services.**

**II. OBjective of the assignment:**

The objective of this assignment is to provide international expert support in finalizing the ongoing market and value chain assessment. This includes the analysis and systematization of 100-120 feasibility studies (FS), enhancing the quality and compliance of materials with international standards, integrating climate, gender, and environmental aspects, and preparing the foundation for the development of sustainable business plans aimed at attracting US$15 million in funding.

Considering the capacity and key economic activities in the target communities, the following categories can be identified among the prioritized value chains:

* Agricultural production and processing
* Livestock farming
* Milk processing
* Traditional and modern tourism, including ecotourism
* Non-timber forest products (NTFPs), such as forest nuts (walnuts, almonds, pistachios), forest mushrooms, etc.
* Orchards, beekeeping, medicinal herbs, and other value chains
* Logistics centers for the storage, processing, washing, packaging, sorting, and packing of agricultural products
* Development of fisheries and aquaculture, including artificial reproduction of fish resources and production of fish feed

When carrying out the task, it is necessary to consider the general principles of gender mainstreaming:

* Value chain effectiveness assessment should align with the FAO guidelines *"Developing Gender-Sensitive Value Chains"* and practitioner manuals.
* Prioritization of value chains must account for women’s participation at all stages and their access to economic benefits.

Assessment Includes:

1. Gender-disaggregated analysis of employment and engagement of women/men across value chain segments.
   * Identification of gender barriers, including (limited access to resources, finance, technologies, and markets for women).
   * Evaluation of women’s roles in decision-making processes, and household income management.

Value Chain Development Proposals should be based on comprehensive analysis aimed not only at identifying constraints but also at understanding the interrelated causes of systemic inefficiency and developing sustainable solutions.

**III. SCOPE OF SERVICES**

The Consultant will primarily undertake the following tasks under this scope of work:

**A. Finalization and Review of the Assessment**

1. **Analysis of the Market and Value Chain Assessment Prepared by a National Company:**
   * Assess the relevance and completeness of the data collected, including:
     + Verifying the use of statistical and market data.
     + Comparing data with international standards and best practices.
   * Evaluate the logical consistency of conclusions and proposals, such as:
     + Identification of priority value chain areas based on clearly set criteria.
     + Analysis of socio-economic impacts on key groups (e.g., women, youth).
   * Assess whether the analysis complies with **international standards, FAO guidelines, and best practices**, while considering climate and environmental factors, including:
     + Consideration of climate risks and their impact on value chains.
     + Gender and employment impacts on vulnerable groups.
2. **Refining the Assessment in the Following Aspects:**
   * Enhance the findings and rationale based on:
     + Specific characteristics of the target regions, including economic and climate vulnerabilities.
     + Analysis of local markets and infrastructure constraints.
   * Contribute data and conclusions for integration, including:
     + **Climate Risks:** For example, assessing the impact of drought or extreme weather events.
     + **Gender:** Incorporating data on women's involvement in value chain production processes.
     + **Environmental Sustainability:** Calculating environmental indicators, such as carbon footprint.
   * Re-examine the analysis methodology:
     + Assess the validity and consistency of methods used in alignment with international practices, including:
       - Econometric models (e.g., regressions, time series).
3. **Analysis of 100-120 Feasibility Studies of potential subprojects, prepared by a Local Company:**
   * Review each feasibility study for:
     + Completeness of information (feasibility justification, market, and financial data).
     + Compliance with key financial indicators (e.g., NPV, IRR, DSCR – Debt Service Coverage Ratio).
     + Risk assessments and proposed adaptation strategies.
     + Analysis of project impact on women, including the distribution of economic benefits, participation in the decision making and access to resources
   * Identify gaps and suggest improvements to the feasibility studies, including:
     + Recommendations for refining the business model structure.
     + Consideration of climate risks and sustainable resource management.
   * Systematize the results of the feasibility study analysis:
     + Develop a unified reporting format for the analysis results of all feasibility studies.
     + Prepare a summary document with key findings to complement the analytical study.
4. **Preparation of Reporting on Refinements:**
   * Submit a report that includes:
     + A description of the specific revisions and additions made to the market and value chain assessment.
     + Analysis and classification of identified issues in the feasibility studies, with recommendations for correction.
     + A list of any remaining gaps in the analysis (if applicable), along with recommendations for addressing them.

**B. In-Depth Analysis:**

***Climate Risk Assessment:***

1. **Analysis of Climate Change Impacts on Selected Value Chains:**
   * **Climate Risk Modeling Techniques:**
     + Utilize climate models and data (e.g., from the IPCC – Intergovernmental Panel on Climate Change) to assess the probability of climate events such as droughts, floods, and temperature extremes, and their potential impact on production and logistics within value chains.
     + Conduct geospatial analysis using GIS to identify regions with high climate vulnerability.
   * **Predicting Impacts on Productivity:**
     + Apply time series models to predict changes in yield, pasture productivity, or other areas of value chains due to variations in temperature, precipitation, and the frequency of extreme weather events.
2. **Identification of Adaptation Strategies to Climate Risks:**
   * **SWOT Analysis of Adaptation Strategies:**
     + Compare various adaptation measures (e.g., transitioning to sustainable technologies, improving water management) based on their effectiveness, cost-efficiency, and long-term sustainability.
   * **Economic Analysis of Adaptation:**
     + Estimate the costs of implementing adaptation strategies and project the potential benefits, such as reduced crop losses or increased productivity.
   * **Benchmarking of International Practices:**
     + Analyze successful adaptation approaches from countries with similar climatic and economic conditions to draw insights for local implementation.
   * **Gender aspect**
     + Study how climate change affects gender roles in value chains and propose adaptation strategies (including new technologies) to reduce women's workload and promote equal participation of men and women.

***Value Chains:***

1. **Assessing the Current State of the Value Chain:**
   * **Value Chain Mapping:**
     + Identify all links in the value chain, from production to final consumption, and analyze production volumes, productivity, weak links, and bottlenecks (e.g., transportation, processing, marketing). Analysis of women's and men's participation at each stage of the value chain, including their roles, income distribution, and barriers to advancement within the chain.
   * **Efficiency Analysis:**
     + Conduct a cost analysis to estimate expenses at each stage of the value chain and pinpoint the most inefficient stages.
   * **Financial Analysis:**
     + Use econometric models to assess the profitability of the value chain, including return on investments, margins, and cost structures.
2. **Recommendations for Improved Management, Innovation, and Technology:**
   * **Innovation Approaches:**
     + Analysis of the potential for implementing sustainable technologies (e.g., solar dryers, drip irrigation systems), considering their cost-effectiveness and impact on environmental sustainability, including an assessment of technologies that reduce the workload on women.
   * **Chain Management:**
     + Suggest ways to improve coordination across the value chain, particularly between producers, processors, and exporters.
     + Recommendations for increasing women's participation in value chain management, including support for women’s cooperatives and initiatives.
   * **Digitalization:**
     + Recommendations for implementing digital solutions (e.g., blockchain for supply chain transparency or mobile applications for production monitoring), including those tailored to women's needs (e.g., online marketplaces, mobile apps for access to information and finance).
     + Assessment of the digital divide and proposals for training women in digital skills.

***Impact on Employment:***

1. **Analyze Current and Potential Employment in Key Sectors:**
   * **Disaggregation of Employment Data:**
     + Examine employment patterns in key parts of the value chains, considering gender, age, and other socio-economic factors.
   * **Econometric Models of Employment:**
     + Model the effects of changes in the value chain on job creation, including assessing how employment is affected by increased investment or the introduction of new technologies.
   * **SWOT Analysis of the Labor Market:**
     + Evaluate current barriers and opportunities for job growth within the value chains.
2. **Recommendations for Employment Growth for Vulnerable Groups:**
   * **Inclusive Growth Programs:**
     + Develop tailored recommendations for training and skill development programs aimed at women and youth, based on the specific needs of the value chains.
   * **Incentivizing Self-Employment:**
     + Identify opportunities for job creation and business models, such as those in processing, logistics, or marketing.
   * **Financial Support:**
     + Provide guidance on accessing soft loans and grants for women and youth to support their entrepreneurship within the value chains.

**C. Preparation of Business Plans:**

1. **Develop Business Plans for Priority Value Chain Areas:**
   * **Risk and Adaptation Strategies Analysis:**
     + Use scenario modeling to assess risks (climate, market, operational).
     + Integrate climate adaptation strategies (e.g., sustainable technologies, resource management practices).
   * **Preparation of Key Sections:**
     + **Marketing Strategy:**
       - Analyze market demand, competition, and market entry strategies.
       - Apply market segmentation and niche analysis techniques.
     + **Feasibility Study:**
       - Assess infrastructure, technology, and logistics needs.
       - Perform capital and operating cost analysis.
     + **Financial Model:**
       - Calculate key financial indicators (NPV, IRR, DSCR).
       - Consider potential scenarios related to fluctuations in raw material prices, transportation costs, etc.
   * **Methods of Analysis:**
     + Use econometric modeling to predict the financial sustainability of projects.
     + Benchmark business models against similar projects in other countries.
2. **Development of Recommendations:**
   * **Sustainable Resource Utilization:**
     + Identify opportunities to optimize water, energy, and fertilizer consumption, as well as other resources (e.g. pastures)
     + Assess the sustainability of production processes and their environmental impact.
   * **Profit Maximization and Risk Minimization:**
     + Suggest strategies for income diversification.
   * **Develop strategies to minimize climate, market, and operational risks.**

**D. Technical Advice:**

1. **Conducting Trainings:**
   * **Organizing Training for Local Specialists:**
     + Topics include:
       - Preparing sustainable business plans.
       - Utilizing climate and financial adaptation tools.
       - Incorporating sustainable technologies and approaches into business models.
     + **Format:**
       - 2-3 two-day training sessions for 10-15 participants each, ensuring gender balance. (at least 30% women)
       - Interactive sessions with practical case studies.
       - Provision of training materials (presentations, manuals).
       - All training modules must include relevant gender and social aspect.
2. **Individual and Group Consultations:**
   * **Target Audience:**
     + 25-30 entrepreneurs, local farmers, and small businesses. (of which 30% women, 30% youth among which at least 50% women).
   * **Consultation Topics:**
     + Finalizing business ideas.
     + Financial planning and risk management.
     + Loan eligibility requirements and other financial considerations.
   * **Methods:**
     + Use case studies based on participants' specific business cases.
     + Provide personalized recommendations for improving business strategies.

**E. Financing Recommendations:**

1. **Preparation of Criteria for Selection of Economic Subprojects for Subsequent Lending:**
   * **Financial Indicators:**
     + Estimate payback periods, profitability, and capital efficiency.
     + Assess financial sustainability of projects under various scenarios (e.g., demand drop, price changes).
   * **Environmental Aspects:**
     + Consider the project’s contribution to CO₂ reduction (e.g., carbon footprint analysis).
     + Assess the environmental sustainability of the value chains (impact on biodiversity, water resources).
   * **Social and Gender Aspects:**
     + Evaluate the project’s potential for job creation, particularly for increasing employment among women, youth and other vulnerable groups.
     + Analyze the impact on income enhancement for vulnerable groups, including households headed by women;
     + Evaluate the extent of women’s engagement in the decision-making processes at different stages of value chains.
2. **Developing Monitoring and Evaluation Mechanisms:**
   * **Tracking Success:**
     + Develop a system of performance indicators (KPIs) to monitor project outcomes.
     + Develop a system of indicators for monitoring gender equality (e.g., percentage of women involved in the value chain, income growth of women entrepreneurs, number of businesses led by women).
     + Integrate geospatial analysis tools (GIS) to track implementation progress.
   * **Providing Feedback:**
     + Develop reporting templates for project participants.
     + Conduct regular reviews and provide actionable recommendations for improvement.

**F. Study Tour:**

1. **Purpose of the Trip:**
   * Study the local specifics of the target areas, taking into account the above described gender aspects (infrastructure, businesses, resources).
   * Meet with key stakeholders (local authorities, LSGs, entrepreneurs, including women-entrepreneurs, women cooperatives and initiative groups).
2. **Methods:**
   * Collect primary data on logistical constraints, market conditions, and access to resources, taking into account the above described aspects.
   * Conduct interviews with local representatives, including women entrepreneurs, farmers, social and environmental workers, to better understand local needs and gender barriers.

**IV. EXPECTED DELIVERABLES**

1. A detailed report on the state of the value chain with recommendations for improvement, including a separate section with a gender-sensitive assessment of the value chain in accordance with the FAO guidelines Developing Gender-Sensitive Value Chains and the practitioner’s guide.
2. Developed business plans, ready for submission for lending.
3. Conducted trainings and consultations with local specialists.
4. Clear criteria for project selection and established monitoring mechanisms.
5. A full set of reports for the Client.

**V. REPORTING AND LANGUAGE REQUIREMENTS**

The selected consultant will submit reports to the Project Coordinator according to the payment schedule outlined in paragraph 6 below. All reports, presentations, and consultations will be provided in the state and official languages.

**VI. PAYMENT AND PROCEDURE FOR WORK PERFORMANCE**

Payment for the consultant’s services will be made in six phases, corresponding to the completion of key tasks by section. Payment schedule:

1. **First payment (10%)**: Upon signing the contract and submission of the task methodology, including:
   * A detailed work plan with timelines.
   * Approaches for analyzing and refining the market and value chains assessment.
   * Methodology for analyzing 100-120 feasibility studies.
2. **Second payment (20%)**: Upon completion of the review and finalization of the studies, including:
   * A review report of market and value chains assessment prepared by a national company.
   * Analysis of 100-120 feasibility studies, including:
     + Review of structure, data completeness, and logic of conclusions.
     + Recommendations to address gaps and finalize materials.
3. **Third payment (20%)**: Upon completion of an in-depth analysis of value chains, including:
   * Climate risk analysis for selected value chain areas.
   * A map of the value chains with volumes, performance, weak links, and recommendations for improvement.
   * A report analyzing the employment impacts of value chain changes, with a focus on women and youth.
4. **Fourth payment (20%)**: After business plans are developed and recommendations provided, including:
   * Developed 12-15 detailed business plans for priority value chain areas.
   * Sections covering marketing strategy, financial model (NPV, IRR, DSCR), and risk analysis.
   * Recommendations for sustainable resource use, risk minimization, and profit maximization.
5. **Fifth payment (20%)**: After conducting trainings, consultations, and providing funding recommendations, including:
   * Conducted trainings for local professionals (10-15 participants per session).
   * 26-30 individual consultations for entrepreneurs and stakeholders.
   * Recommendations on criteria for selecting economic subprojects and designing monitoring mechanisms.
6. **Sixth payment (10%)**: Upon submission of the final report, including:
   * Final report with analysis results, recommendations, and developed business plans.
   * Inclusion of data on the finalization of 100-120 feasibility studies and final recommendations for their integration into the overall project.

**VII. ASSIGNMENT SCHEDULE**

* All tasks are phased over a 6-month period.
* The study tour and data collection for analysis will be performed in the first month.
* An average of 1-2 months will be allocated to each phase, based on the scope of work related to Feasibility Studies.

**VIII. QUALIFICATION REQUIREMENTS**

1. A minimum of 10 years of experience in international projects related to value chains, business plans, and financial analysis, including the consideration of gender factors in the economic development
2. In-depth expertise in climate risk accounting and sustainable development, taking into account gender-sensitive approaches.
3. Knowledge of international financial and feasibility analysis standards and practices.
4. Fluency in English; knowledge of Russian and Kyrgyz will be an advantage.
5. Work experience in Central Asia or countries with similar conditions will be an advantage.

**IX. PROCEDURE OF INTERACTION**

The consultant will work closely with the project staff, implementing partners, implementing agencies, government agencies, and other organizations involved in the project’s implementation. The Client will provide the consultant with up-to-date project information, key project documents, and available technical materials to accomplish the objectives specified in the scope of work.

**X. PERIOD OF SERVICES**

The labor contract will be for a period of 6 months. The contract may be extended based on satisfactory performance, as agreed by both parties.