



EXTERNAL FINAL PROJECT EVALUATION “SWITCH OFF AIR POLLUTION”, MONGOLIA

(ENERGY EFFICIENCY ADVISORY AND FINANCIAL INTERMEDIATION FOR SUSTAINABLE HOUSING IN UNPLANNED AREAS OF ULAANBAATAR))

CALL FOR TENDERS

TERMS OF REFERENCE

2 LIST OF ABBREVIATIONS

AFD – French Development Agency
BEEC – Building Energy Efficiency Center
CO₂ – Carbon Dioxide
ESS- Energy Saving Solutions
EU – The European Union
EUD - The Delegation of the European Union to Mongolia
ERC – Energy Regulatory Commission
EE – Energy efficiency/efficient
EA – Energy Advisors and Auditors
FAP – Abbe Pierre Foundation
Geres – Geres Mongolia NGO - Acting for Climate Solidarity
GHQ – General Headquarters
GCMC – Ger Community Mapping Center NGO
GIZ – German Agency for International Cooperation
GCF – Green Climate Fund
HHs – Households
IPs – Implementing partners
MUST – Mongolian University of Science and Technology
MNCA – Mongolian National Construction Association NGO
MSMEs – Micro, Small and Medium sized Enterprises
MoU – Memorandum of Understanding
MNT – Mongolian National Tugrik
PIN – People in Need NGO
PISC – Project Internal Steering Committee
PM – Particulate Matter
PEAC - Project External Advisory Committee
SDG – Sustainable Development Goals
SOAP - Switch Off Air Pollution project
TA – Technical Assessment
TC – Technical Committee
T coal – Tons of coal
TeqCO₂ (French) – Tons of Carbon Dioxide
ToR – Terms of Reference
UNICEF – United Nations International Children’s Emergency Fund
UB – Ulaanbaatar
Web/app – Website and mobile application

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1. BACKGROUND ON GERES AND THE PROJECT

1.1. ABOUT GERES, IN MONGOLIA

Geres is a French NGO created in 1976 focusing on development actions towards climate solidarity and energy and currently working in 12 countries with a mission in Mongolia up and running since 2010.

The energy transition serves as a major lever for putting that solidarity into practice. And to that end, Geres encourages the development and rollout of innovative, locally based solutions, and supports territorial climate and energy policies.

Over the last 18 years, Geres has been working in various regions of the country and in the broad field of energy, covering several sub sectors such as:

- Building energy efficiency:
 - o Energy Efficiency in Public Building (schools, clinics & health centres, administrative buildings);
 - o Energy Efficiency in individual housing;
- Passive energy solutions for sustainable agriculture:
 - o Solar passive greenhouses;
 - o Post-harvest bioclimatic cellars;
- Economic and entrepreneurship development:
 - o Capacity building for entrepreneurs and artisans;
 - o Support to income generating activities;
- Focus on the making of diagnostics, surveys & studies, including R&D related to heating/cooking solutions, solar passive techniques and energy efficiency.

In 1994, Geres worked briefly in Mongolia with a regional association planning to rehabilitate health centres. The organisation returned to the country in 2010 to find ways of increasing vegetable production to reduce the risks of food insecurity. Since then, Geres Mongolia has been introducing 276 energy-efficient, affordable, and locally adapted passive solar greenhouses and 30 bioclimatic cellars while improving livelihood of rural communities in Ulaanbaatar, Arkhangai and Khentii, through greater access to locally produced organic vegetables and income generation, benefiting 3600 farmers.

From the end of 2016 until 2019, Geres implemented the CEMAATERR-I programme in Arkhangai was the territorial approach to address climate change and energy challenges. As a result of the climate vulnerability risk assessment of the project, CEMAATERR-I provided support to local decision makers taking into account climate changes effects when establishing development plans and held climate change awareness raising activities with 2500 people. In accordance, 110m2 energy efficient building for the domestic violence victims and 2 passive solar greenhouses in Arkhangai, were built, respectively. CEMAATERR second phase, 2019 to 2022, aims now to support the development of Arkhangai Energy Efficiency Action Plan for buildings, as a way of mitigating climate change effects and reducing air pollution in the Province.

In terms of energy efficiency (EE) in housing and to contribute to address climate and air pollution challenges in Ulaanbaatar ger districts, Geres is implementing EU Switch Asia II-funded project, the “Switch Off Air Pollution” since 2018.

1.2. SWITCH OFF AIR POLLUTION

1.2.1. GER AREA CONTEXT

In Mongolia, the extremely harsh weather, with temperatures reaching as low as -40° Celsius, requires heating for 8 months of the year. Whereas the central blocks districts of the city enjoy centralised (trunk) infrastructures providing for heating, water, electricity and sewage, the ger area don't. Local residents have no choice but to use individual unrefined coal fired stoves and boilers, causing the hazardous levels of air pollution faced through UB winters, with levels of particulate matters (PM2.5, PM10) sulphur dioxide (SO2) and nitrogen dioxide (NO2) often reaching as much as 12 times the maximal recommended by the World Health Organisation (WHO) (see maps above). This situation is further exacerbated by the poor thermal efficiency of the buildings, leading to increased fuel consumption and low comfort levels.

Ger areas are sparsely populated neighbourhoods, mainly constituted of individual dwellings, either small houses or gers, the traditional Mongolian felt mobile constructions, hence the name of the districts. Largely unplanned, these areas lack access to most infrastructures, making their residents both the main victims and causes of UB's major challenge: pollution

1.2.2. OBJECTIVES OF THE PROJECT

Geres is implementing the "Energy efficiency advisory and financial intermediation for sustainable housing in unplanned areas of Ulaanbaatar project" (Switch Off Air Pollution). The project is part of a wider SWITCH program portfolio funded by the European Commission in "Asia SWITCH Asia II – Promoting Sustainable Consumption and Production" with priority to support to switch to sustainable consumption patterns and behaviour amongst consumer groups, civil society stakeholders and in the public sector.

Overall objective of the action: Sustainable consumption patterns and behaviours in the individual housing sector of Mongolia are promoted through energy efficiency advisory and financial intermediation.

Specific Objective: Emissions of CO2 and PM in Ulaanbaatar city's Ger areas are reduced through improved energy efficiency in housing, awareness raising, technical training and technological support to MSMEs and households.

The project has been designed together with four parties, playing the role of market intermediary developing a business model to connect supplier, MSMEs, financial institutions with ger area households, to provide insulation adapted solutions, guaranteeing quality standards and energy savings

The project is a 4 year project started on 1st of January 2018 and will continue until 30th of April 2022. The project is extended for 4 additional months of non-cost extension. Where, PIN has completed its activities and the non-cost extension does not apply. Overall objective by the budget of the action, 2,191,896, 24 Euro, is to improve living conditions of ger area inhabitants by reducing air pollution through improving the energy efficiency of 1,000 households.

1.2.3. THE CONSORTIUM

GERES is the main applicant / project leader and coordinator, monitoring, financial intermediation & energy efficiency expertise.

Mongolian National Construction Association (MNCA) is the lead umbrella organization of the construction sector in Mongolia. It supports Micro-Small- and Medium size enterprises (MSMEs) in the construction sector. As such, it is providing advocacy, institutional and administrative facilitation services and technical training to its members. Particularly in this project MNCA supports smaller companies and craftsmen which, presently, are unsupported despite their predominant role in the construction sector in ger areas.

Building Energy Efficiency Center (BEEC) of the Mongolian University of Science and Technology is an expert in energy efficiency in housing, energy auditing and training in Mongolia for both applied research and certification. It has developed the national energy efficiency standard, which are used as the basis on which to develop the technological solutions promoted by the project. The action makes use of BEEC's experience in solution development, demonstration and technical training.

People in Need (PIN) has worked in Mongolia for institutional facilitation, communication and visibility & ICT for development. PIN further implemented a SWITCH Asia sheep wool insulation project looking further into energy efficiency value chains. For example, PIN has been using aerial mapping and ICT for development for the last 4 years in PIN activities. PIN completed its activities by the end of December, 2021. Non-cost extension does not apply.

Ger Community Mapping Center (GCMC) is the only community mapping civil society in the ger area, fostering participatory approach to urban issues, brings insider knowledge of the unique context of ger area and experience engaging with local residents, that are fundamental to understanding the needs and gaps in the community energy efficiency practices and to effectively engage and mobilize local communities in target areas. Working in the project until June 2020, from then Geres took over its activities.

2. THE FINAL EVALUATION

2.1. OBJECTIVES

This final external evaluation is to be carried out in the frame of a single project co-funded by EU, Foundation Abbé Pierre (FAP), French and Czech Development Agencies. The logic of intervention of EU and FAP, although different, is complementary and forms one Action.

Under this frame, the general objectives of the Evaluation are to measure Relevance, Coherence, Effectiveness, Efficiency, Impact and Sustainability of the intervention following OECD's DAC Development Evaluation criteria and guidelines as well as highlighting current project achievements.

The Evaluator(s) will:

- Assess the relevance of the project objectives and results in relation with priorities and needs of policy objectives, plans of national and local governments, the donor agency and the needs of target groups and beneficiaries (ownership, alignment);
- Assess the effectiveness of the projects in terms of results and progress
- Assess the efficiency of implementation (results achieved per inputs and budgets);
- Assess the feasibility in terms of design, scope, implementation, management and steering, highlighting current project achievements, and develop final conclusions, recommendations on the likelihood that projects will achieve desired outcomes given the project design and the implementation experience
- Assess the sustainability of the project results beyond the end of the project together with potential for uptake and/or replication for the 2nd phase.

Additionally, Geres expects a specific focus on a qualitative evaluation of the impact of the intervention, looking at the long-term prospects in terms of sustainable development, income generation, social benefits and proposing recommendations for further improvements in strategic programming.

To this end, the Evaluator will also provide recommendations based on factual, critical and solid analysis in order to further strengthen the outputs/outcomes post-project. The evaluation will propose a disaggregated analysis of the results, effects and impacts (distinction between gender - male/female).

2.2. METHODOLOGY

After a thorough desk review (project documents, activity reports, evaluation reports including ROM evaluation, studies, etc.) and discussions with Geres team to get a sufficient understanding of the project, the Evaluator is expected to focus on direct interviews/discussions with key local actors directly or indirectly involved in the project.

It is expected that the Evaluator meets with 4 key categories of actors *i.e.*:

- Representatives from key Mongolian institutions (line-ministry of Construction, Ulaanbaatar municipality) and international organisations (AFUBCAP, GIZ, Unicef, Red Cross etc.)), as relevant
- The project implementing partners
- The Finance institutions active in the project
- The Suppliers active in the project
- Energy auditors active in the project
- Direct and indirect beneficiaries - A representative sampling of target trained MSMEs/artisans, final ESS beneficiaries (house owners and their families), MSMEs and individuals benefiting from loans, community leaders (head of neighbourhoods and local representatives of city/district authorities). Those interviews can be supported by a control group.

2.3. GUIDING EVALUATION QUESTIONS

The following guiding questions are proposals and can be updated, amended, challenged by the Evaluator.

2.3.1. RELEVANCE AND CONSISTENCY/COHERENCE

- Is the project consistent with and supported by national and municipal policies and programs?
- To what extent is the project accepted, endorsed and owned by the local communities?
- Does the project echoes and fulfils expectations of households and MSMEs?
- What are the characteristics of the target groups and actual beneficiaries (MSMEs) of the project? Are the procedures for selecting beneficiaries relevant?
- What is the level of satisfaction of the various stakeholders (team, partners, MSMEs, beneficiary households, Banks, Suppliers, etc.) in regard to the project and the results achieved?
- Is the design and are the results obtained relevant in order to contribute to local economic development and to mitigate climate change?
- Within the scope of building energy efficiency, are the challenges of sustainable consumption and production in the sector addressed in the most effective way?

2.3.2. ACHIEVEMENT OF RESULTS: EFFECTIVENESS

In the frame of operational project implementation, management and steering, the Evaluator could look at the following guiding questions to measure effectiveness:

- To what extents are the outputs/results achieved contributing (linked) to the planned outcomes?
- How are the outcomes and outputs assessed for quality?
- Which are the main factors in operational implementation, management and steering that have facilitated, or led to the results, outcomes and impacts achieved to date?
- Are the technical assistance provided to the projects appropriate and effective? Are technical inputs (such as consultancies, training, capacity-building measures) of a sufficient quality and provided to the right institutions?
- Are the steering and decision-making processes functioning properly? Have problems been identified in a timely manner and have feasible solutions been proposed and effectively applied by the implementing partners, supporting units and steering committees?
- Are the project implementation/support units capable and sufficiently equipped to provide the necessary support to partners? Specifically, what is the management capacity of the implementation unit in terms of planning, implementation, financial and quality management and results-orientation?

2.3.3. ACHIEVEMENT OF RESULTS: EFFICIENCY

- Are resources/inputs (funds, expertise, time) sufficient and cost-effective in terms of project results?
- How efficiently are the results achieved in relation to the efforts expended?

2.3.4. EFFECTS & PROSPECTIVE IMPACTS OF THE PROJECT

3.2.3.1 Effects and prospective impacts on targeted beneficiaries

Households

- What are the effects of the awareness raising efforts? To what extent do they encourage the households to invest in ESS?
- How are households making the decision to invest? Are they convinced by the Step-by-step approach to insulation?
- To what extent the households can afford the insulation or can access to green loans?

Artisans - MSME

- To what extent trained artisans/MSME are in capacity to disseminate and implement ESS?
- To what extent trained artisans benefit from ESS promotion/dissemination: what is the ESS value chain market segment? Does it offer interesting market prospects?
- What is the most sold insulation solution? Why?
- To what extent the MSME is in capacity to promote ESS and contribute to the development of the delivery model?

Finance Institutions

Related to green loan products and linked to access to finance for direct and indirect beneficiaries of the action:

- How efficiently linked have been bank and final clients (MSMEs/craftsmen, direct/indirect beneficiaries) around green loan products in and by this project?
- To what extent are project beneficiaries (MSMEs/craftsmen, households and local stakeholders) interested in green loan packages?
- What barriers have been identified and/or remain in terms of access to credit related to housing ESS?

Suppliers

- To what extent project suppliers benefit from project ESS dissemination? Does it offer interesting market prospects?

Energy auditors

- To what extent Energy auditors are involved in the project, and in the newly developing ESS market?

Policy makers

- To what extent the project has had effects on policy makers (awareness, practices, policies, etc.)?
- To what extent the project is doing synergies with other related projects? To what extent project achievements are contributing to other related initiatives?
- What is their level of involvement within the project and in the EE and construction sectors? What did the project trigger?

Additional ones:

- Are there any unforeseen positive or negative effects to the action? To what extent do they have enhanced or limited project benefits?
- What is the most significant change?
- Is the delivery model and business model behind appropriate?
- Is the tracking/coordination system appropriate?
- Is the marketing/promotional strategy effective?
- Is the community awareness raising strategy effective?

3.2.3.2 Social-economic and environment effects & impacts

- What are the most important prospective impacts the project can have from the economic, social and environmental point of view?
- To what extent the project contributes to creating or consolidating jobs?
- To what extent the project increases the market shares and business development, annual revenues and incomes for MSMEs/artisans
- On which part of the beneficiaries has the project had the most impacts and what are their characteristics?
- To what extent do the household improve their life conditions: what is the most significant change for the households?
- How did the project contribute to reducing the energy consumption, GHG emission and coal burning?

2.3.5. SUSTAINABILITY TO DATE

- What is the likelihood of sustainability that the benefits will continue after the completion of the projects?
- To what extent is the ownership of Line Ministries and agencies as well as the Ulaanbaatar Municipality? And what is the degree of active involvement and collaboration?
- At this stage, what is the assessment regarding financial, institutional, policy-level, and environmental sustainability?
- In the current context, can green loans be considered as key components for ESS sustainability?
- Does the dissemination currently supported by the project lead or could lead to self-dissemination alongside the activities monitored by the project?

2.3.6. COVID19 CONSEQUENCES AND IMPACT ON THE BENEFICIARIES AND THE PROJECT IN 2020 AND BEYOND

The Evaluator is kindly requested to factor in the evaluation the ongoing impacts of COVID19 on the team assigned to action, on the beneficiaries and on the value chain for ESS:

- Assess the impact of the governmental/Geres measures taken in reaction to COVID19 on implementation of the activities
- Assess the impact of COVID19 sanitary and economic consequences on households and target groups in their behaviour and willingness to undertake ESS related activities
- If possible, highlight relevant fields in order to adapt future intervention to the unfolding crisis

2.3.7. ANALYSIS ON LESSONS LEARNED, PERSPECTIVES AND RECOMMENDATIONS

In regard to the analysis of the project effects and impacts in the target area, the value chain and the construction sector, the evaluation is expected to formulate analysis and recommendations with the perspective to pursue Energy Efficiency related actions in Mongolia in the future.

Those proposals should highlight the strengths, weaknesses, thread and opportunities that can be drawn from the Project. This will not only participate in the evaluation *per se* but also feed a reflection at Geres on further supporting Access to Energy, Energy Efficiency and the deployment of Renewable Energy in the Afghan context for vulnerable communities and looking at long term economic, environmental and social development.

To achieve this, the Evaluator is expected to:

- Provide a comprehensive SWOT analysis
- Identify key lessons learned and triggers for further replication beyond the project
- If possible/relevant, highlight complementary fields of intervention that could strengthen future actions.
- Make recommendations in order to guide Geres strategy in Mongolia related to sustainability of the outputs, the further promotion and scale-up, the dissemination of additional solutions, the adjustment of the intervention strategy or methodology to further improve relevance and efficiency.

3. PRACTICAL DETAILS

3.1. DELIVERABLES

Following/during the performance of the evaluation as outlined in these Terms of Reference, the Consultant will provide to Geres for approval with the following deliverables:

#	Deliverables
1	A scoping note, outlining the methodology & workplan of the evaluation prior to field work to be discussed and validated during a framing meeting with Geres team
2	A document gathering the proposed data collection tools
3	A meeting with Geres and project partners presenting the first findings of the mission
4	A preliminary draft report in line with those ToR and addressing all fields/questions that will be submitted to Geres for comments
5	<p>A final report, taking if relevant, consideration of Geres/partners comments. The final report should be structured as per the following:</p> <ul style="list-style-type: none"> a. Executive summary b. Fact sheet (template will be provided by Geres) c. Introduction d. Background information e. Scope and Methodology f. Findings with clear evidence g. Recommendations (practical and feasible) h. Overall conclusions. i. Relevant annexes

These deliverables have to be:

- Prepared in English only
- Submitted to Geres electronically via e-mail
- Submitted in hard copy format

3.2. TIMELINE

The Evaluator is expected to perform the tasks starting in May 2022 latest

The workload would be split as this:

Activities	Periods	Expected duration
Scoping meeting and note on methodology	Early-Mid May 2022	7 days
Mission, surveys, interviews et debrief meeting	Start Mid-End May 2022	8 days
Provisional and final report	17 June 2022	10 days

	24 June 2022	
Presentation of key finding to Geres, IPs and key stakeholders	Right after release of final report	2 hours

3.3. HUMAN AND FINANCIAL MEANS

3.3.1. TEAM

It is suggested that the team in charge of the evaluation is:

- Composed of min. 1 international expert and 1 local expert based in Mongolia if the main expert is not based in Mongolia.
- Experienced in participatory evaluation techniques, socio-economic analysis with experience in the energy/construction sector ideally

Qualifications and skills of the Evaluator(s)

- Degree in Environment, Engineering or Architecture, Energy, Economic Development or other related studies
- Minimum 5 years of relevant professional experience.
- Experience in Private/Business sector is key
- Practical experience in evaluation and analysis, report writing and formulation of recommendations, with proven track record in the development sector (EU/AFD is a plus)
- Strong analytical, organisational and communication skills
- Interest/experience in community-based and business development in urban set-up and/or green and economic development
- Experience in Sustainable Production and Consumption practices is an asset
- Experience/knowledge in energy, environmental and construction issues
- Knowledge of Mongolian context a key asset
- Fluency in written and spoken English required, in Mongolian highly appreciated, French an advantage

The Evaluators are requested to provide recent and relevant references

3.3.2. BUDGET

The maximum budget estimate for this evaluation is 19 000 EUR (nineteen thousand euros) all taxes included. It includes consultant fees, as well as travel expenses (transportation cost, visa cost, per diem, etc.).

The project will be able to put at the disposal of the Evaluator(s) a car and driver for the duration of the field mission and the data collection in Ulaanbaatar.

It is requested from the bidders to provide a detailed budget, highlighting the number of man-days and cost per consultant at the different stages of the evaluation, taking into account the details/constraints below under 3.4.

3.4. LOGISTICS

The evaluator will have to travel to specific field areas (Ulaanbaatar ger area) and for meetings/interviews with other key stakeholders. The transport will be organised by Geres team and performed in Geres' vehicles following the full compliance with security guidelines.

Geres team will support on the organization and planning of the evaluator agenda with project stakeholders and beneficiaries.