

TERMS OF REFERENCE (TOR)

Individual consultant (National)

Design sustainable financing mechanisms to support ger households to adopt Cooking Heating Insulation Product Services (CHIPS) in Bayankhongor city

Location: Ulaanbaatar, Mongolia

Duration: 60 working days between January 2020 and April 2020

Related programme/project: Impact of air pollution on maternal and child health

Duty station: Ulaanbaatar, Mongolia

Supervision and reporting: Programme Manager of air pollution and environment, UNICEF Mongolia

Daily guidance and work relations: Sustainable Energy for Children consultant, Air pollution and environment programme, UNICEF Mongolia

1. Background

The United Nations Children's Fund (UNICEF) works for the rights of children to survival, development, participation and protection as guided by the Convention on the Rights of Children (CRC). UNICEF provides long-term humanitarian and developmental assistance to children and their families in developing countries. UNICEF is active in over 190 countries and territories through country programmes and National Committees. Seven regional offices provide technical assistance to country offices as needed. UNICEF 's headquarters in New York oversees overall management and administration of the organization.

In Mongolia, one of UNICEF's top priorities is to address the maternal and child health crisis caused by air pollution in urban Mongolia. UNICEF Mongolia has developed a programme, mobilized significant funding, expertise, and partnerships with local, national and international partners. Early 2019, implementation has started both in Ulaanbaatar and in the provincial city of Bayankhongor (BKH).

2. Rationale for consultancy

Air pollution has become an unprecedented maternal and child health crisis, putting every child and pregnancy at risk in terms of stillbirth, preterm birth, lower birth weight, and pneumonia, bronchitis, and lower lung function amongst children. To stay warm during the long winter, most of the poor families rely on the burning of raw coal using inefficient heaters to warm their often poorly insulated homes, including the traditional home called "Ger", a tent-like structure covered with felt. This results in unprecedented levels of air pollution in many cities across the country. During a field visit to Bayankhongor city (capital of Bayankhongor province) early December 2018, pollution levels already exceeded the WHO guideline with a factor of 40. Such exposure during early life can cause lasting damage to brain function, diminish the ability to concentrate, and disrupt behavior thus reducing educational attainment, mental development and lifetime earnings. It is thus essential for Mongolia to adopt more sustainable energy solutions so that children can breathe clean air, whilst also taking immediate actions to mitigate health impacts.

Together with the Bayankhongor local government, UNICEF Mongolia aims to implement the following holistic approach to address the issue in a more sustainable manner:

- 1) Reduce pollution by developing and promoting Cooking Heating Insulation Product Services (CHIPS) in gers, brick homes and other buildings, designing of Innovative financing mechanisms to support adoption of CHIPS by households and strengthening local policies and plans; energy efficient retrofitting of kindergarten and health center;

- 2) Reduce exposure of children and mothers to air pollution including public awareness raising , engaging with community volunteers, and indoor air quality management in kindergartens, schools, hospitals, homes (gers, brick homes, apartments);
- 3) Strengthen the health system including improvement of prevention, diagnosis and management of air pollution related respiratory illnesses and pregnancy risks, community based health services, capacity building of health professionals;
- 4) Strengthen monitoring of air quality and maternal and child health including establishing and operationalizing an air quality monitoring system with outreach to the public, and improving the monitoring of childhood respiratory illnesses and pregnancy outcomes.

The government of Bayankhongor has expressed strong commitment to make this happen and has requested UNICEF's support to deliver on this. During a joint event in April 2019, the local government committed to its citizens to achieve a smog-free Bayankhongor city by 2022. A four-year Smog Free Action Plan of Bayankhongor was approved in June 2019. One of the top priorities of the Action Plan is to develop and promote CHIPS in gers, brick home buildings and other buildings and design innovative sustainable financing mechanism to support adoption of CHIPS by households.

The Bayankhongor city has 30,931 registered inhabitants and during the winter the population is estimated at 40,000 due mobility of the herder families to the center. In 2019, UNICEF, together with the Mongolian University of Science and Technology and other partners, identified, developed and costed CHIPS package that meets demand of all ger households and can be produced locally. Indirectly, In the winter of 2019, UNICEF has provided support to 200 low-income and vulnerable households in the 4th and 5th sub-districts to access the CHIPS. CHIPS package benefit all citizens of Bayankhongor city (population 30,931; 52% female; 48% male) because of improved air quality.

The Bayankhongor government plans to support another 1,000 households to switch to electric heaters in sub-districts No 4 and 5. However, there are potential significant economic barriers for ger communities to finance and use energy efficient CHIPS as demonstrated by the socio-economic situation of ger community in Bayankhongor.

For this account, it is important to design sustainable financing mechanisms to support households to access to CHIPS, identify potential sources of public and private funding and capitalize the funding in a sustainable manner. This is a key for long term success as it is foreseen that the city will continue to grow in the coming decade, and more households will need support to access clean and affordable energy at home.

Relevant to this, UNICEF is seeking a contractor who will design different options of sustainable financing mechanisms to support adoption of CHIPS by ger households from different socio-economic background and provide recommendations for local government to implement and institutionalize the financing mechanisms in Bayankhongor city in 2020.

3. Objectives and Scope of Work

Objectives of consultancy

The purpose of this consultancy is to design a number of financing mechanisms' options for households from different socio-economic background to access newly developed CHIPS in ger areas of Bayankhongor city. Special emphasis should be placed on most vulnerable and low-income households' access to the CHIPS. The designed options of financing mechanisms will be piloted in selected sub-districts of

Bayankhongor city and recommendations from the pilot will be provided to local government to implement and institutionalize the financing mechanisms in local policies and budgets.

To achieve this objective the following key steps will be undertaken.

- Review of existing financial opportunities and resources available locally (national/local budgets, subsidies/or grants, public private partnerships, credits and etc) from which the CHIPS for households can be financed
- Design of and proposal for number of financing mechanisms to support the households from different socio-economic backgrounds to adopt CHIPS
- Recommendation for local government to institutionalize the financing mechanisms into local policies and budgets to ensure the sustainability

Scope of work

Following specific assignments will be delivered by the consultant:

- Develop an inception report detailing proposed methodology, workplan and timeframe and details of meetings with stakeholders;
- Familiarise with Bayankhongor aimag: socio-economic development, environmental situation including air pollution, socio-economic background of ger households in Bayankhongor city and selected subdistricts, Smog Free Action Plan of Bayankhongor aimag and other relevant policy documents, aimag annual budget, actions and interventions jointly implemented with UNICEF;
- Review specifications of CHIPS package, costs and financing, success factors and constraints for further implementation and scaling up;
- Review existing different financing mechanisms and incentives in Mongolia, both public and private, which are relevant to funding energy efficiency improvements and air pollution reduction in ger community and assess feasibility of applying in a local context of Bayankhongor city;
- Based on the above analysis, design at least 4 different financing mechanisms and incentives to promote and scale up CHIPS and energy efficient improvements in ger community of Bayankhongor city;
- Identify potential resources including public funding, international resources, banking and private sector financing and household own funding, make cost estimation and number of ger households to apply CHIPS in 2020-2022.
- Organize consultative meetings to a) present an inception report; b) present at least 4 options of financing mechanisms for households with different socio-economic background (low, middle and high-income families) and piloting c) present findings and learnt experience from piloting, recommendations for financing mechanism and incentives and immediate next actions to further implement CHIPS.
- Submit the final report in English and Mongolian.

Expected deliverables

The entire duration of this work is 60 working days, 20 January 2020-20 April 2020. The following table summarizes the consultancy timeline and deliverables:

Table 1. Timeline, tasks, deliverables and estimated dates

| | Tasks | Deliverables | Estimated dates |
|---|---|---|------------------------|
| 1 | Inception report detailing proposed methodology, workplan and timeframe and details of meetings with stakeholders | Deliverable 1: Inception report (include list of organisations and people to meet, workplan and methodology) | 5 working days |
| 2 | Organise meetings | Notes from meetings, list of interviewees/people met | 3 working day |
| 3 | <p>Familiarise with Bayankhongor aimag: socio-economic development, environmental situation including air pollution, socio-economic background of ger households in Bayankhongor city and selected subdistricts, Smog Free Action Plan of Bayankhongor aimag and other relevant policy documents, aimag annual budget, actions and interventions jointly implemented with UNICEF</p> <p>Review specifications of CHIPS package, costs and financing, success factors and constraints for further implementation and scaling up</p> <p>Review existing different financing mechanisms and incentives in Mongolia, both public and private, which are relevant to funding energy efficiency improvements and air pollution reduction in ger community and assess feasibility of applying in a local context of Bayankhongor city. Identify the gaps and opportunities present within these mechanisms that could be relevant for implementation of CHIPS.</p> <p>Conduct literature review of relevant financial mechanism documents at both national and international level targeting energy sector or relevant problems to identify potential strategies that could be adapted for Mongolia.</p> <p>Review national climate change and environment-relevant documents, strategies and priorities identified including but not limited to – Nationally Determined Contribution (NDC) process, National Adaptation Plan (NAP), Green Climate</p> | <p>Deliverable 2:</p> <p>Short analysis report of current financial resources to identify possible sources for financing mechanisms.</p> <p>Financial resources should ideally cover a diverse range of sources, including private/ public, at the local, national and international levels.</p> | 14 working days |

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|---|--|---|-----------------|
| | Fund project pipeline for Mongolia (both existing and planned). | | |
| 4 | <p>Based on the above analysis, design at least 4 different financing mechanisms and incentives to promote and scale up CHIPS and energy efficient improvements in ger community of Bayankhongor city</p> <p>Identify potential resources including public funding, international resources, banking and private sector financing and household own funding, make cost estimation and number of ger households to apply CHIPS in 2020-2022</p> <p>Consult with relevant UNICEF National Committees and partners (e.g. the U.S. Fund, UNICEF UK for instance) who implemented Innovative Financing models (e.g. UNICEF Bridge Fund) in order to identify lessons learnt from their expertise and experience and take lessons learnt into account when developing the financing mechanisms.</p> <p>The 4 potential financing mechanisms should be accompanied by a draft timeline for implementation, adoption by multi-stakeholders and expected results.</p> <p>Develop a ‘business case’ for investment in CHIPS.</p> | Deliverable 3: Draft report | 14 working days |
| 5 | Organize consultative meetings to a) present an inception report; b) present at least 4 options of financing mechanisms for households with different socio-economic background (low, middle and high-income families) and piloting c) present findings and learnt experience from piloting, recommendations for financing mechanism and incentives and immediate next actions to further implement CHIPS | Meeting minutes | 2 working day |
| 6 | Pilot the designed options of financing mechanisms in selected sub-districts of Bayankhongor city | | 14 working days |
| 7 | Final draft report in English and Mongolian with findings of pilot, learnt experience and recommendations to local government to institutionalize the financing mechanisms into local policies and budgets and actions | Deliverable 4: Final report incorporating recommendation to local government to implement and institutionalize the financing mechanisms proposed | 8 working days |

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| | to be taken to implement financing mechanism | | |
| | | | 60 working days |

5. Commencement of the Work

After signing the Contract, the Consultant will meet with the AP and Environment team to discuss all technical and non-technical matters for the project. At the meeting, the Consultant will present the workplan for discussion and, if necessary, will revise the workplan accordingly.

6. Project Management

Supervision: Direct supervision is provided by the AP and Environment Programme Manager.

Reporting: The consultant will be expected to provide UNICEF with project updates, documents, workplans or other documentation requested and will report to the UNICEF on a weekly basis. Depending on the situation and urgency, daily updates and reporting may be required. Performance progress report must be provided at every stage of contract payment.

Support from UNICEF: UNICEF will provide overall guidance, direction and support for this assignment. Specifically:

- Provide access to relevant available data;
- Facilitate meetings with stakeholders;
- Provide timely and complete inputs and feedback on work-in-progress outputs;
- Ensure timely payment on completion of key tasks and submission of deliverables.

Quality Control: The Consultant's performance will be evaluated by the Programme Manager of Air Pollution and Environment, UNICEF Mongolia. Any deviations from the initial planning and assignments shall be promptly considered and solved; any conditions beyond the responsibility of the Contractor shall be brought to the attention of UNICEF's Representative.

Office, tools and equipment: The Consultant will work in his/her office using own office equipment, Internet, and other communication tools. Any work-related meetings can be held at UNICEF office for the entire duration of the Contract at the address UN House, United Nations Street-14, Ulaanbaatar 14201, Mongolia.

Travel and work arrangements: The Consultant will work home based with a regular contact with the contract supervisors. The consultant will conduct interviews within the city occasionally on his/her own travel arrangements. Should official travel be required outside Ulaanbaatar city, UNICEF will cover the costs for travel and travel related costs in line with organizational policies and procedures.

7. Minimum Qualification Requirements

- An advanced university degree (Master, PhD) in the fields of economics, finance, international development or other related field;
- At least 10 years of relevant professional work experience at the national and international level;
- Demonstrated experience in conducting similar tasks and design/recommend financing mechanisms to support households to access services or products;

- Demonstrated experience working on project funding proposals targeting climate/ environmental projects
- Experience in designing, analysing or complying with policy and market mechanisms in the energy or industrial sectors
- Strong experience working in resource mobilization and financing instruments. Experience in leading/supporting the development of Innovative Financing mechanisms an asset;
- Proven track record on successful delivery of high-quality reports and recommendations;
- Experience working for/with multi-lateral organizations (including IFIs), the United Nations, private sector and investors; Previous work with the UN and UNICEF will be considered an asset;
- Demonstrated analytical, negotiating, advocacy, reporting and writing skills;
- Excellent writing skills in English language.

8. Payment Schedule/to Deliverables

The work is planned for January 2020-April 2020. The payment will be made as follows:

Table 2 Payment schedule

| Deliverables | Date of Delivery | Amount to be paid |
|--|-------------------------|--------------------------|
| Inception report is the first deliverable. | Jan 2020 | 50% of the total payment |
| Analysis of current financial resources to identify possible sources for financing mechanisms | Feb 2020 | |
| Design of different options of financing mechanisms for households with different socio-economic background (low income, middle income and high-income families) to access the CHIPS | Mar 2020 | |
| Pilot the designed options of financing mechanisms in selected sub-districts | Mar – Apr 2020 | 50% of the total payment |
| Final report in English and Mongolian including recommendation to local government to implement and institutionalize the financing mechanisms proposed | Apr 2020 | |

UNICEF reserves the right to withhold up to 30% of the total fee in the case that the deliverables are not submitted on schedule or do not meet the required standard. Copyright and ownership of all documents produced will remain with UNICEF.