
**Consultancy Support to Implement GIZ EnDev Cooking Energy Briquetting Interventions
in Gambella Region**

Cost Centre: EnDev-Ethiopia

Cooking Energy Component

Project number/ PN 14.2275.7-207.00

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GENERAL INFORMATION

1. Brief Information on the project

The Energising Development (EnDev) is a multi-donor, multi-implementer energy access partnership, currently financed at global level by six donor countries – the Netherlands, Germany, Norway, the United Kingdom and Switzerland. As a part of the global programme, EnDev Ethiopia has additional co-funding from Ireland, Korea and the European Union. The Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH acts as lead agency for the implementation of the programme and cooperates closely with the Netherlands Enterprise Agency at global level as well as other implementation partners at country level.

Currently, EnDev is implemented in 22 developing countries of Africa, Asia and Latin America. EnDev promotes access to modern energy services that meet the needs of the poor, is long lasting, affordable, appreciated by users, and creates positive economic, social and/or environmental impacts. Since its initiation in 2005, EnDev has attained an increasingly prominent position in the international process promoting energy access. As one of the first outcome and performance-based programmes in the energy sector, EnDev pioneers innovative approaches, develops new markets for proper energy access and scales-up successful programmes in many countries with a broad spectrum of technologies and a variety of different project concepts and instruments.

Accordingly, as a development partner and as part of EU/EnDev programme, it is planned to promote production of good quality briquettes as an alternative source as clean cooking solution for refugees by using large scale briquette production machines.

In view of this a first-round assessment was conducted and three feasible sites around the refugee areas are selected and proposed for briquette machine installation. However, there are at least three sites remaining to be identified and proposed by the consultant. Moreover, assessment is required to identify briquette machines currently operating in Gambella if available and learn lesson from previous challenges to avoid doing the same mistake in briquette technology promotion. The consultant is also responsible to review the three sites already selected by EnDev/ESDS; to verify the willingness of investors in providing crop residues for briquette production, and plot of land for briquette machine installation.

2. Context

As a development partner and as part of EU- EnDev program it is planned to promote production of good quality briquettes as an alternative source as clean cooking solution for refugees by using large scale briquette production machines.

First-round assessment was conducted and three feasible sites around the refugee areas are selected and proposed for briquette machine installation. However, there are at least three sites remaining to be identified and proposed by the consultant. The consultant is also responsible to review the three sites already selected to verify the willingness of investors in providing crop residues for briquette production, and plot of land for briquette machine installation. The assignment needs to contact relevant partners like UNHCR, ARRA, government Forestry and Energy offices, cooperative offices to conduct the assessment, and their responsibility in electric power supply to run the machine and shelter for the machine and the feedstock.

2.1. Objective of the assignment

- Identifying potential investors engaged in farming activities around the refugee areas
- Assess raw material availability during crop plantation period for briquette production
- Assess electric Power accessibility to run the briquette machine Assess the market chain and demand of the briquette produced
- Identifying briquette machines operating in Gambella if available, and their functional status
- Assess market analysis of each type of briquette charcoal
- Exploring briquette burning stoves in refugees/hosts and assess their status
- Propose possible NGOs that have experience in briquetting technology and can potentially partner with EnDev during implementation.

2.2. Scope of the assignment

The assessment covers refugee areas of the two woredas of Gambella region (Itang and Goge) with the following assignment scopes

- Finalize site selection with support from UNCHR and ARRA and in consultation with ESDS (The three previously selected sites for briquette machine installation conducted by EnDev/ESDS based on the activity section explained above)

- Identifying and selection of another one feasible site in Itang Woreda for briquette machine installation based on key criteria
- Quantifying raw material availability during crop plantation period for briquette production
- Identification of cooperatives and investors around the assignment target areas
- Establishing primary cooperatives from refugees and host community in cooperation with government cooperative offices
- Facilitate establishment of contractual agreements between primary cooperatives and investors
- Conduct discussion with UNHCR, ARRA, and other relevant partners and come up with recommendation on grid extension responsibility to the proposed briquette installation sites
- Finalize identification of cooperatives, interest groups or associations to be engaged in briquetting enterprises from refugee and host communities – with support from UNHCR and ARRA,
- Coordinate shelter construction as well as water and electricity access with UNHCR,
- Coordinate the identification and selection of sites and construction of localized ICS production sites servicing 2 camps and surrounding host communities,
- Identify potential briquette market segments and conduct market analysis

2.3. Methodology

- Desk Review prior to field missions: the consultant will complete a review of the previous related study conducted by EnDev and other organizations.
- Field missions: The consultant will visit various sites in Gambella region around refugee camps and hosts as recommended by UNHCR and ARRA/Gambella at regional and Woreda level. The field mission includes observation of the sites and interviewing key informants, refugees and hosts.
- Reporting after the field mission: the consultant will organize a workshop to present the findings of the assessment and present a final report based on the scope of the assignment

2.4. Places of the assignment

The assignment focuses on refugee camps and hosts in the two woredas of Gambella region. The woredas where the refugee camps located are Itang Woreda and Goge Woreda. The consultant can get information for the assignment work from UNHCR and ARRA based in Gambella.

3. Anticipated contract term

The assessment likely (tentative) takes 3 months starting from the contract signing date that is tentatively scheduled from October 20th, 2021.

Contractor's work/Service

The consultant is engaged in finalizing remaining assessments of the three previously selected sites for briquette machine installation conducted by EnDev/ESDS based on the activity section explained above. The task also includes identifying and selection of other new feasible sites for briquette machine installation based on key criteria set. Identification of primary cooperatives and investors around the assignment target areas is basic responsibility of the consultant. The consultant is responsible to accomplish the following activities as well

4.1. Key Activities performed by the consultant

- Finalize site selection with support from UNCHR and ARRA and in consultation with ESDS,
- Finalize identification of cooperatives, interest groups or associations to be engaged in briquetting enterprises from refugee and host communities – with support from UNHCR and ARRA,
- Coordinate shelter construction as well as water and electricity access in selected machine installation site with UNHCR,
- Coordinate the identification and selection of sites and construction of localized ICS production sites servicing 2 camps and surrounding host communities,

4.2. Working with partners

- Establishing primary cooperatives from refugees and host community in cooperation with government cooperative offices

- Facilitate establishment of contractual agreements between primary cooperatives and investors
- Conduct discussion with UNHCR, ARRA, and other relevant partners and come up with recommendation on grid extension responsibility to the proposed briquette installation sites
- Identifying potential investors engaged in farming activities around the refugee areas
 - ✓ Name of investor
 - ✓ Specific address (woreda, name of refugee camp near the farmland)
 - ✓ Contact person
 - ✓ Telephone
- Raw material availability for briquette production
 - ✓ Type of raw material (crop residue or other natural resource) for briquette feedstock
 - ✓ Availability (Seasonal, all the year) of each type of raw material
 - ✓ Area of land planned to be cultivated and being cultivated in hectare
 - ✓ Estimated quantity (m³, any other measurement,) per week, per month, per year
 - ✓ Distance of the potential raw material source from refugee camps, host communities
 - ✓ Legal accessibility of raw material/willingness of investors to provide crop residues for briquette charcoal production
 - ✓ Willingness of investors to give plot of land for briquette machine installation or accessibility of legal land for briquette machine installation
 - ✓ Willingness of refugees or hosts to be engaged in briquette production for productive use
 - ✓ Availability of water for mixing carbonized raw material for briquette near the proposed site
- Electric Power accessibility to run the briquette machine
 - ✓ Is the potential site proposed accessed with electric power?
 - ✓ If not distance of the grid line to the proposed briquette installation site
 - ✓ Identify partner in Gambella willing to support for grid extension to briquette installation site

- ✓ Conduct discussion with UNHCR, ARRA, and other relevant partners and come up with recommendation on grid extension responsibility to the proposed briquette installation sites
- Identifying briquette machines operating in Gambella if available
 - ✓ Specific Address where each machine is installed
 - ✓ Type of machine (specification, Company of manufacturing, country of origin), picture supported
 - ✓ Cost of each machine
 - ✓ Production capacity per day
 - ✓ Type of briquette produced by each type (Beehive, Pellet, round)
 - ✓ Who installed the machine and who manages the machine?
- Current functional status of the briquette machine in Gambella if available
 - ✓ If stopped functioning, mention factors in detail for not operating
 - ✓ If operating, mention strength and weakness of the machine while operating
- Exploring briquette burning stoves in refugees/hosts and assess their status
 - ✓ Beehive Briquette burning stoves
 - ✓ Pellet burning stoves
 - ✓ Round briquette burning stoves
 - ✓ briquette burning gasifier stoves
 - ✓ Selling price of each type of briquette stove
- Market analysis of each type of briquette charcoal
 - ✓ Cost/possible selling price of briquette over traditional charcoal
 - ✓ Demand of briquette over traditional charcoal/willingness to pay
 - ✓ Market segments of briquette/last mile consumers
 - ✓ Briquette transporting modality to reach end users
 - ✓ Market place facility to sell briquette charcoal
 - ✓ Market challenges of briquette charcoal
 - ✓ Suggest a business model that fits the interest of refugees/hosts and accelerates the briquette market

5. Deliverables

- Four feasible potential sites will be selected for briquette machine installation
- 4 primary cooperatives will be established to produce and sell briquette charcoal
- Water, and Electric access facility from grid to run the briquette machine will be in place
- Legal plot of land in selected investors land farm for briquette machine and accessories installation will be secured (for free handout)
- Improved cook stove producers/ICS and institutional Improved cookstoves/IICS in two refugee sites established

6. Project management of the contractor

Key management responsibility of the consulting firm

- The consultant makes available equipment and supplies (consumables) and assumes the associated operating and administrative costs.
- The consultant manages costs and expenditures, accounting processes and invoicing in line with the requirements of GIZ.
- The consultant reports regularly to EnDev-Ethiopia particularly to Cooking Energy Component of GIZ-EnDev
- Manage the available time and resources and to work to tight deadlines
- The consultant is required to present the actors relevant for the services for which it is responsible and describe the cooperation with them.
- The consultant is required to present and explain its approach to steering the measures with the project partners and its contribution to the results-based monitoring system.
- The consultant is required to describe its contribution to knowledge management for the partner and GIZ and promote scaling-up effects (learning and innovation)
- The consultant manages costs and expenditures, accounting processes and invoicing
- The consultant is required to draw up a personnel assignment plan that includes information on assignment dates (duration and expert days) and locations of the individual members of the team complete with the allocation of work steps as set out in the schedule.

TENDER REQUIREMENTS

1. Qualifications of proposed staff

Two national experts with relevant qualification and experience to be hired as assignment of personnel

1.1. Expert 1

1.1.1. General Qualification

- Master's Degree in renewable energy/sustainable energy, mechanical engineering, Environmental science, business economics/statistics or sociology, business management or supply chain management and related field and demonstrated experience in household energy data collection

1.1.2. Experience in the Region/ In Country

- At least 8 years of experience in undertaking similar surveys of energy/household energy technologies and briquette machines
- Good knowledge with demonstrated practical working experience in energy baseline surveys
- Experiences in livelihood and entrepreneurship activities
- Experience of effective interaction with non-government organizations, government, and international organizations
- Evidence of similar work previously done will be a key requirement
- Sound experience and strong understanding about biomass briquette charcoal development and machines operation.
- Ability to manage the available time and resources and work with tight deadlines.
- Relevant working experience including with experience in briquette up-scaling of production, product optimisation;

1.1.3. Language skill in business

- Excellent interpersonal, communication, negotiations
- Business writing skills in English

1.2. Expert 2

1.2.1. General Qualification

- BSC/Bachelor's degree or MSc degree in relevant Renewable Energy, Electrical Engineering, Mechanical Engineering, Socioeconomics/Statistics or other directly relevant disciplines;

1.2.2. Experience in the region/In country

- General professional experience: At least 5 years of professional experience, Relevant working experience in study of different projects especially on renewable energy technology;
- Specific professional experience: 3 years and above experience in energy assessment activities
- Experience in Livelihood and entrepreneurship activities
- Regional experience: experience of operation in different regions of Ethiopia, and briquette assessment in East Africa
- Sound experience and strong understanding about biomass briquette charcoal development and machines operation.
- Ability to manage the available time and resources and work with tight deadlines.
- Relevant working experience including with experience in briquette up-scaling of production, product optimisation;

1.1.3. English language skill in business

- Excellent interpersonal, communication, negotiations
- Business writing skills in English

2. Appropriateness of proposed concept/Assignment

The assignment is appropriate and relevant to achieve the following objectives and deliverables

- Identifying potential investors engaged in farming activities around the refugee areas
- Assess raw material availability during crop plantation period for briquette production
- Assess electric Power accessibility to run the briquette machine Assess the market chain and demand of the briquette produced
- Identifying briquette machines operating in Gambella if available, and their functional status

- Assess market analysis of each type of briquette charcoal
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3. Specification of Inputs

3.1. Inputs from GIZ

- GIZ-EnDev shall facilitate and provide necessary information of GIZ-EnDev regional office and other stakeholders.
- GIZ-EnDev follow ups, supervises, monitors and evaluates the progress of the assignment by developing indicators against the deliverables and milestone.
- GIZ-EnDev reserves the right to negotiate changes regarding the proposed approach presented in the winning proposal. These changes will be included in the inception report. The inception report is subject to formal approval by GIZ. The continuation of the project is only possible after the inception report has been approved by GIZ.
- It is expected that key staff of the consultant will be available for the time committed in the proposal. Any changes to the key personnel (whose CVs are to be included in the proposal) would need to be approved by GIZ. The replacement personnel should hold similar qualifications with originally proposed personnel.
- Any significant change from timelines will need to be informed approved by GIZ.

3.2. Costing requirements

Two national experts with relevant qualification and experience to be hired as assignment of personnel.

3.3. Technical Proposal: Maximum 8 pages

Detail technical proposal with creative concept includes:

- Picture supported/photo, design and specification of each machine
- Analysis of supply, installation and training work-flow of the machines.
- Analyze the methodology how strategically and efficiently coordinate and manage the assignment to meet the deadlines successfully.
- Detail concept and summary outline of the proposed assignment.
- A tentative work schedule for the service provision.

3.4. Financial Proposal not exceeding 1 page

Financial offer shall be made as per the giz price sheet template. No. of experts/personnel shall be 2 with 70 total number of days (for both expert/personnel).

Cost summary and breakdown for the assignment period should clearly be presented in the financial proposal:

- Cost of the machine
- Cost of transportation (input materials and product or machines)
- Cost of installation and training
- Any other relevant costs