

# TERMS OF REFERENCE

## Endline Survey and Evaluation of the SOLID-HEALTH Project

### 1. PROJECT SUMMARY

ASPECTS	DESCRIPTION
<b>Assignment</b>	Endline Study and Final Evaluation
<b>Name of the project</b>	Improving Public Health and Environmental Health in Nepal through Appropriate Solid Waste Management (SOLID-HEALTH)
<b>Project Start and End dates</b>	January 2022 - December 2024
<b>Project duration</b>	3 years
<b>Project locations</b>	Bharatpur, Nepalgunj, Janakpur, Pokhara, and Biratnagar
<b>Thematic areas</b>	Public Health, Environmental Health
<b>Sub themes</b>	Waste segregation, composting, Rooftop/Kitchen Gardening, waste worker safety, policy development
<b>Danish Partner</b>	International Centre for Occupational and Environmental Medicine and Public Health (ICOEPH) under The Danish Society of Occupational and Environmental Medicine (DASAM)
<b>Estimated beneficiaries</b>	Households in target cities, waste workers, policymakers
<b>Overall objective of the project</b>	Improve waste management practices to enhance public health, environmental health, and waste worker safety in Nepal.

### 2. INTRODUCTION

The Nepal Development Society (NeDS) is a non-governmental organization dedicated to social development in Nepal, implementing the "Improving Public Health and Environmental Health in Nepal through Appropriate Solid Waste Management (SOLID-HEALTH)" project. Funded by the Danish International Development Agency (DANIDA) channeled through the International Centre for Occupational and Environmental Medicine and Public Health (ICOEPH) under The Danish Society for Occupational and Environmental Medicine (DASAM), this project addresses a critical challenge in Nepal - inadequate solid waste management.

This Terms of Reference (TOR) outline the scope and objectives of an endline survey and evaluation for the SOLID-HEALTH project. The evaluation will be conducted to assess the project's effectiveness in achieving its intended outcomes and contribute valuable insights for future solid waste management interventions in Nepal.

### 3. BACKGROUND AND CONTEXT

Ineffective solid waste management is a global concern, posing significant public health and environmental threats. Low- and middle-income countries, like Nepal, face a particularly acute burden due to limited

resources and infrastructure. Rapid urbanization and population growth further compound the issue, resulting in increased waste generation and improper disposal practices. This, in turn, leads to environmental pollution, including air and water contamination, and associated public health concerns like respiratory illnesses and vector-borne diseases.

Despite existing initiatives by the government and NGOs, Nepal's solid waste management landscape faces significant challenges. Household practices remain a primary concern, with limited adoption of waste segregation at source and composting for organic waste. This not only increases the burden on landfills but also hinders resource recovery and the production of valuable organic fertilizer. Furthermore, waste workers in Nepal often lack proper safety equipment and training, exposing them to health risks from injuries, infections, and harmful chemicals and gases. Additionally, the existing waste treatment and disposal infrastructure in Nepal is insufficient, with limited capacity for composting, recycling, and safe disposal. This inadequacy further exacerbates the challenges and necessitates improved systems. Finally, local governments in Nepal often lack the technical expertise, financial resources, and robust institutional frameworks necessary for effective waste management.

### **The SOLID-HEALTH Project: Addressing Critical Gaps**

The SOLID-HEALTH project was designed to address these critical gaps in Nepal's solid waste management system. The project focuses on three key objectives.

- **Increased Household Waste Segregation, Composting and Rooftop/Kitchen Gardening:** The project aimed to increase the proportion of households in the target areas practicing waste segregation at source to 50%. This included encouraging the composting of organic waste for kitchen gardening and rooftop farming, with the intended outcome of reducing public health and environmental health issues.
- **Enhanced Waste Worker Safety and Dignity:** The project sought to equip 50% of waste workers in the target areas with the knowledge, skills, and resources necessary to manage household waste effectively through practical and organizational measures. This objective aimed to minimize public health and environmental health risks associated with waste collection and handling.
- **Supported Policy Development for Improved Waste Management:** The project advocated for and supported the development of operational guidelines for solid waste management at the municipal, provincial, and national levels. These guidelines were intended to promote proper waste management practices among households and waste workers, ultimately contributing to improved public health and environmental health outcomes.

By targeting five major cities in Nepal with high waste generation rates – Biratnagar, Janakpur, Bharatpur, Pokhara, and Nepalgunj (For obj 1: Bharatpur, Janakpur and Pokhara only) – the SOLID-HEALTH project aimed to create a significant impact on the country's overall waste management landscape. The endline survey and evaluation will assess the project's effectiveness in achieving these objectives and contribute valuable insights for future interventions, ultimately promoting a cleaner and healthier environment for Nepal.

## 4. SCOPE OF END LINE SURVEY AND FINAL EVALUATION

The end line survey of the SOLID-HEALTH project is planned to be conducted in July 2024 to assess the project's effectiveness in achieving its intended outcomes and contribute valuable knowledge to inform future solid waste management interventions in Nepal. The evaluation will encompass the following key areas.

### 1. Impact on Household Waste Management Practices

- **Waste Segregation:** Determine the extent to which the project increased the adoption rate of waste segregation at source among households in the target areas.
- **Composting Practices:** Evaluate the project's success in promoting the composting of organic waste for kitchen gardening and rooftop farming within target households.
- **Public Health and Environmental Health:** Analyze the impact of improved waste management practices on public health and environmental health indicators in the target areas. This may include data on respiratory illnesses, vector-borne diseases, air pollution (esp with pesticides), water quality, mental Health, greenery etc.

### 2. Impact on Waste Workers

- **Knowledge and Skills:** Assess the effectiveness of the project in equipping waste workers with the necessary knowledge and skills for safe and efficient waste management practices.
- **Safety Equipment and Resources:** Evaluate the project's success in providing waste workers with personal protective equipment and other resources to mitigate health risks associated with waste collection and handling.
- **Livelihood Improvement:** Analyze the impact of the project on the working conditions of waste workers in the target areas.

### 3. Contribution to Policy Development for Solid Waste Management

- **Policy Guidelines:** Assess the extent to which the project supported the development and implementation of operational guidelines for solid waste management at the municipal, provincial, and national levels.
- **Policy Adoption and Enforcement:** Evaluate the adoption and enforcement of the developed guidelines by relevant authorities, including local governments.

### 4. Overall Project Effectiveness

- **Achievement of Objectives:** Analyze the project's overall effectiveness in achieving its three core objectives as outlined in Section 2.
- **Sustainability:** Assess the likelihood that the project's positive impacts can be sustained beyond project completion.
- **Lessons Learned and Recommendations:** Identify key lessons learned from the project's implementation and generate recommendations for future solid waste management interventions in Nepal.

By evaluating these key areas, the end line survey will provide a robust assessment of the SOLID-HEALTH project and its contribution to improved waste management practices in Nepal. The findings will inform

future strategies and resource allocation to ensure sustainable and impactful waste management solutions throughout the country.

NeDS is seeking a qualified consultant/research team to conduct an end line survey and evaluation of the SOLID-HEALTH project. This evaluation will assess the project's effectiveness, efficiency, and impact in achieving its stated objectives. The findings will be used for the following purposes.

- Gain insights into the project's successes and challenges.
- Inform future waste management interventions in Nepal.
- Showcase the project's achievements to stakeholders and potential funders.

## 5. METHODOLOGY

This endline survey and evaluation will utilize a mixed methods approach, employing both quantitative and qualitative data collection methods to assess the impact of the SOLID-HEALTH project. This approach will provide a comprehensive understanding of the project's effectiveness, efficiency, and impact by capturing both objective data (through surveys) and subjective experiences (through interviews and focus groups).

The consultant/research team will

- **Review project documents:** This includes project proposals, reports, monitoring data, and relevant literature on solid waste management in Nepal.
- **Develop a detailed methodology for the mixed methods evaluation.**
  - **Sampling Strategy:** A statistically robust approach will be used to select representative samples from target groups for the qualitative and 100% direct beneficiaries, that is 459 for quantitative. This will consider factors like household participation in training and location of waste workers (formal and informal).
  - **Conduct Data Collection**

Both quantitative and qualitative data will be disaggregated by factors like gender, socioeconomic status, and location to ensure a nuanced understanding of the project's impact. Following table represents the target groups and expected methods of data collection.

Objective	Data Collection Method	Sample Size	Locations & Respondents
<b>Objective 1: Increase waste segregation and household composting</b>	Key Informant Interviews (KIIs) & Focus Group Discussions (FGDs)	Survey with n=459 & 7 FGDs	Households that participated in training (Janakpur, Bharatpur, Pokhara) 3 FGD (1 in each city) with ToT trainee 3 FGD (1 in each city) with indirect beneficiaries (Orientation given by ToT trainee)

Objective	Data Collection Method	Sample Size	Locations & Respondents
			1 FGD with ward no 9, Sarswati tole of Janakpur
<b>Objective 2: Improve waste management practices among waste workers</b>	Focus Group Discussions (FGDs)	5 FGDs + 2 FGDs	Former waste workers (sweepers, helpers, drivers) across project cities (Janakpur, Bharatpur, Pokhara, Biratnagar, Nepalgunj).  An additional FGD with informal waste workers from the dumping site in Bharatpur and Biratnagar/Nepalgunj.
<b>Objective 3: Influence policy changes for better waste management</b>	Key Informant Interviews (KIIs)	Representatives from relevant government sections at municipal, provincial, and national levels	Health Section Agriculture section Environment and Sanitation Section Ward Chair Thematic Leader Office (TLO) Chair Schools - Any Other Relevant Bodies (AOB) identified during the desk review

- **Develop Data Collection Instruments:** Questionnaires for the quantitative survey for HH are already developed during the baseline. Develop the interview guides for the qualitative data collection (FGDs and KIIs).
- **Design Data Analysis Plan:** A clear plan for analyzing both quantitative and qualitative data will be developed to assess the following aspects of the projects.
  - **Effectiveness:** Did the project achieve its stated objectives?
  - **Efficiency:** Were resources used effectively to achieve the objectives?
  - **Impact:** What were the intended and unintended outcomes of the project (environmental, social, economic)?
  - **Sustainability:** How likely are the project's achievements to be sustained in the long term?
- **Submit an inception report outlining the finalized methodology within one week of selection.**
- **Develop a comprehensive evaluation report that presents the findings of the endline survey and data analysis in a clear and concise manner and recommend interventions for the next phase of the project.**  
The report should include the following.
  - Introduction and background of the SOLID-HEALTH project
  - Methodology employed for the mixed methods evaluation.

- Findings on the project's effectiveness, efficiency, impact, and sustainability, disaggregated by objective.
  - Key conclusions and recommendations for future waste management interventions
  - References and appendices (including survey instruments, interview guides, etc.)
- **Ensure the report adheres to international evaluation standards.**
  - **Present the evaluation report findings to NeDS and relevant stakeholders in a workshop setting.**

Ethical Considerations: Consultants/Firm is strictly expected to abide with the common ethical considerations.

## 6. EXPECTED DELIVERABLES

The following deliverables are expected from the consultant/research team.

Inception report outlining the finalized methodology along with Standardized questionnaires and interview guides	15 <sup>th</sup> July
Draft Report	30 <sup>th</sup> July
Final Report	5 <sup>th</sup> August

## 7. DATA PRIVACY AND CONFIDENTIALITY

The Consultant should not use any Confidential Information disclosed during the assignment for any purpose other than the assignment itself. The Consultant shall not disclose any Confidential Information of the Nepal Development Society (NeDS) to third parties without prior written approval from NeDS. Any dissemination or publication of the Confidential Information or any part of this assignment requires prior written approval from NeDS. The Consultant must take reasonable measures to protect the secrecy of the Confidential Information and prevent its unauthorized disclosure.

## 8. STUDY TEAM AND SELECTION CRITERIA

NeDS seeks a qualified consultant team to conduct end line survey and final evaluate the SOLID-HEALTH project. Team should have.

- **Mixed methods evaluation expertise:** Experience designing and conducting end line evaluations using both quantitative and qualitative data.
- **Thematic expertise:** Knowledge of Public Health, Environmental Health, Agriculture and Waste Management (segregation, composting, Rooftop/Kitchen gardening, worker safety) in Nepal.
- Stakeholder management skills: Experience collaborating with government agencies, NGOs, and communities.
- Qualifications (preferred)
  - Master's degree in public health, environmental health, social science or a related field
  - Experience with surveys and data analysis software.

Proposals will be evaluated based on the following criteria.

Demonstrated experience in conducting mixed methods surveys and evaluations	20%
Understanding of solid waste management issues in Nepal	15%
Qualifications of the proposed research team	20%
Quality of the proposed methodology	15%
Cost-effectiveness of the proposal	30%

NeDS reserves the right to shortlist and interview consultants before making a final selection.

## 9. SCHEDULE OF PAYMENT

- Upon approval of inception report and tools: [30%]
- Upon submission of First Draft study Report: [40%]
- Upon approval of final study report: [30%]

## 10. HOW TO APPLY

### Proposals Submission Guideline/Required Documents

Interested team of professional experienced consultants should submit below mentioned documents by 11<sup>th</sup> July 2024

- Technical Proposal containing understandings of project; Purposed Methodology; Expected Timeline; Information on Consultancy Team.
- Financial Proposal
- CV(s) of the proposed consultant(s).
- Copies of- Firm registration certificate,
- VAT registration certificate, and
- Latest Tax clearance certificate. For firms that are tax exempted by the government, a copy of tax exemption certificate should be submitted.

Applications not including all the above information will not be reviewed. Only shortlisted candidates will be contacted.

## 11. SUBMISSION OF PROPOSAL

Interested consultants/research teams should submit a proposal outlining their qualifications, methodology, and timeline for completing the end line survey and evaluation. The proposal should also include a detailed budget breakdown.

Please submit proposals electronically to [vacancy@nedsnepal.org.np](mailto:vacancy@nedsnepal.org.np) by July 15 2024.