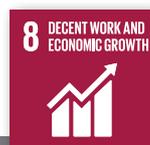


IMPACT SHEET: PPP4Gs - Public-Private Partnerships in Green SMEs, Green City, Green Agro Products, and Green Employment Generation

Sustainable municipal solid waste management through public-private partnerships in Nepal



The PPP for 4Gs model integrated four dimensions of sustainable solid waste management: green Small and medium enterprises (SMEs), green city, green agricultural products and green employment generation, leading to the creation of 500 new green jobs.



CHALLENGE

Prior to the project, research indicated that less than half of solid waste in Nepal was collected. In rural areas, additional complications drove these numbers higher and created additional health risks. With scattered settlements and difficult land terrain, sustainable solid waste management was a challenge to the Ilam Municipality (IM), one of four urban municipalities of Ilam District in eastern Nepal. Before the project's intervention, IM collected both degradable and non-degradable waste, and dumped it into landfill sites. This led to poor and unplanned solid waste collection and disposal; an issue common across Nepal, where many municipalities face both technical and financial constraints leading to unsustainable practices.

PROJECT BACKGROUND

To respond to these challenges and support Nepal's shift to SCP, the European Union (EU) funded the collaborative project, under the SWITCH-Asia Grants Programme, titled "Public-Private Partnerships in Green SMEs, Green City, Green Agro Products, and Green Employment Generation (PPP4Gs)."

The PPP4Gs project, which operated for four years (2014-2017), worked towards sustainable municipal solid waste management through leveraging public-private partnerships (PPP) in the Ilam Municipality of the Ilam District in Nepal. The project was implemented by Winrock International (Kathmandu), Positive Planet (formerly Planet Finance) and Namsaling Community Development Centre (NCDC) – Ilam.

PROJECT OBJECTIVES

The PPP4Gs project promoted a sustainable commercially-driven, environmentally-friendly cycle of municipal solid waste management in Ilam. It also showcased best practices that can be replicated in difficult geographic areas, such as remote rural areas, topographically challenging terrains and unconnected urban settlements. In addition to promoting municipal solid waste management in PPP through SMEs, the project had several specific objectives:

- Collecting, processing and selling 175 metric tonnes/year of segregated recyclable material via recycling SMEs.
- Converting 110 Metric tonnes/year of segregated biodegradable waste to compost and selling the materials through private operators.
- Generating NPR 3 million in annual revenue through the sale of recyclable and compost materials.
- Generating 1,000 green jobs and benefiting 5,000 individuals.

TARGET GROUPS

- **Waste collectors and other waste handlers units** – rag pickers, waste collectors, transporters and recycling groups who could benefit from additional economic opportunities and contribute to improving waste collection.
- **Waste management SMEs**, including waste collection and waste transport SMEs, recycling SMEs and the sector involved in implementing compost plant operation.
- **Agro SMEs, vegetable producers and tea SMEs (green SMEs)** who could utilise converted waste compost created through the project.
- **Financial institutions and agricultural cooperatives**, including commercial banks and local financial institutions necessary to provide finance opportunities to waste management SMEs and local-level agricultural cooperatives.
- **Residents of Ilam Municipality and local organisations** such as households, educational institutions, organisations, health institutions, hotels and other commercial establishments who are directly or indirectly involved in waste management.

PROJECT ACTIVITIES

One on one interactive meetings

Mobilised 111 TLOs in IM during the project period to engage community members on sustainable waste management of the municipality, building awareness on economic opportunities and the importance of environmental protection.

Building capacity of SMEs and individual entrepreneurs

Conducted training for business stakeholders to increase their knowledge on financial management and business development and also to inform them on opportunities for establishing and managing waste product-based businesses for profit-making.

Conducting capacity building trainings on financial management and business development

One of the existing SMEs was also provided with personal safety materials and equipment such as mask, gloves, safety glasses, factory dresses and fans for dust removal in order to improve health and safety in the workplace.

Training on use and storage of compost for agro cooperatives and tea SMEs

A training on municipal waste compost production and market linkages was conducted. Participants were trained on

proper usage and storage of compost, as well as the benefits of using compost over chemical fertilisers.

Providing training, linkages and technical assistance to support SMEs at different stages of the waste management process

Capacity of waste management SMEs was strengthened through trainings on safe and sustainable waste management practices. Waste collectors, including women and other members managing solid waste in Ilam, were also trained on business skills to expand income generation opportunities.

PROJECT ACHIEVEMENTS

- Ilam municipality residents and locals were mobilised in 111 TLOs covering all wards of the municipality. This resulted in improved source segregation of waste and more organised and sustainable waste collection services through proper schedules and route setting.
- Three exposure site visits took place during which, project partners and local stakeholders explored ongoing similar activities in other locations, exchanged lessons learned and acquired new knowledge.
- Four Central Project Advisory Committee (CPAC) meetings were organised. These enhanced coordination between line ministries, project partners and local stakeholders, thereby helping to resolve issues and challenges faced during the project implementation.
- A compost plant facility was established as a result of the investment provided by IM and the private sector. The facility is estimated to produce 15-tonnes of compost per year from 30 tonnes of degradable waste collected in IM.
- Four agro groups were established and registered. The SMEs were able to commercially market their product and also secure facilities and support from the government after their registration. Approximately 300 farmers were involved in these groups and 1,500 individuals benefitted.



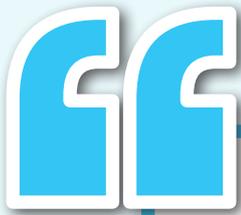
Lessons Learned

The PPP approach implemented for the solid waste management of IM was successful even though the PPP arrangement was only established during the final year of the project implementation.

It is important to note that municipal solid waste management is a sensitive sector in Nepal; one that requires strong coordination and collaboration between all stakeholders, including the municipality, political parties, community-based organisations/NGOs, academia and the private sector. During project implementation, the team had to facilitate multi-stakeholder partnership coordination and mitigate any challenges and misunderstandings on planned activities. Regular information sharing and coordination efforts were essential to the successful implementation of the project.

Building and strengthening the capacities of local implementing partners and establishing a sense of ownership of the project was also crucial.





My joy knows no boundary as my efforts have been recognised by this project. This has given me the motivation to work harder to generate more employment opportunities and contribute to sustainable waste management.

Mr. Ram Bahadur Gurung

Local citizen impacted by PPP4Gs

Long-term project sustainability

The municipality's commitment, role and responsibilities are crucial to the sustainability of the project, as well as the partnerships that have been established and strengthened among multiple stakeholders working in sustainable municipal solid waste management. The IM will have an interest in continuing PPP even after the project's completion in that financial and management burdens will be lifted when overseeing waste management and enforcing waste collection regulations.

Similarly, the private sector has an opportunity to generate revenue from waste collection fees, recycling and sale of compost. Participating SMEs have mastered skills to operate sustainably through the market linkages created by the project. In addition, the behavioural change campaign that was launched, also generated sufficient volumes of segregated waste and increased compost use. This supported demand and reliable revenue for the SME/private sector operating the compost plant.

The effective coordination with key national stakeholders that have supported this project, such as the Ministry of Federal Affairs and Local Development, the Social Welfare Council, the National Planning Commission and the Municipal Association of Nepal, may facilitate the replication and scaling-up of this project in other municipalities of Nepal.

Project contributions to Climate Change Mitigation and SDGs



The PPP4Gs project directly contributed to the achievement of **SDG 12**, as well as SDGs 8, 9 and 17. As 500 green jobs were created (even during a disaster and recovery period), progress on **SDG 8**: Decent Work and Economic Growth was substantial. Moreover, the infrastructure that was built, including, the compost plant, was a major contribution to the achievement of **SDG 9**: Industry, Innovation and Infrastructure. Establishing strong multi-stakeholder public-private partnerships was at the core of this initiative, contributing to the achievement of **SDG 17**.

Impacts at a Glance

Economic Impact	<ul style="list-style-type: none"> • 3 waste SMEs signed Memorandums of Understanding with Saugat Griha Mirco Promotion Pvt. Ltd for the trading of products and for market exploration. • Four agro groups were registered. The SMEs were then able to commercially market their product and also secure facilities and support from the government after registration. Approximately 300 farmers were involved in these groups and 1,500 individuals benefitted.
Environmental Impact	<ul style="list-style-type: none"> • 42.16 metric tonne/year of segregated recyclable collected, processed and sold through informal recycling individuals. • The compost plan developed is estimated to produce 15-tonnes of compost per year from 30 tonnes of degradable waste collected in IM. • Social mobilisation was conducted in all 111 TLOs covering all wards of Ilam municipality, which resulted in improved source segregation of waste. • The mapping of waste value chain actors was useful in the preparation of a business plan and designing of a sustainable integrated waste management system.
Social Impact	<ul style="list-style-type: none"> • Two income generation trainings were organised and delivered with the objective of providing skills and business training involving formal and informal groups, women and other members managing solid waste in IM. • Two trainings were organised and delivered on operations and logistics for proper solid waste management and compost plant operation.
Climate Benefits	<ul style="list-style-type: none"> • Measures carried out to enhance business awareness on climate change risks included an annual summit, along with other conferences and seminars, which promoted incentive policies and the new VoC standards. • Risk control systems were introduced in FIs for loan lending.
Green Finance	<ul style="list-style-type: none"> • Three capacity building trainings on financial management and business development were organised and delivered. • Developed new financial instruments such as the Risk sharing mechanism, which enabled effective financing for SMEs.
Target Group Engagement	<ul style="list-style-type: none"> • 12 interactive programmes with youths, women and school eco clubs were held. • Four District Project Advisory Committee meetings were organised. • Four Central Project Advisory Committee meetings were organised. • Three exposure site visits were organised for project partners and local stakeholders.
Policy Development	<p>4 policy review documents were prepared. The review documents were published and disseminated to relevant stakeholders:</p> <ul style="list-style-type: none"> • Laws and Policies Governing Solid Waste Management in Nepal. • Public-Private Partnership in Solid Waste Management in Nepal: Prospects and Challenges. • Review on Policy framework for Mobilizing Small and Medium Enterprises (SMEs) in Solid Waste Management. • Prospects and Challenges of Financia Access to SMEs in Solid Waste Management in Nepal.



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