HEIFER INTERNATIONAL NEPAL

Climate Smart Dairy Farming- Nepal (CSDF-N)

Background & Rationale

Dairy farming is a key source of livelihood for rural people in Nepal. However, livestock contributes about 18% to global anthropogenic Green House Gas (GHG) emissions, accounting for 37% of methane and 65% of nitrous oxide. Nepal has 13 million heads of low-productive cattle and buffaloes, contributing to a higher carbon footprint and exacerbating climate change, impacting dairy farmers. Erratic rainfall patterns and floods stress on the resilience of populations, especially women-led households, by destroying assets and limiting access to services and markets. According to the Global Climate Risk Index, Nepal is one of the most at-risk countries. Limited technical knowledge and access to climate-smart techniques hinder progress. The CSDF-N project aims to balance dairy farming's benefits with its climate impact, aligning with the Milky Way Signature Program to transform the Nepalese dairy sector by 2030. The model dairy village in Sindhuli district will showcase these practices for nationwide replication.

Goals

This project aims to minimize GHG emissions from Nepalese smallholder dairy farming practices and improve sustainability. It seeks to enhance the resilience of smallholder farmers to climate impacts by developing a climate-smart and productive dairy model. Additionally, the project will promote soil fertility through the use of organic manure from dairy animal waste.

Objective

The objective of the project is to build resilient dairy farming systems that counteract climate change while ensuring local food security. This includes building local capacity in climate-smart dairy farming practices and empowering farmers and their communities.

Partners

Heifer Project Nepal (HPN), Nepal Agricultural Research Council (NARC), International Technical Partner- International Livestock Research Institute (ILRI)

Duration

October 2022- March 2025

Working Area

Kamalamai Municipality, Sindhuli District, Nepal

Project Outcome

To create a Climate-smart model dairy village where good practices can be tested, documented and disseminated to other countries and regions.

Outputs

- Reduce GHG emissions from dairy production through the promotion of alternative animal feeding practices by promoting local green alternatives while increasing productivity and income of dairy farmers
- Recycle animal waste as a source of green energy and green fertilizer products for local purposes
- Document lessons learned and impact as well as disseminate best climate-smart technologies and practices to small-scale farmers in Nepal (and beyond)

Planned Activities

The project includes action research on balanced feeding, multi-nutrient block supplementation, animal production and GHG emissions, carbon sequestration from different fodder tree species, manure and urine management, training for organic vegetable and fertilizer production, facilitating functioning biogas plant, farmers training on good husbandry practices, publication of journal articles and extension materials.

Alignment with Sustainable Development Goals (SDGs)

The project aligns with eight Sustainable Development Goals: No Poverty (1), Zero Hunger (2), Affordable and Clean Energy (7), Climate Action (13), Decent Work and Economic Growth (8), Reduced Inequalities (10), Responsible Consumption and Production (12), and Partnerships for the Goals (17).

Cross Cutting Themes

- **Gender:** The project will ensure a fair representation of women in the different groups (including beneficiaries) and would largely contribute to promote gender equity.
- **Youth Engagement:** The project will prioritize youth participation to create relevant and effective solutions to climate challenges, giving the youth a chance to contribute to shaping policies and programs directly affecting their lives.
- **Food Security & Nutrition:** The project aims to enhance overall diet diversity and quality by integrating nutrition awareness into various training and community-led reinforcements. It specifically focuses on increasing milk consumption among children under 5 in smallholder dairy farming households through nutrition education for mothers.
- **Community Led Development:** The project follows Heifer's Values-Based Holistic Community Development (VBHCD) model with principles and practices like sustainability, improved animal management, improving the environment, training and education, for holistic community transformation.

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