

The Enhanced Rural AI (TERAI) project for Smallholder Dairy Farmers in Nepal



Introduction

Livestock farming is a mainstay of the Nepalese agricultural sector, with an estimated 95% of farming households in the country keeping dairy animals. Both cattle (of various, primarily indigenous breeds) and buffalo are kept as dairy animals. Despite the huge prevalence of dairying, the sector represents a largely untapped market, with the majority of farmers practicing subsistence farming. National demand for milk products exceeds supply, leading to reliance on imports.

In the project areas; more than 80% of HHs rear cows in Kapilvastu district and over 50% of HHs in Rupendehi do so. The two districts are estimated to contain approximately 136,972 and 90,281 cattle respectively with 20,366 in Kapilvastu and 13,645 in Rupendehi being milking cows. Moreover, there are a significant number of milking buffaloes (with Murrah crosses); 40,812 in Rupendehi and 46,248 in Kapilvastu. Despite having a large dairy cattle and buffalo population, the prevalence of improved breeds in these areas is low.

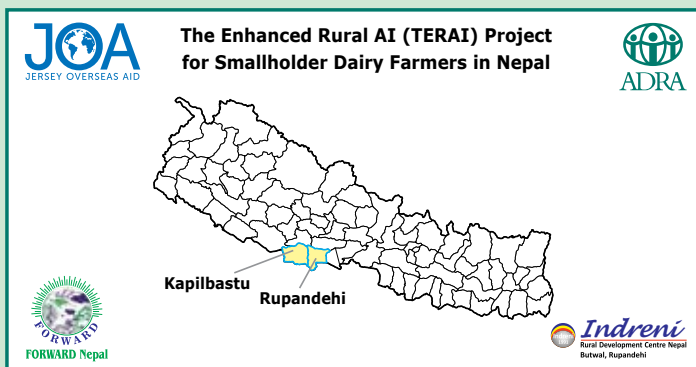
The dairy sector is an emerging market, though facing constraints of weak infrastructure, weak business enabling environment and low productivity and genetic quality of existing cattle and buffalo populations. Smallholder farmers (SHFs), particularly in rural areas, face barriers of low technical capacity, poor genetic quality of local breeds, low access to improved inputs,

Area Coverage:	Lumbini Province Sainamaina Municipality & Kanchan RM, Rupendehi district Buddhabhumi & Banganga Municipality, Kapilvastu district
Sector:	Livestock and Dairy Development
Project Period:	48 Months (August 2022 – July 2026)
Participants:	3600 smallholder farmers and 17,280 family members
Funding Partners:	Jersey Overseas Aid (JOA) ADRA UK
Implementing Partners:	ADRA Nepal FORWARD Nepal IRDC Nepal

unavailability of extension services, limited engagement in markets, and challenges in access to finance and other supporting inputs (such as insurance). Women farmers, Persons with Disabilities (PWD) and farmers from specific ethnic minority/caste groups are facing further specific barriers to participating in markets and increasing their incomes.

Dairy development has the potential to significantly enhance the livelihood and resilience of smallholder farmers by increasing incomes from dairy products, enhancing household (HH) nutrition through increased consumption of livestock-derived protein, and to benefit the environment and reduce climate vulnerability of smallholders.

The Enhanced Rural AI (TERAI) Project funded by Jersey Overseas Aid and ADRA UK, implemented by ADRA Nepal in partnership with FORWARD Nepal and IRDC Nepal aims to transform the lives of 3,600 smallholder dairy farmers in two districts in southwestern Nepal. It aims to significantly strengthen the existing dairy market, extension services and infrastructure by providing capacity building (of both farmers and technicians), breeding support, organizational management support and the introduction of appropriate genetics.



Target Beneficiaries

- The most vulnerable communities, as well as the wider population of SHFs engaging in dairy farming. The project's direct beneficiaries are 3,600 farmers (50% women, 35% indigenous groups and 5%-10% Dalits and PWD).
- 1,600 of these receiving intensive support through engagement in 70 farmer groups and 2,000 are dairy cooperative members receiving support through farmer-to-farmer extension approach.
- Approximately 17,280 people will benefit indirectly.

Project Contribution to Sustainable Development Goal (SDGs)



Goal

- Reduced poverty and improved livelihoods of small holder farmers through increased income and resilience.

Outcomes

1. Increased sustainable milk production and productivity of small holder farmers.
2. Improved access to services and markets for SHFs, and enhanced value chain linking SHFs to the district, regional and national markets.
3. Create an enabling environment through support of government technical services for cow and buffalo genetic improvement, reproduction management, and a dairy data Management Information System (MIS).

Cross Cutting Approaches

- Gender and Social Inclusive
- Addressing the impacts of COVID-19
- Climate smart measures and climate resilience
- Value for Money Approach
- Financial Management

Major Activities

- Organizational development and capacity building of farmer groups.
- Skill enhancement of farmers on improved dairy cow and buffalo husbandry using the Farmer Field School approach.
- Support for private farms to develop as model farms for the demonstration of improved technologies and practices in animal husbandry.
- Training and support to farmers on group management, animal health, AI, safe and hygienic milk collection, storage and processing.
- Provide training and support to youth and women, VAHW/AI, and para-vet technician and government staff.
- Identification, development and mobilization of lead farmers for farmer to farmer (FtF) extension services
- Dairy market assessment and cost of production analysis.
- Training to existing/new cooperatives on cooperative and business management.
- Support cooperatives and private firms on proper management of milk collection, processing, and input supply.

Outputs

- Small holder dairy farmers organizations developed, and group management skills strengthened.
 - Enhanced skills and knowledge of farmers on improved climate adaptive dairy cow and buffalo husbandry (nutrition, animal health care, housing management).
 - Enhanced access of farmers to dairy cattle and buffalo breed improvement.
 - Enhanced capacity of farmers on quality milk production, handling (milk handling, storage, and transport), supply in a healthy milk supply chain
 - Enhanced human resources (Lead farmers, AI technicians, Paravet, VAHW) capacity for extension service delivery.
 - Enhanced capacity of cooperative and private enterprises to function as input supply, milk collection, processing, and output marketing centers.
 - Enhanced farmer knowledge and skills on input and output market linkage and management.
 - Enhanced collaboration with Government of Nepal entities (DLS, NLBO, LGs) on breed improvement program.
 - Improved collaboration with NARC/NCRP and AFU for nutrition and fertility management at farmer level.
 - Introduction and piloting of a Dairy Livestock Management and Information System (MIS) software platform.
- Assist farmer on marketing using Farmers Market School (FMS) approach, market linkage and business plan preparation.
 - Import high genetic merit Jersey cattle embryos to be transferred into surrogate cows at the NLBO bull mother farm to produce superior genetics bulls and heifers.
 - Import of superior genetics frozen semen (3,000 doses of Jersey sexed semen and 3,000 doses of Murrah Buffalo unsexed semen) to be used in project target areas.
 - Collaborate with NARC and AFU on nutritious fodder and forage seeds and sapling, generation of technology on nutrition, fertility management.

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