**To express interest in this assignment please email priyanka.subba@crs.org**

**CRS Farmer to Farmer Program**

**Volunteer Assignment Scope of Work**

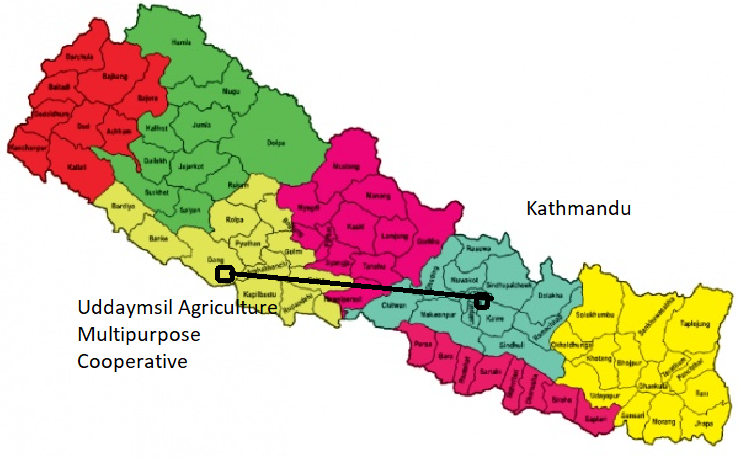
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| **Summary Information** | |
| **Assignment Code** | **NEP203** |
| Country | Nepal |
| Country Project | Livestock Country Project |
| Host Organization | Uddaymsil Agricultural Multipurpose Cooperative |
| Assignment Title | Silage making training for small holder’s dairy farmers |
| Assignment preferred dates | June-July, 2019 |
| Objectives of the assignment | Improved silage production and preservation techniques for enhanced year-round livestock feed access |
| Desired volunteer skill/expertise | Livestock extension experience with fodder and forage conservation for cows and buffaloes |
| Type of Volunteer Assistance | Technology Transfer = **T** |
| Type of Value Chain Activity | Information and Input Support Services (S) on Silage Making |
| PERSUAP Classification | PERSUAP Type II |

1. **BACKGROUND**

Nepal is predominantly an agriculture economy where buffaloes, cows and goats are integral part of daily livelihoods. The highlands, mid-hills and plains offers varieties of feed and fodder to the livestock. Almost 11.5 percent of its GDP comes from livestock and livestock related industries. The change in behavior from smallholders in livestock rearing can boost the income of the smallholders.

In recent years smallholders have been united into farmers groups and cooperatives to increase volume of their produces and transform the subsistence livestock farming into a commercial one. Such initiatives are considered across country. The group working culture has significantly improved livelihoods of smallholders. In this socio-economic model, farmers are united to be source of livestock products for industrial processing. The group is further supporting farmers to increase bargaining power to fetch better price for their produces.

Nepal Government has also come forward to support farmers initiatives by developing extension services to strengthen these groups and cooperatives. This extension services have its own limitations. The limited number of extension services is not reaching to farmers at right time and right place with right knowledge. The knowledge on extension services is an adoption of age old practices. Very few extension workers are providing services on silage making with very limited knowledge. The cooperatives like Uddaymsil Agriculture Multipurpose Cooperative are looking forward to enhancement their capacity on silage making.



Uddaymsil cooperative is union of 70 farmers groups with 1392 members. It was established in 2007. Uddyamsil is pioneer in agriculture marketing, livestock trading and dairy trading. The members have at least one cow or a buffalo or few goats and chicken in their backyards. The farmers have small parcel of land for fodder and forage production. Small portion of maize, rice brans, sorghum and by products of legumes are commonly used as feed for animals. Livestock farming is a composition of livelihoods of various ethnic communities in the vicinity. The members are practicing traditional means of livelihoods possess community forest and limited open space for pasture. These members are diversifying income sources by growing mushroom, vegetable seeds and river bed farming. In all forms of livelihoods there are at least something to convert into silage for lean season.

Uddyamsil Agricultural Multipurpose Cooperative’s members are daily collecting milk exceeding 1000 lit per day. The income by selling milk occupies significant amount in their annual income. In some cases, its share is around 40%. The cooperative has established a dairy plant to process milk produced and collected daily from its members. Various types of cheese, yoghurt and ice cream are listed as process products of cooperative dairy. It has targeted peri urban consumers near to highway as major market for produces.

1. **ISSUE DESCRIPTION**

Farmers, cooperatives and the private sector are increasingly facing challenges to reap benefits from livestock farming. The traditional animal husbandry practices, free-grazing which is often compounded by seasonal availability, poor disease and bio security management are every day challenging the prospects of the sector to diversify rural livelihoods. The situation is further aggravated by a low ratio of extension staff for services available to advise farmers for better extension services. The access to Fodder and forage seed and its quality, land fragmentation due to more separation of households, slash and burn practices to grow other crops and limited labor supply remained a big challenge for livestock farmers to increase livestock production and productivity. In this scenario, dependency on concentrated feed is growing, but quality of feed itself remained an issue. The private sector or feed industries are operated with limited knowledge and skills to increase the quality of feed. All these challenges are increasing cost of production of animals and animal related products.

In Dang, during summer/rainy season farmers are cultivating Maize, Sorghum, Stylo and Napier as green forage and fodder for the animals. The volume of production of forage and fodders exceed the consumption from cattle’s. The surplus production of forage and fodder are considered as a waste. During winter, the density of fodder and forage is scantier as farmers cultivate limited number of crops like berseem and oats which does not suffice the demand of forage and fodder for animals. This situation forced farmers to buy lower quality concentrated or dry feed for their milking cattle’s putting animal health at risk, increasing cost of production and lower productivity.

Nepalese farmers are leaning towards use of seasonally available green fodder and forage year-round to increase productivity and decreasing reliance on concentrated feed. With the new knowledge on fodder and forage management, farmers are looking towards increasing profit by increasing productivity per animal. Farmers have realized importance of conserving the surplus forage and fodder for year-round availability to feed animals. However, farmers have limited knowledge on conserving green forage and fodders in flush season in the form of silage. Farmers are searching knowledge to improve silage making practices to be consumed by cattle’s in lean season.

1. **OBJECTIVES OF THE ASSIGNMENT**

The main objective of this assignment is to improve livestock fodder preservation through converting surplus fodder into silage. This will ensure all-year round availability of livestock feed. The silage will reduce the reliance on concentrate feeds, improving milk yields while also reducing the cost of production. The volunteer will assess the livestock fodder that is appropriate for production of nutrient rich and high-quality silage.

Trainings will be organized for lead farmers with 20-25 participants on silage production technologies. Specifically, the volunteer shall;

* Introduce and demonstrate handful techniques for making silage at the house-hold level.
* Develop simple silage making guideline/protocol for small holder dairy farmers.
* Train farmers on crop selection on silage production

1. **HOST CONTRIBUTION**

Uddaymsil Agriculture Multipurpose Cooperative will facilitate the volunteers to reach the targeted dairy farmers to ensure successful assignment completion. The host will also arrange training. Host will also provide the volunteer with office space, training hall and daily tea/snacks for participants.

1. **ANTICIPATED RESULTS (Outcome/impact) FROM THE ASSIGNMENT**

It is anticipated that this volunteer assignment will contribute to dairy farmers to reach all round the year green forage/fodder through feed conservation which will directly contribute to the following;

* + Farmers will adopt the silage making techniques
  + Increased incomes of all round the year
  + One simple silage making guideline/protocol for small holder dairy
  + Outreach events conducted upon return to the US

1. **DELIVERABLES**

The anticipated deliverables accomplished by the volunteer also include:

* + Simple protocol/guideline will be developed for silage making
  + Appropriate and relevant technologies on silage making will be transferred
  + Host recommendations action plan developed
  + Trip Report should be submitted before exit meeting

1. **SCHEDULE OF VOLUNTEER ACTIVITIES IN COUNTRY (DRAFT)**

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| **Day** | **Activity** |
| Days 1 | Arrival Nepal, Trivubhan international Airport. The volunteer will be picked by Greenwich Hotel with a placard bearing “**CRS logo and volunteer name”**. |
| Day 2 | Introduction and meeting with CRS management, and briefing meeting (security, general orientation, logistic, reporting formats, etc) at CRS office. Discuss anticipated outcomes and work plan. |
| Day 3 | Travel to assignment site. Introduction and assignment briefing with host representatives |
| Days 4 – 11 | Complete assignment related activities at the host location |
| Day 12-13 | Activity close out, host action plan preparation for implementing recommendations |
| Day 14 | Travel back to Kathmandu |
| Day 15-16 | Report revision, submission |
| Day 17 | Debriefing including CRS country Office and Local mission |
| Day 18 | Departure to the US |

1. **DESIRABLE VOLUNTEERS SKILLS**

The volunteer will have the following qualifications and competencies:

* Livestock production experts having experience fodder and forage conservation, preferable working dairy production
* Communication and training skills for adult audience

1. **ACCOMMODATION AND OTHER IN-COUNTRY LOGISTICS**

* Before travelling to the assignment place, the volunteer will stay in Kathmandu at one of the CRS’s client hotels, Greenwich village Resort (http://www.greenwichnepal.com) or another hotel that will be booked and confirmed before the arrival date. In Kathmandu, the hotel usually has rooms that include services such as airport pickup and drop-off, breakfast, wireless internet, etc. The hotel or CRS will arrange a vehicle for short travel from the hotel to CRS and vice versa while in Kathmandu.
* All required materials will be prepared ahead of time and will be provided to the volunteer. CRS Nepal will provide the volunteer with a laptop computer (if s/he needs), local internet dongle (modem/EVDO) and mobile phone with charged local SIM-card. Any other required logistics and facilities can also be requested by the volunteer during her/his stay in Kathmandu. CRS will provide a vehicle and accompany the volunteer to the place of assignment. Wherever the hosts cannot contribute vehicle, CRS will provide transport services to volunteer.
* During the assignment period, the volunteer will be booked in a hotel at the project site, to be confirmed prior to volunteer arrival. CRS Nepal will arrange hotel accommodation and cover the lodging bills against receipts. CRS HQ will provide the volunteer with a per-diem advance to cater meals and incidences.
* Security information will be provided by CRS Nepal Security focal person at Kathmandu CRS Country office.

1. **RECOMMENDED ASSIGNMENT PREPARATIONS**

* Prior to travel, the volunteer is advised to prepare necessary training and demonstration aids and written handouts. Electronic copies of these handouts and any other printed materials can be printed for immediate use at the CRS office in Kathmandu on request by the volunteer.
* If the volunteer requires use of simple training aids like flip charts, markers or tape s/he should make the request and collect from the CRS office in Kathmandu prior to travel to the assignment place.
* Translation of handouts to the local language can be done at the assignment location if required.
* Depending on the meeting places and availability of electric power and LCD projector, the volunteer may use a laptop and projector for power point presentations.
* Weather Appropriate Clothing: https://www.accuweather.com/en/np/nepal-weather (will provide later)

1. **KEY CONTACTS**

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