**CRS Farmer-to-Farmer Program**

**Volunteer Assignment Scope of Work**

# SUMMARY INFORMATION

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| **Assignment Code** | **NE332** |
| Country | Nepal |
| Country project | Crops Country Project |
| Host organization | SEAN Seed Service Centre Ltd. |
| Assignment title | Corn breeding technology for variety development and scaling up F1 hybrid seed production in Nepal |
| Assignment preferred dates | Any dates from March to August 2020 |
| Objectives of the assignment | * to train company staff on different techniques of corn breeding and hybrid seed production;
* to develop linkages between the company and expert(s) for future collaboration in crop improvement and variety development
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| Desired volunteer skill/expertise | Corn breeder/agronomist/ and familiar with Nepalese seed value chain |
| Type of volunteer assistance | In person and online support at volunteer basis |
| Type of value chain activity | Seed value chain of Nepal |
| PERSUAP classification[[1]](#footnote-1) | IV |

# BACKGROUND

Nepal is one of the least developed countries with a population of 27 million where per capita income is very low ($400), high levels of poverty (40% people under poverty line) and modest growth rates. Population growth rate outstrips the food production growth rate leading to a high population pressure on limited agricultural resources for instance land, water, etc. To achieve double digit economic growth rate, Nepal has to strengthen its production practices by increasing supply of good quality inputs, service and extension.

Nepal is importing almost 70% of its corn seed from international market. Similarly, the poor performance of the seed quality is retarding productivity every year. In this context Nepal has become net importer of the corn.

Nepalese seed industries have stepped up their activities to support farmers with quality corn seed. However, their effort is undermined with lack of expertise within country on hybrid seed production techniques. Further, Nepal is with limited hybrid seed breeders.

CRS/USAID Farmer to Farmer and SEAN Seed Service Centre Limited agreed to collaborate to support maize seed quality improvement. The main goal working with SEAN seed service center is to improve quality seed supply for maize farmers.

SEAN Seed Service Centre Limited (SSSC) was founded in Kathmandu after formally being registered under the Company Act 1996 (amended in 2006) at the Company Registrar Office on 15th June 1999. The company was established and become operational as a result of the investment in shares by 55 members of Seed Entrepreneurs' Association of Nepal (SEAN). An Annual General Meeting (AGM) is the apex body of the SSSC. The Board of Directors, which is elected every four years by the AGM, governs SSSC.

The SSSC has envisioned to become lead player in Nepalese seed sub-sector contributing to seed, food & nutrition security. Our mission is to contribute the development of Nepalese agriculture by the continuous improvement of planting materials with high quality stock seed of many horticultural and agronomical varieties in a gender-inclusive and environment-friendly concerted manner. Hence, to fulfill foreseen vision and mission, goal of SSSC is to establish a profitable and sustainable seed enterprise via participatory approach in economic development of farmers and seed traders.

SSSC is a value-based company committed to promote farmer centered sustainable development. It equally shares benefits among all actors in seed production and value chain. Main activities include seed crop research and varietal improvement, source seed production, improved seed production, seed quality assurance, seed processing and packaging, and distribution of high-quality seed across the country. SSSC has initiated seed production and marketing activities through its own endeavors and in cooperation with several private and public organizations across many of the country’s major seed production areas. Seed is received into the company’s own warehouse and dehumidified storage at its head office, Thankot, Kathmandu which also houses the processing plant and packaging unit. Marketing of seeds under the SSSC brand name ‘SEAN SEEDS’ and quality logo has been initiated in the domestic market through a network of appointed marketing outlets (dealers). As part of its own R&D program, SSSC has become actively involved in the production of hybrid technology and commercialization of national hybrid maize and hybrid tomato varieties in technical collaboration with Nepal Agriculture Research Council (NARC). It is also working in the development and production of climate resilient varieties of vegetables and corn seed. SSSC has relationship with the MoALD, SQCC, CIMMYT, AVRDC, and several international line agencies.

# ISSUE DESCRIPTION

The hybrid seed skill is stagnating the corn production capacity of Nepal. The technicians available in with exiting research and innovation institutes have limited knowledge on seed breeding. SEAN is also taking support of NARC and other locally available seed breeders. These seed breeders have limited knowledge on hybrid seed production. The hybrid seed production technology is rudimentary in SEAN. Since it is new technology for the company, the company would like to understand more about modern seed breeding techniques to develop quality seed.

SEAN seed service has its own seed farms in mid-western Nepal. The farmers are receiving training on corn seed production but the company is with limited knowledge on pure hybrid seed production. The existing practices adopted by SEAN seed producers are brining impure seeds that are difficult to sell. Even if it is sold out, the germination capacity is limited.

SEAN is considering to be a major player in corn seed market. It is looking for an expertise to enhance its capacity on hybrid seed breeding by orientating its farmers, cooperatives and its technicians on quality breeding practices.

# OBJECTIVES OF THE ASSIGNMENT

The program has a simple and clear objective that aims

* to train company staff on different techniques of corn breeding and seed production technology
* to develop linkages between the company and expert(s) for future collaboration in crop improvement and variety development

# HOST CONTRIBUTION

Host organization will carry out all duties and responsibilities as per the contract agreement with the CRS Farmer-to-Farmer program.

# ANTICIPATED RESULTS FROM THE ASSIGNMENT

The anticipated results to be achieved from the assignment is brief in the table below.

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| **Anticipated output** | **Linkage to assignment** | **Major indicators** |
| SSSC staff and farmers will be trained on corn hybridization technique | Expertise on corn breeding helps the parties towards commercialization of hybrid seed production | Approx. 8 technical staff and 20 farmers trained on maize hybridization by the end of 2020 |
| Seed producing farmers will be advised and trained on seed production and handling techniques | Quality maintenance and sustainable demand driven production of parent and hybrid seeds | Quality stock seed of Variety 1 F1 & Variety 2 F1 (100 Kg each of involving parents) will be produced by the end of 2020 |
| Hybrid seed production of maize commercialized | Increase competitiveness of Nepali hybrid seeds in the domestic market | Commercialized the hybrid seed production of maize (20 ton) by the end of March 2020 |
| Variety registration proposal of 2 pipeline hybrid maize variety developed | Technical feedback on data collection, analysis and presentation | Two hybrid varieties of maize will be registered by the end of 2020 |
| Post-harvest seed handling of hybrid maize shared among farmers and staff  | Feedback from the expert after the completion of assignment continues towards improvement of seed processing practices | 10 farmer's level and 2 staff's level (technical staffs and farmers) trainings (30 participants in each trainings) will be organized by the end of March 2013, and more than 50% women participation in the training programs |
| Quality and quantity supply of hybrid seed in domestic market  | Promote competitiveness of Nepali seed & substitutes import | 50% increment in quantity of hybrid seed supply in domestic market by the end of 2020 |

1. **DELIVERABLES**
2. Vol final report due BEFORE completion of the service by the expert.
3. Group presentation with local stakeholders during the field visit.
4. Volunteer outreach activities in the US and in country.
5. Training manuals, strategic plans, business and marketing plans, curriculum.
6. **Schedule of volunteer activities in Nepal**

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| **Days (not dates)** | **Activity** | **Where** |
| Day 1 | Orientation in CRS and at SSSC  | Chandragiri-07, Thankot, Kathmandu |
| Day 2 | Presentation of SSSC's activities, discussion and finalization of field visit plan | Chandragiri-07, Thankot, Kathmandu |
| Day 3 | Move to the field: Kathmandu to Dang | Stay at Dang: Hotel Mala Inn, Ghorahi |
| Day 4 | Interaction with seed producing farmers in Chhatreshwori Municipality, Damachaur | Stay at Hotel Greenland, Shreenagar, Salyan |
| Day 5 | Move to Dullu-13, Malika, Dailekh | Stay at Tallo Dungeshwor or Dailekh bazzar |
| Day 6 | Interaction with seed producing farmers at Malika, Dailekh at Tallo Dungeshwor  | Stay at Stay Valley View Hotel, Dailekh Sadak 21700, Surkhet |
| Day 7 | Returning back to Kathmandu | Stay at Hotel Brindaban, Butwal |
| Day 8 | Arrival at Kathmandu |  |
| Day 9 | Sharing of field observation and staff training | SSSC meeting hall, Thankot |
| Day 10 | Staff training continued | SSSC meeting hall, Thankot |
| Day 11 | Interaction with Board of Directors and feedback on seed business | SSSC |
| Day 12 | Wrap up meeting and presentation among stakeholders available at Kathmandu (SQCC, NARC, CIMMYT/NSAF, etc.) | SSSC |

1. **DESIRABLE VOLUNTEERS SKILLS**

Corn breeder/agronomist or seed technologist will acquire in-depth knowledge to Nepalese seed value chain.

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

Before travelling to the assignment place, the volunteer will stay in Kathmandu at one of the CRS’s client hotels, Hotel Kutumba <https://www.orbitz.com/Lalitpur-Hotels-Hotel-Kutumba.h33780567.Hotel-Information> 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.

During the assignment period, the volunteer will be booked in a hotel at the project site or guest room provided by host facility, to be confirmed prior to volunteer arrival. The host will arrange hotel accommodation for the volunteer. 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**
* Targeted trainees and their level of education:
	1. SSSC staff: education ranges from Technical SLC to master level
	2. Farmers: Literate with basic trainings
* Training materials: Tassel bag, silk bag, stapler, maize flowering plant, or any materials for practical training.
* Working environment and culture: participants are of mixed of culture and religion, all can speak and understand Nepali; need cool and friendly environment during the training and interaction
* Recommended reading: Booklets and leaflets written in Nepali; publications on plant breeding techniques and hybrid maize seed production techniques written in English or Nepali
* Weather appropriate clothing: as per visiting season
1. **KEY CONTACTS**

**To express interest in this assignment, please email the CRS Baltimore contact listed below. To find out additional information about the host, issue description or field conditions, please email the country contact provided below, copying the CRS Baltimore contact.**

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| **CRS Baltimore** |  |
| **Priyanka Subba**Volunteer RecruiterFarmer to Farmer Program228 W. Lexington StreetBaltimore, MD 2120s1, 410-955-7194Email: priyanka.subba@crs.org | **Phaindra Raj Pandey** Project Director, CRS F2F Nepal Country OfficeMaitri Marg - Bakhundole, Lalitpur Metropolitan City Ward No.1, Province 3, Nepal Cell: +977-98141205763, 9808028903 Email: phaindra.pandey@crs.org |
| **CRS Country Program** |
| Project Coordinator, CRS F2F Nepal Country OfficeMaitri Marg - Bakhundole, Lalitpur Metropolitan City Ward No.1, Province 3, Nepal Cell: +977-98141205763, 9808028903 Email: prachanda.kattel@crs.org | **Chhan Bahadur Bhattachan**MEAL CoordinatorCRS F2F Nepal Country OfficeMaitri Marg - Bakhundole, Lalitpur Metropolitan City Ward No.1, Province 3, Nepal Cell: +977-9841390786 Email: chhan.bhattachan@crs.org |
| **Host Organization:** |  |
| Mr. Durga Prasad AdhikariManaging DirectorCell phone: 9851066946 Office phone: 01 4310245Email: ssscseed@gmail.com | Mr. Damodar PoudyalResearch and Production ManagerCell: 9841425503Office: 01 4313805Email: ssscseed@gmail.com |

1. USAID precisely classifies PERSUAP in four categories; **PERSUAP Type I** assignments directly related to pesticides recommendations, **Type II** as assignments with indirectly related with pesticides, **Type III** assignments related to curriculum review and designing, business plan development and strategies development and **Type IV** as assignments associated with other USAID projects and collaborators. [↑](#footnote-ref-1)