

National Mission On Himalayan Studies

PERFORMA FOR THE HALF YEARLY PROGRESS REPORT

(Period from **May 2016** to **October 2016**)

Project Title -: Identification, assessment and enhancement of soil carbon and nitrogen sequestration potential of different ecosystems in the central Himalayan through a community participatory approach

Sanction No. and date -: Ref no: NMHS/SG-2016/005-Date: 31-03-2016

Institution Name:- ICAR-Vivekananda Parvatiya Krishi Anusandhan Sansthan, Almora, Uttarakhand

Personal Details -: (Name and Address of the PI:- Name and Address of the Co PI)

Name (PI/ Co-PI)	Address
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Partner Details:-

Sl No	Name/ Address	Work assigned to partners	Fund allocated to partners during the period (%)	
1	ICAR-Vivekananda ParvatiyaKrishiAnusandhanSansthan, Almora-263601, Uttarakhand	Responsibilities for higher hills (Shama cluster, Kapkot block, Bageshwar district) and all analysis part is going on with nodal center	60	
2	KrishiVigyan Kendra, Sinduri-Baskhola, Bageshwar, Uttarakhand	ICAR-VPKAS, Kafilgair-263628,	Responsibilities for mid hills (Balta cluster, Hawalbagh, Almora)	20
3	KrishiVigyan Kendra, Chinyalisaur-249196, Uttarakhand	ICAR-VPKAS, Uttarkashi,	Responsibilities for lower hills (Badethi cluster, Chinyalisaur, block, Uttarkashi)	20

Project Objectives :-**Objective(s) of the Project that will be achieved;**

1. To assess the soil organic carbon (SOC) and soil total nitrogen (STN) under different land use, land cover and cropping system (forest to agricultural ecosystem) in lower, middle and higher Himalayas of Uttarakhand state.
2. To estimate C and N sequestration potential under selected pilot sites in community and measure the socioeconomic and environmental benefits of improved land management practices.
3. To provide capacity building and training on the optimal land use and land management options to promote environmental awareness, to sequester C and N, enhance land productivity to combat land degradation in central Himalayas.
4. To provide information and policy options for the use of carbon (C) and nitrogen (N) sinks in transferring C and N from the atmosphere to soil system.

Completion in the last six months in % (According to each Deliverables)-:

Sl. No.	Quantifiable deliverables (as per sanction letter)	Output/ achievements	Performance terms monitoring indicators	Remarks
1	Data base and digital maps on soil cover, soil quality and cropping system in different transects of Uttarakhand	40%	Data base and digital maps on the selected soil parameter (Nos)	<ul style="list-style-type: none"> From land use-157 composite soil samples were collected, The baseline soil survey conducted in 210 soil samples
2	Development of pilot field sites for long term monitoring and data collection on soil quality and demonstration of land management practices	30%	No. of long-term monitoring systems established Nos/ Area in ha)	<ul style="list-style-type: none"> Base line survey of 220 farm families 2 ha lentil crop demonstration at all three sites 1 ha (120 kg) wheat seed distributed for <i>rabi</i> season 4 experimental setup for various nutrient management as per plan (two each wheat and lentil crop)
3	Knowledge products like papers, training manuals on C& N sequestration potential	Not yet started	Models and knowledge products developed and published out of the projects (Nos)	It will be planned for second year onwards
4	Training of 150 master trainers on land management	5%	Communities/ households engaged in Trainings/ Awareness Camps/ Workshops (Nos.)	Total 3 awareness camps conducted in which more than 100 house hold engaged
5	Policy guidelines on use of carbon and nitrogen sinks in transferring C and N from atmosphere	Not yet started	Master trainers/ Women participation in science outreach programmes (Nos.).	It will be planned for second year onwards

Summary of progress -: (with in 200 words)

The project was initiated in April 2016 with the baseline surveys for all the three sites in low mid and high hills. Till date, a total 157 composite soil samples from three soil layers (0-15, 15-30 and 30-45 cm) have been collected from Balta, Shama and Badethi clusters along with the GPS coordinates. Baseline soil and data collection survey was conducted for the 210 farmer families. The soil sample has been processed for the estimation of its physicochemical properties. A structured interview schedule has been prepared to capture the initial socioeconomic variables. The baseline sample of 220 household farmer families has already been collected and is still in process. Meanwhile, 2 ha lentil crop (cultivar VL-126) demonstration of lentil and 1 ha for wheat (120 kg seed) of different institute varieties (VL-832, VL-907; VL-963) has been distributed to the selected pilot studies villages for upcoming *rabi* season. To capture it scientifically to development of pilot field sites for long term monitoring and data collection on soil quality and demonstration of land management practices four field experimental setups for various nutrient management as per approved plan (two each wheat and lentil crop) was planted. Three awareness programme were conducted each one for selected site, the effort has been made to make 100 hill farm household aware about the soil carbon and nitrogen sequestrations concept along with innovative crop management practices for better quality production.

Supporting data files/ maps/ tables/ figures of the results to be attached

Name of the PI-:

Signature -:

Date-: