


NMHS Progress Report
(Period from 01.04.2017 to 31.03.2018)

1. Project Information

Project ID:	NMHS/SG-2016/018	Sanction Date:	31-03-2016
Project Title:	Development of Psychrophilic earthworms for biowaste conversion & utilization in Guraz & Tulial Valleys of Jammu & Kashmir		
BTG:	Environmental assessment & management		
PI and Affiliation (Institution):	Dr. Tahir Ahmad Sheikh, Assistant Professor (Agronomy), Sher- e- Kashmir University of Agricultural Sciences and Technology, Shalimar, Srinagar, J&K		
Name & Address of the Co-PI, if any:	Dr. Zahoor Ahmad Baba Sr. Scientist (Soil Microbiology) Sher- e- Kashmir University of Agricultural Sciences and Technology, Shalimar, Srinagar, J&K		
Structured Abstract - detailing the current year progress [Word Limit 250 words]:	<p>Project Location: The project activities were conducted smoothly as per the project goals during the second phase (2017-18) of the project period in collaboration with local project partner from Department of Agriculture.</p> <p>Recruitment of staff The supporting staff under the project was recruited again as per the guidelines of funding agency and implementing Institute.</p> <p>Establishment of Biowaste conversion Units Two more biowaste conversion units were established at Bankoot (01) & Baktore (01) villages of Gurez of Distt. Bandipora</p> <p>Collection of Bio-waste samples Biowaste samples from agriculture, livestock and other sources were collected and further segregated as biodegradable and non biodegradable. The biodegradable wastes which constitute a major portion in the range of 70-75% of the total as livestock wastes. These wastes were recycled through the biowaste conversion units by employing previously (2016-2017) developed cold tolerant vermiculture.</p> <p>Distribution of cold Tolerant Vermiculture</p>		

	<p>The earthworms collected during the first phase (2016-2017) were under the process of development and multiplication and has multiplied upto sufficient quantity, out of which small quantity has been distributed to the newly established units to suffice the culture requirement for two newly established biowaste conversion units.</p> <p>Collection & development of earthworms</p> <p>During the reporting year the earthworms were further collected from two new locations of Gurez and Tulial, which were further placed for development and multiplication under the same cold ecosystem.</p> <p>Farmers' interaction & motivation.</p> <p>300 farmers were identified and convened for biowaste conversion and its utilization for crop production & soil health by demonstrating the methodologies and precautionary measures for successful establishment of vermifarming as a venture or income generation.</p>	
Project Partner	Affiliations	Role & Responsibilities
Name		
Sub Divisional Agricultural Officer located at Guraz	Department of Agriculture Jammu & Kashmir	<ul style="list-style-type: none"> ➤ To facilitate the identification of progressive farmers under study area. ➤ To help in improving the capacity building of local farmers and encourage them to use the bio wastes for improving in soil health and minimizing the environmental pollution. ➤ To facilitate the construction of biowaste conversion units. ➤ Later, to extend dissemination the outcomes of the project among hill farmers.

2. Project Site Details

Project Site	Guraz & Tulial (J&K)
IHR States Covered	41.65 %
Long. & Lat.	34.63°N 74.83°E
Site Maps	
Site Photographs	[Attached]

3. Project Activities Chart w.r.t. Timeframe [Gantt or PERT]

PROJECT ACTIVITIES	WORK UNDERTAKEN				OUTPUT
	Year 2017-18				
	Qtr 1	Qtr 2	Qtr 3	Qtr 4	
Project Activity 1	Visited Gurez & Tulial interacted with the tribal farmers along with project partner from Deptt. Of Agriculture and identified the beneficiary farmers for establishment of new biowaste	Monitoring to earlier units was also carried out	Attended annual NMHS-workshop at Almora and presented the Annual achievements of the project.	Visited to Gurez & Tulial and started construction of two new units at farmer's field for biowaste conversion.	

	conversion units.				
Project Activity 2	Collection of earthworms from two more locations of Gurez and Tulial.	Visited Tulial for monitoring of unit.	Meeting with army officers and awaked them that daily routine biowaste generated from the camps can be recycled and used for soil health improvement. Three (03) awareness programmes regarding conversion of biowastes through vermitechnology were conducted. Developed an Urdu & English Literature for recycling of biowastes and their uses.	Solid waste was collected from nearby vicinity of the units and was further segregated into degradable and non degradable. The degradable waste was used for conversion into soil organic amendments through the unit	
Project Activity 3	Earthworms were maintained at farmers' farm for multiplication for the development of vermiculture.	Development & Maintenance of the earthworms on the biowastes. Three (03) capacity building programmes were carried out at newly identified locations Baktore and Bankoot villages of Gurez & Tulial.	Invitation of tender for establishment of bio-waste conversion units	Vermiculture was supplied to farmers with new established units during proposed period	

Project Activity 4	02 capacity building programmes were carried out at Chorwan and Burnoi villages of Gurez & Tulial respectively.	Identification of progressive farmers for establishment of new units.	Submission of half yearly progress report	Demonstration for collection and recycling of daily generated biowastes.
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4. Financial and Resource Information

Note: A separate bank account is expected to be opened for NMHS Project as per the provision of Direct Beneficiary Account (DBA) as laid out by the Govt. of India and also facilitate the audit of accounts. The interest earned out of the NMHS project funds should be reported clearly in the utilization certificate.

Total Grant:	14.40 Lakh	Grant Received Date:	Rs. 397259/- 20-06-2017
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Project Partner(s)	Affiliations/ Institution	Budget Allocated to	Work Done
Sub Divisional Agricultural Officer located at Guraz	Department of Agriculture Jammu & Kashmir	0.00/-	<ul style="list-style-type: none"> ➤ To facilitate the identification of progressive farmers under study area. ➤ To help in improving the capacity building of local farmers and encourage them to use the bio wastes for improvement in soil health and minimizing the environmental pollution. ➤ To facilitate the construction of biowaste conversion units. ➤ Later, to extend dissemination the outcomes of the project among hill farmers.

Project Staff Information:

S. No.	Name	Qualification	Designation	Fellowship/ Wages paid	Remarks
1.	Mudasir Nazir	M.Sc.	Field Assistant	Rs. 12000/=	New appointment & engaged

		Biotechnology			from 10.10.2017
2.	Ismail Magray	Matric	Skilled worker	Rs. 5000/=	New appointment & engaged from 01.11.2017

5. Equipment and Asset Information **N/A (No equipment purchased under project)**

S. No.	Equipment Name (Qty)	Details (Make/ Model)	Cost	Date of Installation	Photographs of Equipment	Lowest Quotation, IF NOT purchased
1.	Equipment 1				[Attach]	
2.	Equipment 2				[Attach]	
3.	Equipment 3				[Attach]	
[Add]	[Add]				[Attach]	

6. Expenditure Statement and Utilization Certificate

Please update the annual Expenditure Statement and Utilization Certificate (UC) periodically.

Expenditure Information:



S. No.	Financial Position/Budget Head	Opening Balance (2016-2017)	Funds Sanctioned (2017-2018)	Expenditure	% of Total cost
I	Salaries/Manpower cost	Rs. 65755/-	Rs.144000/-	Rs.126193/-	60.2
II	Travel	Rs. 380/-	Rs. 50000/-	Rs. 48716/-	96.7
III	Expendables & Consumables	0.00/-	Rs. 125000/-	Rs. 125000/-	100
IV	Contingencies	Rs.09 +6741 (int.)	Rs. 18259/-	Rs. 25009/-	100
V	Activities & Other Project cost	0.00/-	Rs. 60000/-	Rs. 55500/-	92.5
VI	Institutional Charges		Rs.0.00/-	Rs.0.00/-	0
VII	Equipments		Rs.0.00/-	Rs.0.00/-	0
	Total		Rs.397259/-	Rs.380418/-	79.8
	Interest earned		Rs.6743/-		
	Grand Total	Rs.72885/-	Rs.404002/-		
Period	Expenditure Statement	Utilization Certificate (UC)			
Annual	[Attached]	[Attached]			





7. Project Beneficiary Groups

Beneficiary Groups [Capacity Building]	Target	Achieved
No. of Beneficiaries with income generation:	06	05
No. of stakeholders trained, particularly women:	400	300
No. of capacity building Workshops/ trainings:	0	0
No. of Awareness & outreach programmes:	10	08
No. of Research/ Manpower developed:	10	05

8. Project Progress Summary (as applicable to the project)

Description	Total (Numeric)	Description
<i>IHR States Covered</i>	41.65 %	Share of geographical area in the Indian Himalayan Region
<i>Project Site/ Field Stations Developed:</i> (attach photos) ... (attach maps)	Guraz & Tulial (Jammu & Kashmir)  
<i>No. of Patents filed (Description):</i>	0	0
<i>Article/ Review/ Research Paper/ Publication:</i>	0	0
<i>New Methods/ Modellings Developed (description in 250 words):</i>	0	0
<i>No. of Trainings</i>	08	Eight training programmes

		were conducted regarding the biowasted conversions and its utilization for agriculture use.
<i>(No. of Beneficiaries):</i>	150	
<i>Workshop:</i>	0	0
<i>Demonstration Models (Site):</i>	05..... (attach maps about location & photos)	05 
<i>Livelihood Options:</i>	02	<ol style="list-style-type: none"> 1. Entrepreneurship development through vermiculture by conversion of biowastes 2. Psychrophilic vermiculture has immense scope in cold habitats of Himalayan region for waste conversion
<i>Training Manuals:</i>	01	Recycling of Biowastes under Himalayan Ecosystem
<i>Processing Units:</i> (attach photos)	
<i>Species Collection:</i>	--	Earthworms
<i>Species identified:</i>	--	<ol style="list-style-type: none"> 1. <i>Eisenia fetida</i> 2. <i>Aporrectodea caliginosa</i>

Database/ Images/ GIS Maps:		
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Note: Photos/ maps should be attached in high quality in compatible formats viz., JPEG, .JPG, .PNG, .SHP, etc. along with a suitable figure legend/ caption.

9. Project Linkages (with nearby Institutions/ State Agencies)

S. No.	Institute/ Organization	Type of Linkages	Brief Description
01.	Department of Agriculture	External	The nodal agency of department of agriculture based at Guraz will be provided limited financial assistance in terms of joint travel & capacity building programmes once there will be establishment of bio-conversion units.

10. Additional (publication, recommendations, etc.)

Time Period	Publications (Research Papers, Information Material, Policy drafts, Patents, etc.)
Annual [Year 2017-18]	[Attach]

11. Project Concluding Remark

Kindly update the following Progress Parameters for the Reporting Period:

Project Objectives	Project Output against each objective	Progress made against	
		Monitoring Indicators (specified in Sanction Letter)	Remarks
2. Screening & development of efficient Psychrophilic earthworm species for their exploitation in sustainable biowaste degradation within the valleys and utilization of vermicompost for	The composted material after the conversion employing exotic cold tolerant earthworms was applied to the farmers agriculture field after demonstrating the methodologies and practices for improving the soil health.	Two (02) more models established for Biodegradable Waste Conversion into Useful Soil Amendments. Eight (08) awareness programmes regarding conversion of biowastes through vermitechnology were conducted during the reporting period.	

agricultural land to quickly regenerate and improve the soil structure.

Methodology (in brief):	
Major Research Achievements:	
Brief Conclusion - the current year progress – during the reporting period (point-wise):	<ul style="list-style-type: none"> ➤ <u>Developed of more vermiculture</u> ➤ <u>Established two (02) more bio-waste conversion units</u> ➤ <u>Collaboration with department of Agriculture</u> ➤ <u>Evaluation of biowaste generated in the study area.</u> ➤ <u>Awareness regarding biowastes & there recycling</u>
Progress Achieved (%):	70%
Remaining work to be done:	<ul style="list-style-type: none"> • <u>More Capacity building programmes to be conducted</u> • <u>Demonstration of technology</u> • <u>Development of mass vermiculture</u> • <u>Popularization of technology through Agriculture Deptt.</u> • <u>Development of package of practice for end user.</u>

Submitted to:

Submitted by:



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Please fill the NMHS Progress Report pro forma as applicable with respect to time and other requirements and return *via* post/ e-mail. In case of any query, please contact at: nmhspmu2016@gmail.com