

Template/Pro forma for Submission

NMHS-FINAL TECHNICAL REPORT (FTR)

Demand-Driven Action Research Project Grant

NMHS Reference No.:	NMHS/2016-17/MG08/01
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Date of Submission:	2	5	0	1	2	0	2	0
	d	d	m	m	y	y	y	y

PROJECT TITLE

UNDERSTANDING MOUNTAIN PEOPLES' APPROACH AND PRACTICES TO COMBATING CLIMATE CHANGE IN THE INDIAN HIMALAYAN REGION: RESEARCH TO RENEWAL AND REFORMS

Project Duration: *from* (01.04.2017) *to* (31.07.2019).

Submitted to:

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GENERAL INSTRUCTIONS:

1. The Final Technical Report (FTR) has to commence from the date of start of the Project (as per the Sanction Order issued at the start of the project) till its completion. Each detail has to comply with the NMHS Sanction Order.
2. The FTR should be neatly typed (in Arial with font size 11 with 1.5 spacing between the lines) with all details as per the enclosed format for direct reproduction by photo-offset process. Colored Photographs (4-5 good action photographs), tables and graphs should be accommodated within the report or should be annexed with captions. Sketches and diagrammatic illustrations may also be given giving step-by-step details about the methodology followed in technology development/modulation, transfer and training. Any correction or rewriting should be avoided. Please give information under each head in serial order.
3. Training/ Capacity Building Manuals (with details contents of training programme technical details and techniques involved) or any such display material related to project activities along with slides, charts, photographs should be brought at the venue of the Annual Monitoring & Evaluation (M&E) Workshop and sent at the NMHS-PMU, GBPNIHESD HQs, Kosi-Katarmal, Almora 263643, Uttarakhand. In all Knowledge Products, the Grant/ Fund support of the NMHS should be duly acknowledged.
4. The FTR Format is in sync with many other essential requirements and norms desired by the Govt. of India time to time, so each section of the NMHS-FTR needs to be duly filled by the proponent and verified by the Head of the Lead Implementing Organization/ Institution/ University.
5. Five (5) bound hard copies of the Project Final Technical Report (FTR) and a soft copy should be submitted to the Nodal Officer, NMHS-PMU, GBPNIHESD HQs, Kosi-Katarmal, Almora, Uttarakhand.

The FTR is to be submitted into following two parts:

Part A –Project Summary Report

Part B–Project Detailed Report

Following Financial and other necessary documents/certificates need to be submitted along with Final Technical Report (FTR):

Annexure I	Consolidated and Audited Utilization Certificate (UC) & Statement of Expenditure (SE) , including interest earned for the last Fiscal year including the duly filled GFR-19A (with year-wise break-up)
Annexure II	Consolidated Interest Earned Certificate
Annexure III	Consolidated Assets Certificate showing the cost of the equipment in Foreign and Indian currency, Date of Purchase, etc. (with break-up as per the NMHS Sanction Order and year wise).
Annexure IV	List of all the equipment, assets and peripherals purchased through the NMHS grant with current status of use including location of deployment.
Annexure V	Consolidated Manpower Certificate and Direct Benefit Transfer (DBT) Details showing the education background, i.e. NET/GATE etc. qualified or not, Date of joining and leaving, Salary paid per month and per annum (with break up as per the Sanction Order and year-wise).
Annexure VII	Refund of any unspent balance as Demand Draft in favor of DDO, GBPNIHESD payable at GBPNIHESD, Kosi-Katarmal, Almora, Uttarakhand.
Annexure VIII	Details of Technology Transfer and Intellectual Property Rights developed.

NMHS-Final Technical Report (FTR) template
Demand-Driven Action Research Project

DSL: Date of Sanction Letter

3	1	0	3	2	0	1	7
d	d	m	m	y	y	y	y

DPC: Date of Project Completion

2	5	0	1	2	0	2	0
d	d	m	m	y	y	y	y

Part A: Project Summary Report

1. Project Description

i.	Project Reference No.	NMHS/2016-17/MG08/01					
ii.	Type of Project	Small Grant		Medium Grant	Y	Large Grant	
iii.	Project Title	Understanding Mountain Peoples' Approach and Practices to Combating Climate Change in the Indian Himalayan Region: Research to Renewal and Reforms.					
iv.	State under which Project is Sanctioned	Project under broad thematic group of Awareness and Capacity Building					
v.	Project Sites (IHR States covered) (Maps to be attached)	11 States of the Indian Himalayan Region. The Indian Himalayan region which comprises the Western Himalayan states of Jammu & Kashmir, Himachal Pradesh and Uttarakhand, the North-eastern Himalayan states of Sikkim, Arunachal Pradesh, Mizoram, Tripura, Manipur, Meghalaya, Nagaland and the hill districts of Assam and West Bengal.					
vi.	Scale of Project Operation	Local		Regional		Pan-Himalayan	Y
vii.	Total Budget/ Outlay of the Project	Rs. 0.936 Crore					
viii.	Lead Agency	Integrated Mountain Initiative (IMI)					
	Principal Investigator (PI)	Mr. Sushil Ramola, President, IMI					
	Co-Principal Investigator (Co-PI)	Ms. Neha Bharti, TERI					

ix.	Project Implementing Partners	<u>IMI State Chapters</u> Eco-Tourism and Conservation Society of Sikkim (ECOSS) Sustainable Development Forum Arunachal Pradesh (SDFA) Sustainable Development Forum Uttarakhand (SDFU) Development Initiatives for Sustainable Advancement (DISA) Mizoram Sustainable Development Foundation (MSDF) Sustainable Development Forum Nagaland (SDFN) Darjeeling Himalaya Initiative (DHI) - The Energy & Resources Institute (TERI)
	Key Persons / Point of Contacts with Contact Details, Ph. No, E-mail	Programme Coordinator, Integrated Mountain Initiative, Email: progcoordinator@inmi.in Phone number: 011-40193747 www.mountaininitiative.in

2. Project Outcome

2.1. Abstract (not more than 500 words) [it should include background of the study, aim, objectives, methodology, approach, results, conclusion and recommendations).

Background:

Himalayan ecosystems are projected to be extremely sensitive under climate variability and extreme events. Evidences show that even small changes in temperature in the mountain regions have resulted in negative impacts on biodiversity, water availability, agriculture, and hazards. This variability and extremity of climatic patterns has had a huge impact on the socio-economic lives of mountain communities in the Indian Himalayan Region (IHR).

These changes have increasingly raised the need to examine the coping strategies used by the farming communities across IHR to design adaptation and mitigation strategies. Moreover, knowledge on the vulnerability of mountain ecosystems to climate change especially for the Indian Himalayan Region is very limited.

Study:

To contribute to holistic and integrated development of the IHR through research on state of development in sectors vulnerable to climate change, understanding the issues related to sectors such as agriculture

and mountain livelihoods, and strengthening the role and contribution of mountain communities to development.

The project also seeks to collate, capture and **renew** of traditionally best practices of the mountain communities, provide policy **reforms** to existing practices through advocacy, awareness and capability building in an integrated way.

Aim/Objectives:

1. Operationalize Young Researchers' Forum in the Indian Himalayas;
2. Develop compendium of best practices linking climate change to sustainable development;
3. Build awareness, communicate sectorial learnings and best practices, and build capacity of stakeholders to identify ways for up-scaling across mountain states;
4. Advocate for adoption of mountain specific policies and developmental frameworks in the Government of India (GoI) and Indian Himalayan States.

Methodology/Approach:

To develop the compendium of good practices, first the sectors exposed to these vulnerabilities, which require immediate attention, will be identified along with drivers. Then next step is to compile coping strategies adopted by the existing social systems, traditional or modern, to adapt to changing climatic conditions. All these practices could be either already existing or proposed by experts or emerged within dialogues or community consultations within the state, and might be relevant across different scales – local, state or across IHR.

Young Researchers collected the data through extensive secondary literature review and field interviews with state chapters, community representatives and other experts in academia and civil society organisations.

Dialogues have been initiated within states on climate science by engaging state stakeholders through a series of round-table workshops organized in each of the mountain states. Capacities on climate change issues will be built by constant exchange of literature and meetings on the subject between the principal researcher, state chapters and young researcher.

Results/Conclusion:

1. Increased/enhanced involvement of youths and young researchers working with grassroots organisations and academic institutions on identifying sustainable and non-sustainable development practices pertaining to climate change in 11 states across the IHR to provide evidence and knowledge base to inform policy and practice;

2. Enhanced capacities to understand and address climate specific developmental (both rural and urban) issues in state governments and in other development institutions in the region for managing ecosystems better and also to reduce the socioeconomic disparities in the IHR;
3. Improved/enhanced dialogue, knowledge sharing, and cooperation among the IHR States which will lead to increased adoption and/or mainstreaming of climate specific developmental policies by the Government of India and the Indian Himalayan States.

Recommendation:

2.2. Objective-wise Major Achievements

S. No.	Objectives	Major achievements (in bullets points)
1	Operationalize Young Researchers' Forum in the Indian Himalayas.	<ul style="list-style-type: none"> • Increased involvement of youth and young researchers on cross cutting themes pertaining to climate change in mountain states through a collaborative 'Young Researchers' Forum.
2	Develop compendium of best practices linking climate change to sustainable development.	<ul style="list-style-type: none"> • Documenting best practices across the 11 states of IHR contributing to climate change adaptation- Repository. • Increased focus on evidence-based fundamental and applied research on climate change through universities and grass root organisations in the Himalayan States.
3	Build awareness, communicate sectorial learnings and best practices, and build capacity of stakeholders to identify ways for up-scaling across mountain states.	<ul style="list-style-type: none"> • Workshops and consultations at state levels held with multi-disciplinary experts sharing their knowledge on pressing issues in key sectors and informing on coping strategies/good practices in the sectors and critique their usefulness/challenges in the changing climatic conditions; how these practices can be replicated and used in the similar set ups across different mountain states.

4	Advocate for adoption of mountain specific policies and developmental frameworks in the Government of India (GoI) and Indian Himalayan States.	<ul style="list-style-type: none"> Organization of Two (2) Sustainable Mountain Development summits (SMDS) and two (2) Meets of Mountain States and publication of proceedings advocating mountain specific policies and developmental frameworks.
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2.3. Outputs in terms of Quantifiable Deliverables*

S.No.	Quantifiable Deliverables*	Monitoring Indicators*	Quantified Output/ Outcome achieved	Deviations made, if any, and Reason thereof.
1	Periodic organization of Young Researchers' Forums for all 11 IHR states, followed by YRF Series Publication.	No of times the Forum met physically	Thrice conducted YRFs for all the 11 IHR Researchers followed by documenting the discussions.	
2	Develop a Compendium of IHR Best Practices linking Climate Change to Sustainable Development, and, Policy Briefs covering gaps and recommendations for rectification.	No. of policy briefs developed and Compendium.	11 policy briefs developed from the states. 1 Compendium of case studies including 21 Case Studies from across IHR. 2 year Newsletters	
3	Build awareness, communicate sectorial learnings and best practices, and build capacity of stakeholders to identify ways for up-scaling across mountain states.	Awareness and Capacity Building events all across IHR States	State workshops held in each of the 11 IHR states to share findings.	
4	Advocate for adoption of mountain specific policies and developmental frameworks in the Government of India (GoI) and Indian Himalayan States.	No. of Summits held including important Policy stakeholders	Organization of Sustainable Mountain Development summits (SMDS), and Meet of the Mountain States (MOMS). SMDS VI-Aizawl, Mizoram (1) MOMS VI (1) MOMS VII (1)	

(*)As stated in the Sanction Letter issued by the NMHS-PMU.

2.4. Strategic Steps with respect to Outcomes (in bullets)

S.No.	Particulars	Number/Brief Details	Remarks/ Enclosures
1.	New Methodology developed	NA	
2.	New Models/ Process/ Strategy developed	NA	
3.	New Species identified	NA	
4.	New Database established	NA	
5.	New Patent, if any	NA	
	I. Filed (Indian/ International)		
	II. Granted (Indian/ International)		
	III. Technology Transfer(if any)		
6.	Others (if any)	NA	

3. Technological Intervention

S. No.	Type of Intervention	Brief Narration on the interventions	Unit Details (No. of villagers benefited / Area Developed)
1.	Development and deployment of indigenous technology	NA	
2.	Diffusion of High-end Technology in the region	NA	
3.	Induction of New Technology in the region	NA	
4.	Publication of Technological / Process Manuals	NA	
	Others (if any)		

4. New Data Generated over the Baseline Data

S. No.	New Data Details	Status of Existing Baseline	Additionality and Utilisation New data
	NA		

5. Demonstrative Skill Development and Capacity Building/ Manpower Trained

S. No.	Type of Activities	Details with number	Activity Intended for	Participants/Trained			
				SC	ST	Woman	Total
1.	Workshops	NA					
2.	On Field Trainings	NA					
3.	Skill Development	NA					
4.	Academic Supports	NA					

Others (if any)						
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6. Linkages with Regional & National Priorities (SDGs, INDC, etc)/ Collaborations

S. No.	Linkages /collaborations	Details	No. of Publications/Events Held	Beneficiaries
1.	Sustainable Development Goal (SDG)	SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture. SDG 3: Ensure healthy lives and promote well-being for all at all stages. SDG 6: Ensure availability and sustainable management of water and sanitation for all. SDG 13: Take urgent action to combat climate change and its impacts SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.	2 Meet of the Mountain States 1 Sustainable Mountain Development Summit 3 Young Researchers Forum 11 State workshops	Young Researchers, government officials and civil society.
2.	Climate Change/INDC targets	Adaptation		
3.	International Commitments			
4.	Bilateral engagements			
5.	National Policies			
6.	Others collaborations			

7. Project Stakeholders/ Beneficiaries and Impacts

S. No.	Stakeholders	Support Activities	Impacts
1.	Gram Panchayats	NA	
2.	Govt Departments (Agriculture/ Forest)	NA	

3.	Villagers	NA	
4.	SC Community	NA	
5.	ST Community	NA	
6.	Women Group	NA	
	Others (if any)		

8. Financial Summary (Cumulative)

S. No.	Financial Position/Budget Head	Funds Received	Expenditure/ Utilized	% of Total Budget
I.	Salaries/Manpower cost	3000000	3000000	100%
II.	Travel	1500000	875965.56	58.40%
III.	Expendables & Consumables			
IV.	Contingencies	125000	249999.55	99.99%
V.	Activities & Other Project cost	3652529	4110369.80	100%
VI.	Institutional Charges	500000	500000	100%
VII.	Equipments			
	Total	8777529	8736334.91	
	Interest earned	178479		
	Grand Total	8956008		

*Please attach the consolidated and audited Utilization Certificate (UC) and Year wise Statement of Expenditure (SE) separately, *ref. Annexure I.*

9. Major Equipment/ Peripherals Procured under the Project (if any)**

S. No.	Name of Equipments	Cost (INR)	Utilisation of the Equipment after project
1.	NA		
2.	NA		
3.			
4.			
5.			

**Details should be provided in details (*ref Annexure III & IV.*)

10. Quantification of Overall Project Progress

S. No.	Parameters	Total (Numeric)	Remarks/ Attachments/ Soft copies of documents
1.	IHR States Covered	11	
2.	Project Site/ Field Stations Developed	21 Field Study Sites	
3.	New Methods/ Modeling Developed	NA	
4.	No. of Trainings arranged	3 Young Researchers Forum	
5.	No of beneficiaries attended trainings	NA	
6.	Scientific Manpower Developed (Phd/M.Sc./JRF/SRF/ RA):	NA	
7.	SC stakeholders benefited	NA	
8.	ST stakeholders benefited	NA	
9.	Women Empowered	NA	
10.	No of Workshops Arranged along with level of participation	11 State workshops 2 MOMS Young researchers, and other relevant stakeholders from government and academia.	
11.	On field Demonstration Models initiated (attach maps about location & photos)	
12.	Livelihood Options promoted	NA	
13.	Technical/ Training Manuals prepared	NA	
14.	Processing Units established (attach photos)	
15.	No of Species Collected	NA	
16.	New Species identified	NA	
17.	New Database generated (Types):	NA	
	Others (if any)	NA	

11. Knowledge Products and Publications:

S. No.	Publication/ Knowledge Products	Number		Total Impact Factor	Remarks/ Enclosures
		National	International		
1.	Journal Research Articles/ Special Issue:				
2.	Book Chapter(s)/ Books:				
3.	Technical Reports	1	1		
4.	Training Manual (Skill Development/ Capacity Building)				

S. No.	Publication/ Knowledge Products	Number		Total Impact Factor	Remarks/ Enclosures
		National	International		
5.	Papers presented in Conferences/Seminars				
6.	Policy Drafts/Papers	11	11		
7.	Others:				

* Please append the list of KPs/ publications (with impact factor and further details) with due Acknowledgement to NMHS.

12. Recommendation on Utility of Project Findings, Replicability and Exit Strategy

Particulars	Recommendations
Utility of the Project Findings	<ul style="list-style-type: none"> Documentation of local adaptation strategies. Trends and pattern of strategies adopted by local community against climate change.
Replicability of Project	<ul style="list-style-type: none"> Methodology applied to capture field sites can be replicated. Emerging trends in agriculture and irrigation as adaptation measure can be tried and tested in other mountain regions depending on similar physical climatic and topographic condition.
Exit Strategy	Please describe the Exit Strategy of the project, self-sustaining and benefitting the stakeholders and local community: This project was a research cum awareness building project. Exit strategy is not applicable.



(PROJECT PROPONENT/ COORDINATOR)

(Signed and Stamped)



(HEAD OF THE INSTITUTION)

(Signed and Stamped)

PRESIDENT
INTEGRATED MOUNTAIN INITIATIVE

Place: New Delhi

Date: 25/01/2020