CONSULTATIVE WORKSHOP FOR VARIOUS STAKEHOLDERS ON

IDENTIFICATION OF PRIORITY THEMATIC AREAS FOR MANIPUR STATE

A BRIEF REPORT

Thursday, January - 06th, 2022 Conference Hall, Department of Anthropology, Manipur University



ORGANISED BY:
HIMALAYAN KNOWLEDGE NETWORK (HKN) MANIPUR CHAPTER
MANIPUR UNIVERSITY, CANCHIPUR

A one-day consultation workshop on the "*Identification of Priority Thematic Areas for Manipur State*" for various stakeholders of Manipur state was held in the Conference Hall of the Department of Anthropology, Manipur University, Canchipur, on the 6th of January 2022. It was organised by the Himalayan Knowledge Network (HKN) Manipur Chapter, Department of Forestry and Environmental Science, Manipur University, through the project funded by the G.B. Pant National Institute of Himalayan Environment, Almora. The workshop was attended by thirty-three eminent scientists, policymakers, practitioners, and professors representing various institutes, government and non-governmental organisations in the state. The list of participants is attached in *Annex-I*.

INAUGURAL SESSION

The workshop started with a brief opening and welcome remarks by Dr. Vivek Vaishnav, Assistant Professor of Forestry, Manipur University. This was followed by a candle-lighting ceremony by the dignitaries on the dais.

Prof. S. Ibotombi Singh, Dean, School of Human & Environmental Science, Manipur University and the Chief Guest of the function, in his address, highlighted the rich natural resources in the state. However, opined that there is a need for the people to understand the economic potential of these resources. The existing database on natural resources is quite fragmented to frame any worthwhile management and use plan. Besides, efficient data sharing among government and non-government organisations of the state is a distant dream and needs improvement. The state of Manipur has a fragile geological formation and is prone to various natural hazards. The impacts of climate change may aggravate the situation further. Due priority should be given to studying the various natural hazards, particularly the landslide occurring in the state.

Prof. S. Basanta Singh, Director, Directorate of Instruction, Central Agricultural University, Imphal, the Guest of honour of the function, expressed concerns about food security in the region with the unfolding of climate change. Northeastern India is very rich in biodiversity, but there is a lack of systematic scientific approach to taped the potential of these bioresources. In Manipur, orchids are found in plenty in the wild but failed to frame roadmaps to appropriately commercialised the resource. The deficiency of micronutrients in the diet is a significant problem in India. Worldwide, efforts are made to enhance the nutritional value of agricultural food products. Biofortification of crops using conventional selective breeding or

genetic engineering may be one of the priority areas of research in Manipur as the region has rich plant biodiversity.

Dr. R.S. Khoiyangbam, Head of the Department of Forestry and Environmental Science, Manipur University and the Nodal Officer of HKN Manipur Chapter, gave an overview of the objectives of the Himalayan Knowledge Network. Himalayan states, including Manipur, are very susceptible and vulnerable to environmental changes. Tackling these critical issues needs the collective efforts of various stakeholders. Research and development activities undertaken in the regions are primarily institution-specific and lacking in collaboration and networking among scientists, policymakers, and practitioners. The idea of HKN is conceptualised on the very premises to bridge these existing fundamental gaps. This consultative workshop attempts to bring together the various stakeholders to (i) choke out the priority thematic areas for sustainable development in the state and (ii) identify the prospective institutes and resource persons to prepare the thematic documents.

Dr. Ch. Raghumani, a faculty member of the Department of Forestry and Environmental Science, Manipur University, gave the vote of thanks at the end of the inaugural session.

CONSULTATIVE SESSION

Prof. N. Deva Singh, Retd. Professor and Former Dean, School of Human and Environmental Sciences, Manipur University, chaired the consultation session and

Prof. R. Varatharajan, Dean, School of Life Sciences, Manipur University, Co-chaired the consultation session.

The opinion expressed by the various stakeholder during the consultative session are summarised and reported below:

PRE-LUNCH SESSION

After a brief opening speech, the chairman called the consultative session to order at 11.30 am. At the very outset, the chair welcomed everyone present at the session. Then the chairman called the participants one by one to express their views.

Prof. M. C. Arunkumar, Head, Department of Psychology, Manipur University, stressed the deteriorating environmental conditions in the hills of the state due to wide-scale shifting cultivation and poppy plantation. Such land-use practices lead to deforestation, soil erosion and many other associated problems. On the one hand, shifting cultivation gives livelihood sustenance for the poor, while on the other hand, it leads to environmental degradation. There is a need for a delicate balance between livelihood sustenance and environmental sustainability. The traditional customary law acts as the bridge between livelihood and ecology conservation. The government could not effectively curb the shifting cultivation practices, and poppy cultivation as the land belongs to the community. Thus, there is a need to initiate programs linking livelihood sustenance and resource conservation. A practical model needs to be developed to address the issues of livelihood and sustainability. The model should monitor the human behaviour dynamics and plan for providing alternative means of sustenance to the affected people.

Dr. Huidrom Birkumar Singh, Scientist In-charge & Snr. Principal Scientist, CSIR-NEIST, Imphal, wished that the Himalayan Knowledge Network, Manipur Chapter should compile and publish books on biodiversity, medicinal plants and traditional knowledge systems prevailing in the state. The main focus of the endeavour of the HKN state chapter should be on documentation of the traditional knowledge systems.

Dr. L. Dinachandra Singh, Director, Manipur Science and Technology Council, Imphal, mentioned that Manipur is a hilly state with 90% of the area covered by hills. Much of the basic information about forest, land, and water resources, which are crucial for management purposes, is lacking. Prime emphasis should be given to establishing a detailed and exhaustive land use and land cover database of the state to minimise the environmental issues and recommend judicious use of land for horticulture and other activities.

Dr. T. Brajakumar Singh, Joint Director, Directorate of Environment and Climate Change, Govt. of Manipur: Major emphasis should be given to documenting traditional knowledge, climate change, natural resources management, and rejuvenation of springs. A robust database and networking of the traditional knowledge and practices are essential to integrate with policy making. Hassle-free sharing of available data among the various organisations in the state is crucial and needs to be streamlined. A perfect blending of the latest scientific findings with the existing traditional knowledge is the need of the hour. Rejuvenating groundwater, springs

and surface water should be emphasised to avoid a water crisis in the state with the rapidly unfolding climate change.

Y. Joykumar Singh, Project Director, EAP, PWD, Manipur: Movement is an intrinsic part of nature and is unavoidable for man. The construction of roads is essential to tape the natural resources. Roads bring lots of positivity among the people and enhance tourism. However, the land resources in Manipur are highly fragile; road making is very challenging and proper research on road construction almost not existent. Fortunately, in recent times, road construction has evolved with innovations and technologies, thereby considerably minimising the environmental impacts and reducing carbon footprints. The use of synthetic materials instead of blacktopping and geo-bags instead of stone is an emerging technology. Priority should be given to expanding the road network in the state and improving the connectivity as far as possible.

Dr. Biseshwori Thongam, Scientist-E, Institute of Bioresources and Sustainable Development, Ministry of Science and Technology, Govt. of India, Takyelpat, Imphal: The state is rich in natural resources, but there exists a vast knowledge gap on how the resources could be efficiently used for livelihood sustenance. Detailed mapping and quantification of forest resources are essential for proper conservation and management drives. Bioresources, plants, animals, microbes and their use for a sustainable livelihood must be given priority.

Prof. Kh. Pradipkumar Singh, Head, Department of Geography, Manipur University: The two top priority areas for the state of Manipur are: (i) Watershed management to conserve the environment and improve the livelihood of the people residing in the upland and lowland of the state and (ii) Developing a detailed userfriendly database of land use and land cover. If carried out successfully, watershed management may be able to resolve many of the environmental problems in the state. Management at subwatershed levels may be explored. Land use should be developed strictly based on land suitability and land capability. The problems of shifting cultivation can be resolved through watershed management and associated sustainable measures.

Prof. N. Okendro Singh, Central Agricultural University, Iroishemba, Imphal: Emphasises the importance of statistical data in policy making. Systematic extraction and collection of data are essential to establishing a sound database upon which we could rely for management and addressing various environmental problems.

The chair announces the end of the morning session of the consultative meeting at 1:30 pm.

POST-LUNCH SESSION

The chair called for the resumption of the consultative session to order at 2:30 pm and again welcomed everyone present at the session.

Ch. Ibeyaima, Scientist, Manipur Remote Sensing Applications Centre, Government of Manipur, Imphal: Bamboo cultivation can generate employment in Manipur. There are more than 54 species of bamboo in Manipur. Cultivation of bamboo is not labour intensive and have a comparatively lesser gestation period than that of tree plantation. Capacity building and scientific interventions may be required. Another aspect is eco-tourism. Application of remote sensing in environmental management and particularly suitable land mapping should be made for the state.

Mr. N. Ganesh, IFS, DFO, Soil and Water Conservation Division, Forest Department, Govt. of Manipur: There is a need for an evidence-based approach based on the sustainable culture and practised prevailing in the villages. The biggest challenge is the lack of reliable data. At times the policy of one solution for all problems miserably failed, as many customary practices often contradicted the government rules. There is no defined policy for land use in Manipur and no agroforestry model developed for the state. With the advancement of land use data and GIS applications, the provisions for devising a framework of land-use policy for the hilly region have become a reality. Agriculture is one of the most vulnerable sectors in the state of Manipur. The farmers have traditional knowledge but lack smooth incorporation of current scientific knowledge. Land use planning and the establishment of agroforestry practices should be given priority.

Dr. L. Chanu Langlentombi, Scientist, ICAR NEH Region, Manipur Centre, Lamphelpat, Imphal: Agroforestry models should be adopted to reduce the shifting cultivation. Awareness of climate change and its possible impacts on the bioresources is essential. Developing agroforestry systems compatible with local conditions may help overcome the adverse environmental effects. Since all the farmers are operating on a small scale with minimal land holding, it is important to introduce an integrated farming system to improve their livelihood.

Kulabidhu Chanam, Operation Manager, Geoservices, Kaula Lumpur: Oil resources in Manipur should be exploited with the help of modern oil extractions technologies that are more eco-friendly and cause very little harm to the environment.

Dr. N. Sanamacha Singh, Development Officer, Directorate of Environment and Climate Change, Government of Manipur: Expressed that agriculture has become one of the most vulnerable sectors today. Vulnerability assessment at the district level is essential. Forest should be conserved to counter the ever-increasing water scarcity problems in the state, and when water is there, it ensures productivity in agriculture.

Dr. Mayanglambam Lilee, Assistant professor, Department of Sociology, Manipur University: The customary law on the land-use system in the hilly region of the state, even though it exists, is not keeping up with the anthropogenic pressure. There is a need for reforms in the state's overall land-use system to rejuvenate the economic growth and upliftment of the people.

Dr. Yumlembam Khogen Singh, Assistant professor, Department of Sociology, Manipur University: Pointed out the trends of mono-centric urbanisation in the state exerting pressure on the patches of land in the valley. To accommodate the increasing population, planned urbanisation in the hilly areas is the need of the hour. Tourism, with minimum negative implications, such as rural tourism or green tourism, has to be encouraged as the hilly areas are ecologically fragile.

O. Chinglengsana Khuman, Environmental Scientist, Manipur Pollution Control Board, Imphal: Municipal solid waste management is an emerging and engaging issue in Imphal city and many other towns in Manipur. The main concern is dealing with the used plastic and polythenes. To add to the despair is the haphazardly disposed of used masks during the Covid-19 pandemic. There is an urgent need to focus on the state's waste pollution and management strategy. Proper waste management requires strengthening the collection system, waste facilities, treatment, recovery and recycling plants, awareness, and finding sites for proper end of life waste disposal.

CLOSING REMARKS

Due to paucity of time, the chairman curtailed the deliberation of the participants at 4:00 pm.

After listening to all the deliberation given by the learned participants, the chair and co-chair unanimously shortlisted the following issues as the thrust areas for developing the thematic document for the state of Manipur:

- 1) Agroforestry-horticulture to counter shifting cultivation
- 2) Development of Eco-tourism
- 3) Documentation of Traditional Knowledge
- 4) Utilisation and management of bioresources
- 5) Land use and land cover-based resource management

However, the chairman and co-chair articulated the limitations of time in the one-day deliberation and strongly felt that it would be more comprehensive if the same exercise could be organised for one more day.

The consultative meeting ended at 4:30 pm with closing remarks by the chair. The chair thanked the participants for availing themselves and participating diligently in the deliberations. He also thanked the organising committee.

LIST OF PARTICIPANTS

SI. No.	Name	Affiliation
1.	Dr. Huidrom Birkumar Singh	Scientist In-charge & Snr. Principal Scientist, CSIR-NEIST, Lamphel, Imphal
2.	Prof. M. C. Arunkumar	Professor, Head, Deptt. of Psychology, Manipur University
3.	Dr. Ngangbam Romeji Singh	Assistant Professor, Department of Civil Engineering NIT Manipur
4.	Dr. W. Roshan Singh	Environmental Engineer, Manipur Pollution Control Board, Lamphel, Imphal
5.	Dr. T. Brajakumar Singh	Joint Director, Directorate of Environment and Climate Change, Govt. of Manipur, Imphal
6.	Dr. N. Sanamacha Singh	Development Officer, Directorate of Environment and Climate Change, Govt. of Manipur, Imphal
7.	Dr. L. Dinachandra Singh	Director, Manipur Science and Technology Council (MASTEC), Govt. of Manipur, Takyelpat, Imphal
8.	Dr. R. K. Pritamjit Singh	Scientist, Manipur Science and Technology Council (MASTEC), Govt. of Manipur, Takyelpat, Imphal
9.	Chungkham Ibeyaima	Scientist, Manipur Remote Sensing Applications Centre (MARSAC), Govt. of Manipur
10.	Prof. Naorem Okendro Singh	Professor & Head, Department of Basic Sc. & Humanities, Central Agriculture University, Imphal
11.	Dr. Biseshwori Thongam	Scientist E, Institute of Bioresources and Sustainable Development (IBSD), Ministry of Science and Technology, Govt. of India, Takyelpat, Imphal
12.	Prof. Kh. Pradipkumar Singh	Professor & Head, Deptt. of Geography, Manipur University, Canchipur, Imphal
13.	Dr. M Hemanta Meitei	Associate Professor, Deptt. of Economics Manipur University, Canchipur, Imphal
14.	Dr. Damodar Nepram	Associate Professor, Dept of Economics Manipur University, Canchipur, Imphal
15.	Mr. N. Ganesh, IFS	DFO, Soil and water conservation division, Forest Department, Govt. of Manipur, Imphal
16.	Prof. S. Jibonkumar Singh	Professor, Deptt. of Anthropology, Manipur University, Canchipur, Imphal
17.	Y. Joykumar Singh	Project Director, Externally Aided Project, PWD, Govt. of Manipur, Imphal
18.	Prof. Yengkhom Raghumani Singh	Professor, Deptt. of Earth Sciences, Manipur University, Canchipur, Imphal
19.	Dr. Yumlembam Khogen	Assistant Professor, Deptt. of Sociology, Manipur University, Canchipur, Imphal
20.	Dr. Mayanglambam Lilee	Assistant Professor, Deptt. of Sociology Manipur University, Canchipur, Imphal

SI.	Name	Affiliation
No.		
21.	Kulabhidhu Chanam	Operations Manager,
		Geoservices, Kaula Lumpur
22.	Khumukcham Pramodini Devi	Assistant Professor,
		T.S Paul Manipur Women College, Imphal
23.	Dr. H. Dhamendra Singh	Scientific Officer,
		Loktak Development Authority (LDA)
24.	Aribam Ponika	Project Officer, Manipur Organic Mission Agency
		(MOMA), Deptt. Of Hort. & Soil Conservation, Govt.
		of Manipur, Imphal
25.	Konsam Deben Singh	Project Manager,
		Externally Aided Project, PWD, Govt. of Manipur,
		Imphal
26.	Oinam Chinglensana Khuman	Environmental Scientist,
		Manipur Pollution Control Board (MPCB), Lamphel,
		Imphal
27.	Er. Rubee Kongbrailatpam	Surveyor of work, National Highway, Assistant
		Engineer, EAP, PWD, Manipur
28.	L. Chanu Langlentombi	Scientist, ICAR NEH Region, Manipur Centre,
		Lamphelpat,, Lamphelpat
29.	Mukesh Kumar Yadav	Research Scholar, Department of Civil Engineering,
		NIT Manipur
30.	Gunadhar Singh Keisham	Research Scholar, Department of Civil Engineering,
		NIT Manipur
31.	Khangembam Manda Devi	Research Scholar, Deptt. of Political Science,
		Manipur University, Canchipur, Imphal
32.	Ningnombam Sympathy Devi	Research Scholar, Deptt. of Political Science,
		Manipur University, Canchipur, Imphal
33.	Elizabeth Maibam	Research Scholar, Deptt. of Political Science,
		Manipur University, Canchipur, Imphal



CONSULTATION WORKSHOP FOR VARIOUS STAKEHOLDERS OF MANIPUR STATE OF MANIPUR









MEETING BROCHURE





CONSULTATION WORKSHOP FOR VARIOUS STAKEHOLDERS OF MANIPUR STATE

on

"IDENTIFICATION OF PRIORITY THEMATIC AREAS FOR MANIPUR STATE"

> Thursday, January - 06th, 2022 Sharp: 10.00 am onwards

Venue: Conference Hall, Department of Anthropology, MU

Organised by:

HKN Manipur Chapter
Department of Forestry & Environmental Science
Manipur University, Canchipur

In collaboration with
G.B. Pant National Instt. of Himalayan Environment
(GBPNIHE)
Ministry of Environment Forest & Climate Change,
Government of India

About the Workshop

This consultation workshop will help in bringing together the various stakeholders of Manipur state to (i) Identify the priority thematic areas for the sustainable development of Manipur and (ii) identify the prospective institutes and Resource persons for preparation of the thematic documents

Himalayan Knowledge Network (HKN)

The Himalayan region is well recognised for its richness in natural resources, forest, flora, fauna and socio-cultural diversity. Being one of the youngest mountain chains, the region is highly vulnerable to environmental problems. There is a need for a database for decision making in the vulnerable Himalayan region. The information generated through various R&D activities by different organisations in the Indian Himalayan Region remains scattered and fragmented.

To address these critical issues, there is a need to foster collaboration and networking among scientists, policymakers and practitioners, leading to improved convergence and synergistic actions in a holistic and integrated manner. This Himalayan Knowledge Network (HKN) is conceptualised to enhance collaboration and networking among all relevant institutions engaged with Himalayan specific R&D leading to environmental conservation and sustainable development. HKN would synergise research and academia for addressing pressing environmental challenges for fostering conservation and development outcomes in tune with regional, national and international priorities.

Salient Features of HKN

 HKN- a regional forum for fostering knowledge documentation

- Promotion of sharing and use of knowledge across stakeholders
- Linking academia and research organisations, best practices, mountain communities, policymakers and practitioners
- ✓ Synergising actions of government and nongovernment actors
- ✓ Achieving sustainable development outcomes

HKN Structure and Functioning

The HKN strives to establish a 'Network of Network'. Efforts will be made to bring Universities and Institutions working within and outside the IHR for the cause of the Himalayan environment and development into the HKN forum as a network member. The State Chapters will be intended to facilitate the sharing of data relating to Himalayan Environmental & Development. The HKN structure and functioning could be briefly highlighted as follows:

- ✓ Promote and strengthen evidence-based Policies and Practices
- ✓ Undertake R&D on Mutual Interest for Achieving Regional collaboration
- ✓ Establish state-specific HKN Chapters
- Establish Youth Forum in Indian Himalayan
- ✓ Strengthening Himalayan Data Centre
- ✓ Data Knowledge sharing

Deptt. of Forestry & Env. Sc., MU

Manipur University was established on 5th June 1980 as a teaching-cum-affiliating University at Imphal with territorial jurisdiction over the whole of the state of Manipur, and it was converted into a central university w.e.f. 13-10-2005.

The University has 108 affiliated colleges inclusive of 2 medical colleges. Manipur Institute of Technology (MIT) is a constituent college of the University. The Department of Forestry and Environmental Science (FES) was established in 2013. The Department envisioned establishing a prime centre for education and research in the thrust area of regional, national and global interests related to forestry and environmental science. Initially, the Department offers M.Sc. Course on Forestry and Environmental Science seasons was bifurcated into M.Sc. Forestry and M.Sc. Environmental Science from the year 2017.

G.B. Pant National Institute of Himalayan

G.B. Pant National Institute of Himalavan Environment was established in 1988-89 as an autonomous Institute of the Ministry of Environment, Forest & Climate Change (MoEF & CC), Govt. of India, which has been identified as a focal agency to advance scientific knowledge, to evolve integrated management strategies, demonstrate their efficacy for conservation of natural resources, and to ensure environmentally sound development in the entire Indian Himalayan Region (IHR). The Institute attempts to maintain a balance of intricate linkages between socio-cultural, ecological, economic and physical systems that could lead to sustainability in the IHR. To achieve this, the Institute follows a multidisciplinary and holistic approach in all its R&D programmes, emphasising the interlinking of natural and social sciences. In this effort, particular attention is given to preserving fragile mountain ecosystems, indigenous knowledge systems and sustainable use of natural resources. A conscious effort is made to ensure the participation of local inhabitants for long-term acceptance and success of

various programmes. Training, environmental education and awareness to different stakeholders are essential components of all the R&D programmes of the institute.

Advisory Committee

- Prof. S. Ibotombi Singh, Dean School of Human & Environmental Sc., MU
- Prof. M. Manibabu Singh, HoD, Deptt. of Anthropology, MU
 Prof. S. Jibonkumar Singh, Deptt. of
- Prof. S. Jibonkumar Singh, Deptt. of Anthropology, MU
 Prof. M. C. Arunkumar, HoD. Deptt. of
- Psychology, MU
- Prof. Kh. Pradip Kumar Singh, HoD, Deptt. of Geography, MU

Organising Secretary:

 Dr. Vivek Vaishnav, Asst. Professor, Deptt. of Forestry & Environmental Sc., MU

Co - Organising Secretaries:

- Ch. Suraj Singh, Deptt. of Forestry & Environmental Sc., MU
- Nongthombam Suraj Singh, Deptt. of Forestry & Environmental Sc., MU
- Kangabam Kripaliya Devi, Deptt. of Forestry & Environmental Sc., MU

CONVENOR

Dr. R.S. Khoiyangbam

Principal Investigator (Nodal Person) HKN Manipur Chapter & HoD i/c, Deptt. of Forestry & Env. Sc., MU 06th January 2022

TIME: 10.00 am TO 4.00 pm

PROGRAMME CHART



Department of Forestry and Environmental Science Manipur University

Cordially request your kind presence at the workshop on

Consultation Workshop for Various Stakeholders of Manipur State

"Identification of Priority Thematic Areas for Manipur State"

Prof. S. Ibotombi Singh

Dean, School of Human & Environmental Science, MU

Prof. S. Basanta Singh

Director, Directorate of Instruction, CAU

Dr. R.S. Khoiyangbam

HoD, Department of Forestry & Env. Sc., MU

Have kindly consented to grace the function as the Chief Guest, Guest of Honour and President respectively at the opening programme of workshop

Prof. N. Deva Singh

Retd. Professor & Former Dean, School of Human and Env. Sc., MU

Prof. R. Varatharajan

Professor, Department of Zoology, MU

Have consented to Chair and Co-chair the Consultation Session

Date: 06th January 2022 (Thursday)

Time: 10.00 AM

Venue: Conference Hall, Department of Anthropology **Manipur University**

Programme Overleaf

PROGRAMME

Inaugural Session

10.00 AM Arrival of Dignitaries 10.10 AM Welcome address

10.20 AM. Candle Lighting by Dignitaries 10.30 AM Address by the Chief Guest 10.40 AM Address by the Guest of Honour 10.50 AM Address by the President

11.00 AM Vote of Thanks

11.10 AM Tea and Snacks

Consultation Session

11.30 AM Opening speech by the Chair

11.35 AM Consultation Session

01.30 PM Lunch

02.30 PM Consultation Session

04.00 PM Closing Remarks by the Session Chair