

REPORT ON MANT-PSC STAKEHOLDER CONSULTATION WORKSHOP

February 24, 2024

Conference Hall, MANT, Laulara, Purulia



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MANT-PSC Stakeholder Consultation Workshop

Date

February 24, 2024

Venue

Conference Hall, MANT, Laulara, Purulia

Organized by

Peoples' Science Center, Manbhum Ananda Ashram Nityananda Trust
PSC, MANT

Financial support

International Network for Government Science Advice, Asia
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Introduction

The MANT-PSC Stakeholder Consultation Workshop was convened under the People Science Centre (PSC) of Manbhum Ananda Ashram Nityananda Trust (MANT) with financial support from INGSA-Asia. The workshop aimed to empower communities with science and their development indicators, particularly focusing on the tribal populations in Purulia, West Bengal. The objectives included amplifying tribal voices on climate change impacts, collecting input on challenges in livestock, agriculture, and health, facilitating dialogue among stakeholders, and compiling insights into a synthesis of learning.



Dr. Chandidas Mukherjee

Secretary, MANT

About People's Science Centre (PSC)

Indigenous communities are facing dire consequences due to unsustainable exploitation, prompting MANT to propose a comprehensive solution. In response to the degradation of nature, MANT has initiated the establishment of The Peoples' Science Centre (PSC) to empower these communities with scientific knowledge and development indicators. The primary focus of this initiative is to uplift marginalized and vulnerable groups who heavily rely on ecosystem services for their livelihoods. Through targeted interventions, the PSC aims to equip local youth, farmers, and women's groups with the necessary skills to conserve local resources and adopt climate-smart agriculture (CSA) practices.



Dr. Nirmalya Mukherjee

Director, CPHR-MANT

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By doing so, the PSC seeks to bolster community resilience against market fluctuations and climate-related shocks. It will actively work towards mitigating risks associated with potential crop failures and disease outbreaks among humans, animals, and crops. Furthermore, the PSC is committed to preserving the health of soil, water, flora, and fauna, ensuring the sustainability of ecosystems.

MANT envisions the PSC as a hub for learning, idea exchange, and the practical application of measures to address emerging threats faced by local communities. Through community media initiatives, MANT has already begun raising awareness about pressing issues such as climate change and public health concerns like malaria.

To translate these ideas into tangible actions, MANT emphasizes the importance of institutionalized dissemination and hands-on local implementation. Ultimately, the goal is to empower local communities to develop village-based, ecosystem-specific mitigation and adaptation plans to effectively tackle the challenges posed by climate change.



Workshop objectives/Purpose

Following are the objectives of the one-day workshop:

- Engage various stakeholders to amplify tribal voices on climate change impacts.
- Collect input from tribal communities in Purulia, West Bengal on challenges in livestock, agriculture, and health.
- Facilitate dialogue among policymakers, researchers, and tribal communities on climate-related issues in Purulia.
- Compile insights from workshop participants into a comprehensive synthesis of learning.



Dr. Denny John

Professor of Public Health, MSRUAS, Bengaluru

About Climate Change and its effect

Climate change poses significant challenges to the health and well-being of tribal communities in Purulia district, West Bengal. The unique vulnerabilities of these populations, coupled with their reliance on natural resources for sustenance, exacerbate the adverse effects of changing climatic patterns.

Rising temperatures and erratic weather patterns contribute to increased incidences of heat-related illnesses among tribal communities, especially those engaged in outdoor agricultural activities. Heatwaves can lead to dehydration, heat exhaustion, and heatstroke, posing serious health risks, particularly to the elderly and young children.



Dr Suman Kanungo

MBBS, DIH, PHD-Physiology, Scientist-F, Epidemiology Division, ICMR-NICED

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Furthermore, changes in precipitation patterns and extreme weather events such as floods and droughts disrupt traditional livelihoods, affecting food security and nutrition among tribal populations. Crop failures and loss of livestock diminish access to essential nutrients, leading to malnutrition and heightened susceptibility to infectious diseases.

The degradation of ecosystems due to deforestation, soil erosion, and loss of biodiversity further compounds health challenges faced by tribal communities. Impacts on water sources can result in waterborne diseases, while decreased forest cover contributes to respiratory illnesses due to air pollution and exposure to indoor smoke from cooking fires.

Additionally, climate change exacerbates existing health inequalities, disproportionately affecting marginalized and vulnerable groups within tribal communities. Limited access to healthcare facilities and resources exacerbates the burden of climate-related health risks, perpetuating cycles of poverty and ill health.

Addressing the health impacts of climate change on tribal populations in Purulia requires a multifaceted approach that integrates community-based adaptation strategies, enhanced access to healthcare services, and sustainable environmental management practices. Collaborative efforts involving government agencies, non-governmental organizations, and local communities are essential to build resilience and mitigate the adverse health effects of climate change in the region.



Climate change and Public Health

Climate change significantly impacts public health by exacerbating heat-related illnesses, increasing the prevalence of vector-borne diseases, and worsening air quality. Extreme weather events like floods and droughts disrupt healthcare infrastructure and compromise access to essential services. Vulnerable populations, including children, the elderly, and those with pre-existing health conditions, are particularly at risk. Addressing climate change is essential for safeguarding public health, necessitating mitigation measures to reduce greenhouse gas emissions and adaptation strategies to enhance resilience in healthcare systems and communities.



Mr Somdeb Mukherjee

DPC-Howrah, Department of Health and Family Welfare,
Govt of West Bengal

Voices from the field

Highlighted points are mentioned below:

- Climate change poses significant threats to animal health by altering habitats, increasing the spread of diseases, and disrupting food availability. Shifts in temperature and precipitation patterns affecting the distribution of vectors and pathogens, leading to outbreaks of infectious diseases among wildlife, livestock, and domestic animals. Additionally, extreme weather events like heatwaves, storms, and floods causing injuries, displacement, and mortality among animal populations.
- Effective mass awareness initiatives tailored to tribal populations should prioritize culturally sensitive communication methods and community engagement strategies. This may include the use of local languages, traditional storytelling, community gatherings, and indigenous knowledge systems to convey information about climate change impacts and adaptation strategies.
- Key messages should emphasize the link between environmental changes and local livelihoods, health, and cultural heritage. Highlighting the importance of sustainable resource management, traditional ecological knowledge, and community resilience-building can foster a sense of ownership and collective action among tribal communities.



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- Partnerships between government agencies, non-governmental organizations, local leaders, and community-based organizations are essential for the successful implementation of mass awareness campaigns. These partnerships can facilitate the co-creation of educational materials, capacity-building workshops, and community-led initiatives aimed at raising awareness and fostering adaptive responses to climate change.
- Many tribal communities rely on natural resources for their livelihoods, including agriculture, fishing, hunting, and gathering. Changes in weather patterns, such as irregular rainfall or prolonged droughts, can disrupt these traditional practices, leading to food insecurity and economic instability.
- Tribal cultures are deeply intertwined with their surrounding environment, and climate change-induced shifts can lead to the loss of cultural practices, knowledge, and languages. For example, changes in plant and animal distributions can affect traditional medicine, ceremonies, and spiritual beliefs.
- Climate change exacerbates health issues among tribal populations, including heat-related illnesses, vector-borne diseases, and malnutrition. Limited access to healthcare services and inadequate infrastructure further compound these risks, particularly in remote tribal areas.

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- Extreme weather events and environmental degradation can force tribal communities to relocate from their ancestral lands, leading to loss of cultural identity, social disruption, and increased vulnerability to exploitation and discrimination.
- Tribal territories often encompass areas of high biodiversity, which are crucial for ecosystem services and cultural practices. Climate change-driven habitat loss, deforestation, and species extinction further threaten tribal livelihoods and cultural heritage.
- Tribal communities have limited access to resources, technology, and information needed to adapt to climate change impacts. Additionally, socio-political marginalization and lack of recognition of indigenous rights hinder their ability to participate in decision-making processes and access support for adaptation efforts.
- Climate change's effects on agriculture are a serious worry, especially in areas where environmental issues are already present. The Purulia district in West Bengal, India, was emphasized by the workshop attendees as an example of how climate fluctuations negatively impact agriculture.
- A number of issues, including low rainfall, poor soil moisture retention, high aridity, irregular rainfall patterns, and rapid surface runoff, severely restrict the district's ability to support agriculture. Climate change makes these conditions worse by increasing the frequency and intensity of heatwaves, droughts, and other extreme weather events. These climate extremes directly threaten agribusiness's ability to remain viable, as they affect crop growth, productivity, photosynthesis, and transpiration rates.
- Indigenous farmers have identified the conservation of runoff water for use in dry seasons, addressing the severe lack of moisture in different months, and growing crop types with short maturation times as adaptation techniques. Additionally, they recommended that non-traditional cash crops be introduced in order to take advantage of the district's current geoclimatic conditions and increase farmers' cost-benefit ratio. But even with heavy rainfall, dryness is still a persistent problem, especially in the central and southern regions of Purulia.
- Agriculture is in fact, seriously threatened by climate change, especially in Purulia's tribal population, which is particularly sensitive. It affects food security, moisture availability, and crop quantity and quality. Improving water conservation methods, adjusting to short-duration crops, and introducing appropriate cash crops to lessen the negative effects of climate change on agriculture are just a few of the many strategies needed to address these issues.

Policy Implications

- Climate change education is of utmost importance in tribal settlements of Purulia due to the distinct challenges encountered by these groups. Their settlements are highly susceptible to the effects of climate change, including droughts, unpredictable rainfall, and extreme temperatures. The environmental changes have a direct impact on agriculture, which serves as a key source of income. Providing education to these people regarding climate change in their language and by involving their youths can enhance their comprehension of the causes underlying these changes and the significance of adjusting their farming methods to minimize negative consequences.
- Promoting awareness of climate change by using community media can provide tribal villagers with the information and resources needed to adjust to evolving climatic conditions. These encompass methods for conserving water, implementing crop varieties that are resistant to drought, and adopting practices to conserve soil. Gaining a comprehensive understanding of these methods can greatly improve their ability to withstand and adapt to the effects of climate change.
- Tribal communities frequently hold indigenous wisdom that is highly beneficial for adopting sustainable practices and promoting environmental conservation. Climate change education initiatives can incorporate contemporary scientific knowledge with traditional methods to advance sustainable agriculture and effective natural resource management, guaranteeing the transmission of these skills to future generations.
- The promotion of awareness of climate change by using community media has the potential to enable these communities to proactively enhance their ability to withstand and recover from climate impacts. This involves strategizing and executing community-driven initiatives to adapt to climate change, such as constructing water collection infrastructure, planting trees to increase forest cover, and establishing systems to detect and respond to severe weather conditions.



- Policy engagement and advocacy are enhanced when communities are educated, as they are more capable of effectively interacting with policymakers and advocating for their rights and needs. Gaining a comprehensive understanding of the wider consequences of climate change empowers individuals to engage more actively in decision-making processes and advocate for policies that promote climate resilience and sustainable development.
- The tribal areas of Purulia possess a significant amount of biodiversity, which is being endangered by the effects of climate change. Community Media initiatives can enhance understanding of the significance of preserving biodiversity for ecological equilibrium, which is essential for maintaining agricultural practices and traditional livelihoods.
- Climate change has both direct and indirect effects on health, especially in rural and tribal regions. Acquiring knowledge in this area might result in improved readiness and reaction to health hazards caused by climate change, such as extreme heat events, illnesses transmitted through water, and inadequate nutrition caused by crop loss.
- Community media action on climate change is crucial in tribal villages of Purulia to enhance the ability to adapt, encourage sustainable practices, strengthen resilience, and ensure the well-being and sustainable development of these people in response to increasing climate problems.

Conclusions

Addressing the impacts of climate change on tribal populations requires recognizing their unique vulnerabilities and integrating indigenous knowledge and perspectives into climate adaptation and mitigation strategies. The MANT-PSC Stakeholder Consultation Workshop provided a platform for tribal communities, policymakers, researchers, and practitioners to engage in dialogue on climate change impacts and mitigation strategies. The insights gathered will contribute to the development of a comprehensive synthesis of learning and policy briefs aimed at addressing the challenges faced by tribal populations in Purulia, West Bengal. Collaborative efforts between governments, non-governmental organizations, academia, and tribal communities are essential for building resilience, promoting sustainable development, and safeguarding the rights and well-being of indigenous peoples in the face of climate change.

Documentation & Media

Photography was managed by Mr. Basudeb Mondal, Head-Community Media, MANT, while the workshop was broadcasted live on Facebook and Nityananda Janavani Community Radio Station by Mr. Sk Manjur Ali, Station Manager.

Glimpses of the workshop



Programme Schedule

Time	Topic	Speakers
9:30-10:00 AM	Registration of participants	
10:00-10:30 AM	Welcome address	Dr. Chandidas Mukherjee, Secretary, MANT
10:30- 11:00 AM	About People's Science Centre, MANT	Dr. Nirmalya Mukherjee, Director, MANT
	Purpose of the workshop	Dr. Denny John, Professor of Public Health MSRUAS, Bengaluru
11:00-11:15 AM	Tea break	
11:15-12:30 PM	About Climate Change and its effect	Dr Suman Kanungo, MBBS, DIH, PHD-Physiology, Scientist-F, Epidemiology Division, ICMR-NICED
12:30-1:30 PM	Voices from the field	<p>Moderator Dr. Nirmalya Mukherjee, Director, MANT</p> <p>Speakers</p> <ul style="list-style-type: none"> • Tribal Community Representatives • Traditional tribal leaderships • Elected leaders from local Government • SHG leaders • Independent researcher • Backward Class Welfare Officer • Block Livestock Development Officer • Retd. Teacher • Social activist • Radio Jockeys/Producers
1:30-1:50 PM	Discussion on what we can learn from the experiences	<ol style="list-style-type: none"> 1. Dr Suman Kanungo, MBBS, DIH, PHD-Physiology, Scientist-F, Epidemiology Division, ICMR-NICED 2. Mr Somdeb Mukherjee, DPC-Howrah, Department of Health and Family Welfare, Govt of West Bengal
1:50-2:00 PM	Closing remarks	Dr. Chandidas Mukherjee, Secretary, MANT
2:00 PM	Lunch	