

Report on Activities of Department of Environmental Science, Shillong College and Ek Bharat Shrestha Bharat Club, Shillong College as part of celebrating 50 years of statehood of Meghalaya.

Inter-Department Sit and Draw Competition

An Inter- Department Sit and Draw Competition on the Topic “Effects of Climate Change in Meghalaya” was organized by the Department of Env. Science, Shillong College in collaboration with Ek Bharat Shrestha Bharat Club, Shillong College on the 8th December, 2021 at 10 am in the Environmental Science Laboratory.

All together 14 students from 8 departments participated in the competition (Attendance Sheet attached). Dr S Pandey, Head, Department of Hindi was the judge of the Competition. Three best drawings were awarded prizes. The winners of the competition are:

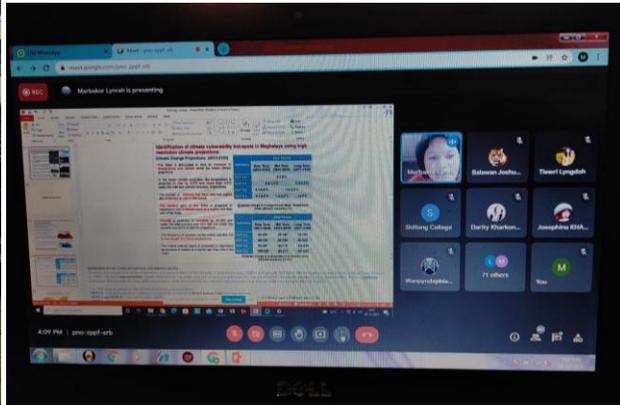
1st Prize - Bipin Sanasam, Department of Education

2nd Prize - Moon Singh Sawkmie, Department of Mathematics

3rd Prize - Athrv Aaditya Sarmah, Department of Microbiology

Webinar on "Overview of Climate Change in Meghalaya and Adaptation Initiatives"

The Department of Environmental Science in Collaboration of Ek Bharat Shrestha Bharat Club, Shillong College, organized a Webinar on "**Overview of Climate Change in Meghalaya and Adaptation Initiatives**" on the 8th December, 2021 with Dr. M.M. Lynrah, Project Scientist, Meghalaya Climate Change Centre, MBDA, Meghalaya as Resource person. Dr. Lynrah spoke of the reality of climate change and how Meghalaya is being affected and will continue to be impacted in the future. She outlined inter alia, the carbon footprint of Meghalaya, the vulnerability of the state to climate change at the district and block level, the impacts of climate change and the perception of the local communities. It is notable that industries account for the majority of climate change inducing pollution in the state. She then outlined the different climate change adaptation methods that can be applied in the state, and emphasized the importance of increasing carbon sequestration and water resource conservation.



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CELEBRATING THE 50TH ANNIVERSARY OF STATEHOOD OF MEGHALAYA

WEBINAR
on
"Overview of Climate Change in Meghalaya and Adaptation Initiatives"

Organised by
The Department of Environmental Science, Shillong College
in collaboration with
Ek Bihar Shrestha Bihar Club, Shillong College

Resource Person
Dr. Marbakor Mary Lynrah
Project Scientist,
Meghalaya Climate Change
Centre, MBDA, Shillong

Date: 8th December, 2021
Time: 3:30-4:30 PM

Video call link:
<https://meet.google.com/pnczrpfzrb>

(78)

Batriti Nongbri (You)

M B Lynser

Tiewri Lyngdoh

Marbakor Lynrah

Others in the meeting (74)

Aaditya Sarmah



Report on Webinar entitled "Overview of Climate Change in Meghalaya and Adaptation Initiatives"

Organised by the Department of Env. Science, Shillong College in collaboration with Ek Bharat Shrestha Bharat Club, Shillong College.

Resource Person: Dr. Marbakor Mary Lynrah, Project Scientist, Meghalaya Climate Change Centre, MBDA, Shillong.

Date : 8th December

Time: 3:30-4:30 pm

1. Full Session Report

The online Webinar was opened by Dr. B.J. Mawrie, Nodal Officer, EBSB club, Shillong College, who introduced the resource person and outlined the importance of the topic of climate change and its relevance to and impacts on the state of Meghalaya.

Dr. B.J. Mawrie then called upon Dr. E. Kharkongor, Principal, Shillong College, to give the opening address. Dr. Kharkongor thanked Dr. Lynrah for sparing her time to impart her knowledge to participants and the dept. of Environmental Science, for organising the programme. She emphasized the importance of the environment and the need to gain awareness about it, and to transform that awareness into action to better protect the environment for future generations.

Dr. B.J. Mawrie then called upon the resource person, Dr. M.M. Lynrah, to give her presentation.

Dr. Lynrah began her presentation by thanking the organisers before outlining the findings of the IPCC 6th Assessment report that climate change is a reality that has far reaching impacts. She also gave a background of environmental policy: the Kyoto protocol and subsequent Conferences of Parties wherein the climate change mitigation commitments of every signatory party were detailed.

She described the development of a National Action plan on climate change arrived at in India in the year 2008. The different missions under the NAP are currently in progress. She also outlined Nationally Determined Contribution targets as of October 2015. Among these, it was notable that non-fossil fuel energy sources were to be promoted by 2030. At COP 21, the Prime Minister, Narendra Modi called for the revision of India's INDC goals. An increase in the percentage of non-fossil fuel percentage in India to 50% by 2030.

Dr. Lynrah then spoke about the impacts of climate change in Meghalaya. She highlighted the vulnerability of the state to Meghalaya due to ecological, environmental and socio-economic

conditions of the state. Higher temperatures as well as extreme weather events have increased in frequency. The Govt. has employed several research endeavours to document climate change in the state, local methods of adaptation with a view of applying them statewide. She also outlined the various impacts of climate change such as flash floods, landslides, soil erosion, siltation, changes in forest types, changes in wildlife habitats and migratory routes, stress on crops and livestock etc.

Dr. Lynrah outlined the aims and objectives of the State Govt. with regard to climate change adaptation in the state. She also listed the different milestones of climate change mitigation taken in the state.

The MCCC has collaborated with reputed institutions on climate modelling and vulnerability assessment. The Govt. also attempts to bring about capacity building and education of the public with regard to climate change. National and International funds are sought for projects in the state.

The NAP on climate change is translated to the state level, and Meghalaya's State Action Plan was approved in 2014 and is comprised of 7 sectors including Sustainable Agriculture, S. Habitat, S. forestry, S. water resources, mining and energy.

Studies have been conducted to gain knowledge about climate change including studies of carbon footprint, identification of vulnerable hotspots in Meghalaya among others. The use of high resolution imagery for climate modelling has shown an increase in temperature at 0.31 degrees C/ year. There has been an increase in temperature at the rate of 1 degree for the past three decades. Erratic nature of Rainfall has also increased. Future projections predict that temperatures will rise by up to 3.5 degrees C. Rainfall is also projected to increase by up to 300mm under the mild scenario with the most increase projected to be felt in the central plateau region. She also highlighted the districts most vulnerable to temperature and rainfall changes. Notably Saipung and Khliehriat are to be extremely impacted by changes in rainfall.

Meghalaya has been assessed with regard to its carbon footprint and has been found to be carbon positive. Most of emissions are from the industrial sector. About 25% of the total area in Meghalaya is vulnerable to climate change. Under RCP 8.5, 70% of forests will become very vulnerable to climate change.

The majority of people surveyed state they have expressed an experience and awareness of impacts of climate change such as hotter days, decrease in water available, increase in extreme weather etc. Respondents highlighted biological changes such as reduction in fruit size, early ripening, increased in pest incidences etc. Traditional knowledge of local communities with regard to climate change have also been recorded.

In terms of Climate Change Vulnerability, as per Vulnerability Index, West Khasi Hills District was found to be the most vulnerable to climate change. At the Block level, Thadlaskein block

was found to be the most vulnerable block. Major drivers included poverty and lack of education especially in rural areas.

Dr. Lynrah then spoke about who we can adapt to climate change. Responses have been classified into mitigation and adaptation. Developing countries are as yet focusing on development and therefore cannot really engage in mitigation, but can however focus on adaptation. Various adaptation methods such as population control, drought preparation, planting drought resistant crops etc.

Meghalaya needs to reduce emissions and adapt to projected climate change. Climate change adaptation needs to be factored into every sector in state development and governance. Changes in the energy sector and electricity sources are crucial to lowering emissions. Lifestyle changes and self-education are important. She highlighted the importance to plant trees, increase sequestration and save water, an ever declining resource.

The floor was then opened for questions during which Dr. Lynrah answered the various queries of students and attending faculty alike.

Dr. B.J. Mawrie then announced the winners of the Sit and Draw Competition held by the Dept. of Env Science in Collaboration with the EBSB Club, Shillong College, as part of the Celebration of the 50 Years of Statehood of the state of Meghalaya.

Dr. M.B. Lynser, Head, Dept. of Environmental Science, Shillong College, proposed the vote of thanks. She thanked the Principal, Dr. E. Kharkongor, the Vice Principals, Shri K.D. Roy and Shri. B. Syiem, the IQAC Coordinator, Dr. S. Sharma, and the resource person, Dr. M.M. Lynrah. She also thanked Dr. S. Pandey who served as judge for the sit and draw competition, the management for financial support provided and all participants in the webinar.

Dr. B.J. Mawrie then ended the webinar.