

TROP ICSU: Trans-disciplinary Research Oriented Pedagogy for Improving Climate Studies and Understanding <u>https://tropicsu.org</u>

Report on the TROP ICSU Workshop for Teachers at the Mount Carmel College (MCC), Bangalore, India (Host Partner)

Workshop Title:	Faculty Development Program cum Workshop CLIMATE CHANGE IN YOUR CLASSROOM: A WORKSHOP FOR TEACHERS OF ALL DISCIPLINES
Date:	December 16th, 2025
Venue:	Mount Carmel College, Bangalore
Facilitators from TROP ICSU team:	Ms. Sanjana Singh, Mr. Sanchit Sant
Facilitating and Organising team from MCC:	Dr.Chanthu S. and Mount Carmel College Team
Number of participants:	33
Disciplines/Subjects taught by participants:	Biological Sciences, Physics, Mathematics & Statistics, Chemistry, Physics, Earth Sciences, Environmental Sciences, Humanities, Social Sciences Geography, Economics etc.
	A detailed listing of the disciplines is provided in <u>Annex I: Details of Participants</u>





A global project to integrate Climate Change Education across the Curriculum

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Summary of the Workshop

A **1-day faculty development program cum workshop** for educators from various disciplines teaching different grade levels was conducted in collaboration with the Mount Carmel College as Host Partner on the 16th of December, 2025.



Group Photo: Workshop for Teachers and Educators, Mount Carmel College, Bengaluru, India.

In this workshop, participants learnt:

- 1. How to integrate climate change in their everyday teaching
- 2. How to use inter- and trans-disciplinary teaching resources in their classroom
- 3. Effective teaching strategies using digital teaching tools
- 4. Ideating lesson plan concepts based on various topics in disciplines
- 5. How to teach key topics in their discipline with a climate related example in their classroom





A global project to integrate Climate Change Education across the Curriculum

This workshop introduced the participants to digital teaching resources to teach topics in the Sciences, Mathematics, Social Sciences, and the Humanities disciplines using climate-related examples, case studies, and activities. In this interactive workshop, participants carried out several hands-on activities through the use of different types of digital teaching tools. Participants also discussed and ideated their own lesson plan concepts that they would use in their classroom to enhance the conceptual understanding of topics in different disciplines while increasing awareness of climate change.



Plenary sessions conducted by Ms. Sanjana Singh and Sanchit Sant at the workshop, MCC, Bangalore, India.

Session 1 Summary

The workshop commenced with welcome remarks by Ms. Sanjana Singh, Coordinator and Senior Research Associate, CSECC FLAME University and Project Coordinator, Project TROP ICSU, and Ms. (MCC FACULTY), followed by a brief introduction of the participants and their institute affiliations. Then, Ms. Sanjana Singh, delivered an introductory session on the 'Science'





of Climate Change', which was followed by a detailed introduction to Project TROP ICSU, aims and objectives of the project along with highlights about the outreach of the project. After this Sanchit Sant gave a detailed platform walkthrough of the <u>Project TROP ICSU website</u> and an introductory Lesson Plan walkthrough which explained the structure of a Lesson Plan to the participants in detail. This was followed by the main activity of the workshop: Lesson Plan Review, wherein participants browsed through the Project TROP ICSU website and chose a Lesson Plan of their teaching interest for a detailed review.



Participants carrying out the main activity of Lesson Plan review at the workshop, MCC, Bangalore, India

Session 2 Summary

The second session (post tea break) continued with the review of Lesson Plans activity. This activity consisted of a question in which participants were asked to share any ideas they might have for similar Lesson Plans relevant to their requirements that can potentially be developed





and added to the TROP ICSU website. This led to some brainstorming and discussions regarding ideas for developing a Lesson Plan that they can potentially develop and use in their classroom. The session ended with all participants submitting their lesson plan reviews and sharing their feedback about the experience of the workshop. Several teachers expressed interest in attending a Level 2 TROP ICSU workshop in the near future which would train them to develop and write a Lesson Plan similar to Project TROP ICSU format, that they can use in their classrooms.



Participants sharing their feedback at the workshop, MCC, Bangalore, India.

Details of Workshop

Schedule and Agenda

- Welcome remarks by Project TROP ICSU
- Welcome Remarks by the Mount Carmel College (Host Partner)
- Introduction of Participants (Name, Level of teaching, Subject)
- A Simple Introduction to the Science of Climate Change and Related Teaching Resources
- An Introduction to Project TROP ICSU
- Detailed Platform walkthrough and Introductory Lesson Plan walkthrough
- Activity: Lesson Plan Review
- Personal reflections and feedback about the workshop





Participant Feedbacks and Suggestions on Existing Teaching Resources

Summary of the feedback received on the Lesson Plans curated on the TROP ICSU website

- Finding an appropriate Lesson Plan from the current syllabus on the TROP ICSU website: 75% of the responses from the participants stated that they were able to find an appropriate lesson plan relevant to their current syllabus on the TROP ICSU website.
- Finding an appropriate Key Topic in the discipline on the TROP ICSU website: 78.1% of the responses from the participants indicated that they could find an appropriate key topic listed in each of the disciplines.
- Effectiveness in integrating climate change with the topic in the discipline: 95.8% of the responses from the participants stated that there was an effective integration of climate change in the lesson plan's topic in discipline.
- Contributing in creating a Lesson Plan that can be published on TROP ICSU website: More than 75% of the participants expressed interest in creating a lesson plan that can be published on the TROP ICSU website and also be used in their own classrooms.

Ideas for New Lesson Plans

5 lesson plan ideas were mentioned by the participants through the lesson plan review activity. There were some culturally and geographically relevant lesson plans while others were discipline-specific such as:

- Plant Identification Skills
- Mushroom cultivation and its impact on climate change
- Antimicrobial resistance and climate change
- Climate Change and Natural Disasters
- Habitual Behaviours and Climate Change





Key Takeaways and Learnings from the Workshop

- Key Learning for team TROP ICSU: we learnt how we can populate certain disciplines with more relevant content for high school and undergraduate teachers. We also realised the need to arrange a level 2 workshop for the interested participants which will train them to create their own lesson plans.
- Key learning for the participants: they were introduced to how climate change can be integrated into their lesson plans and everyday teaching without needing to veer away from the topic in discipline.
- Participants had limited knowledge about the science of climate change and hence having a session on what is natural and anthropogenic climate change was one of the most useful sessions for them.
- Participants found group activities to be the most effective interactive session.
- Peer discussions in groups helped in the exchange of ideas and enhanced participants' learning.
- School teachers were introduced to the method that TROP ICSU uses to create lesson plans on its platform
- School teachers had an opportunity to express themselves creatively yet scientifically relevant, which gave them insights into how they can make modifications in their current classroom teaching

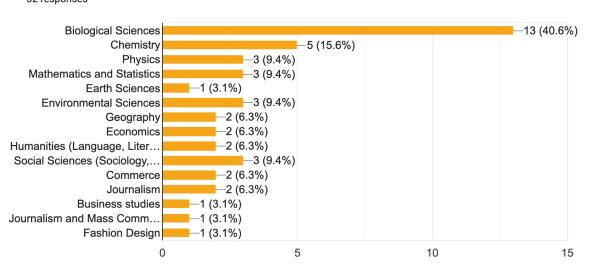
Next Steps

- Fostering discussions on arranging a level 2 workshop for the participants who successfully completed the level 1 workshop.
- Addition of new resources across disciplines as per suggestions for new lesson plan ideas.
- Mapping of existing resources to Indian Education Boards and syllabi as per suggestion.
- Engagement of participants for a Level 2 workshop focusing on content creation.



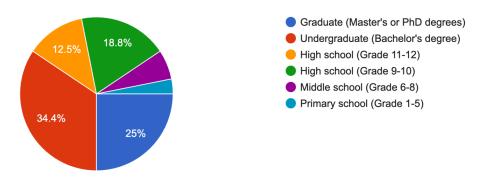


Annex I: Details of Participants



3. What is the main subject that you teach? Select the most relevant option 32 responses

4. What grade level do you teach? Select the most relevant option 32 responses

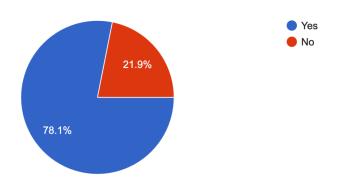




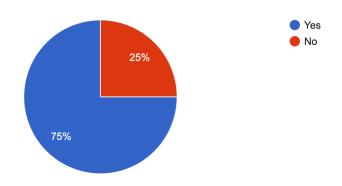


Annex II: Review of Lesson Plans by Participants

5. Did you find an appropriate Key Topic in your discipline on the TROP ICSU website? 32 responses

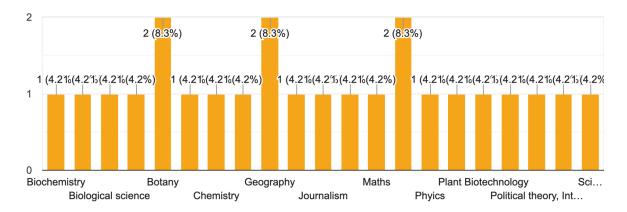


6. A. Did you find an appropriate Lesson Plan from your current syllabus on the TROP ICSU website? 32 responses



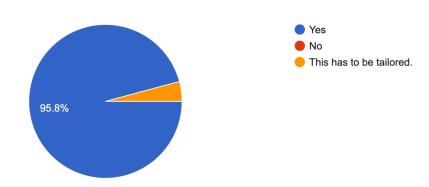






ii) Which discipline/subject can this Lesson Plan be used to teach? 24 responses

v) Does it appropriately integrate climate change into the topic in discipline? 24 responses







8. Would you like to contribute in creating a Lesson Plan that can be published on TROP ICSU website?

31 responses

