



International Conference on Sustainability Education

9th-10th September 2019
India Habitat Centre, New Delhi, India

Summary Report





The Logo Story

The logo of International Conference on Sustainability Education (ICSE 2019) constitutes bands of 3 colours – BLUE, ORANGE and GREEN. These colours convey a lot more than the first thought that rushes our mind on seeing them.

Blue

Blue symbolizes water and planet Earth.

Water is a universal solvent and cleanser. Like water a child's mind also absorbs the teachings that we imbibe in them, so why not teach them about the good of the planet, to conserve water and protect nature and its resources, fight climate change at an early stage before it's too late.

Orange

Is orange a colour or a fruit? Neither of them, Can we say it as O-RANGE or Out of the box-RANGE. Orange is a colour of Energy, Creativity and most importantly CHANGE.

This gives a strong message to the whole world that we have had enough of ignorance and now is the need to Change the routine. It is the time to bring the creativity and energies of all the individuals together and encourage the human race to think out of the box and come up with some creative solutions to sustainability issues.

Green

Traditional and new meaning of the colour GREEN are totally contrasting. Where our forefathers felt it a symbol of Greed, we interpret it as Safety, Earth, Growth, Health and all the positive traits possible.

ICSE 2019 has included GREEN colour in its logo to give it an altogether new definition. GREEN is to end our Greed towards earth's resources and leave a safe and healthy earth for our generations to come.

GREEN is to give ourselves a reminder to leave this EARTH greener than what we have got.

International Conference on Sustainability Education

9th-10th September 2019

India Habitat Centre, New Delhi, India

Summary Report



International Conference on Sustainability Education (ICSE) 2019

ICSE Secretariat

4th Floor, Sagar Plaza, Near V3S Mall, Laxmi Nagar, New Delhi – 110092

Edited by:

Dr. Ram Boojh
ICSE Convenor

Content by:

Ms. Archana Kushwaha
Ms. Kavya Singh Yadav
Ms. Nidhi Singh

Designed by:

Center for Youth (C4Y)
under its 'Empowering Social Impact Sector through Communication and Branding' Programme

February, 2020

© 2019 ICSE

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or any information storage and retrieval system, without prior written permission from ICSE Secretariat, New Delhi

CONTENTS

Message from HRD Minister	7
Message from Environment Minister	8
Message from Chairman, Mobius Foundation	9
Preface	10
Messages from Partners	12
ICSE at a Glance	20
ICSE Talks	26
ICSE Voices	28
Inaugural	33
Plenaries	35
I. Special Plenary Session – Setting the Agenda	36
II. Plenary Session – Sustainability Education Approaches & Experiences	38
III. Plenary Session – Sustainability Education Stories – Country Regional Presentations	40
IV. Special Plenary on Biosphere Reserve as Learning Sites for Sustainability Education	42
Parallel Sessions	45
Handprint: Action for Sustainability By Centre for Environment Education (CEE)	45
Youth Involvement in Sustainability Education Drives, Lessons from Across the Globe By the Climate Reality Project India	46
Workshop on 17 SDGS as an Effective Tool for Esd and Building Leadership and Media Skills in Youth By Foundation for Environmental Education (FEE)	47
‘Encouraging Conservation Practice Through Non-Formal Learning’ By Wildlife Trust of India	47
Formalisation and Delivery of Conservation Curriculum’ By Wildlife Trust of India	49
Youth Conclave on SDGs By the Energy and Resources Institute (TERI)	50
Workshop on Innovative Ways to Teach the SDGS - The Sustainable Development Solutions Network (SDSN)	53
Earth Observation Education in Sustainable Development – ICRISAT	54
Promoting Sustainable Development Goals Through Quality Education that is Values Based and Integral In Approach - a New Education for a New World By Sri Sathya Sai University for Human Excellence	55

CONTENTS

Panel and Workshop on “Promoting Community-Based Education for Sustainable Development” by Unesco Bangkok and New Delhi Offices	56
Foundation for Environmental Education (Fee) in Collaboration with the United Nations Framework Convention for Climate Change (UNFCCC)	69
Green School Program as Learning Laboratory for Developing Climate Change and Sustainability Practices by the Climate Reality Project India	70
Working Session on World Environment School (WESC)	72
Mainstreaming Sustainability Education from Schools to Higher Educational Institutions in India By United Nations Environment Programme (UNEP) and Wipro.	74
Launch of World Environment School, Coorg (WESC)	79
ICSE 2019: Sustainability Practices:	80
Exhibition	81
Concluding Session	83
Awards	84
Little Voices Making Big Difference	89
Words by Our Chief Guest	90
Cultural Evening	92
Guitar Performance By Mr. Vineet Tandon	92
Classical Dance Performance By Students of Kulachi Hansraj School, Delhi	92
Musical Performance By Ms. Sunita Rekhi Chandani	93
Special Performance By The Students of National Association for the Blind Delhi	94
ICSE 2019 Coverage	95
The Team	99
Program Schedule	100
Partners	106

MESSAGE FROM HRD MINISTER

रमेश पोखरियाल 'निशंक'
Ramesh Pokhriyal 'Nishank'



मंत्री
मानव संसाधन विकास
भारत सरकार
MINISTER
HUMAN RESOURCE DEVELOPMENT
GOVERNMENT OF INDIA



MESSAGE

I am delighted that an International Conference on Sustainability Education (ICSE, 2019) is being organised on 9th & 10th September, 2019 in New Delhi by Mobius Foundation, Climate Reality Project India and UNESCO, New Delhi in partnership with many other organisations.

I am quite optimistic that ICSE, 2019 would be an effective platform for the global leaders, educators, researchers and policy makers to come together for a great cause with a view to reorienting education towards sustainable issues in the context of the global commitment for Agenda 2030 and Sustainable Development Goals.

India is committed to the objective of providing quality education. The Indian Education System is whole heartedly committed to impart knowledge, skills, values and right aptitude responding to individual, national and global needs and requirements. Inclusion of sustainable development is the need of the hour. Integrating environment education, climate education and sustainability in the school curriculum and the pedagogy would go a long way to make our education system really transformative and helpful in attaining the sustainable developmental goals.

I congratulate the organisers of the Conference and the participants and wish them a great success.



(Ramesh Pokhriyal 'Nishank')



सबको शिक्षा, अच्छी शिक्षा।

Room No. 3, 'C' Wing, 3rd Floor, Shastri Bhavan, New Delhi-110 115
Phone : 91-11-23782387, 23782698, Fax : 91-11-23382365
E-mail : minister.hrd@gov.in

MESSAGE FROM ENVIRONMENT MINISTER



Mobius Foundation, UNESCO New Delhi, CEE, Climate Reality Project India, TERI, and many other organizations have come together to organise this International conference on sustainability education and it is a really important topic. The UN has set SDG goals and the world has accepted this program. They are committed to attaining those SDG goals in which the main focus is sustainable development because you can't stop development, but it has to be sustainable. The best agent to convert that into an agenda is education, because in SDGs there are goals for education also. In India, there is access to the right to education, and now it is also extended to Jammu and Kashmir. So we are ensuring that every child goes to school but then after going to school or college what he learns, should be sustainable lifestyle is Indian ethos; we must re-emphasize it.

At the same time, there have to be practical lessons in classrooms. Last month I inaugurated by planting a tree in the National Institute of Technology, Jaipur campus. They have decided in the first year, thousands of students will plant a tree and with a nameplate of each student and by taking responsibility during all his stay in the institute for four years will ensure that tree grows properly. That's education and that is the lesson to sustainability. We have also started a competition in making smart campuses. What is a smart campus? It's about greening, it's about eco practices, cycling, and many things in the campus, saving the water and generating the water, saving electricity and generating electricity, proper waste collection, classification, and waste management to create new wealth, gas and other by-products. All this will mean that student has learned without going into the textbook, the very essence of sustainability and that you have to take it forward.

Thank you and all the best.

Sri Prakash Javadekar

Honourable Minister for Environment, Forest and Climate Change,
Government of India

Transcribed Video message



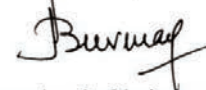
MESSAGE FROM CHAIRMAN, MOBIUS FOUNDATION



Education is key to the global integrated framework of sustainable development goals. Education is at the heart of our efforts both to adapt to change and to transform the world within which we live. It is recognized as having one of the highest long-term returns on investment of all development goals. There is a need to rethink and broaden the notion of lifelong education. It should enable people to develop an awareness of themselves and their environment.

ICSE 2019 has been organized with its ultimate goal of developing societies competent in the principles of sustainability and striving to live within the carrying capacity of the planet. ICSE 2019 aims to aid implementation of education for sustainable development (ESD) which is culturally-relevant, locally appropriate, occurring across national school education system.

Mr. Pradip Burman



Founder & Chairman

Mobius Foundation

PREFACE



The First International Conference on Sustainability Education (ICSE) was successfully organized on 9-10 September 2019 in New Delhi. The Conference received overwhelming response from over 750 attendees from over 40 countries which included sustainability educators, leaders, policy makers, teachers and practitioners from across the disciplines and professions. Conference delegates shared their experiences, stories and best practices on various facets of sustainability education from a broader perspective taking into consideration global issues and challenges as well as regional and national realities. The two day long events witnessed some 15 key note addresses in 5 plenaries, 15 thematic parallel sessions, 25 exhibitions, 45 oral and 27 poster presentations besides inaugural and concluding plenaries. Two high octane special events, one for the launch of the World Environment School and the other a STEM session for school children from India and Australia were highlight of the event. The participants had ample opportunity to network and socialize during welcome dinner and cultural evening. The participants had the opportunity to write out their recommendations on a conference “Declaration Wall” which provided a wish list of ideas and thoughts on sustainability education. ICSE 2019 provided an exciting opportunity and experience to the delegates as summed up by Dr. Christa Henze, University of Duisburg-Essen, Germany: “The Conference was not just about ‘nice to meet you’ or listening to speakers. I could experience so many ideas that I can take home and utilize in our university.”

We would like to express our thanks and appreciation to all the distinguished delegates, keynote speakers, chairs, rapporteurs, presenters, media persons, exhibitors and volunteers for their valuable participation and contribution in the conference. We are especially thankful to the colleagues from UNESCO New Delhi and Bangkok offices for their technical support and also for organizing a special workshop on promoting community based ESD. We express our gratitude to Mr. Kartikeya Sarabhai, Director, Centre for Environment Education (CEE) for his valuable advice from time to time and overall guidance as chairperson of the Technical Advisory Committee (TAC) of the conference. We are also thankful to him and his team from CEE for organizing two workshops- one on Handprints for environmental sustainability and the other on Curriculum Framework for World Environment School. We sincerely acknowledge the valuable support of Mr. Ajay Mathur, Director General, TERI and his colleagues for co-organizing the conference and for providing every kind of assistance for the success of the event besides organizing the Youth Conclave on SDGs.

Our special thanks to youth volunteers specially Young Reporters for Environment (YRE) under the able guidance of Dr Pramod Sharma, Senior Director and Ms Malgorzata Luszczek (Gosia), Director FEE, for the coverage of event and publication of daily bulletin of the conference. Besides, FEE organized a youth workshop on ESD and a side event on education for climate emergency with UNFCC. We sincerely appreciate the help and support of Mr. Aditya Pundir, Country Director, Climate Reality Project, India and his team for always standing by us. I would like to express my sincere gratitude to Mr. Pradip Burman, Chairman, Mobius Foundation for providing valuable support and guidance for making this important event happen at such a scale. It was due to his great enthusiasm, energy and personal involvement throughout the process that made the event such a huge success.

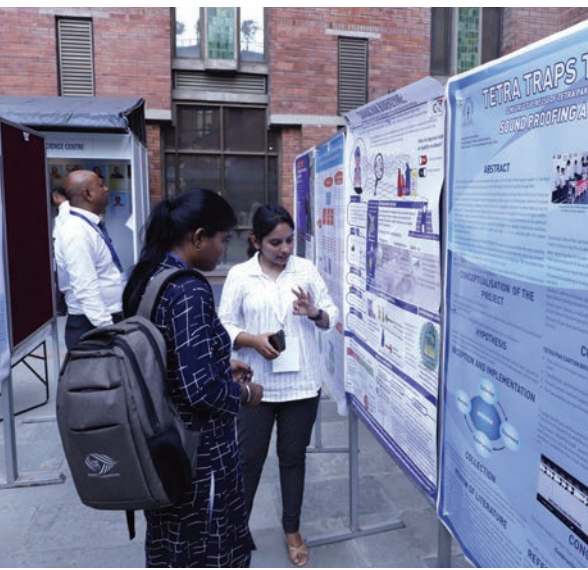
Last but not the least, my sincere appreciation to all my colleagues in Mobius Foundation and its sister organizations for their unstinted and enthusiastic cooperation and support in making ICSE a reality. I am grateful to each one of them for standing by me throughout the arduous journey of organizing such a wonderful truly global event.

Dr. Ram Boojh

Convener, ICSE 2019

Director Programmes, Mobius Foundation

GLIMPSES



MESSAGE FROM PARTNERS



Climate Change and our unsustainable lifestyles are a threat to future generations. How we deal with this effectively will be defined by how well the current and future generations are educated on solutions and handling of the crises.

Mr. Aditya Pundir
Country Manager,
The Climate Reality Project Foundation



No one should be left behind. That is the core message of the 2030 Agenda for Sustainable Development. The Agenda recognizes the importance of education as a driver of human development, with Goal 4 of the Sustainable Development Goals (SDGs) emphasizing that we must 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all'.

Target 4.7 of the SDGs notes that learners must acquire the skills needed to promote sustainable development through forms of education that focus on sustainable lifestyles, human rights, gender equality, the promotion of a culture of peace, global citizenship and the appreciation of cultural diversity. We are proud that UNESCO's leadership in the field of education has placed us at the forefront of global efforts to achieve SDG 4.

UNESCO is delighted to partner with the Mobius Foundation to co-organize an International Conference on Sustainability Education in New Delhi on 9–10 September 2019. We believe that the conference will be instrumental in building momentum and interest for the uptake of sustainability education, and will help a new generation make sustainable development a reality.

Mr. Eric Falt
Director and UNESCO Representative



CEE

Centre for Environment Education

"The involvement of citizens is critical as we move towards a sustainable society and a circular economy. India is one of the only countries in the world that has recognised this and made Environmental Education compulsory at all levels of formal education. Quality Environmental Education is essential. The ICSE conference brings together some of the best organisations from across the globe to share practices leading to excellence in education."

Mr. Kartikeya Sarabhai

Founder and Director,
Centre for Environment Education (CEE)



THE ENERGY AND RESOURCES INSTITUTE
Creating Innovative Solutions for a Sustainable Future

I am delighted that TERI is partnering with the Mobius Foundation to jointly organize the 2019 edition of the International Conference on Sustainability Education (ICSE), to be held at the India Habitat Centre, New Delhi on 9th & 10th September, 2019.

This conference will provide an opportunity for the sharing of global best practices and experiences in sustainability education, and in stimulating thinking on ways and approaches to achieve Target 4.7 of the Sustainable Development Goals amongst each participant and each participating organisation. It will, I hope, consequently also stimulate the development of new partnerships which enable new ways and approaches to be set and met.

Dr. Ajay Mathur

Director General, TERI

ECOS



As greenhouse gas concentrations continue to rise and mass extinctions continue unabated, the future of humanity to be able to thrive and for civilization as we know it to survive hangs in the balance. Three strategies to address these challenges—Environmental Education, Education for Sustainable Development and Climate Education-- potentially overlap synergistically, but in practice they are often marginalized and forced to compete for limited coverage in the curriculum. Education has been massively transformative in the past and it must be for the future, but this requires recognizing the nature and depth of the challenge, accepting the truth of the situation, and responding accordingly.

Mr. Mark S. McCaffrey

Co-Focal Point for ECOS (Education,
Communication and Outreach Stakeholders)



The 2030 UN agenda for attaining sustainable development goals is a critical period of experimentation and learning for sustainability education. Education, formal and non-formal must seek out and encourage all types of learners to engage in real-life situations where individuals and communities consider environmental, social and economic trajectories of change and make trade-offs and judgments that benefit their own as well as planetary wellbeing. Sustainability education must avoid the pitfalls of "all theory and no practice"; sustainability educational curricula that emphasize learning are a critical need in both formal and non-formal education sectors.

Dr. Natarajan Ishwaran

Editor in Chief,
Environmental Development (Elsevier)



Education is the benchmark for everything which is sustainable. Our ability to build skills and knowledge for the unique challenges faced on earth today; such as adaptation to climate change, water scarcity, increasing prevalence of natural disasters and a changing global economy; can only be achieved through sustainable and participatory education. In the English language, the same letters which spell "EARTH" spell "HEART", learning to live in harmony with one another will come from understanding of ourselves and one another. Working with compassion, fear melts away into flow, enabling us to change behaviour at local level through both formal and informal education from the earliest age, will lead to a world of peace and abundance of resources.

Ms. Donna L. Goodman

Founder and Executive Director
of the Earth Child Institute (ECI)



The International Conference on Sustainability Education is aptly placed as 2020 will see five years of the Sustainable Development Goals. The conference has helped set the ball rolling to reflect on Education for Sustainable Development Goals (ESDG), especially in the context of Target 4.7. With 2019, The Eco-Schools programme is entering into its 25th year of engaging young people in taking positive actions that transform them for life. Eco-Schools is a programme that has developed from a European educational programme to a global model for Environmental Education and Education for Sustainable Development.

The YRE programme brings students of all backgrounds together with a sense of common purpose and helps develop the skills of communication, taking initiative, teamwork, critical analysis, social responsibility and leadership. YRE students participated in the conference and reported the proceedings and outcomes. The third education programme of FEE; Learning about Forests (LEAF), gives students learn to enjoy the outdoors, experience and observe nature. The positive outdoors experiences develop a positive attitude toward the environment and our forests. The programme is operational in 26 countries.

Dr. Pramod Sharma

Senior Director of Education,
Foundation for Environmental Education (FEE)



HM Government
of Gibraltar



Sustainable Development cannot be attained without education. Few would dispute that the number of learners accessing education has increased significantly over the last few decades and yet we are experiencing the highest levels of unsustainable development. Many educators share my concern that, currently, education is not fit for purpose. We need education to be transformative and education systems to be transformed. This Conference provides an opportunity to rethink education and redefine learning. It will help develop partnerships, pathways and inspiration needed to attain SDG 4 and move us closer to a fairer and more sustainable world.

Prof. Daniella Tilbury

Commissioner for Sustainable Development



If education has to be 'future-ready' then it is imperative that it is 'SDGs-ready'. The time for teaching the 'best practices' would soon be part of history because the future is for 'next-practices'. In the world of accelerated change where the technologies are characterised by quantum-jumps, learning ABCD means acquiring Artificial Intelligence, Block chain, Cloud-networking and Digital data transformation. That's precisely why we need 'next-practices' for the GenNext. These next practices will leverage the modern technologies to educate the future policy makers and contribute to the Sustainable Development Goals.

Mr. Rajendra Shende

Chairman of TERRE Policy Centre



The Foundation for Environmental Education is happy to partner with the International Conference on Sustainability Education. FEE, represent 98 members across 76 countries and is recognised by UNESCO as a world leader within the fields of Environmental Education (EE) and Education for Sustainable Development (ESD). FEE's strength comes from its members who share the conviction for a sustainable world and execute the five ESD programmes with great efficiency. FEE helps communities realise the benefits of sustainable living through the solution and positive action based approaches. FEE believes in the power of change through its programmes that are creating a cadre of educated and environmentally conscious people equipped to lead a sustainable life. The three youth-focused educational programmes, Eco-Schools, Learning about Forests (LEAF) and Young Reporters for the Environment (YRE), use a solution based pedagogical approach to empower young people to create a more environmentally conscious world based on feelings of involvement, ownership and protection. The Green Key and Blue Flag initiatives are recognised across the world for their promotion of sustainable resource management and business practices.

FEE is working towards strengthening the ESD network in the Asia Pacific region and the conference creates an opportunity to bring the Global Experience and the work being done in the region through its members. The experiences would contribute in the discourse around education for sustainable development goals, help spread and influence education systems and hopefully synergise more partnerships and opportunities in the region. We also look forward to engaging with the outcomes of the Conference.

Mr. Daniel Schaffer

CEO, Foundation for Environmental Education (FEE),
Copenhagen, Denmark



Earth Day Network strongly believes that innovative learning opportunities inspire students to be stewards for the environment. We thus support the development of area-specific, student-centric environmental curriculum, provisions for teacher-training workshops across disciplines, and the conducting of programs that provide the students hands-on experience of their immediate environment.

Karuna A. Singh

Country Director - India,
Earth Day Network



Sustainability and sustainable development is all about the choices we make to address the problem arising out of ignorant actions of yesterday for short term beneficial gains by mortgaging the future generations' interests.

Mr. Mohan Saxena
MD Ayurvet LTD.



As Nelson Mandela said, "Education is the most powerful weapon we can use to change the world." The only way to build and sustain a more just and sustainable world, to achieve and sustain the SDGs for now and the future, is through education. Now is the time that we must come together, joining our hands and our hearts, to infuse our youngsters, the NEXT and the NOW generation, with awareness of their oneness with all of creation. Education must inculcate in them the knowledge of our inextricably linked existences and the huge ripple impact of all their choices, as well as with the tools they'll need to effect great change. This is the power of linking value based education with knowledge based systems for innovation in climate change and environmental protection. First they have to WANT to create a just and sustainable world and then they need to have the tools to build it. I'm so impressed to see the effects of Dr. Ram Boojh and his team in bringing such a powerful group of leaders together. As Mahatma Gandhi Ji said, "We must be the change we want to see in the world." This conference will, I am sure, provide the impetus, the awareness and the tools to become that change!

Ms. Sadhvi Bhagwati Saraswati
Secretary General, Global Interfaith Water Alliance



'Sustainability is the only way that we can protect our precious planet, today and tomorrow. There is no Plan B, because there is no Planet B.' *UN Secretary General Ban Ki moon, Sustainable Development Education Conference 2014*

Sustainability is not an alien concept now, its understanding and appreciation is a necessity for each and everybody in the society for protecting planet earth and our natural resources. Fostering responsible citizenship by integrating a vision of sustainability in education for engendering constructive and collective impact driven transformation is the need of the hour. Institutionalising and galvanising support of government and non-government institutions is also crucial for embarking into a sustainable era.

I am sure, ICSE 2019 will bring great minds and experiences together on sustainability education to catalyse the change for common goal of conserving Mother Nature. I am delighted that CEC is partnering with Mobius Foundation in organising the sustainability education conference of global significance.

Alka Tomar

President, Centre for Environment Communication (CEC)
& Member, ICSE 2019 Technical Advisory Committee





ICSE
AT A GLANCE

DAY 1

International Conference on Sustainability Education 9th-10th September 2019

Highlights by Young Reporters for the Environment

From the Organisers

The motivation for holding this event is to integrate sustainability concerns and issues to the curriculum as well as to empower teachers and educators to take actions towards sustainable futures.

This conference would provide some references to establish manual in modern curriculum framework and help to construct transformative changes in education system to be more action oriented towards sustainable initiatives.



Mr. Pradip Burman

Chairman, Mobius Foundation,
launching the World Environment School (WES)

Lighting the Lamp for a Bright & Sustainable Future

The International Conference on Sustainability Education (ICSE) 2019 kick-started with a diverse batch of panelists that set the agenda as well as shared the vision of the conference.

Staying true to the spirit, this conference is completely plastic-free, as mentioned by the host of the evening.

The plenary session not only emphasized on the intervention required at various levels of education but also offered multiple solutions ranging from online courses to practical training.

The agenda was followed by several special sessions that focused on particular initiatives that cater to the SDGs.





Highlights from the special Sessions

The Day 1 of the International Conference on Sustainability Education (ICSE) 2019 had multiple Special Sessions and workshops for the delegates that emphasized on various points. Some of them are mentioned below:

- Integration of new and emerging technologies, national education policies, and institutional frameworks for the sustainability education concept
- Transforming business educations at MBA or masters levels to advance the sustainable development goals on corporate sustainability
- Focusing on the underlying principles of SDGs which are economic growth, social inclusions, and environment sustainability
- Emphasizing the need of grassroots interventions, and the importance of limiting human consumption of resources to encourage growth
- Introducing ways to turn our schools into Smart and Green Schools
- Introducing ways to spark the interest of the youth and to get them to care and work for the environment
- Spreading information about multiple courses and competition to encourage engagement and to fetch action-oriented results

Quotes from the Speakers

"It's time we stopped being too polite and genteel in our approach and tell things as they are because that is what the children today expect from us."

– Dr. Sunita Narain, Director General, CSE

"If you'll just plant trees, you'll only have monkeys. Go beyond planting trees"

– Vivek Menon, Executive Director and CEO, WTI

"People today suffer from the nature deficiency syndrome. You should not just read science but do science."

– Anand Sharma, Panelist at Special Session 5



The day concluded with a cultural segment in the evening that included performances by a motivational musical speaker, dance performances, a cultural song and a performance by special needs students



DAY 2

International Conference on Sustainability Education 9th-10th September 2019

Highlights by Young Reporters for the Environment

Educate, Engage & Equip

Way to the desirable present and future

The second day of International Conference on Sustainability Education (ICSE) 2019 began with a set of panelists sharing their stories on sustainability education implementation in their respective countries.

The special plenary session was conducted focusing on Biosphere Reserves as learning sites for sustainability education. Thereafter, a hands-on workshop and quiz on STEM was conducted specially for students from various schools.

The agenda was followed by several special sessions that focused on particular initiatives that cater to transform our mindset and behaviors to align with the values of SDGs. The delegates with best posters and papers were also rewarded at the end of the conference.



Get, Set, Act !

After the two-day conference, the delegates, panelists, and the organizers gained a wide exposure and knowledge on how to integrate sustainability education with the existing curricula.

Through the learnings from varied workshops and discussions, educators are ready to replicate and introduce the solutions working in other parts of the world.

This conference goes beyond knowledge exchanged over two days and encourages tangible actions based on sustainability education.



Ms. Licypriya Kangyjam, a 7-year-old
Founder, The Child Movement & Climate
Change Advocate





Highlights from the Special Sessions

The Day 2 of the International Conference on Sustainability Education (ICSE) 2019 had another set of Special Sessions and workshops for the delegates that emphasized on various points. Some of them are mentioned below:

- To bring the indigenous knowledge of the communities and create a sustainable livelihood opportunities for them. Creating community as a platform for collective action for transformation
- By utilizing constructive journalism to address the climate issues and have a solution-focused approach
- Embedding various SDGs in higher education and integrating the SDGs in the curriculum in a multidisciplinary approach
- Establishing awareness among the societies on the possible consequences and trade-offs that can occur as the impact of our daily actions
- Collaborating with schools and universities to collect and recycle the plastic and other garbage generated on campuses where students are the drivers of change with the authorities
- Holding our governments accountable and responsible by choosing the right and concerned candidates as our representatives
- Working out ways to generate a demand for sustainability-driven professions

Quotes from the Speakers

"This conference was not just about "nice to meet you" or listening to speeches. I could experience so many ideas that I can take home and utilize in our university."

– Dr. Christa Henze, University of Duisburg-Essen, Germany

"We need to retrospect where we failed in the conservation system, and that is how we will move forward."

– Mr. Uday, speaker on 'Biosphere Reserve as learning sites for sustainability education

"Happiness integrated in the curriculum will compliment and add more meaning to sustainable education"

– Mr. B. M. S. Rathore (ICIMOD)

FOREST BATHING

What's that?

It is a Japanese way of healing called 'Shinrin-yoku', the medicine of being simply being in the forest.

It does not mean jogging or exercising around trees but simply spending time around them.

Studies have proven that forest bathing reduces stress, anxiety, depression and strengthens the immune system.

(From the session on Biosphere Reserve)



ICSE TALKS

Planned with a view to explore pathways to address current and emerging sustainability challenges through education by empowering learners with new skills, values and attitudes that lead to more sustainable societies.

The Conference was organized as a major sustainability event that brought together thought leaders, practitioners, teachers, educators, policy makers as well as youth from around the globe to share innovative ideas, case studies, practices and policies and come forward with the following recommendations and suggestions for incorporating environmental sustainability as a core concept in the school education system.

Following are some of the thoughts that grabbed special attention during the conference

The wholesome approach to deal with the current system is important. The inclusion should be at all the touch points, all age groups, all sectors say water, air, poverty, pollution, biodiversity etc only this will help us bring the change that will actually reverberate through the entire globe taking all in to consideration.

There has been no election in India at any level where sustainability has been the agenda for the election.

Stimulate future ecopreneurial behaviour

We have to start mobilizing, all of us including the Youth. We have to create the opportunities, will, actions and movement that will bring people together

It has becomes relevant for us to bring back cultivation of spiritual values in the children. Unless you touch the spiritual springs in the heart of a child, there is no way you really help him to grow as an integrated human personality. An integrated human personality with a sharp brain, compassionate heart, and competent hands.

With Sustainability Education we should try and build a generation on youth with capacity, skills and right knowledge and are ready to take on the challenge. And the list should include; not only Scientists and engineers but also teachers, journalists, planners, politicians are trying to build this awareness "that we are really not doing well and we need to change the way we live".



ICSE TALKS

There are three critical pillars of education in sustainability:
 A: The first is its interdisciplinary nature to educate for sustainable development
 B: Second is holistic in the sense of applying at all scales of our lives.
 C: Third pillar in addition to the interdisciplinary nature and the holistic nature, is the ethical core of sustainable development.

Programme should work towards bringing the drastic change in the mindset of the children rather than nudging them in to slowly bringing change in their lifestyle.

'Love' is the word, only if we love and reconnect with nature will we be able to find the solutions. Education can only help us become aware of the problem but will not derive solutions. Solutions will come with reconnect and sense of responsibility towards our earth, towards our nature

Single level education system should be created to bring equality and equal opportunity for all in the field of education be it for poor or for rich.

The concept of sustainable happiness can contribute to the development of a unified vision that fosters well-being for all, forever

If we want people to act with responsibility we have to speak in the language and ways the communities understand, teach them the love for nature and see the magic

Our education system need to be one that makes them know that they are not victims but they are co-creators of the world they want and as an adult we have to let go off our death grip to control them and allow them to really co-create the world they want to live in.

Values need to be included in the overall agenda of sustainable living and unless we address values and lifestyle we will not be able to make transformation.



ICSE VOICES

Dr. Ajay Mathur **Director General, TERI**

“There is this concept of Ecopreneurship which is entrepreneurship for the environment in which I now see an increasing number of people getting involved. It is also very clear that youth play a critical role today and tomorrow in many of the sustainable developments, whether it is the sustainable development goal related to hunger, quality education, and gender equality, decent work in economic growth, reduced inequalities and climate change.

I would like to leave a message that in order to have a life which is both, high in quality as well as useful, sustainability for us has to be a way of life.”



Dr. Ajay Mathur,
Director General, The Energy and
Resources Institute (TERI)

Mr. Kartikeya Sarabhai **Founder and Director, Centre for Environment Education (CEE)**

“This whole issue of environment being a global level issue which needs to be tackled at a completely different level. And it was India during U.N Conference on the Human Environment in Stockholm pointed out that poverty and removal of poverty and preserving the environment are really two sides of the same coin. This whole issue of bringing sustainability and environmental education together really goes back to an initiative of that time.”

Unless people change, unless peoples’ attitudes change, it’s not going to happen. We became the first country in the world where environmental education became a compulsory part of every level of formal education. It was a remarkable change which happened in India and gave a fillip.”



Mr. Kartikeya Sarabhai,
Founder and Director, Centre for
Environment Education (CEE)

Mr. Pradip Burman
Chairman, Mobius Foundation

“I believe that two key factors which need attention are education and population stabilization. As people get educated, population stabilizes and in fact goes into a negative growth. Education is therefore the key to stable population.

I keep remembering a verse in my head from my school days; when the dark clouds of trouble come, look for the silver lining; just remember that above the clouds, the sun is always shining. Let this conference be the sun which will show us the way of how to come out of the clouds that are endangering the survival of the planet by educating the young to become responsible citizens, working as leaders for sustainability.”



Mr. Pradip Burman, Chairman,
Mobius Foundation

Ms. Donna Goodman
**Founder and Executive Director
of the Earth Child Institute**

“To my shock, the NGO Sustainability Committee didn’t understand what children had to do with sustainable development, and had different committees at peace, on environment, on water, poverty, education, food, etc. Why? Can we have a sustainable development without the eradication of poverty? No. Can we have a sustainable development without breaking inter-generational cycles of starvation and conflict? No. Can we have sustainable development without clean water safe for drinking? No. And to that end, few years later, as issues related to climate change and children started to emerge, we found that many, if not most of our global conflicts are fought over water, the most precious resource which connects each and every one of us to each other and to our beautiful planet and everything else that lives here.”



Ms. Donna Goodman, Founder
and Executive Director of the
Earth Child Institute

Dr. Sunita Narain **Director General, Centre for Science and Environment**

“We kicked and we created a different politics where we realized that it is us who have to change, the change will begin with us. Gandhi Ji, and we all love to quote him, always said, walk the change or be the change. But often we talk about these things, but we don’t ask to practice the change. So that open laboratory of practice has to be something that we incorporate in our environmental education program. And I can tell you from the CSE’s Green School Program, it is a game changer. When children come to present their benchmark on water, on waste, on air pollution, they believe that they can do it because they have done it. That is where we need to go.”



Dr. Sunita Narain, Director General,
Centre for Science and Environment

Ms. Sadhvi Bhagwati Saraswati **Secretary General of the Global Interfaith Water Alliance**

“It’s not fine when we are playing with the future of this planet, when we are playing with the future of our children and our grandchildren. And so spiritually we talk about we need a consciousness shift. That’s the big thing that in the spiritual world everybody is talking; we need a shift in consciousness.

We need a shift in our educational model of success from just, success is what your grades are in class, what your ranking is in class, what college you get into, how much money you make, who you control, what you control to a model of success that says, what is the impact of your life on planet Earth, how was this planet impacted by the fact that you got out of it today; the water, the air, the soil, the future, the people, what are we spreading.”



Ms. Sadhvi Bhagwati Saraswati,
Secretary General of the Global Interfaith
Water Alliance

Dr. Guy Broucke
Natural Science Program
Specialist at the UNESCO,
New Delhi

“Yes, we have a plan for 2030, but we have to remind ourselves that it’s a compromise, it’s a compromise in the direction of more sustainable approaches. We cannot say that if we achieve these SDGs by 2030, if we achieve them, we will suddenly live on a sustainable planet, not even close. Sustainability, it’s really like a ship that you are trying to bend around a little bit. So sustainability would really be the next step.”



Dr. Guy Broucke, Natural Science Program Specialist at the UNESCO, New Delhi

Mr. B N Narasimha Murthy
Chancellor of the Sri Satya Sai
University for Human Excellence

“Swami Vivekananda said it, Mahatma Gandhi said it, Rabindranath Tagore said it, and a number of times Bhagwan Sri Satya Sai Baba also said it; the soul of education is the education of the soul. Unless you touch the spiritual springs in the heart of the child, there is no way you really help him to grow as an integrated human personality. And integrated human personality with a sharp brain, compassionate heart, and competent hands, you have to touch the spiritual moorings of the child.

Therefore, my appeal to the August Assembly is, we all definitely need to discuss about the means and methods of how to really control the damage being done to our environment, but the root cause is the spiritual moorings have to be cultivated, the spiritual moorings will have to come back into education, the educational system.”



Mr. B N Narasimha Murthy, Chancellor of the Sri Satya Sai University for Human Excellence

Dr. Jane Goodall the Founder of the Roots and Shoots Institute

“I think it’s really important for young people to be educated, particularly about climate change. We are destroying our planet and we don’t have that long to get together and find solutions to make the world a better place for our children. I hope that you will all be able to exchange meaningful ideas and get together to make a difference to join hands to make this a better world before it’s too late.”



Video message by
Dr. Jane Goodall, the Founder of the
Roots and Shoots Institute

Prof. Jeffrey D. Sachs, Director for Sustainable Development, Columbia University

“On the challenge on education and sustainable development, we have learnt a lot. And I would point to three critical pillars of education in sustainability. The first is its interdisciplinary nature to educate for sustainable development means to educate in the inter-connected systems of the physical Earth, the engineered world, policy and politics, social dynamics and human behaviours, so in general both, individual and social. So, inherently education for sustainable development is cross disciplinary or inter disciplinary. Second is, it is holistic in the sense we are applying at all scales of our lives. We need education for sustainability as individuals in our life choices, in our lifestyles, health seeking, in our own cultivation of the behaviours and the virtues or excellences that will be needed for sustainable development. A third pillar in addition to the interdisciplinary nature and the holistic nature is the ethical core of sustainable development. And ethics too means the right kinds of behaviours for well-being applied at different scales and different dimensions.”



Video message by Prof. Jeffrey D. Sachs,
Director for Sustainable Development,
Columbia University

INAUGURAL

International conference on Sustainability Education (ICSE 2019) began with the formal inaugural ceremony by lighting of the ceremonial lamp by the chief Guest and all the dignitaries present on the dias. **Dr. Ram Boojh, Convener ICSE 2019, Director Programmes, Mobius Foundation** gave a welcome address along with introducing the conference and spoke about the purpose of organising ICSE 2019.

Mr. Pradip Burman, Chairman, Mobius Foundation welcomes the chief guests, guests of honour and delegates. He talked about the vision of the conference and about the importance of school education to incorporate sustainability. He then introduced the upcoming World Environment School in Coorg as a platform for quality school education centered on climate change, environment and sustainability.

Addressing the inaugural gathering, **Dr. Ajay Mathur, Director General, TERI** talked about the role of education in reaching sustainable development goals and how education can help humanity fight its environmental issue. He also emphasized on ecopreneurship, which is entrepreneurs working for the environment, and pointed out that the involvement of country's youth and collaboration of different organizations and entities is the key to a long term solution.

Mr. Kartikeya Sarabhhai, Chairman, CEE who introduced CEE and its work and talked about the changing scenario of environment education from being just another subject to an essential pillar of education. Also how the environmental message can be introduced at different stages of learning. He informed the audience about the dynamics of international organizations working in this area and how the national and international priorities are changing in accordance with changing climate. He, then, talked about the current education system focused more on examination than on teachings and on ways to introduce quality environment education in the system.

Ms. Donna Goodman, Founder and Executive Director of the Earth Child Institute talked about the necessity of community involvement to achieve SDGs. She shed light on the importance of including everyone, from school students to policy makers and researchers, in the process. Her work led to a UNDP publication "Everybody Counts, Every Drop Matters." She concluded with a remark on importance of empowering kids across the world to be Eco Masters and lead a sustainable future.



The delegates lighting the lamp to mark the start of the International Conference on Sustainability Education (ICSE) 2019.

Dr. Sunita Narain, Director General, CSE shared the facts of climate change through shifts in rain patterns. She said that these effects are not from natural causes but from mismanagement of land and water resources by humans. She also said that we have talking about the effects of climate change but we need to start acting now, starting with changing our lifestyles. From carpooling to monitoring your resource consumption, every small step counts. She closed with a quote from Gandhi Ji, “Walk the change or be the change.”

Sadhvi Bhagwati Saraswati, Secretary General of the Global Interfaith Water Alliance addressed the audience by talking on the necessity of quality education in the school systems and the need of inter-weaving SDGs into the curriculum.



Sri V. N. Narsimha Murthy
lighting the lamp with other delegates

Dr. Guy Broucke, Natural Science Program Specialist at the UNESCO, New Delhi addressed the gathering through his take on challenges faced by humanity from climate change and how everyone needs to be properly educated about the situation in hand. He challenged the audience to imagine a world without SDGs and to find ways to build a better global understanding of sustainability as a holistic concept and to find ways to bridge the gap between skills and education.

The Chief Guest address by **Sri. V. N. Narsimha Murthy, Chancellor of the Sri Satya Sai University for human**

excellence, talked about the need of quality education and need to include spiritual values.

Honourable Minister for Environment, Forest and Climate Change, Government of India Sri Prakash Javadekar addressed the conference through his video message. He said that the best agent to implement SDGs is education and the Right to Education provides access to every citizen of the country and that sustainable lifestyle is in the Indian Ethos and we need to re-emphasize it.

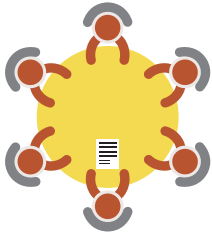
Dr. Jane Goodall, Founder, Roots & Shoots Institute, UN Messenger of Peace addressed the participants through a video message that young people are the best audience for climate change education.

Mr. Vivek Menon, Executive Director and CEO, Wildlife Trust of India (WTI) presented a small memento of an elephant and felicitated the guests.

The session was concluded with a vote of thanks from **Mr. Aditya Pundir, Country Manager, Climate Reality Project India**. He mentioned United Nations goal number 17 stresses partnerships, and this conference is an example of how so many partners have come together to make it a success.



PLENARIES



I. Special Plenary Session – Setting the Agenda

The session was chaired by Mr. Natarajan Ishwaran, Editor in Chief, Environmental Development, Elsevier, Paris and co-chaired and facilitated by Dr. Ram Boojh.

Dr. Ram Boojh introduced the objective of the session to set the tone and agenda of the conference by learned panellists in the context of international, regional (South Asia) and national perspectives.

Dr. Natarajan Ishwaran initiated the discussion on the gap between planning and implementation.

The session focussed on dealing with issues at ground level by panellists in their respective institutions. Issues faced, dealt with and overall experience of implementing thing on ground.

Prof. Martin Siegert, Professor, Geo Sciences and Co-Director, Grantham Institute, Imperial College, London emphasized on the need to understand whether we are training this generation with the skills that they really need for the next decades so that they can lead and manage this transition. Students are the future and training them with right skill set should be looked at schools and universities and this is critical to deliver for developing zero carbon economy.

Mr. Vivek Menon, Executive Director and CEO, Wildlife Trust of India said that Sustainability Education need to focus on the practical part, which is often forgotten. Students need to be involved with actual issues and should be given hands on experience to solve the prevailing difficulties in the current world. Then only will



Panellists (L-R) Mr. Guy Broucke, Dr. Ram Boojh, Mr. Vivek Menon, Mr. Rajendra Shende, Dr. Pramod Sharma, Ms. Chandrika Bahadur and Ms. Ushio Miura for the group photo.

this Education for Sustainable Development will take a holistic approach. Also the biggest challenge is teachers with right skill to implant right knowledge.

Ms Ushio Miura, Program Specialist UNESCO, Asia Pacific Bureau of Education, Thailand, Bangkok added Sustainability Education is not only about bringing the concept of sustainability into classrooms, but also about bringing education and learning in the community life for everyone so that they can collectively take action for sustainable development.

Dr. Pramod Kumar Sharma, Senior Director of Foundation for Environmental Education talked about need for scaling up, perfecting and improving on the ongoing activities instead of trying for new and exciting ideas to work with. Also the second biggest challenge is also about the skills to lead these transformative processes, and the skill building of teachers to do an active learning.

He also pointed out that with the increasing use of social media wrong information is reaching to people which makes it more difficult for environment advocates to get in the mind of people with right information. Another challenge that educators face is how to frame the issue as solution and not as problem and developing the right pedagogy.

Ms. Chandrika Bahadur, President of the SDSN Association spoke about the complexities in imparting sustainability education. She emphasized that education will not stop when children graduate from school. In many cases it doesn't actually happen within the school either. So how do we actually continue life-long learning and how do we make it flexible so that it becomes easy for people to integrate it as part of their lives rather than feel like they have missed the window and now they have to make an extraordinary effort to learn. So as educators, as advocates in this field, one of the things we focus on is, how do we make this accessible everywhere so that people see the value of this education in their lives.

SDG Academy is a platform for massive open online courses. It has about 23,600 learners from around the world sign into our courses, courses that are made by multiple faculty from around the world with very different perspectives, with very different sources of knowledge, very different backgrounds, and help them teach together to students who they would never meet otherwise, or students would never have access to hearing from them under normal circumstances.



II. Plenary Session – Sustainability Education Approaches & Experiences

The session was **chaired by Prof. Ashok Kumar**, Professor of Management Grand Valley State University, MI USA; **Co-chaired and facilitator was Ms. Malgorzata Luszczyk (Gosia)**, Director, Foundation for Environmental Education (FEE) and **rapporteur was Ms. Rahma Elfithri**, Senior Lecturer/Research Fellow, Institute for Environment and Development (LESTARI), University Kebangsaan Malaysia (UKM).

Mr. Mark S. McCaffrey, Co-Focal Point for ECOS talked through skype. He stated that Information alone is not enough to motivate behaviour change but when knowledge is paired with an effective research-based pedagogy and communicated by trusted messengers, actions, measurable changes in attitudes and behaviour is seen. Modern education has ironically become a major part of the problem facing the planet but the potential and power of education could only transform world if it is authentic, down to earth, touches people's hearts and minds.

Prof. Ashok Kumar, Professor of Management Grand Valley State University, MI USA focused on sustainability education at master's or MBA level as they are the future managers of the businesses. If not properly educated they can be huge polluters so it is most important to change their mind-set. It is important for everyone to think about the cycle of products and its impact on environment and how this whole economy and the business should work in a sustainable way.

Dr. Goutam Kumar Dalapati, Department of Physics, SRM University Amravati emphasized on the need for an innovation to develop sustainability and to make people sustainable. People know that problems are present but how to solve the problems will only come with innovation and new sustainable technology. New technology should also be the point of focus in the developing economy as this is the only way to bring in solution to the prevailing problems in the world.



Panellists of Plenary during the discussion

Dr. Rajendra Shende, Chairman TERRE Policy Centre spoke about sustainability and its various dimensions and how students would like to get involved at various levels of sustainability to widen its perspective and knowledge thus helping them to be a skilful resource and establish them in the economic market as an asset. Apart from this sustainable development education should keep a pace with what market requires and that is the digital technology integrated with the actions on sustainable development.

Prof Rob O' Donoghue, Associate Professor, Rhodes University, South Africa talked about "communities assessing governance" which should include

1. Bringing in global citizenship education where the citizens are called for accountability.
2. Start thinking about ESD from an action learning point of view, as people want to change and explore new ways to learn, not be forced to learn to change.

Dr. Juan Carlos Sandoval, Institute of Educational Research, University of Veracruz, Mexico added that the sustainability approach for us has failed because in our context the effort and our focus is more on the economic dimension than on the social and environmental. It is not about how to reduce the consumption anymore, but it is about how to have access to what is already present: how to access energy, food, water and other resource efficiently.

Prof Daniella Tilbury, Commissioner for Sustainable Development, University of Cambridge spoke that Ultimately sustainability is about questioning the way we govern ourselves, the way we live, the way we work and how this has an impact on people and planet. It is also about responsibility and action. A component that is often missing from a lot of the taught content that is increasingly being put through our education. We need to develop mind sets and skills as opposed to anticipate as well as create a much better alternative future.



III. Plenary Session – Sustainability Education Stories – Country Regional Presentations

The session was chaired by Mr. B M S Rathore, International Centre for Integrated Mountain Development (ICIMOD); Co-chaired by Dr. Vivek Saxena, country representatives, The international union for conservation of nature and rapporteur was Ms. Bhuvana Santhanam, Sri Sathya Sai University For Human Excellence.

Maldives - Mr. Ahmed Athif, Director General, Department of Inclusive Education, Ministry of Education, Maldives

National curriculum 2015 implemented in schools focus on responsibility and productivity along with 21st century skill set. Included in the curriculum.

At the age of 4yrs itself child is introduced to lot of sustainability components until the age of 8yrs. Children are connected directly with nature at school level. Some school wise practices include: connecting to the beach, reef, exploring marine life. We have programs like zero plastic in all the 214 schools. The nationwide campaign 'FAR KOYI', FAR means reef and KOYI means a child helps children connect to their surroundings and feel responsible for it. So every child should know their connectivity with reef, marine life and beach. Not only in schools but tourism sector also has lot of sustainability practices like beach library, bare foot concept, eco buyers, which is appreciated and accepted by tourist as well.

Regional South Asia - Mr. Shailendra Sigdel, Statistical Advisor, UNESCO New Delhi

The South Asian countries from Afghanistan to Sri Lanka has developed vision document, but some of the countries have developed completely different vision document focusing on SDG4 and going beyond education. South Asia has the largest illiterate population contributing almost 34% in the world. From 1990 to 2000, rate of school children dropping out has increased and illiteracy has gone up. One of the challenges that we see in implementation of SDG4 is a partnership between ministries and organizations. On ground implementation can help us achieving the expected goals by 2030.



Representors from different countries at Plenary

Nepal - Mr. Pradeep Khaple, Vice President of National federation of UNESCO Club and Association of Nepal

Nepal has made great strides in expanding access to pre-primary education with enrolment rate having increased from 12% in 2000 to 86% in 2017 and is continuously rising year by year. According to a nationwide survey conducted in 2014, children of 3-5 years of age attending early childhood education program in Nepal were 17 times more likely to be on track in their foundational early literacy and numeracy skills even after excluding the effects of numerous socioeconomic factors.

India - Ms. Jyotsna Tiwari, Professor, Art History and Aesthetics, NCERT, India

In India, in the year 2003-04 we had Supreme Court mandate that environmental education had to be a compulsory component in our education system. Environment Education has been integrated in the education system from the early stages of education to higher education. It has been changing according to different initiatives national, international, UN, and now the SDG goals. Draft national education policy talks about school complexes, the set of suggestions for the policy that how this can be more sustainable. Because this is sustainable education and when it will be sustainable in itself then only it is going to be sustainable for the country and the society.

Bangladesh - Mr. Rishad Abdullah, Research Officer, Secondary and Higher Education, Bangladesh

In Bangladesh the ESD is quite new and not yet expanded but mainly the technical committees have set organizational system using these words of sustainability and policies integrated. There are several educational policies in Bangladesh but have not integrated ESD within the programs. Delivering the ESD is quite tough because of lack of teachers with professional training and adequate knowledge on ESD.

Sri Lanka - Dr. Jayanthi Gunasekara, Director General, National Institute of Education, Sri Lanka

Sri Lanka is implementing three programs under ESD through the National Institute of Education. The first one is 'Global Citizenship Education Program', for upgrading the national curriculum. The second one is 'Gender Mainstreaming Teacher Education Program' for upgrading the teacher education program. The third one is an 'Innovative Practice by the National Institute of Education'. It is the introduction of vocational stream under 13 years of guaranteed education. This is for the development of human capacities to active involvement in productive and creative based knowledge economy.

Bhutan - Mr. Kinley Dorji, Royal Thimphu College, Bhutan

Bhutan have literacy rate 71.4% which is indeed tracked down by very low adult literacy rate of 66% but now 97% of children between the age of 6 to 12 are going to school. And this is an achievement solely dedicated by or hosted by the reasons like education is totally free till class 10th. Many initiatives like extended classroom learning system in rural area, monastic education centres, non-formal education system and also continued education system is some of the reasons for high literacy rate.

Bhutan has integrated the concept of GNH (Gross Nation Happiness) in education. It has four pillars:

- First pillar- Sustainable and Equitable Socioeconomic Development
- Second pillar -Cultural Preservation
- Third pillar- Environmental Conservation
- Fourth pillar-Good Governance.

Under this umbrella of education of the Gross Nation Happiness Bhutan launched in 2008 its own



IV. Special Plenary on **Biosphere Reserve as learning sites for sustainability education.**

The session was coordinated by Dr. Tashi Wangdi, Director, Ministry of Environment Forests & Climate Change, Government of India. We have 18 Biosphere Reserve in India. And out of that 11 is UNESCO map Biosphere Reserve which we call as 'World network of Biosphere Reserve'. And all over the world we have more than 701 WNB- The World Network of Biosphere Reserves in 124 Countries. And in 15 states of India more than 19000 square kilometres covered in Biosphere Reserve. So the importance and beauty of these Biosphere Reserve, at holistic approach is that when we talk about one Biosphere's entire living beings, we look at the activities that are involved within a Biosphere Reserve.



Dr. Ram Boojh initiated the discussion by introducing the concept of biosphere reserve launched under UNESCO's **Man and the Bio-Sphere program (MAB)** in 1971, to provide a better scientific basis for the improvement of relations between people and their environment. Biosphere Reserves (BR) set up under the MAB programme are internationally recognized sites for reconciling biodiversity conservation with sustainable development of the local

communities. BRs serve as learning sites for education for sustainable development.

Dr. Tashi Wangdi - What we see now is with that over a period of time Evolution of Environmental Education to Education for Sustainable Development and finally has given rise to Sustainable Development Goals. And under the Biosphere Reserve and the World Network of Biosphere Reserve of UNESCO map, we have Sustainable Development Goals, target to be completed and implemented by 2025, in other cases it is 2030. By sensitizing people, sensitizing youngsters and the stake holders, we can find the gap areas in Biosphere Reserves through research and education. He took forward the discussion by mentioning that through the MAB Programme, UNESCO is promotes harmonious integration of people and nature for sustainable development through participatory dialogue; knowledge sharing; poverty reduction and human well-being ; respect for cultural values and society's ability to cope with change. He concluded by mentioning a saying by Novelist Ravindranath Tagore, **'The highest education is that this doesn't merely give us information but makes our life in harmony with all existence'**.

Mr. Uday, PCCF (Principal Chief conservator of the Forest), Government of Tamil Nadu emphasized on the importance of education in 60s and shares his experience when Education department was not in reach, he was then the district officer in the Forest Department in the District of Vellore in Tamil Nadu. The Forest

Department runs the school in the interior area called Javadis and took responsibility to run the school. We tend to talk about successes and normally what human tendency is, We exaggerate successes and We hide our failures. Mr. Uday says, to improve the education and conservation system the key is to share the failure stories. We need to talk about where we failed? How we failed? He further highlighted that education is the Key part of management of the Biosphere Reserve.

Mr. Ashok Kumar, Conservator of Forest, Government of Tamil Nadu talked about Gulf of Mannar Biosphere Reserve' how it educated the local communities and helped them to have a better life. They have educated more than 90,000 Students and 82,000 fishermen of this area. And also School campaigns and Beach Cleaning Activities that again aims at Sustainable Development Goal, Clean Water and Sanitation. They have involved local Institutions like Eco-development Committees, that comprises a local communities and this a basic Grass root Institutions which helps implementing the Government Projects and also act as a between Public and Government. He shared that lot of school students visit and learn about the Marine Biodiversity in Gulf of Mannar. They also have evening coaching classes to provide Quality Education to the local community and then skill upgradation training to the local Community specially to the women members to support them to have additional income and also integrated with other departments and then local conserving the Marine Biodiversity.

Shri Kapta, the chief conservation of Forest, Himachal Pradesh gave short description on Cold Desert Biosphere Reserve in Himachal Pradesh. The place was declared as cold biosphere reserve in the year 2009 covering total area of 7,770 square kilometers. And this area is very important from biodiversity point of view. There are low and high volume medicinal plants and most of these species are Salix, Seabuckthorn, Myricari, Potentila, Raum and Ranunculus. In the dry alkaline areas there are Teragana and Artemis and these very important for local people because



The panellists at the Biosphere Reserve session at ICSE 2019.

there are no trees in these areas and they use these species for fuel in the winter. The site is in the process of getting entry into World Network of Biosphere Reserve and will be submitting this proposal to UNESCO through Govt. of India.

Shri. Faisan Rashid from EPCO, Madhya Pradesh spoke about three biosphere reserves of Madhya Pradesh: Paschmani, Panna and Amarkantak biosphere reserve. He described some of the best practices of biosphere reserves, like, Sericulture practices in the Hoshangabad area, they have provided weaving machines and the other infrastructures to SHGs which are mostly formed up by women for the Sericulture products. This takes care of women empowerment and no poverty and hunger through this project. On the education front, they have been organizing the national camps since 1999 for school children. In these camps 50 students and one teacher gets quality education about the environment and practical experience for biodiversity conservation and other related issues of environment.

Mr. Bhuvan Pradhan from the Government of Sikkim in Sikkim, how they connect biodiversity conservation with the sustainable development? Education and sustainable management is very important in terms of nature's conservation. Education is the most important point of view, Sikkim has started environment education program from class 1. This education program educates schools and locals, how to preserve the biodiversity for sustainable management. Sikkim has its 82% area under forest. The contention of biosphere reserve was established in 1977. And it has been also covered by UNESCO as World Heritage site in mix category. And the best practice of this contention of biosphere reserve is garbage management, Himal Rock Checks.

Dr. Guy Broucke, Natural Sciences Programme Specialist, UNESCO New Delhi explained through four key pillars, how man and biosphere model i.e., a) sharing local knowledge- to create a network of local communities b) biosphere reserved are basic entity-model evolved from mainly protected areas to the model that included developed areas. c) Education- the fundamental part of the model without it we cannot have sustainability and d) Cultural identity -The campaign like 'Proud to Share' where people have expressed more than what it is that detaches them from their landscape. MAB programme connects people with each other and with nature. There is lot of holistic thinking that we are trying to bring in addition to the science in the programme.

Dr. Natarajan Ishwaran, Editor in Chief, Environmental Development (Elsevier), Paris in his words defined biodiversity as an area which is less in human activities with nature, wild life conservation areas, parks with those that are immediately around it and with the people who are looking for the betterment of their livelihoods and improvements of the conditions for the future generations. He said that the biodiversity conservation involves people, society and all kind of economies sharing the interlinkages. This biosphere reserve network is very potent source for experimenting with what sustainable development is and that includes what sustainable development education is.

Dr. Suprava Patnaik, Indian Institute of Forest Management (IIFM), Bhopal shared that during her one of the UNESCO project, Niligiri biosphere reserve, the two components a) Co-producing knowledge which includes the traditional ecological knowledge and the scientific knowledge and b) triple bottom line concept which looks at social, economic aspect as well. The third component which is most important is 'Conservation Education' The tribal themselves have lot of knowledge and that knowledge can be passed onto the next generation. The biosphere reserve is an area of cultural and biodiversity area. There are lot of things one could learn and come out with new concepts and new ideas where our children, and youth could get exposure to nature and learn about conservation.

PARALLEL SESSIONS

CEE

Centre for Environment Education

Handprint: Action for Sustainability by Centre for Environment Education (CEE)

Panel Members: Kartikeya Sarabhai (CEE), Pramod Sharma (FEE), Madhavi Joshi (CEE), Rob O' Donoghue (Rhodes University, SA), Chochong Shimray (NCERT, India), Juan Carlos Sandoval (Institute of Educational Research, University of Veracruz, Mexico), Christa Henze (University of Duisburg-Essen, Germany), Sanskriti Menon (CEE), Paul Zacharia (Wipro), Madhavi Joshi (CEE), Meena A S (CEE), Gayatri Raghwa (UN Environment), Radhika Suri (WWF-India), Neha Raghav (WWF-India)

Handprint represents positive action towards sustainability. Launched in 2007 by Centre for Environment Education (CEE) at the UNESCO's 4th International Conference on Environmental Education, the Handprint is today widely used by many projects globally. It has come to stand for commitment, measurement, connecting – joining hands and is a symbol of care.

The session discussed approaches to encourage students in taking leadership action and address sustainability challenges. The session presented case studies of projects: Earthian, Eco-Schools, Pune cycle plan and Paryavaran Mitra.



Handprint: Action for Sustainability session at ICSE 2019

The Session at ICSE also focused on methods of integrating sustainability action pedagogy in the curriculum of Higher Educational Institutions. It had two panel discussions that focused on ways to encourage young people to play a part in resolving pressing environmental issues. This session presented SDG Handprint Lab, a local area study and sustainability action

pedagogy for Higher Education Institutions initiated by CEE. This session also had a panel discussion on Plastic Tide Turners- Young Leaders' Challenge, a Programme by UN Environment, in partnership with WWF-India and CEE. The challenge in general aimed at creating a movement of young people who will be committing to take action to reduce plastic waste in their lives, at schools and within the community

The Handprint Session in general provided an opportunity for participants to explore how they can use the Handprint methodology in their own projects. The session also introduced the Global Handprint Network and ways in which participants can join it. The session was attended by more than 60 participants.



Youth Involvement in Sustainability Education Drives, Lessons from across the Globe by the Climate Reality Project India

The session captured various successful models of youth engagement to sensitize, involve and to train them in sustainability and climate change concepts, to encourage positive attitude and actions. Case studies from various countries (Indonesia, Australia, Brazil, Europe) and International organisations (Earth Day Network, Global Shapers Community) were presented.

Renata Moraes, Branch Manager, The Climate Reality Project Brazil, shared her experience and various campaigns organised to engage young Climate Reality Leaders in Brazil. Her campaigns involved activities to build responsible behaviour and leadership to take climate action in future generation.' She focused on the special moment of the education, an inversion of didactics, in the way to prepare and conduct classes, bringing elements not only from outside the schools, but future issues into the classrooms.

Zsolt Bauer, Branch Manager, The Climate Reality Project Europe, talked about use of technology and social media in engaging youth, with example of 'Greta effect' and how 'Radical' is the new norm for youth. He highlighted that youngsters look for support from different legitimate organisations for background support, credible resources, and training in organising campaigns. He also talked about multimedia educational toolkit available as an open source- 'Green Pack'.

Karuna Singh, Regional Director Asia & Country Director, Earth Day Network India, talked about various programs and campaigns started by Earth Day Network to encourage environmental stewardship among youth. Some of the examples are morning school assembly competition, green environment monitors programme, etc. She mentioned that 'Youth have the idealism and they're willing to take the risk.' A paradigm shift is required from 'how we teach' to 'how they learn'.

Amenda Niode, Branch Manager, The Climate Reality Project Indonesia, presented stories of sensitising youth on climate and environment issues with around 30% of Indonesian youth as young ambassadors at UN and various other forums are encouraged to mobilize international support for Climate Reality Indonesia's flagship program 'Youth Leadership Camp for Climate change'.

Tanya Spisbah, Director, Australia India Institute highlighted the success stories of youth from Australia and India who are not only demanding more action from government, but also developing innovative solutions which are more sustainable and environment friendly like Veena Sahajwalla known as Queen of waste is driving the change.

Ajay Mittal of Global Shapers Community, shared his experience and campaigns in Kolkata related to clean air, water conservation and climate change. He mentioned that Global Shapers is an initiative of the World Economic Forum-, a community/hubs of more than 8000 young people under age 30, from more than 150 countries, who are driving dialogue, action and change.



Workshop on 17 SDGs as an effective tool for ESD and building leadership and media skills in youth by Foundation for Environmental Education (FEE)

The workshop consisted of three main parts: discussion on constructive journalism, group exercise on photo related to different SDGs and discussion on young influencers in the context of teacher's role in building leadership skills in youth.

During the first part of discussion on the meaning of constructive journalism participants highlighted that stories with positive solutions are more convincing to take actions. Directing youth to write stories by investigating environmental issues, interviewing different stakeholders and proposing a solution, have bigger impact in influencing local communities to take positive action.

In the second part of the workshop, photo exercise was conducted. Participants had to draw description of different SDGs and provide a photo that will be related to that SDG through positive message. The discussion was really vivid and included rules on good photography. Participants highlighted which photo stories were the best. As a summary discussion turned on rules for photography, that presenting stories about people are much more interesting and people need to be aware of fake news stories.

The third part of the workshop was about how to build confidence in youth, how to influence them to take action and build leadership skills into school curricula. It has been highlighted that using media tools we can develop students' confidence by giving them more opportunities to find a niche for leadership role that they can play, means sometimes you can be leaders through photography and that can be your strength. The role of the teacher is to activate youth without overwhelming them with the message about what has to be done.

The workshop was concluded with the thoughts that youth have power to change the world. Our role is to help them to find the best way through the school curricula.



'Encouraging conservation practice through non-formal learning' by Wildlife Trust of India

To reflect upon the environmental challenges and to highlight the role of non-formal conservation learning, WTI hosted a session titled 'Encouraging conservation practice through non-formal learning'. The Session was moderated by Mr. Abhilash Khandekar, Senior Journalist, Wildlife Volunteer and an Environmentalist. Other panellists and speakers included- Ms Madhu Bhatnagar, Consultant Environment Programmes, Dr. Sandeep Kr. Tiwari, Program Manager IUCN SSC Asian Elephant Specialist Group, Mr. Sajan John, Manager and Head Marine Conservation Projects-WTI, Mr. Gnaneswar Chandrasekharuni, Assistant Coordinator, Snake Conservation and Snakebite Mitigation Project-Madras Crocodile Bank Trust, Mr. Ramith M, Assistant Manager, Kannur Kandal Project-WTI, Mr. Deep Gogoi, Green Corridor Champion-WTI and Mr. Saimon Bawati, Tiger Scout member.

Mr. Abhilash Khandekar commenced the session by sharing his expertise and experiences in the field and spoke about the importance of biodiversity conservation and the role of youth in safeguarding the planet Earth.

Mr. Saimon Bawati, a Tiger Scout member and a secondary school student flew down to India from Bangladesh to speak about the incredible work undertaken by Tiger Scouts for the conservation of tigers and their habitat. Established in 2016 by Wild Team, Bangladesh, Tiger Scouts is an informal education and sensitisation platform comprising youth. Select school children from the rural landscape of Bangladesh side of Sundarbans become educators in their respective areas through proper training and capacity building. Setting a perfect example for today's youth, Saimon addressed the gathering and talked about how Tiger Scouts are spreading conservation messaging and reaching communities through various school campaigns.

Mr. Ramith M. showcased the work being done under the Kannur Kandal Project, 'kandal' being the Malayalam word for the mangroves. An initiative undertaken by WTI and Apollo Tyres to ensure the survival of existing mangroves and increase the acreage of such coastal wetlands across the Kannur district of Kerala. Through various interaction sessions and myriad of other activities like street plays, photo exhibitions, plantation drives etc. children and youth are informed on various aspects of mangrove conservation. Adding to this, Mr. Sajan John emphasized on other marine conservation projects like Whale Shark Conservation and the Coral Reef Restoration projects being undertaken by WTI.

Ms. Madhu Bhatnagar, Consultant Environment Programmes, Shri Ram Schools and EDUCARE shared her knowledge on some of the conservation models being implemented in schools to familiarise young minds with the idea of biodiversity conservation. 'Field trips are the best way to provide real life experience and visual literacy' said Ms Bhatnagar.

To secure the future of wild elephants and allow their uninterrupted movement between key habitats, WTI has been working on through the 'Right of Passage' Project for the last decade and a half to protect the identified 101 corridors. WTI has created a network of empowered local stakeholders called Green Corridor Champions that ensures that every corridor is monitored in perpetuity. Mr. Deep Gogoi is a Green Corridor Champion based in Digboi, Assam who shared his experiences a of various sensitisation activities and awareness campaigns, Giving a broader picture of the Right of Passage project, Dr. Sandeep Kr. Tiwari spoke about the status of elephant corridors in India, prevalent threats affecting elephant habitats and the ways to avert these threats.

Mr. Gnaneswar Chandrasekharuni talked about his current work on various nation-wide education initiatives undertaken by him in association with madras crocodile bank trust with regards to snake conservation and snakebite mitigation. He also highlighted the role of youth for wildlife conservation in empowering early career conservationists.

The 90-minute session concluded with a question and answer session facilitated by Dr. Rahul Kaul, Chief of Conservation-WTI. The speakers and panellists were handed over handcrafted Aronai from Manas and Gond art paintings from Madhya Pradesh.



Formalisation and delivery of conservation curriculum' by Wildlife Trust of India

The session hosted by WTI reflected upon some of the challenges, limitations, conservation education models and necessity of introducing such concepts from the early stage in the education system. Dr. Erach Bharucha, Director, Bharati Vidyapeeth Institute of Environment Education & Research (BVIEER) moderated the session. Mrs. Meenakshi Singal, Principal Primary School, Pathways, Dr. Chong Shimray, Associate Professor, National Council of Educational Research and Training (NCERT), Dr. Kranti Yardi, Professor, Bharati Vidyapeeth Institute of Environment Education & Research (BVIEER) and Ms Radhika Suri, Director Environment Education, WWF-India were the other panellists for the session.

Dr. Erach Bharucha commenced the session with a brief presentation on historical aspects, milestones and Indian context of conservation education. The importance of conservation education and its evolution overtime was explained by Dr. Bharucha during his presentation. Mrs. Meenakshi Singal gave some insights on how to catch the students young and make them aware about the need to protect and respect environment.



Speaker during the parallel session by Wildlife Trust of India

Dr. Chong Shimray spoke about developing environment education infusion for secondary schools. She discussed the 'what', 'when' and 'how' of conservation.

Dr. Kranti Yardi highlighted the challenges in textbook development for higher secondary schools. She discussed the status of environmental studies, ground realities with regard to environment

education and suggested actions for the efficient delivery of conservation education to the students.

Ms Radhika Suri of WWF India spoke about the current status of environment education which is leading to disconnect with nature, increased consumerism and loss of traditional wisdom. In her concluding remarks she talked about the need of the hour which is to build a generation of thinking and environmentally conscious individuals.

The session concluded with the presentation on 'reorienting nature education for youth' by Dr. Bharucha. 'There is a need to upscale indoor curricula and include outdoor experiential learning' said Dr. Bharucha.



Youth Conclave on SDGs by The Energy and Resources Institute (TERI)

TERI organized the thematic track, 'Youth Conclave on SDGs' on 9 September 2019. Environment Education and Awareness Area entered into a knowledge partnership with Mobius Foundation to organize the International Conference on Sustainability Education 2019 on 9-10 September 2019 at India Habitat Centre, New Delhi. Present at the inaugural session was Dr. B. N. Narasimha Murthy, Chancellor-Satya Sai University of Human Excellence, Mr. Kartikeya Sarabhai, Founder & Director- Centre of Environment Education, Dr. Ajay Mathur, Director General- TERI, Ms Donna Goodmann, Founder and Executive Director- Earth Child Institute, Dr. Sunita Narain, DG- Centre for Science and Environment, Sadhvi B Saraswati, Secretary- General of Global Interfaith WASH Alliance. Speaking on the occasion, Dr. Mathur, DG, TERI said, "I am glad to be a part of this sustainability education conference and this reinforces my hope for a planet beyond boundaries."

Several plenaries and thematic tracks were organized during the 2 day event. A Youth Conclave on SDGs was presided over by Dr. Vancheshwaran, Senior Director-TERI, Mr. Burman, Chairman- Mobius Foundation and Mr. Sunit Tandon, Director-IHC. Mr. Burman, pointed out a critical need to control population in order to pave a way to promote environment conservation and resource efficiency. A panel discussion on the theme "Jobs and skills transition management- Strengthening green human capital in the age of SDGs" brought together eminent speakers with an objective to share opportunities of convergence between sustainability agenda, and ESD aspirations of youth. During the concluding session, Ms Kahlon, Associate Director- TERI said, "moving forward, it is important to understand the links between indigenous knowledge, economic sustainability and opportunities for youth and all these three key issues will lead to a convergence where there are innovations, youth friendly policies and a drive to promote sustainability in thoughts, practice and action". Agenda is attached as Annexure A.



Panellists and speakers of the parallel session by The Energy and Resources Institute (TERI)

Discussion points from prominent speakers

Mr. Pradip Burman, Chairman, Mobius Foundation starting his address with John F Kennedys quote "ask not what your country can do for you; ask what you can do for your country." Mr. Burman talked about his initiative 'World Environment School' and how the SDGs can be achieved through education and population stabilization. He also mentioned how simple steps in the field of renewable energy such as harnessing the fact that we have highest number of cows into using the dung or usage of Hydroponics and organic farming as different farming avenues can help us in the same. With newer discoveries coming in such as algae eating air pollutants, he believes that together we can fight problems arising from environmental degradation and climate change.

Mr. Sunit Tandon, Director, India Habitat Centre While asserting his belief that growth always comes at a price Mr. Tandon is adamant about the fact that lowering the consumption is the only way towards the development of humankind. He hints at Gandhi's self-sustaining village economy as one of the solutions and questions as to why this can't be thought upon as a solution. He also highlights that how aims and objectives are dynamic in nature- like, during 1960s population control was an aim but today it's not even in the picture.

Ms Donna Goodman, Founding Director, Earth Child Institute She talked about global networking and how Global Action Classrooms have connected people with similar languages and faith based partnerships. She emphasized on the fact that how every religion has reverence for trees, hand washing rituals and how they collaborated with mosques to bank upon the instincts of networking children are born with.

Ms Supriya Singh, Head, Corporate Social Responsibility, Tata Communications Ms. Singh answered the question every youngster battles with- How to make your profile future ready? She talked about the few mega trends today such as automation, and digitalization along with big data, another being the ability to negotiate with machines, having a growth mindset and running high on the imagination part. She also talked about how certain skills such as memory will become redundant. She emphasized that while 75 million jobs will become redundant, 133 million more will be up for grabs (WEF data). To conclude, she emphasized on the ability to work with community, keep re-skilling and become eternally curious with soft skills to dispense. Thereby telling us how portfolio shall be a reflection of what value you want from your life.

Ms Rozita Singh, Head of Solutions Mapping, Country Accelerator Lab, UNDP She started by giving the example of how her simple approach towards waste management decentralization made an impact, thereby implying how team building is basic human aspect and system thinking along with design thinking help us to combat the day to day challenges we face.

Ms Seema Bali, Vice Principal, St Mary's School, Dwarka Being a vice principal at school, she reassured the youth that there has been a shift from percentage oriented job market to mixed bag approach. She cited the example of Lemon Tree Hotels and their friendly employment schemes for people with special needs. She also mentioned how schools are becoming an inclusive place where children of different caliber can together help in building a society we aspire for.

Outcomes



1345 – 1400 Hrs	Registration
1400 – 1420 Hrs	<p>Welcome Address <i>Dr. Annapurna Vancheshwaran, Senior Director, Communication Outreach & Advocacy Unit, TERI</i></p> <p>Opening Remarks <i>Mr. Pradip Burman, Chairman, Mobius Foundation</i></p> <p>Special Address <i>Mr. Sanjit Tandon, Director, India Habitat Centre</i></p> <p>Vote of thanks <i>Ms Taru Mehta, Area Convenor, Environment Education and Awareness, TERI</i></p>
1420 – 1530 Hrs	<p>Panel Discussion: Jobs & skills transition management: Strengthening green human capital in the age of SDGs</p> <p>Moderator: <i>Ms Livleen K Kahlon, Associate Director, Environment Education and Awareness, TERI</i></p> <p>Speakers:</p> <p>Green jobs in a Corporate: How cool is it? <i>Ms Supriya Singh, Head, Corporate Social Responsibility, Tata Communications</i></p> <p>Scaling up SDGs through Global Networks and Partnerships <i>Ms Donna Goodman, Founding Director, Earth Child Institute</i></p> <p>Trends in the 21st century: Innovations at grassroots leading towards entrepreneurship <i>Ms Rozita Singh, Head of Solutions Mapping, Country Accelerator Lab, UNDP</i></p> <p>Vocational Education in Schools <i>Ms Seema Bali, Vice Principal, St Mary's School, Dwarka</i></p>
1530 Hrs	<p>Vote of Thanks <i>Ms Monmi Barua, Associate Fellow, Environment Education and Awareness, TERI</i></p>



Workshop on Innovative ways to teach the SDGs by the Sustainable Development Solutions Network (SDSN)

2015 was a landmark year in the field of sustainable development for many reasons. Not only was it the year that the 17 Sustainable Development Goals (SDGs) were adopted, but it also marked the end of UN Decade for Education for Sustainable Development (2005-2015). An important outcome of the Decade's documents was that "education for sustainable development (ESD) should not be equated with environmental education (EE)," acknowledging that sustainable development reorients EE by putting it in a "broader context that considers social and cultural factors and social-political issues, such as equality, poverty and quality of life."

Conference on Sustainability Education to further deliberate upon various facts of sustainability education.

The first-of-its-kind conference was held on September 9 – 10, 2019 at the India Habitat Centre in New Delhi. Through various keynote addresses, plenaries, workshops and focused special sessions – over 600 delegates deliberated on ESD, EE, and the more recently-developed climate change education (CCE). The SDG Academy's Delhi team was privileged to attend this event and take on a lead role in some its segments.

Chandrika Bahadur, Director of the SDG Academy and President of the SDSN Association, was a speaker in the plenary alongside other eminent dignitaries representing the UN, government, leading think-tanks and international and regional universities. She was also a jury member of the Poster competition and a panelist in Day 2's special session on Global Warming to Global Cooling – A Changing Paradigm for Education by UNFCCC and FEE.

Over 50 conference delegates that included teachers, practitioners, and mostly, students, participated in the 90-minute session that took a deep dive into understanding 'sustainable development', the 17 SDGs and how to teach them effectively to anyone who has the motivation to learn them well.



Speakers and participants of parallel session by SDSN

Earth Observation education in Sustainable Development by ICRISAT

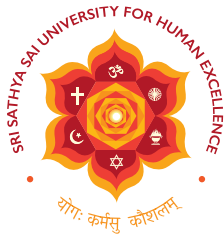
Most people in the world today have an immediate and intuitive sense of the urgent need to build a sustainable future. There may be debate on the precise definition of 'sustainable development' or 'sustainability' but they clearly sense the danger and the need for informed action. Sustainable development (SD) is a difficult concept because it requires systems thinking and the integration of considerations about economic, environmental and social factors. Earth Observation (EO) – visual story teller- is more important than ever to visualize, analyse and document dramatic anthropogenic impacts on the planet. Remote-sensing technologies, an EO tool, can help us to better study our environment and reduce risk. Whether it be weather, climate, oceans, agriculture, forests, or natural disasters, EO is critical to ensure sustainable development, especially in agriculture. We are using this quantifiable global data with multiple stakeholders to improve agricultural productivity, land and water management. The space faring nations have taken many initiatives to support the uptake of EO-derived information in sustainable development.

Environmental education (EE) using EO systems connects us to the world around us, teaching us about both natural and built environments. It raises awareness of issues impacting the environment upon which we all depend, as well as actions we can take to improve and sustain it. Whether we bring nature into the classroom, take students outside to learn, or find impromptu teachable moments on a nature walk with our families, EO has many benefits for youth, educators, schools, and communities. Earth observation (EO) and geospatial information more attractive than ever for addressing poverty, monitoring environmental changes, and stimulating economic growth – among other objectives. It is especially valuable in developing countries, which often do not have adequate monitoring systems to track progress on the Sustainable Development Goals and other global and national goals.

The session focused on role of EO systems for education for sustainability and climate change.

The session had four speakers on the following topic:

- Earth a living system – visualizing from space for planet's sustainability;
- Visual story teller's perspective on application of Earth Observing systems;
- Linking Space to Sustainability – School Children's perspective,
- Earth Observation and Environmental Educations – Global, Regional and local Perspective



Promoting Sustainable Development Goals Through Quality Education That is Values Based and Integral in Approach by A New Education for A New World by Sri Sathya Sai University for Human Excellence

In the new world, education should not have an unbalanced approach creating a lopsided personality. We cannot have politics without principles, education without character, science without humanity, and commerce without morality, pleasure without conscience, and worship without sacrifice.

E. F. Schumacher, the economist who in his book “Small is Beautiful” elaborates ‘the basic requirement is to have a new technology with a human face’. Education should first create a human being with a human face - men and women with character.

Education should encompass all aspects of the human personality creating an integrated personality which is a harmonious synthesis of a sharp brain, a kind heart and competent hands; a beautiful combination of nobility and ability. It should hence be an education for life and not just for a living - a harmonious synthesis of the eternal human values with humanities, commerce, science and technology - an integrated value-based education.

In this time of guided missiles and misguided youth, the imparting of values not as a separate subject or moral science but as an essential thread that is interwoven and integrated into the regular curriculum is the need of the hour. Quality education thus gets redefined for the new world as “Integral value-based education,” which seeks to develop all the aspects of the human personality- the Head, Heart & the Hand - the intellectual, the emotional, the spiritual, and the physical. Only such an education will help in promoting the overall sustainable development goal in the new world.



Prof. Ron Toomey addressing the session Sri Sathya Sai University for Human Excellence



Panel and Workshop on “Promoting Community-based Education for Sustainable Development” by UNESCO Bangkok and New Delhi Offices

I. Overview of the session

a. Background

UNESCO Bangkok and UNESCO New Delhi organized the “Promoting Community-based Education for Sustainable Development (ESD) Panel and Workshop” as a special session during the International Conference on Sustainability Education (ICSE) 2019. The session aimed to share the pilot training experiences and the “Reflect-Share-Act” framework developed under the UNESCO Bangkok project “Promoting Community-based ESD”.

The objective of the project is to develop learning modules intended for community-based, adult and/or lifelong learning educators to enhance their capacities to support communities in embedding learning in their pursuit of sustainable development by bringing the whole community together. Under this project, preliminary modules “Reflect”, “Share” and “Act” were prepared through expert meetings. Pilot training programmes have been designed and implemented in India led by the Centre for Environment Education (CEE) South Regional Office, Japan led by the Asia-Pacific Cultural Centre for UNESCO (ACCU), Lao PDR led by the Non-formal Education Development Centre (NFEDC), Mongolia by the National Centre for Lifelong Education, and Philippines by the University of San Jose Recoletos (USJR) and other universities in Cebu and Negros.

b. Objectives

The objectives of the special session were as follows:

- To share the experiences, achievements, and lessons learnt from the pilot implementation of the training programme in India, Japan, and the Philippines.
- To share information with the general audience on how to reflect on and implement ESD action in their own communities by utilizing the Reflect-Share-Act approach.
- To observe the general audience’s participation and gather feedback for further revision of the training modules.

c. Programme and format

The session consisted of two parts. In the first part, a panel of three speakers shared their pilot experiences, namely:

- Lynnette Camello, University Director for Sustainable Education, Cebu Technological University (CTU), Philippines

- KiichiOyasu, Director of Education, Asia-Pacific Cultural Centre for UNESCO (ACCU), Japan
- SantoshSutar, Regional Director, Centre for Environment Education (CEE) South, India

In the second part, an interactive workshop was conducted based on the preliminary modules. The workshop was facilitated by Jose Roberto Guevara from the School of Global, Urban and Social Studies, RMIT University. The session was attended by over 40 participants including local school teachers and university staff, development workers from NGOs and international organizations, and local government officials.

II. Introduction

Ushio Miura, Programme Specialist, UNESCO Bangkok, welcomed the participants to the special session. She commenced by sharing an overview of Education for Sustainable Development (ESD), stating ESD is about transforming the way people think and act towards a sustainable future. She showed an image depicting the whole school approach to sustainability from the cartoon book “Let’s Work Together” published by UNESCO (available at: <https://unesdoc.unesco.org/ark:/48223/pf0000369006>).

Miura asked the audience to look at the image and share some of the parts that they found different from the “conventional” education that they had experienced. Some participants shared the following answers:

- Engaging the community outside school walls.
- Not just learning, but actually practicing.
- All of the people are happy and relaxed.
- Learning and action is done everywhere, for everyone i.e. not only students and children, but also parents and teachers.



Figure 1: Whole school approach to sustainability

From these answers, Miura posed the question to the attendants: how can we realize this community of education and learning as depicted? The project “Promoting Community-based ESD” was initiated to create this kind of community. She also emphasized the importance of educators, particularly in this case, non-formal educators, who do not receive the same formal training as school teachers. This project aims to enhance the capacities of such educators.

To do so, a training programme with preliminary modules were developed using the “Reflect – Share – Act” framework for contextualizing sustainability. Pilot training programmes are being implemented in India, Japan, Lao PDR, Mongolia, and the Philippines. For the morning session’s programme, representatives from India, Japan, and Philippines shared their experiences from the pilot implementation so far.

III. Sharing the pilot experiences

a. India

Sutar introduced the pilot training in India. The location for the training is mainly focused on the forest areas of Sirsi, in the southern state of Karnataka. In the past, this area has had many issues of forest exploitation and depletion. Sutar explained that the communities engaged are tribal communities whose livelihoods depend on the forest. Because of this, they found that the tribes are already engaged in sustainability practices, but they were not able to understand or were not aware of the sustainability concepts.

The objectives of the pilot training in India were as follows:

- Adapting the modules to local contexts in the local language
- Developing locally relevant teaching and learning materials
- Developing a training programme
- Developing sustainable community action by the community, for the community
- Developing an evaluation tool for measuring the impacts of the training

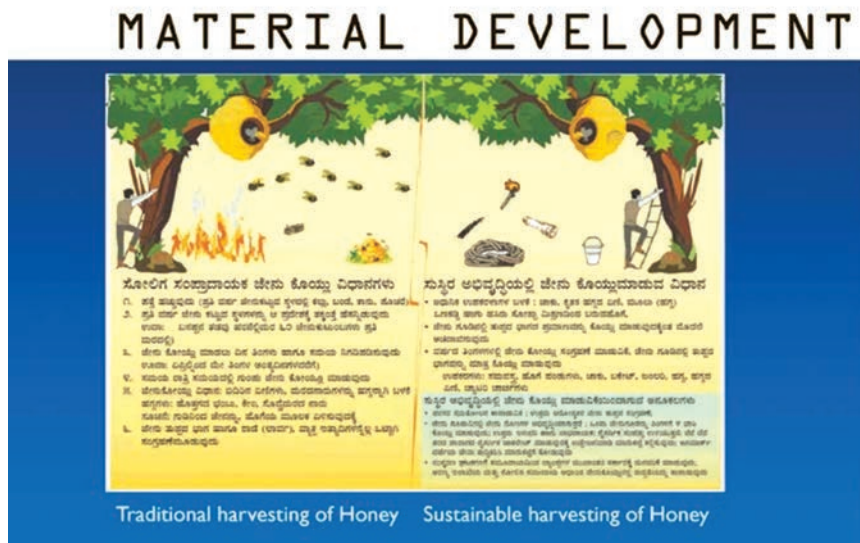


Figure 2: A poster in Kannada language used as a learning material to compare the traditional and sustainable methods of honey harvesting in the Soliga tribal community

For the methodology, the project team translated the preliminary modules into the local language of Kannada. They found this task to be challenging due to the difficulties in contextualizing the sustainability concepts to be shared at the local level.

Furthermore, they developed ESD educational materials. For example, flipchart posters were created by local community artists, with the communities involved in visualizing and illustrating the issues themselves. This is so that they can gain a full understanding and reflect on the situation in the community in order to develop solutions to the sustainability issues they are facing.

During the training of the master trainers, who were mainly non-timber forest produce collectors and farmers, they divided the trainers into eight groups to each develop an action plan for their community. Sutar gave an example of the Soliga tribe community who developed a plan for sustainable honey harvesting.

After the training of trainers, the master trainers from the Soliga tribe then conducted training in their community, where community members also developed their own action plans. In addition, they conducted ESD demonstrations in the community, engaging the local honey harvesters. After applying sustainable practices, the community has become a “cooperative society” for honey collecting, with many benefits such as more yield and higher market prices.

Sutar emphasized the importance of partnership in community-based ESD. He expressed that the Forest Department and other government units should be engaged in the training in order to influence policy.

He then shared the key outcomes of the training and the preliminary modules including the following:

- The communities gained a better understanding of ESD.
- The training activities initiating a lot of dialogue among the communities.
- The community members were eager to share and were able to understand the value of sharing ESD concepts, particularly in local contexts.
- The training reached 26 master trainers, who then each went on to train 121 community trainers, ultimately reaching over 1,200 community members.

b. Japan

Oyasu presented the pilot training programme in Japan, which is being implemented in the city of Hiratsuka in Kanagawa Prefecture. The pilot in Japan aims to apply ESD to the existing community learning centre (CLC) system in Japan. The CLCs, or Kominkan in Japanese, were established since 1946. There are over 14,000 Kominkans that are run by local government administrations. In Hiratsuka, the project team are working with the Central Kominkan and 4 district Kominkans.

The features of the Kominkan programmes in Hiratsuka are as follows:

- Common thematic programmes targeting various groups e.g. all generations, senior citizens, families, children, etc.
- Context specific programmes e.g. local history, environment, disaster risk reduction, etc.
- Learning circles e.g. music, art, language, cooking, etc.

Then, Oyasu shared the progress of the project in Japan. Initially, the project team followed the structure in the preliminary modules, starting with organizing an orientation workshop for Kominkan directors and staff. This would lead to the Kominkans conducting capacity building activities for community educators, and then carrying out community-based ESD action with monitoring and evaluation. However, they faced many challenges in this process.

The revised methodology is to discuss with the Kominkans to review their activities, reflect on the needs of the local communities, and develop action plans to include ESD in the Kominkans’ existing activities. This is followed by individual reviews and follow-up with each Kominkan.

The following are some examples of the Kominkan activities that have incorporated ESD action at the community level:

- Day camp for primary school students – previously, the camp was organized for the children and their families to experience and appreciate nature; after reviewing the activity with the project team, the camp now incorporates more discussion on sustainability issues through the activities.
- Exploration of mountain and coast – also formerly mainly recreational, the Kominkan now initiates dialogue with the participants to find the linkages between the mountains, river, forest, and ocean through experiential learning.

Exploration of Mountain and Coast (Suka Kominkan)

- Joint programming of 2 Kominkan at mountainous area and coastal area
- Participated by primary school children and their parents
- Orientation and actions
- ✓ Cleaning the coast
- ✓ Watching lives in the mountain

Added Value: Discussions about sustainabilitybased on learning experiences; and, awareness about linkages between upstream and downstream to the ocean




Figure 3: Suka Kominkan's ESD activities during exploration of the mountain and coast

- Eco-shopping workshop – in this activity, the children were encouraged to come up with their analysis, action plans, and to use critical thinking to make decisions by themselves.

Oyasu shared the key lessons learned from the project so far:

- Communicating concepts using academic language and “UN jargon” was difficult and did not have the desired impacts. In localizing ESD, it is important to negotiate between the different contexts and understandings of the community.
- It is not necessary to use outside materials. Instead, training developers can utilize or build on existing local materials.
- It is not necessary to initiate new activities. Depending on the context of the community, it may be more effective to incorporate ESD into existing activities.

For the way forward, the Japan pilot team will continue the action research cycle with further workshops, study visits, monitoring and evaluation, and a final review of the project. Ultimately, they hope the project can lead to the embedding of ESD into local-level education policies.

c. Philippines

Camello explained the nature of the pilot training in the Philippines, which focuses on universities’ extension programmes as the implementing partners. She shared the process from the view of her university, Cebu Technological University (CTU), focusing on their journey to university-wide mainstreaming of ESD.

Camello shared how CTU has been motivated by the Reflect-Share-Act framework. Upon reflection, CTU identified the local hand weaving community, or “hablon” in the local language, as an entry point for integrating and strengthening ESD.

CTU conducted research on the weaving community in the locality and realized that the industry was dying. They identified the problems in order to develop a holistic approach to ESD in the hablon community

by conducting market research, material and product development, and utilizing their expertise as a technological university to apply technology to the local practice. They also organized capacity building for the weavers in addition to establishing partnerships and doing promotion.

Camello highlighted how addressing the issues of the hablon community reflects the action principles for community-based ESD in the process as follows:

1. Responding: by addressing the dying hablon practice, CTU is responding to emergent local community issues that impact on achieving sustainable development.
2. Engaging: the project engages different stakeholders including the university, the community, and the local government.
3. Enabling: the community is able to learn more about how to make their practice sustainable and to earn more income as a result.
4. Embedding: CTU is embedding the principles and practices of ESD into daily life, in particular by aiming to integrate ESD into the university-wide curriculum.
5. Transforming: it transforms the lives of the weavers, students, and extension programme workers, changing practices and policies towards a more sustainable future.

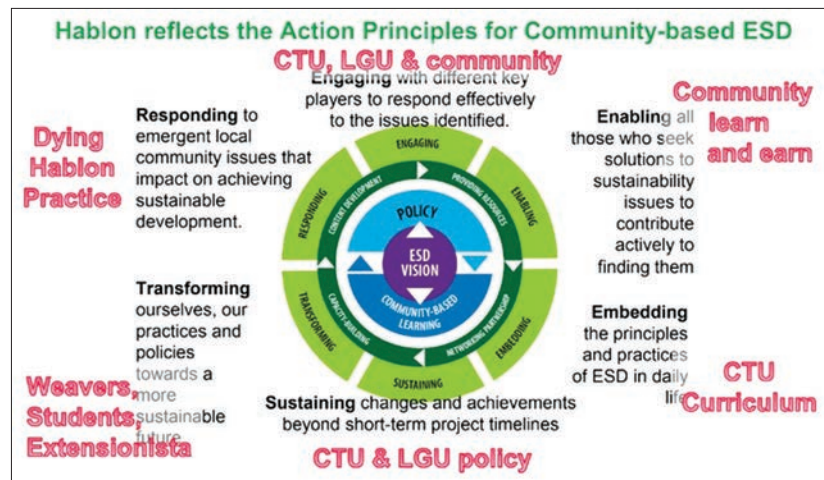


Figure 4: Addressing the issues of the hablon community reflects the action principles for community-based ESD

Under this project, the Philippine team translated the modules and organized an orientation training for CTU’s extension programme leaders. Now, ESD integration is required in all extension projects, and they aim to apply this regulation at the institutional level. To do so, the following activities are being implemented:

- Capacity building among internal and external stakeholders
- Harmonizing mandated university functions of curriculum and instruction, research, development, and community extension
- Incorporating policies for sustainable practices university-wide

IV. Discussion

Before opening the floor for discussion, Miura shared information on UNESCO’s new international framework for ESD entitled “Education for Sustainable Development: Towards achieving the SDGs (ESD for 2030)”. The framework highlights several key factors that facilitate or stimulate transformative actions for sustainability. These factors include critical inquiry, experiences, relevance to life, non-formal and informal education, social emotional learning, etc.

Miura particularly noted how the framework pinpoints community as a platform for action. In view of this, the following question was then posed to the three presenters: Do you see indications that education and learning are stimulating action for sustainability in the communities; if so, how?

Sutar stated that there have been many changes in the communities. He noted that one of the most prominent is the Soliga tribe. This was striking to him because, at first, he thought that other groups would be more advanced than the Soliga tribe group. Sutar understood that, because they had already been living with ingrained local knowledge of sustainability, it was more difficult for the others to open up to new significant changes.

Similarly, Oyasu explained that Kominkans have a long history, and because of this, there is a tendency for a “business as usual” mentality with a resistance to new ideas. The locals did not seem to have a connection with ESD notions. As a result, the pilot team changed their approach, instead asking them to reflect

on their particular priority issues and issues that would occur in five years. The Kominkans were asked to think of solutions themselves through initiating dialogues.

Oyasu shared that, although Japan is considered a homogeneous society, it is also quite diverse; each CLC has different ways of understanding. It is critical to let them think and then listen to them in order to find ways to trigger small changes in the community together.

Camello stated that she has witnessed a substantial transformation on campus with the university trying to embrace ESD using community extension as an entry point. She saw the general feeling on campus that there is a need to integrate ESD. However, she emphasized that institutions cannot limit ESD integration to certain focuses such as research, but must also incorporate it in other aspects as well.

Miura summarized the session, highlighting how the pilot experiences demonstrate the need to “unwind and rewind” current practices and find ESD in each of our respective practices and communities in order to understand ESD and trigger further action. She then opened the floor for questions and comments.

A participant who was a teacher from an international school in Punjab expressed how, prior to this, she felt that she had not seen how to exact change and take action at the school level. In the case of her school, the SDGs had been adopted in the school and projects were initiated to expose students to the goals. However, she felt that more change could be triggered if ESD action was institutionalized. She appreciated the demonstration of how schools can implement ESD at the school level.

Guevara responded that, to be institutionalized, ESD should be included in the school curriculum. In addition, to make more significant changes, it is not only the children who should be educated, but it is also important to focus on how to educate their parents as well. Today, valuable education cannot only be limited to inside the classroom.



Figure 5: UNESCO's new international framework on ESD

A participant from an NGO working with adolescents, communities, and public health systems asked a question to Oyasu. He inquired how to continuously bring in adults and senior citizens to participate in the programmes at the Kominkans in Japan. India is similarly an aging society, but it is difficult to bring in the aging population to engage in such activities.

Oyasu shared that senior citizen programmes are a priority for the Kominkans with many different programmes, both for learning and entertainment. As the average life expectancy is 80, there is a focus on how to make life after retirement meaningful. Community networks such as Kominkans provide ways for senior citizens to socialize and participate in society. One of the methods to engage them is to invite people who were high-ranking executives or experts as resource persons for the community learning programmes. This gives them the feeling that they are valued in society.

Another school teacher inquired, from the schools' perspective, how children can be involved in the ESD action. Coming from a teacher training institution, Camello expressed that it is important to start from a young age. Although there may be limitations in students' participation, they should still be exposed to the values of serving the larger community outside themselves.

A participant who was from the Forest Department asked about the impacts of sustainability education and how to objectively measure them so that the learning programmes and activities can be improved upon. Sutar agreed that monitoring and evaluation is a critical part of all projects. For the India pilot project, the team is still in the process of finding methods on how to measure which parts are most impactful.

Guevara expressed that, while measuring impacts is valuable, it is not the only thing that is important and not all things can be measured. It is critical to bring both the measurable and unmeasurable aspects together for a more holistic view.

Miura pointed out that learning assessment does not necessarily have to be quantitative and measurable. In order to transform the education system as we know it, we must rethink education including reducing learning assessment to that which is focused solely on test scores. In terms of transformative learning, self-assessment of the learners reflecting on their own transformation is also an effective method of assessment.

V. Interactive workshop

In the afternoon session, an interactive workshop was conducted for the participants to experience the key processes of the Reflect-Share-Act framework so that it may be applied to their own projects.

Guevara commenced the session by asking the participants to introduce themselves to the other attendants at their table. He also led a physical warmup exercise simulating the experiences in the process e.g. learning, feeling, sharing, taking action, etc.

Reflect-Share-Act ESD Modules



Objective: To encourage the participants experience the key processes in the REFLECT-SHARE-ACT modules as an approach to the integration of ESD in community settings, to contribute to a sustainable future.

In the morning we introduced you to the project objectives and approach and shared experiences from three project sites (India, Japan and Philippines).

This afternoon, we will facilitate a process which will allow you to experience some of the processes of the REFLECT-SHARE-ACT Modules.

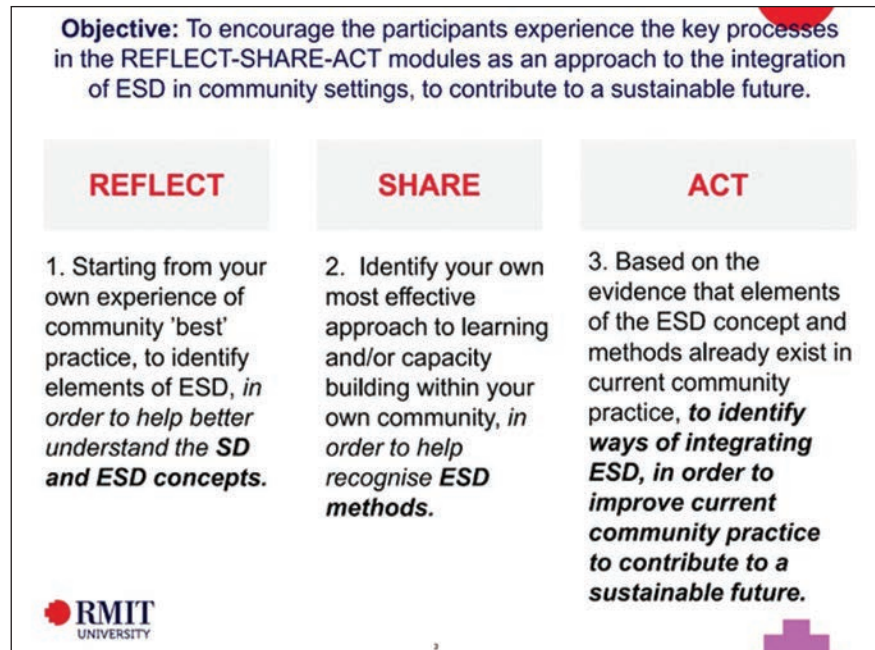
Figure 6: The objective of the interactive workshop was to share the experience of the Reflect-Share-Act process

Guevara introduced the Reflect-Share-Act framework, emphasizing that the method is not a prescription. As everyone's experience is different, the framework can be applied in different ways, depending on each individual's context. The heart of the framework is the vision of transformation, which is to bring the community together to learn, to reflect, to share, and to act. He explained the framework as shown in the below slide.

a. Reflect

For the Reflect stage, firstly, Guevara asked participants to think of a specific community they worked with. Some of the communities identified were:

- A settlement in Nigeria
- A community of college students in Delhi
- A rural forest community
- A private primary school working with a local farm
- A community of 14-15-year-old students in Delhi
- An engineering college
- A college-level sustainable hospitality management class
- An NGO teaching ESD to out-of-school communities e.g. a traditional religious community in an urban area
- Local government officials working with indigenous people in the forest area
- A group of young mothers and their children focusing on good nutrition and organic gardening

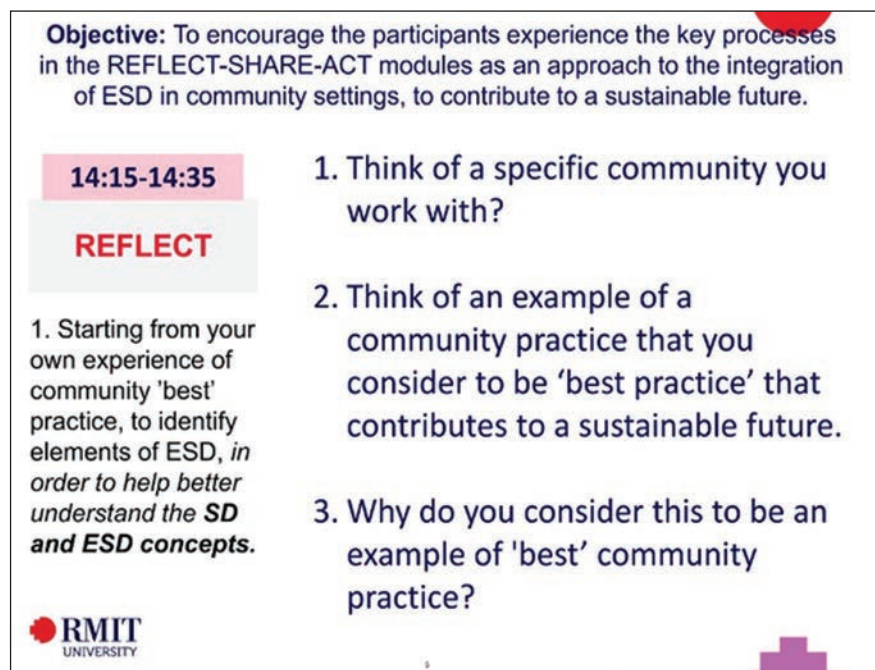


Objective: To encourage the participants experience the key processes in the REFLECT-SHARE-ACT modules as an approach to the integration of ESD in community settings, to contribute to a sustainable future.

REFLECT	SHARE	ACT
1. Starting from your own experience of community 'best' practice, to identify elements of ESD, <i>in order to help better understand the SD and ESD concepts.</i>	2. Identify your own most effective approach to learning and/or capacity building within your own community, <i>in order to help recognise ESD methods.</i>	3. Based on the evidence that elements of the ESD concept and methods already exist in current community practice, <i>to identify ways of integrating ESD, in order to improve current community practice to contribute to a sustainable future.</i>

RMIT UNIVERSITY

Figure 7: The Reflect-Share-Act process used in the session



Objective: To encourage the participants experience the key processes in the REFLECT-SHARE-ACT modules as an approach to the integration of ESD in community settings, to contribute to a sustainable future.

14:15-14:35

REFLECT

1. Starting from your own experience of community 'best' practice, to identify elements of ESD, *in order to help better understand the SD and ESD concepts.*

1. Think of a specific community you work with?
2. Think of an example of a community practice that you consider to be 'best practice' that contributes to a sustainable future.
3. Why do you consider this to be an example of 'best' community practice?

RMIT UNIVERSITY

Figure 8: Questions used for the Reflect stage

After identifying the specific community context and reflecting on their relationship to the community, the participants were asked to think of an example of a community practice that they considered as 'best practice'. They shared some of the following examples.

- Taking ideas and sharing them with the community; working on the problem together through making informed decisions and actions.
- Banning plastic use in school and using reusable water bottles.
- Teaching young children organic farming as a life skill; the children go to the local farm 20 times per year so that the activity is continuous and sustainable.
- Establishing a post-graduate programme in conservation; students work with school children and teach them to do sustainability-related activities such as composting.
- Promoting SDG awareness in school, instilling values that life is not just about earning money, but also contributing to society.
- Guevara then asked the participants to specify why they think these are best practices. The participants answered:
 - Teaching about SDG 11 on sustainable cities in school is a best practice because it gives students hands-on experience through activities such as constructing a wall using waste from cafeteria; it teaches them empathy and appreciation for the environment.
 - Teaching students about sustainability through action is valuable because it creates opportunities for youth to come together to take action for society e.g. teaching slum children, cleaning up public spaces, bike-riding campaigns, etc.; it converts theory to practice and incites empathy.
 - Constructing a bio-toilet in a place in Punjab that is not connected to the main sewer line can prevent waste going into the water, and it is a way to understand the problem in connection to the other elements around it.

Guevara highlighted that there are entry points to learning sustainability everywhere including through cultural, social, political, and economic aspects. The typical analysis conducted in sustainable development helps the learner understand that whatever one does is connected to everything else.

He summarized that the aforementioned practices are good because they allow us to gain a deeper understanding of the problem we are trying to solve in a holistic manner. Lifelong learning and transforming society are crucial elements of quality education.

In addition, it must be recognized that ESD doesn't need to be introduced, but rather elements of ESD can be identified from what already exists. The important steps are the identification of local issues, sharpening the analysis of the situation, and developing effective responses.

b. Share

After developing a contextual analysis and the direction for change during the "Reflect" stage, the next step is to identify the effective approaches that can contribute to this change. The participants shared some of the following approaches:

- Learning across life: learning must be incorporated everywhere, such as in civil societies and homes.
- Cross-sector learning: there should be an exchange of ideas between different sectors and stakeholders.
- Peer learning

Guevara then shared an approach called the HOPE framework. The examples given by the participants demonstrate ESD practices as described by the HOPE framework in that they are approached in a holistic manner, are ownership-based, involve participation and partnership, and empower people to take action and make changes.

He further explained the main characteristics of ESD that participants can identify in the practices they had identified: learner-centred pedagogy, action-oriented learning, and transformative learning. Once such characteristics are identified, the next step is to strengthen this contextual analysis and share the learning process with others.

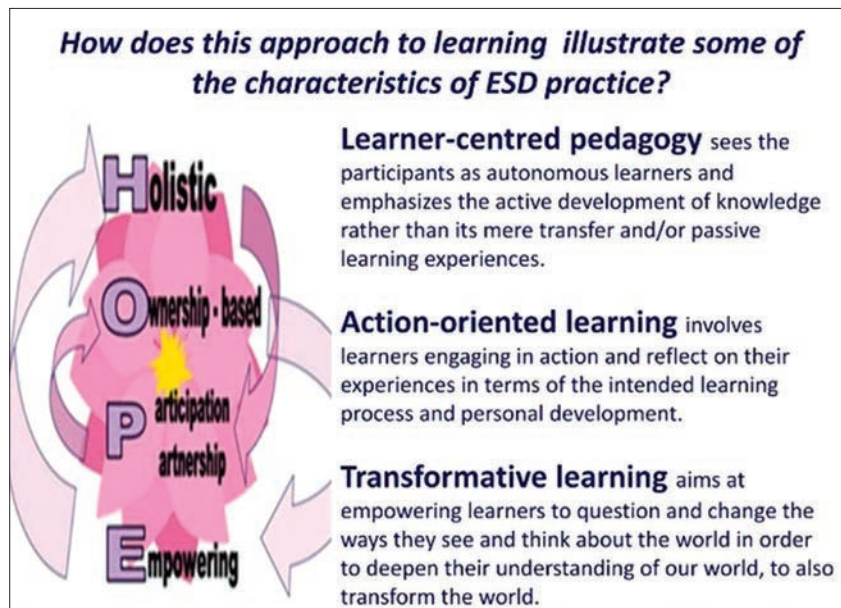


Figure 9: The HOPE Framework

c. Act

After identifying the best community practices and most effective approaches to capacity building, the participants were asked to reflect on how they can improve and share their practices with others.

Representatives from each table shared the following approaches to improving the community practices:

- Audio-visual aids can be utilized as a part of learning.
- Reflection should be done before making informed decisions and taking action e.g. conducting SWOT analysis.
- The community should be the centre of the action and ESD should be very localized.
- The community practices should be properly showcased either by the community themselves or by the mainstream media in order to involve others in improving the effectiveness of the practices and as incentives for people to feel motivated to join the practice.
- It is also important to improve the manner of how we approach the communities, particularly in approaching indigenous communities or sensitive groups. In so doing, enhancing communication styles, soft skills, and emotional intelligence is also crucial.
- When most people talk about sustainability, they most often think of the environment. The definition of sustainable development in our minds should change and go beyond the environmental aspects.
- Students know what they have to do, but they do not know how to do it. We need to give them a support system – not only from teachers and schools, but also from parents. There should be more activities involving parents.
- There is still a lack of environmental education in teacher education and knowledge transfer only is not sufficient. Teachers should be encouraged to initiate projects with students and the community and monitoring and evaluation should be conducted.

- If the action is solely relying on teachers, it may not be effective as not all teachers will choose to participate in the activities. One key element to scale up action is institutionalization. If ESD is institutionalized, other stakeholders would also be interested to join.
- Guevara shared the following responses to the above suggestions:
- Showcasing work is not only about describing the story, but must also include the analysis and clear evidence of outcomes.
- Teaching is commonly regarded as a way of “telling”. However, it should be more like communication in that it requires feedback, conversation, and dialogue.
- While the holistic approach is crucial, there must be a starting point and environmental issues often serve as that entry. However, he agrees that sustainability action should not end there.
- If ESD action in schools rely only on teachers, they will become tired in attempting to solve these huge problems and they will experience burnout. In this regard, it is important that they are supported and are not taking on this massive cause on their own.

The session was summarized with Guevara reiterating the Reflect-Share-Act process:

- Reflect on the community’s situation and identify the issues.
- Conduct a clear analysis of the problem and develop a holistic approach.
- Find and utilize a suitable entry point. This may be an environmental issue at first, but ultimately, sustainability issues will also concern social, economic, and political aspects, among others.
- Take action and engage multiple partners and stakeholders.

Finally, Guevara shared some methods and frameworks to refer to when planning community-based ESD action as follows:

- Appreciative inquiry method – do not focus only on the deficits or problems, but discover the good aspects and practices of the community and use them to add value to the problem they are trying to solve.
- HOPE Framework – develop a holistic analysis and engage the community in the process so that they may gain a sense of ownership and empowerment.



Figure 10: The ESD Action Principle Framework can be used to guide community-based ESD action

- An ESD action principle framework is available in the UNESCO publication “Communities in action: lifelong learning for sustainable development” available at: <https://unesdoc.unesco.org/ark:/48223/pf0000234185> (pp. 47).

VI. Feedback

Participants gave the following points as feedback:

- A participant from Bhutan commented that, throughout the continuous discussion on transformative action, we should ensure that the action is conscious action. All those involved should be aware of the background, impacts, and vision behind it.
- Guevara agreed that action alone is not sustainable; it must be informed and it must also continue to change as we change.
- It would be beneficial to embed this type of framework into policy. Guevara agreed, emphasizing that education is political, and all those involved should continually advocate sustainability education to policy-makers.
- A participant expressed his appreciation for the way the session was facilitated by Guevara. He shared his impression that Guevara was able to demonstrate the framework very effectively and that the method of sharing was well planned.
- Another participant who was a school teacher pointed out the importance of instilling a sense of ownership of sustainability action in other members of the community, as much of the responsibility is often put upon teachers.
- Guevara emphasized that everyone can be a teacher and that every moment can be a learning opportunity for change.

VII. Closing

Miura closed the session by expressing appreciation to the attendants for their active participation and affirmation of the approach to ESD that was shared. She stated that this work on the approach to ESD is still ongoing and called upon everyone to continue to develop, share, and improve our ESD practices together.



Foundation for Environmental Education (FEE) in Collaboration with the United Nations Framework Convention for Climate Change (UNFCCC)

The problem and impacts of climate change are now being realized globally as a crisis on a global scale. There is now an unprecedented awakening for climate actions to avoid the impending catastrophic situation to humanity and much of the world's remaining ecosystems. This urgency has reflected in the discussions and demands for declaring a Climate Emergency!

Climate change as SDG Goal 13 cannot be seen in isolation but as a cross-cutting issue that impacts all other Goals. UN report has reported that the year 2018 was the fourth warmest year on record. Levels of carbon dioxide concentrations continued to increase in 2018. Ocean acidity is 26 per cent higher than in pre-industrial times and is projected to increase by 100 per cent to 150 per cent by 2100 at the current rate of CO₂ emissions. It is a complex challenge that is cross-cutting and important to achieve the sustainable development agenda. The impacts of Climate Change are already threatening to reverse many of the gains that have improved people's lives due to their vulnerabilities to natural disasters.

As per the UN Secretary-General, the challenge requires a faster & more ambitious response to unleash the social & economic transformation needed to achieve 2030 goals. The response has to come from all, the governments, cities, regions, businesses and investors. UN Under-Secretary-General for Economic and Social Affairs, Liu Zhenmin has warned that the clock for taking decisive actions on climate change is ticking. Patricia Espinosa, Executive Secretary UNFCCC expressed similar sentiments at the Bonn Climate Conference in June 2019.

"People are demanding results—whether that's online or in the streets—and we must show we are taking responsibility. The Paris Agreement is clear: this is our job. We have the mandate to do this. We must deliver."

Traditionally education has been seen as a driver of change and also as a driver of drivers of change the formal education systems have been an instrument to build a generation with the literacy defined by the expectations of the society. The Climate Emergency has challenged the traditional ways and time scale educational systems have been working with. It requires education to facilitate the transformation in a relatively short time towards 'Global Cooling'.

The session discussed the changing paradigm for Education for Sustainable Development to identify priority actions that have impacts in the short term and to achieve the agenda 2030.

The session discussed and deliberated on the following Questions:

1. How does the role of Education changes in the paradigm of Climate Emergency? What are the transformations Educations System need to go through?
2. What constitutes effective Climate Change education? What are the key Literacy Outcomes in this changing paradigm requiring radical action for Global Cooling?
3. How formal educational systems can help in influencing all sectors of our economy - energy, agriculture, land use, and industrial process?

4. How can we move from an incremental progress mind-set to Leap Frogging?
5. How can we raise large scale awareness for civic action – demand governments to declare an emergency and put resources in place to help reduce carbon emissions?
6. What are the Global Benchmarks, Priority Actions for ESD to achieve the Agenda 2030?



Green School Program as learning laboratory for developing Climate Change and Sustainability practices by The Climate Reality Project India

Green School Program session was very well received by all-educators, Principals, managers and environmentalists. We formulated strategies and solutions to strengthen our schools in using their resources more efficiently and sustainability was discussed. Education, environment, and business leaders shared current challenges, set their future goals and shared best practices to advance green school's development all over the country.

The session had presentations on the type of Green school projects being done by various organizations. It had the practicing institutions share their knowledge and experiences, which further helped the participants in adoption or improving their current programs.

All eight speakers emphasized how schools can become green and more sustainable.

Mr. Kamal Meattle-Trustee-The Climate Project Foundation gave us a brief overview of the Green School Programme and its importance in today's time. Mr. Meattle emphasized on turning Green by inculcating and adopting green measures. Mrs. Rekhta Lilla introduced the Green School Programme and future plans of Green School Programs.

Dr. B.C. Sabbath- Senior Scientific Officer & ENVIS Coordinator-briefed us about the Eco-School Programme and the facilities available for all schools under their project. Ms. Sujatha Savanna, Principal of San Academy discussed her school's journey through the Green School programme-What changes the school has made for their Gold star certification? Veranda Rabat is the founder of Global Green Schooling Concept gave us a glimpse of his Global Green Schooling Concept. He discussed how he is creating a community of nature champions through his Green Schooling Concept, which is expected to inspire everyone to follow nature centred lifestyle towards making this planet sustainable and liveable for next generation. Mr. K. Sankara Narayanan- T.I Matriculation Higher Secondary School, Ambattur, Chennai threw light on Green school Program and their struggle towards attaining the Silver award. He highlighted the changes their school has made for becoming a Green-leader. Mr. Farokh Madan-Director of Marketing & Strategy for South Asia Pacific at Carrier spoke about the programmes by IGBC. Students from Tagore International School gave us a brief account of activities done by them and their Eco-Club. Closing remarks and a token of our appreciation to guests was given by Mr. Aditya Pundir, Country Manager, and The Climate Reality Project India.

The focus of this workshop was to move beyond awareness and bring about changes in the school infrastructure, which can complement the conservation efforts and also give healthier and stimulating environment to the children. How the school's claims of being green certified? This challenge was also discussed with the various types of third-party audits, which are scientific and widely accepted and can help the schools in improving their performance on sustainability parameters.



Session was concluded with everyone's agreement that -We all are here to learn from each other's successful projects .We have many problems - global warming, melting glaciers, polluted water, deteriorating environment, reducing forests ,species at the brink of extinction, problem of plenty, rising landfills, plastic menace, polluted air & water and the burning amazons. All the above can be attributed to our un-sustainable lifestyles. The rise in emissions has been historic and so have been the consequences. But we have the solutions-using the renewable, reducing waste, sustainable infrastructure, responsible consumption and recycling resources. Green schools are trying to take these learning's to the next generation so that corrective action can be taken in time. We thanked the people gathered for their presence in the session to deliberate on the ways ahead and share their inspiring stories. These inspiring stories will help in formulating more robust and effective programs in the future so we would be looking forward to hearing more about such ideas and initiatives.

Green School awards were presented by Mr. Kamal Meattle- and Mr. Aditya Pundhir on stage at Stein's Auditorium..A green school is a school that creates a healthy environment conducive to learning, while saving energy, environmental resources.A green school reduces environmental impacts and costs, improves occupants' health and performance, increases environmental and sustainability literacy. So this year we had 9 Green Schools.

1. ASN Senior Secondary School, Mayur Vihar-1 **(Silver)**
2. Bal Bharati Public School, Dwarka **(Silver)**
3. Bluebells School International, Kailash Colony **(Gold)**
4. San Academy School, Chennai **(Gold)**
5. Tagore International School, Vasant Vihar **(Gold)**
6. The Green School, Jamia Nagar **(Bronze)**
7. T I Matriculation Higher Secondary School, Chennai **(Silver)**
8. Sir Sayed National School, Muzaffarnagar **(Certified Green)**
9. St Mary's School, Dwarka **(Silver)**



Working Session on World Environment School (WESc)

The Mobius Foundation is in the process of establishing an excellent international school aimed at creating global citizens dedicated to environmental custodianship. School named; World Environment School aspires to be a world's leading environmental school creating a community committed to developing individuals who seize and act ethically upon the environmental issues facing our planet to create a sustainable tomorrow. The school is proposed to be residential and co-educational covering grades 6-12 grades. It is planned to initiate first session from 2021.

The International Conference on Sustainability Education (ICSE) brought together experts, researchers, practitioners etc. together to plan and share EE and ESD efforts. This working session was aimed to bring together different stakeholders with different capacities such as teachers, policymakers, researchers, practitioners, etc. for sharing their experiences and provide their suggestion on the curriculum framework of WES. Experiential learning, hands-on and activity-based approaches is planned to be a key part of the curriculum design. The curriculum would also build upon the Sustainable Development Goals (SDGs) and their targets.

The session was moderated by Mr. Kartikeya V. Sarabhai and an introductory brief by Mr. Pradip Burman talking about the vision, values and perspective the school would stand for. He shared his rationale on the same and provided his suggestions and ideas. The session went on with panellists giving their views and suggestions on different dimensions of education such as perspective, policies, infrastructure, and pedagogy and raised relevant concerns. The session then opened up for open suggestions, comments, which are compiled below. The session had an overwhelming attendance with people from all over the world especially United Kingdom, United States, Mexico, South Africa and Germany with professional background as teachers, policy makers, researchers, educationists, environmentalists, businesspersons, Students etc. Following are some quotes by key speakers:

"Education for Sustainable development is not only about being environmentally – friendly; it also involves developing life skills including leadership, communication, and management; all of which are extremely important for personal development."

Mr. Pradip Burman

"The school is going to create environmental leaders for tomorrow."

Mr. Mark Eagers

"School should be a liberating experience and not confining and insular but interactive."

Dr. Ram Boojh

"Environmental education has carved a niche within the mainstream education in most part of the World. It has been recognized in formal education which was earlier seen as just an outdoor education".

Kartikeya V. Sarabhai



Recommendations

- School should be liberating, not confining, Students learn to interact with different practical and contemporary issues
- Students should develop leadership skills and ability to get the message across through democratic engagements
- The overall location, geography, biodiversity and social and cultural milieu should be used to inculcate values
- Campus and infrastructure should lead by example and therefore should have facilities available like harvesting, Biogas plants, water management, organic food production, traffic and pollution management, compost etc.
- Establishment of " Environment Science Lab", and facilities to herd and milking cows
- Learning through interaction local and global through exchange programmes.
- Teachers should lead by examples
- Inclusion of Global citizenship as part of curriculum
- Curriculum should thematic and promote other dimensions of holistic education such as yoga, music, spirituality etc.
- Students should be involved in the process of making the school



Mainstreaming sustainability education from schools to higher educational institutions in India by United Nations Environment Programme (UNEP) and WIPRO

The educational sector plays a critical role both as a fountainhead of new ideas and innovations and as an enabler of social and ecological change. It is now well accepted that sustainability issues cannot be adequately addressed without driving sustainability thinking and action through the learning process.

This workshop created a platform that will enable different stakeholders in the higher education ecosystem to come together and to co-create new pathways in sustainability education. This discussion served us in building organizational synergies and setting up the foundation for a larger multi-disciplinary network of higher education sustainability educators across India. Interactions with academia has shown us that, a collaborative process of building knowledge repositories across disciplines is already underway.

Outcomes from the Joint Session by UN Environment and Youth Education Alliance and WIPRO foundation on 'Mainstreaming sustainability education from schools to Higher educational institutions in India'

Following set of guiding questions were formulated before the session

- What is the current status in Higher education with regards to inclusion of environment and sustainability?
 - Within the curriculum - as a separate discipline / mandated course/ inclusion within given curriculum
 - In terms of youth advocacy - Youth as change makers - What is happening and what is lacking?
- Do we need to radically re-imagine the role of sustainability in higher education?
- What reforms are needed to re-orient disciplinary learning to integrate sustainability thinking?
- What proportion of value based (ethics, empathy, perspectives) vs skill based should a curriculum be?
- Should sustainability have been pitched as standalone courses, or seamlessly integrated into specific disciplines? - New courses / additions into existing courses / introduce multi/ inter disciplinary options along with main course?
- Are faculty in the global south equipped to deliver nuanced perspectives on sustainability?
- What are the policy level interventions needed to change thought frameworks?
- Can we separate insulate these priorities from market forces that work on youth in the higher education?
- Can we list 5 priority actions that needs to be targeted with regards to Higher education given the current trends in environment, economy and the society?

Proceedings of the session

All questions were examined through group activities and facilitated discussions. Participants were divided into 5 groups. Each group consisted of Academia (Senior lecturers / professors / academic advisers / Youth / NGO's doing programmes with higher education and government representative (NCERT) in one group)

Status of Inclusion of environment and sustainability within the curriculum and Youth advocacy

Inclusion within the curriculum

Participants discussed on 2 questions:

Question 1: How has the mandated course on Environmental studies for all higher educational establishments regardless of disparate faculties has resulted in orienting youth to Sustainability/ promoting Sustainability actions?

The mandated course by SC order was offered as an optional subject in some campuses and in others as a compulsory requirement

Issues

- Clarity needed on the main objective of having this course – Why is it needed, what would the students benefit?
- Lack of interest: Students look out for career-oriented courses / in environmental studies only problems are discussed, solutions are not welcome or suggested
- Archaic and outdated course material, with not much reference to contemporary trends that resonate with society. Not appealing. In some cases, EVS (Environmental studies) is taken as a non-curricular activity
- Too theoretical: Pedagogically weak - Lack of hands on approach/ practicum/ field exposure rooted in ground realities
- Focus on Urban Sustainability “: Sustainability projected as essentially an urban elite phenomenon, with little reference to vulnerability of the hinterland and rural areas
- Lack of expert mentors: Faculty teaching the course lack expertise/motivation
- Strong feeling among the participants that faculty capacity building and expertise development is essential
- Environmental studies - a standalone course, does not have any integration with mainstream courses offered at the campus
- Major reform in the content and delivery needed with regards to current environmental studies course
- While a standalone course has its merits, to truly make sustainability palatable and acceptable, seamless integration into disciplinary streams is the need of the hour

Question 2: The second question examined was whether Interdisciplinary or Focused Sustainability courses have benefited youth in terms of jobs and careers. What is the placement rate for such specialised courses and what are some of the other challenges?

Following is the aggregated response

- These courses are not very popular. One of the reasons why students do not take up these courses is they do not perceive any Job opportunities in them, as well as the quality of the course delivery and expertise

- Social / cultural compulsions, economic growth / development as perceived by the society drives youth to take on conventional disciplines. Not willing to take risks in opting for sustainability related courses.
- Regarding students finding placement in jobs after doing specialised courses on sustainability –Aside the limited jobs with the government or NGO's there are not many jobs, Sustainability careers with the corporates are in the form of working for CSR or sustainability reporting. In most cases these are filled with people with expertise from other fields.
- Regarding placements in Green jobs, more internships should be offered to aspiring students to help them build perspective and understand the diverse range of options in this niche area
- No match between available courses/ skills and jobs in the green sector (renewables and water and so on), barring a few core sustainability focussed institutes
- Weaving sustainability into higher education will only be beneficial when basic environmental knowledge and studies are imparted at school level. At the college level, sustainability connections with specific subjects/ disciplines should be tackled.
- Sustainability should not be offered as a separate subject, it should be integrated across all subjects
- Overall, bridging the gap between foundational understanding in schools and more deep dive structured learning in colleges will allow for the process of lifelong learning in sustainability to continue

Promoting Youth advocacy and Action- Status and outcomes,

It emerged from the participants that several advocacy and civic action programmes exist – Campus Eco clubs established as the result of SC directive undertakes advocacy programmes, Department of exchange programmes, SEVA (, a CSCE project, NGO's such as CEE/ CSE/ TERI all have regular initiatives that they undertake. WIPRO runs Earthian programme which also includes advocacy within the campus and the community. Some unique initiatives include, NGO's Such as the Akshara foundation which collects plastic as school fees. Sashkta Bharat (Youth leadership and empowerment) run by youth – motivates, trains, empowers, facilitates and scopes for funding for youth led sustainability initiatives. While a lot of good work is being done, there is little collaboration between different entities. There are no reports on the extent of work that has been done

The Second phase of the group activity examined the reforms needed to reorient disciplinary learning to integrate sustainability?

Each group came up with 5 suggestions. Following is the summary of the outcome:

- Make sustainability more palatable and identifiable with common causes
- Incentivise the students to take up sustainability by providing rich learning experiences
- Complete overhaul of redundant of current mandated curriculum – UGC content
- Radical advocacy with UGC- Monitor compliance and quality of 1992 SC Directive
- Develop sustainability curriculum with a varied team of experts and contributors that include academia, practitioners
- Make sustainability curriculum flexible -Integrate across all disciplines
- Promote cross disciplinary platforms for projects and discussion
- Strong thrust on teacher education and incentives
- Promote empathy, Integrate ethical values and perspectives into curriculum from school to college

- Practical applicability and relevance to contemporary societal values at large
- Explore resource material content – add case studies as a learning tool to build perspective and context
- Promote Environmental leadership and stewardship through advocacy
- Develop multi-pronged approach based on regions.
- Ensure campus operations are sustainable
- Promote Placement oriented skills
- Project based/ field based / experiential learning
- Make visible the Job opportunities in the field
- Engage with industries and potential employers to create a pipeline for students with these skill sets/perspectives

Third phase of the group activity examined the Proportion of value based (ethics, empathy and perspective) Vs Skill based curriculum in environmental studies

Following is the outcome of the above group discussion

- Holistic integration between value and skill-based knowledge
- Value and skill should both be given equal importance
- Skill based jobs are the main focus
- Empathy, Ethics and Perspective are critical as they one of the foundational values to understand sustainability
- Gap between what is professed Vs practiced
- Developing curriculum with local contexts and perspective with cases to support them is most important

Fourth phase of group activity discussed the comparison between faculties in the Global South with that of north in delivering nuanced perspectives on Sustainability

Following is the summary of points that emerged

- Faculties in global south are different because of different political and administrative framework
- Influence of parental forces and Social factors in the South is very strong – Does not encourage youth to take up sustainability related disciplines
- Youth get swayed by market forces and behaviour in an emerging economy
- Lack of infrastructure in South – Developmental needs Vs What is ideal for sustainability
- Lack of ability to engage causes hindrance for setting up such courses or interactions
- Campuses in the South need to be more proactive from within.
- Lack of possibilities available for action within the campus.
- What, Why and How of sustainability education is not understood. Only ticking the check boxes
- Indian perspective is missing in mainstream. Only western concepts are taught, available and discussed, this does not resonate well with all
- We can learn from the north's experience in developing learning frameworks, institutional capacity, integration and assessment– there should be room for learning and improvement

The last phase of group activity was on coming out with 5 priority actions for HE given the current trends in economy, society and the environment

Outcomes for the priority actions

- Promote whole system approach towards sustainability in Campuses
- Revise and update current curriculum – Add SDG/ Indian context, Indigenous knowledge.
- Provide incentives- Gamify Green Campus programme.
- Change the delivery of current mandated curriculum – make it more hands on and relevant
- Introduce Eco- Preneurship cell in every faculty based on SDG
- Promote holistic value education / empathy, Beliefs
- Build clarity on what are ‘sustainable jobs’ for youth
- Incentivize private sectors to promote green jobs
- Compulsory Sustainability audits of campuses
- Job/ skill oriented educational aspect in Sustainability
- Faculty training and development
- More awareness and advocacy related to issues both in schools and colleges
- Sports sector to be used for promoting sustainability in youth
- Create industry partnership
- Introduce Green Fest (activity based)

LAUNCH OF WORLD ENVIRONMENT SCHOOL, COORG (WESC)

The Plenary was the launch event of the **World Environment School, (WES)** to be set up **by Mobius Foundation** as the first school in India and South Asia to take a leading role in promoting and delivering environmental education with sustainability at its core. The school's focus is to build strong environmental and moral values among its students.



WES will be operational from 2021 for Grade 6 to 12 students from India and around the world. The school will cater to the parents who want the next generation to be actively involved in protection and sustainability of the environment apart from world class education.

The school will be set up with assistance from **Whitgift School**, a leading British educational institute and a part of Whitgift Foundation, a charity based in Croydon, South London, England. Whitgift School will provide academic support to WES which would involve establishing all aspects of the curriculum and syllabus development, assessment and best-teaching and learning practices.

While announcing the launch of the school **Mr. Pradip Burman, Chairman, Mobius Foundation, said,** *"We at Mobius Foundation are very happy to announce the launch of WESC. This school along with the new age curriculum has been a long cherished dream for me and my team. Through this school, we are putting together sustainability education in a way that has never been done before, and we plan to scale up cutting-edge environmental education. Along*



with innovative programmes, the school's dedicated team of teachers will deliver an enriched learning experience tailored to the individual needs of each student."

Mr. Chris Ramsay, Head Master, Whitgift while speaking on the occasion lauded the initiative of the Mobius Foundation in launching India's first environment school. Every individual must take steps in reviving the natural resources and have an empathetic outlook towards the environment a school dedicated to this purpose would certainly spread awareness.



ICSE 2019: SUSTAINABILITY PRACTICES

ICSE 2019 was conceived as a Green Conference by using sustainability practices at every level.

- The material provided to delegates was all recycled eco-friendly products. Conference Kit –with Notepad, pencil and other material was made from recycled and handmade paper.
- Participants were provided copper water bottle for drinking water which can be refilled at multiple water refill points. Filtered water was also available during the conference in glasses instead of plastic bottle.
- To reduce unnecessary energy use, lights inside the conference halls were dimmed at time of session breaks.
- The Venue India Habitat Centre, is powered by solar panels; renewable energy source.
- Reusable crockery, serving platters, glasses and cutlery were used to reduce the plastic waste. The food was prepared for exact number of attendees, to avoid waste.
- Cotton napkins were used in meal plates instead of disposable.

EXHIBITION

An exhibition was organized as part of ICSE 2019 to showcase sustainability education initiatives of partners and many other organisations. There were 30 Stalls which attracted footfall of around a 1000 attendees and delegates from across the globe. The Exhibitors had the opportunity to display new and innovative ideas with their implementation to a safer world with environmental friendly products.



Green Campus Program by the Climate Reality Project India



Handprint: Paryavaran Mitra School Program by Centre for Environment Education



Sanat Products Limited showcasing their products at ICSE



Exhibition stall by Sri Sathya Sai University for Human Excellence



Exhibition stall by Ayurvet Pvt Ltd

Participants explaining the poster.



Display of posters in ICSE 2019

Display of posters during ICSE 2019



CONCLUDING SESSION

The Session was chaired by Mr. Kartikeya Sarabhai, Director, and Centre for Environment Education (CEE) who initiated the discussion asking the panellists to sum up the experience for the two day conference.

Ms. Donna Goodman, Founder and Executive Director of the Earth Child Institute (ECI) said that we should do our best each day and try to stay in oneness and as much as we can value and respect ourselves and each other is as much as we should be able to value and respect mother earth.

Prof. Ashok Kumar, Professor of Management Grand Valley State University, MI USA mentioned that triple bottom line is that you build values of environment and build values of social responsibility in your policies and in your strategies and you will not erode your profits on the contrary, these two values will be synergistic to your profits. The Sustainability cannot be a standalone. It has to be a fibrous program where it had to be a fiber or of every part of the curriculum that we do.

Dr. Pramod Kumar Sharma, Senior Director of Education, Foundation for Environmental Education (FEE) spoke on the idea that how do we mobilize the network that we have and with the partners, who are represented at the conference and another four of them to do a massive education campaign and massive change that is required. We should see children as partners and hear them and not just hear them for the sake of getting their voices, but see that or hear them in terms of what they want and how do we involve them into the action that we are taking.

Dr. Christa Henze, University of Duisburg-Essen, Germany added that aspect of linking schools and communities and localize those topics that you are working with the students so that they can really find problems and solutions

in their own surrounding in their daily life.

Ms Livleen, The Energy and Resources Institute concluded that indigenous development goals hold a lot of potential in the world that we live on because if we care about a culture, we care about our traditions, we care about our roots, we will definitely care about a future because we cannot have a future without a past and present in place.



(L-R) Ms Livleen Kahlon, Mr. Kartikeya Sarabhai, Dr. Pramod Kumar, Dr. Christa Henze, Prof. Ashok Kumar and Ms. Donna Goodman

AWARDS

Abstracts of papers were invited for presentation on following themes related to sustainability education. These were organized for oral and poster presentations

1. Use of new and emerging technologies in Sustainability education
2. Sustainability education in non-formal system and extracurricular activities
3. Building Sustainability education framework within the context of Climate Change Education, Environment education and education for sustainable development
4. Sustainability education in the institutional framework
5. Media and Sustainability education
6. Sustainability education within the national education policies

The paper presentation submitted by the participants was grouped on the basis of the 6 themes of ICSE 2019. The oral paper presentation selected by the Abstract Review committee was divided into 4 technical sessions, of 20 presentations in each session on both days of ICSE 2019. The participants were given 7 minutes of duration to present their paper in form of powerpoint presentation.

The papers presented during the oral/ poster sessions were adjudged by the chair/ rapporteur and Jury members on the basis of the below mentioned criteria.

Points	Criteria
5	Timing – 5 minute presentation time maximum <ul style="list-style-type: none"> • If you go over 5 minutes, 2.5 pts will be deducted for less than a 1 minute over time limit but presentation completed. • 5 pts will be deducted for 1 minute over time limit or presentation not completed
5	Originality of Work
5	Aesthetics of Display
10	Clarity <ul style="list-style-type: none"> • 5 for clarity of display • 5 for clarity of presentation <p>Was the presentation easy to understand? Were difficult concepts explained clearly? Was sufficient background information provided?</p>
15	Scientific Merit <ul style="list-style-type: none"> • 5 points for scientific method • 5 points for appropriateness of experimental design • 5 points for substantive contribution to the field
10	Knowledge <ul style="list-style-type: none"> • 5 for overall content knowledge (Can the presenter think beyond the work presented?) • 5 for ability to answer questions



Best 5 presentations based
**on the themes were assessed and
awarded** and
were presented with memento
during the closing ceremony



*Best paper award for
"Sustainability Education in
Agriculture: The prospects of Digital
Green in India"*

*Best paper awards for "Water Education
for Sustainable Development through
Advocacy, Awareness and Capacity
Building for IWRM".*





*Best paper award for
"Education for Sustainability: Policy
Intervention in India"*



*Best paper award
"Gamification in teaching and
Education using technology".*



*Best paper award for
"Perspective Building for
Environment among Teachers:
A Curricular Initiative for
Sustainable Development"*

The posters presented during the oral presentations based on the given themes were assessed and best five were awarded and were presented with a memento.



Figure 11: The best poster "Building Sensitivity towards environment through play group." presented in ICSE 2019

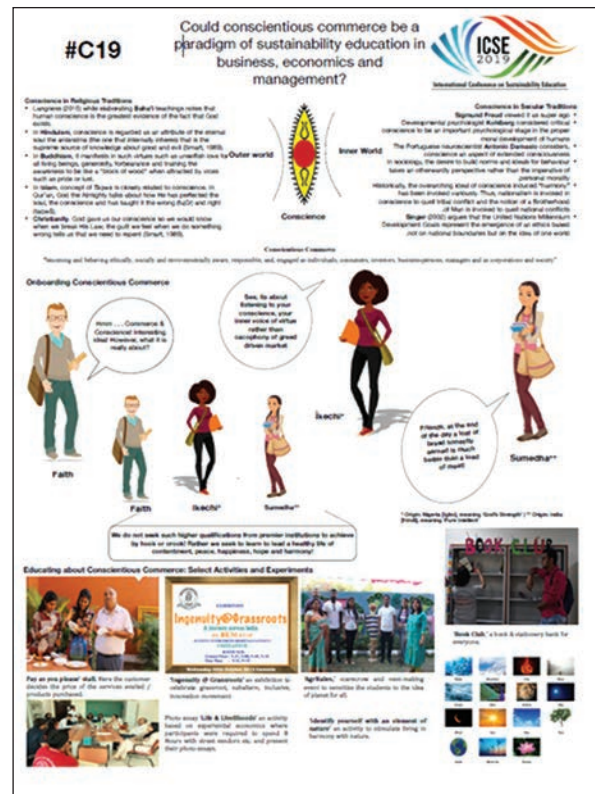


Figure 13: The best poster "Could conscientious commerce be a paradigm of sustainability education in business, economics and management?" presented in ICSE 2019.

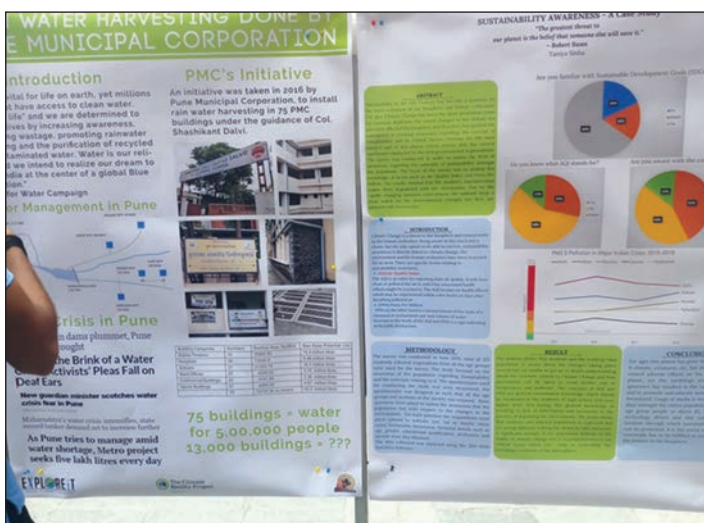


Figure 12: The best poster "Rainwater Harvesting done by Municipal Corporation." presented in ICSE 2019.

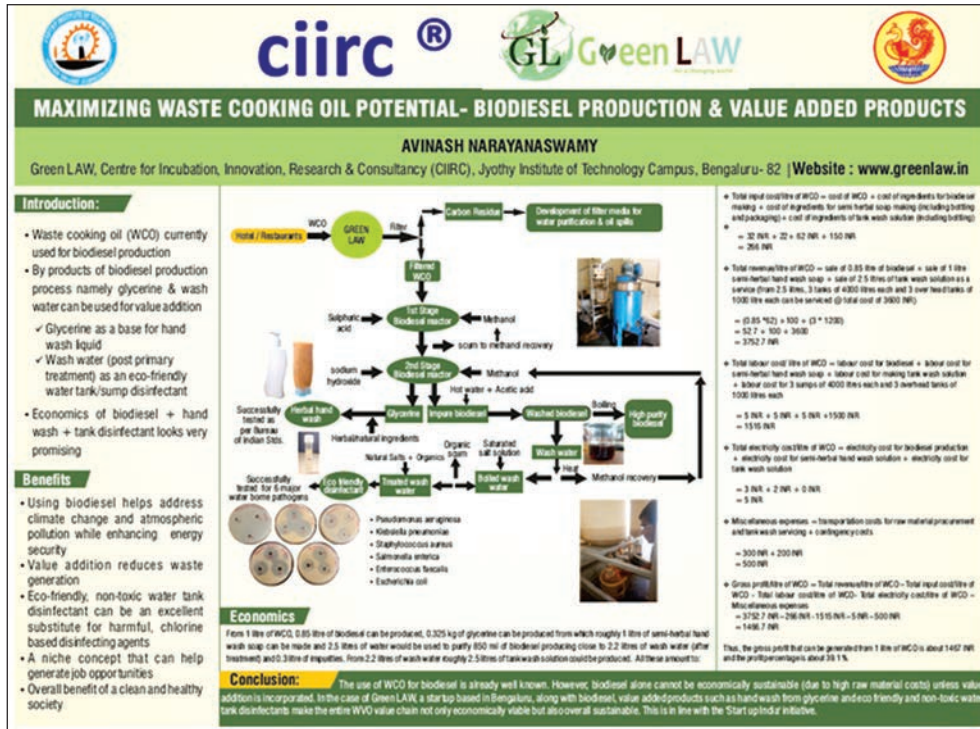


Figure 14: The best poster "Maximizing waste cooking oil potential - Biodiesel Production & value added product." presented in ICSE 2019.



Figure 15: The best poster "Climate Change and sustainability inventions - Urban Perceptions" presented in ICSE 2019.

LITTLE VOICES MAKING BIG DIFFERENCE

As this conference was focussed on nurturing and educating future of the world "CHILDREN" Ms. Licy Priya, world's youngest climate activist was called upon stage to address and ignite the fire for climate protection in the hearts of audience



Ms. Licypriya, 7 year old speaking during ICSE 2019.

She is Licy Priya seven years old from Manipur, founder of **the child movement**. On the event of International Conference on Sustainability Education (ICSE) 2019 she shared her thoughts with the world, *"I'm afraid to breathe the air, because I don't know what chemicals are on it. Despite technological advancement still people are dying because of very disaster and lack of awareness. I get scared when on television when I see people the suffering and dying because of earthquake, flood, landslide etc. I, cry when I see children*

losing their parents or people becoming homeless due to danger of disaster. My country has many disasters like earthquake, flood, landslide etc. My heart feels so for people who cannot have downtime and disaster strike. But I know there are millions of brave people who came to lend their hands, with courage to save those in need. I get very happy when I see rescuers saving their children and their parents from dangers."

She urged to join hands and minds, patience to create a better world for all of future generations. She also urged to, government of India to enact the climate change law as soon as possible from the paper to become action. Speaking of the action, she proved by saying that she is organizing on the great October march on twenty first October two thousand nineteen where over one million school children on bare foot will walk from India gate to parliament house. She insisted if we spend on fighting environment and this was ending poverty and giving education then what a wonderful world this earth would be.

GUEST OF HONOUR – MR. ASHOK KHOSLA, CHAIRMAN, DEVELOPMENT ALTERNATIVES

“Education is one part of that in an era where we are neither taught by our political leaders, nor by our media, nor by our spiritual leaders and indeed not even by our own parents at home. What it is to be good, to do the right thing, to understand the oneness of nature and of the universe when we have virtually no sources of inspiration, other than our schools. Environmental education becomes really important. It becomes so important that I think, we have been dealing with the fundamental issue that will take us, if it anything, will to a more sustainable and better future.”

WORDS BY OUR CHIEF GUEST

Water, Community and Sanathan

Rajendra Singh
(Indian water conservationist and environmentalist)

It's the community that teach me the real meaning of sustainability. Sustainability is not just the part of education but the integral part of the coexistence. 'Love' is the word, only if we love and reconnect with nature will we be able to find the solutions. Education can only help us become aware of the problem but will not derive solutions. Solutions will come with connect and sense of responsibility towards our earth, towards our nature.

When I started working in the dry areas of Rajasthan I found that people were missing the sense of responsibility and love towards nature and with education and awareness, the understanding about water as a resource was developed in the minds of the people. The change in attitude brought love towards water and mother earth, which then helped me revive and rejuvenate 7 rivers in Rajasthan, 2 rivers in Maharashtra and 1 in Karnataka.



Mr. Rajendra Singh, addressing the conference with his experience on water conservation.

Working with local people we have returned water to more than 1,200 villages. The landscape and climate have been transformed; several long-dead rivers began to flow, wells are full and once-parched fields are now fertile.

In our very own traditional term we have a word **'Sanathan'** which stands for development without displacement, without disaster, without destruction



Mr. Kartikeya Sarabhai giving memento to Mr. Rajendra Singh

and to create and regenerate. Ground reality is that the farmers and people who are actually getting affected do not understand these big jargons and big words that we have been trying to decode and discuss. For them climate change is "धरती को बुखार चढ़ा है और मौसम का हिसाब बिगड़ा है, जब मौसम का मिजाज़ बिगड़ता है तो ये नहीं पता की बादल कब आयेगा कब नहीं, कब बारिश होगी कब नहीं" for them "SUSTAINABILITY" and "CLIMATE CHANGE" do not hold any value and meaning. If we want them to act responsibly we have to speak in the language and ways the communities

understand, teach them the love for nature and see the magic. Love in itself is so powerful that when we act with love nature will rejuvenate in itself, we will have to put in very less efforts and the result will be 100%. Nature will give back like always. If we act with love it will give back love, and if we act irresponsibly it will make sure we are affected.

The rebirth of the Arvari was something of a miracle. In 1986, the residents of Bhanota-Kolyala village, with the help of the Tarun Bharat Sangh, constructed a johad at its source. Soon villages around the catchment area and along the dry river constructed tiny earthen dams. When the number of dams reached 375, the river began to flow. We were amazed. It was not our intention to re-create the river, for we never had it in our wildest dreams. The residents went on to constitute a parliament of their own. ArvariSansad, inspired by the Gandhian concept of gram swaraj, is a representative body of 72 villages in the areas served by the river. The Arvari parliament has framed 11 major rules to fix the cropping pattern and water use. The rules permit only landless farmers to draw water directly from the river and bans the cultivation of sugarcane and the raising of buffaloes as these activities would require relatively large amounts of water.

In the 70 years since independence, more than 10 times more land is under drought and eight times more land is under flood. I have seen people in some of these villages being displaced three, four, eight times. This is not really development, Look, I am not against development but I think that every project needs a review after 20 years and communities need to be involved to sustain a project.

Vote of thanks by Dr. Ram Boojh, CEO Mobius Foundation and Mr. Pradip Burman, Chairman Mobius Foundation

All the panellist along with Chief Guest, Guest of Honour and Special Guest were presented with the memento as token of appreciation

CULTURAL EVENING

Guitar performance by **Mr. Vineet Tandon**



Musical Speech by Mr. Vineet Tandon

A TEDx Speaker, Vineet Tandon is also India's first and probably only Musical Motivational Speaker. Vineet's musical motivational sessions are a blend of music, poetry, bhajans, popular movie songs, inspirational quotes, spiritual insights and talk all interwoven into one to create a powerful experience.

He delivered the motivational speech with the mix of old Bollywood songs to cheer up the audience. He also advised the audience to conserve the resources and to use them judiciously to preserve for next generation.



Bharatnatayam performance by the students of Kulachi Hansraj School, Delhi

Classical Dance Performance by students of **KulachiHansraj School, Delhi**

The performance was started by the recitation of Mark Twain's words "India is the cradle of the human race, the birthplace of human speech, the mother of history, the grandmother of legend and the great grandmother of tradition"

Indian culture, often labelled as an amalgamation of several cultures, spans across the Indian subcontinent and has been influenced by a history that is several millennia old. The fusion of kathak and Bharatanatyam on the rhythms of Raj Jog and TalamAdi.



Kathak performance by the students of Kulachi Hansraj School, Delhi

Musical Performance by Ms. Sunita Rekhi Chandani

Ms. Sunita Rekhi who is a sculptor, songwriter and a composer. She has been sculpting for more than thirty years at the Triveni Kala Sangam and has exhibited her work at some of the best galleries in India. What brings her here though is a connection with education as a Creative Writer and an author of children’s books. Besides her work in art, Ms. Rekhi is also an educationist and runs a charitable educational institution for the underprivileged children in Gurugram. She does a lot of work also in the field of education in a play way manner to make it more interesting and a fascinating and an enjoyable experience for all the little learners to ensure it is never a dull or a monotonous one.

“We salute the supreme Lord Ganesha of the curved trunk Vakratunda, whose regency is like a million suns. May he bless us in all our endeavours and remove obstacles from our path.

May there be tranquillity on Earth, on water, in the sky, in the Sun, on the Moon, on our planet, in all beings, in the body, in the mind and in the spirit. May that tranquillity be everywhere and in everyone?”



Ms. Sunita Rekhi Chandani reciting at ICSE 2019

Musical instruments for the live music.



Special performance by the students of National Association for the Blind Delhi

National Association for the Blind Delhi has also been a pioneer in initiating services for children with visual impairment and additional disabilities since 1997. Centre for Multiple disabilities provides individualized intervention to multisensory impaired/deaf-blind children. It is also recognized as a Regional Learning Centre on Deaf-blindness (North) providing training on deaf-blindness to various NGOs working in the disability sector.

The dance and song performance by the students of National Association of Blind (NAB) was appreciable.



Dance performance by students



Song performance by student

ICSE 2019 PRESS COVERAGE

मोबियस फाउंडेशन की अगुवाई में भारत का पहला

इंटरनेशनल कॉन्फ्रेंस ऑन सस्टेनेबिलिटी एजुकेशन (आईसीएसई)-2019 का आरंभ

नई दिल्ली। इंटरनेशनल कॉन्फ्रेंस ऑन सस्टेनेबिलिटी एजुकेशन (आईसीएसई) का आयोजन मोबियस फाउंडेशन, द क्लाइमेट रिपॉजिट प्रोजेक्ट, इंडिया द्वारा बुनेस्को, नई दिल्ली के साथ संयुक्त रूप से 9-10 सितंबर 2019 को डीडीए हॉटेल सेंटर में किया गया। इस दो दिवसीय सम्मेलन में सस्टेनेबल एजुकेशन को लागू करने में आ रही चुनौतियों से निपटारे के लिए सभी संभावित कदमों पर विचार किया गया। आईसीएसई 2019 का आयोजन शिक्षा के माध्यम से सस्टेनेबिलिटी से संबंधित कौशल और उपरती हुई नई चुनौतियों का सामना करने के उद्देश्य से किया जा रहा है। इस उद्देश्य को पूरा करने के लिए शिक्षार्थियों को नए कौशल, मूल्यों और दृष्टिकोणों के साथ सशक्त बनाना का प्रयास किया जाएगा, जो एक बेहतर समाज के निर्माण का

मार्ग प्रस्तुत करेगा। इस सम्मेलन के माध्यम से विभिन्न विचारकों जैसे- बौद्धिक विचारकों, पेशेवरों, शिक्षकों, नीति निर्माताओं के साथ-साथ दुनिया भर से आए युवाओं को एक मंच प्रदान किया जाएगा। यहाँ से अपने नवीन विचारों, विभिन्न अभ्यासों और नीतियों को साझा करने के साथ ही विभिन्न सुझाव प्रस्तुत कर पाएँगे जिसके माध्यम से पर्यावरणीय स्थिरता को अवधारणा को स्कूल- शिक्षा प्रणाली में एक अभिन्न अंग के रूप में शामिल करना संभव हो पाएगा।



को एक मंच प्रदान किया जाएगा। यहाँ से अपने नवीन विचारों, विभिन्न अभ्यासों और नीतियों को साझा करने के साथ ही विभिन्न सुझाव प्रस्तुत कर पाएँगे जिसके माध्यम से पर्यावरणीय स्थिरता को अवधारणा को स्कूल- शिक्षा प्रणाली में एक अभिन्न अंग के रूप में शामिल करना संभव हो पाएगा।

Prepare for zero-carbon economy over next 30 years

A two-day International Conference on Sustainability Education was held in Delhi on Sep 9-10 where experts, academicians, activists and practitioners fight mainstreaming sustainability in education is still a huge but necessary challenge

Even as the UNESCO's Global Action Programme (GAP) on Education for Sustainable Development, which expires later this year and a new framework is being worked out to replace it from January 2020, there are concerns that despite Agenda 21 having received overwhelming support and climate change along with other environmental issues assuming alarming status, education systems haven't integrated sustainability in their academics.



can come through cultivation of spiritual values of being respectful to nature. Education without values can become agent of destruction," he said. Donna Goodwin, Founder and Executive Director of the Earth Child Institute (ECI, USA), who has earlier served at UNICEF for several years, said "peace and education go together. Major conflicts in the world are over water. Peace has to come through science. There are successful models but I must admit that I am disappointed as sustainable development hasn't been

विशेषज्ञों ने रखे विचार

दक्षिणी दिल्ली : इंडिया हॉटेल सेंटर में मोबियस फाउंडेशन की ओर से दो दिवसीय सम्मेलन का आयोजन किया गया। इसमें बेहतर व टिकाऊ शिक्षा प्रणाली लागू करने में आ रही चुनौतियों से निपटने के लिए संभावित कदमों पर विचार किया गया। इसमें शिक्षा प्रणाली को और बेहतर करने में वर्तमान और उभरती हुई नई चुनौतियों पर भी विमर्श किया गया। शिक्षार्थियों को सशक्त बनाने का प्रयास किया। सम्मेलन में बौद्धिक विचारकों, पेशेवरों, शिक्षकों, नीति निर्माताओं के साथ तमाम युवाओं ने शिक्षा प्रणाली को बेहतर बनाने पर विचार रखे। (जास)

आईसीएसई-2019 से होगा बेहतर समाज का निर्माण

नई दिल्ली, 9 सितंबर (एनआईएन/एनएम)। पारिवारिक, सामाजिक, राष्ट्रीय और वैश्वीय चुनौतियों का सामना करने के लिए सस्टेनेबल एजुकेशन एक बेहतर विकल्प है, विशेष रूप से एक सशक्त प्रयोगकर्ता के लिए। इस दिना में विश्व भर पर कई प्रयास हुए हैं, लेकिन शिक्षकों के साथ-साथ नीति निर्माताओं से भी अपेक्षा है कि नई चुनौतियों का सामना करने के लिए शिक्षा को बेहतर बनाने का प्रयास किया जाए। सस्टेनेबल एजुकेशन और उभरती हुई नई चुनौतियों से निपटारे के लिए शिक्षा को बेहतर बनाने का प्रयास किया जाएगा। इस उद्देश्य को पूरा करने के लिए शिक्षार्थियों को नए कौशल, मूल्यों और दृष्टिकोणों के साथ सशक्त बनाना का प्रयास किया जाएगा, जो एक बेहतर समाज के निर्माण का मार्ग प्रस्तुत करेगा। इस सम्मेलन के माध्यम से विभिन्न विचारकों जैसे- बौद्धिक विचारकों, पेशेवरों, शिक्षकों, नीति निर्माताओं के साथ-साथ दुनिया भर से आए युवाओं को एक मंच प्रदान किया जाएगा। यहाँ से अपने नवीन विचारों, विभिन्न अभ्यासों और नीतियों को साझा करने के साथ ही विभिन्न सुझाव प्रस्तुत कर पाएँगे जिसके माध्यम से पर्यावरणीय स्थिरता को अवधारणा को स्कूल- शिक्षा प्रणाली में एक अभिन्न अंग के रूप में शामिल करना संभव हो पाएगा।



Prepare for zero-carbon economy over next 30 years

A two-day International Conference on Sustainability Education was held in Delhi on Sep 9-10 where experts, academicians, activists and practitioners fight mainstreaming sustainability in education is still a huge but necessary challenge

Even as the UNESCO's Global Action Programme (GAP) on Education for Sustainable Development, which expires later this year and a new framework is being worked out to replace it from January 2020, there are concerns that despite Agenda 21 having received overwhelming support and climate change along with other environmental issues assuming alarming status, education systems haven't integrated sustainability in their academics.



Several experts from various reputed institutions and organisations, who are taking part in a two-day (Sep 9-10) International Conference on Sustainability Education (ICSE 2019) jointly organised by Mobius Foundation, The Climate Reality Project, India in partnership with UNESCO New Delhi office in New Delhi recently in early progress in getting sustainability of environment knowledge concepts. This is the first of its kind conference on the theme of education for sustainable development hasn't been

THEWEEK

<https://www.theweek.in/wire-updates/business/2019/09/13/mobius-foundation.html>

Mobius Foundation successfully hosted the International Conference on Sustainability Education ICSE 2019

PTI | September 13, 2019 13:30 IST

(Eds: Disclaimer: The following content is a press release. PTI takes no editorial responsibility for the same.)

New Delhi, 13th September: 'International Conference on Sustainability Education (ICSE)' was jointly organised by Mobius Foundation, The Climate Reality Project, India in partnership with UNESCO, New Delhi office. The two-day conference would explore the ways to address the challenges halting the path of sustainable education.

ICSE 2019, planned with a view to exploring pathways to address current and emerging sustainability challenges through education by empowering learners with new skills, values and attitudes that lead to more sustainable societies. The Conference was organised as a major sustainability event to bring together thought leaders, practitioners, teachers, educators, policymakers as well as youth from around the globe to share innovative ideas, case studies, practices and policies and come forward with recommendations for incorporating environmental sustainability as a core concept in the school education system.

The Conference was focused upon various facets of sustainability education taking a holistic viewpoint in terms of ESD (Education for Sustainable Development), EE (Environmental Education) and Climate Change Education (CCE). It will have the main focus on South Asian region; particularly on school education at the primary, middle and secondary levels.

Objectives

The conference focused on sharing innovative ideas and understanding on sustainability education within the overall objective of strengthening the role of education in changing attitudes and behaviour towards positive action for a better quality of life and environment ultimately leading to the achievement of SDGs and creating a sustainable future for all.

Dr. Ravi Booth (Director Programmes, Former UNESCO and Environment Programme Specialist) says: "The idea to organize this Conference came from the need of reorienting education towards sustainability issues in the context of the global commitment for Agenda 2030 and Sustainable Development Goals."

PREPARE FOR ZERO-CARBON ECONOMY OVER NEXT 30 YEARS

September 10, 2019

A two-day International Conference on Sustainability Education was held in Delhi on Sep 9-10 where experts, academicians, activists and practitioners felt mainstreaming sustainability in education is still a huge but necessary challenge.



Inauguration ceremony

Even as the UNESCO's Global Action Programme (GAP) on Education for Sustainable Development, which expires later this year and a new framework is being worked out to replace it from January 2020, there are concerns that despite Agenda 21 having received overwhelming support and climate change along with other environmental issues assuming alarming status, education systems, haven't still ingrained sustainability concepts in their academic processes and course ware.

Several experts from various reputed institutions and organizations, who are taking part in a two-day (Sep 9-10) International Conference on Sustainability Education (ICSE 2019) jointly organized by Mobius Foundation, The Climate Reality Project, India in partnership with UNESCO New Delhi office in New Delhi referred to tardy progress in gelling sustainability of environment knowledge concepts in curriculum and assessment. This is the first of its kind conference on the theme of education for sustainable development in India.

Martin Siegert, Professor of Geosciences and co-Director of the Grantham Institute, Imperial College London was quite empathetic in underlying the emergency of education systems aligning with the sustainability at the earliest. Achieving the goal of zero carbon economy is inevitable over next 30 years as the carbon dioxide level in the atmosphere has shot up to 400 part per million and is highest in last several centuries. "In next century, we may reach the level (1000 ppm) and earth temperature increase at which dinosaurs was wiped out 65

million years ago. So, the economy has to rejig itself to prevent such a scenario,” he said while adding that some business courses and companies on clean tech have been formed and hopefully this will be a trend to go by.

Narasimha Murthy, Chancellor of the Sri Sathya Sai University for Human Excellence based in Karnataka and a long-term warden for the various campuses of the Sathya Sai Institutions, who was the chief guest at the inaugural plenary put the blame of indifference to environment squarely on the erosion of spiritual values among students. “Unity of all existence is our civilizational spiritual wisdom, which has been repeatedly reinforced by preachers from time to time but that quest is missing from our centres of learning and texts. With information and knowledge, we need wisdom which can come through cultivation of spiritual values of being respectful to nature. Education without values can become agent of destruction,” he said.

Donna Goodman, Founder and Executive Director of the Earth Child Institute (ECI), USA, who has earlier served at UNICEF for several years, said peace and education go together. “Major conflicts in the world are over water. Peace has to come through science. There are successful models but I must admit that I am disappointed as sustainable development hasn’t been mainstreamed in education,” she added.

In his video message US-based **Prof. Jeffrey Sachs**, Director, Centre for Sustainable Development, Columbia University talked about interdisciplinary nature and interconnected systems of sustainability from physical environment to human behaviour and businesses. He also added two more requirements for a new paradigm of ‘environment’ education—being holistic and ethics. “It extends to all spheres of life and therefore individual choices and behaviour as good citizens. Right kind of behaviour from the beginning, personal choices, values are all necessary for wellbeing of all and future generations. Primary and secondary school engagement is the way to go,” he added.

Kartikeya Sarabhai, founder director of the Centre for Environment Education, Ahmedabad, while recalling the history of environment education in India blamed the examination orientation of country’s education system for leaving out sustainability studies. “It is not only content or information but about valuing observations and handprints. Our education system is not ready to fit the change.” He wondered why cloth bags, which two generations ago were standard in India on shopping needs a campaign now. “Education for life, education through life and education throughout life as outlined in Upanishads has to be put in a new context. Children have to be taught to be respectful not wasteful,” he said.

Vivek Menon, founder, executive director and CEO of the Wildlife Trust of India, Noida, as well as Advisor to the International Fund for Animal Welfare, sarcastically mocked on the understanding of environment education within education system and environment ‘champs’ by saying that only planting trees will at best suit monkeys. “Grass is equally important,” he said while adding that understanding nature and conservation action is more critical. “Biodiversity and forests are the real challenge. Importantly, imparting skills are needed to work in these fields than just making supporters theoretically. Draft NEP has skipped

biodiversity, is that the understanding of policy makers on as important a subject as environment education?" he mentioned.

Sunita Narain, director of Centre for Science and Environment (CSE), New Delhi, while referring to CSE's green school project revealed that the elite schools that make more noise and PR on environment education claims are in fact lowest in program's benchmarks.

It may be mentioned that environment education over the years has come up as a distinct discipline and various approaches and methodologies of teaching and learning have evolved at various levels. However, there is a need to bring out specifics and intricacies of environmental education as an agent of change and transformation in true sense. It is also interesting to note the transition from environment education (EE) to education for sustainable development (ESD) and moving towards more focused climate change education (CCE) which reflects the need for reorienting educational priorities to the newer global challenges of today. In this context the ICSE 2019 is certain a welcome initiative.

Pradip Burman, Chairman, Mobius Foundation says: *"ICSE 2019 aims to aid the implementation of education for sustainable development (ESD) which is culturally-relevant, locally appropriate, occurring across national school education system."*

THE TEAM



ICSE 2019 Team at the concluding plenary

Program Schedule

India Habitat Centre, New Delhi
9th – 10th September 2019

DAY 1: 9th September 2019, Monday

Time	Session
8:30 - 9:30	Registration – Hub Hall, Stein Auditorium
9:30 – 11:00	Opening Ceremony Venue: Stein Auditorium
	Welcome Song Ms. Sumita Chandani Rekhi, Vocalist
	Lighting of the lamp and inauguration Sri B N Narasimha Murthy , Chancellor, Sathya Sai University of Human Excellence
	Welcome Address and Opening Remarks Dr. Ram Boojh , Director, Mobius Foundation, Convener ICSE 2019
	Vision of the conference Mr. Pradip Burman , Chairman, Mobius Foundation
	Key Note Addresses <ul style="list-style-type: none"> • Mr. Kartikeya Sarabhai, Founder and Director, Centre for Environment Education (CEE) • Dr. Ajay Mathur, Director General, The Energy and Resources Institute (TERI) • Ms. Donna Goodman, Founder and Executive Director of the Earth Child Institute (ECI) • Dr. Sunita Narain, Director General, Centre of Science and Environment (CSE) • Sadhvi Bhagwati Saraswati, Secretary General of Global Interfaith WASH Alliance
	Address by Guest of honour Dr. Guy Broucke , Natural Sciences Programme Specialist, UNESCO New Delhi
	Address by Chief Guest Sri B N Narasimha Murthy , Chancellor, Sathya Sai University of Human Excellence Shri Prakash Javadekar – Hon'ble Environment, Forest and Climate Change Minister, Government of India (Video Message) Dr. Jane Goodall , Founder, Roots & Shoots Institute, UN Messenger of Peace (Video Message) Release of Souvenir and Abstract volume of the conference
	Felicitation of Guests Mr. Vivek Menon , Executive Director and CEO, Wildlife Trust of India (WTI)
	Vote of Thanks Mr. Aditya Pundir , Country Manager, Climate Reality Project India

11:00 – 11:30 Inauguration of Poster/Exhibition & Tea/Coffee break
Group Photograph Session

11:30 - 13:00 1st Plenary Session: Setting the Agenda

Venue: Stein Auditorium

- | | |
|--------------------------|--|
| Chair | Mr. Natarajan Ishwaran , Editor in Chief, Environmental Development (Elsevier), Paris |
| Co- chair
Facilitator | Dr Ram Boojh , Director, Mobius Foundation, Convener ICSE 2019

Video message by Prof. Jeffrey Sachs , Director, Centre for Sustainable Development, Columbia University |
| Panellists | <ul style="list-style-type: none"> • Prof. Martin Siegert, Professor of Geosciences and co-Director of the Grantham Institute, Imperial College London • Mr. Vivek Menon, Executive Director and CEO, Wildlife Trust of India (WTI) • Ms. Ushio Miura, Programme Specialist, UNESCO Asia Pacific Bureau of Education Bangkok • Dr. Pramod Sharma, Senior Director, Foundation for Environmental Education (FEE) • Ms. Chandrika Bahadur, President, SDSN Association |

13:00 - 14:00 Lunch Break

14:00 – 15:30 Poster Session

Venue: Charminar Area

Jury:

Mr. M J Saxena, Managing Director, Ayurved Ltd
Ms. Chandrika Bahadur, President, SDSN Association
Dr. B C Sabat, Delhi Pollution Control Committee (DPCC)

14:00 - 15:30	<p>SS 1 - Silver Oak 1 Handprint: Action for Sustainability by CEE</p> <p>Moderator:</p> <ul style="list-style-type: none"> • <i>Mr. Kartikeya Sarabhai</i> • <i>Dr. Pramod Sharma</i> 	<p>SS 2 - Silver Oak 2 Youth Conclave on SDGs by TERI</p> <p>Moderator:</p> <ul style="list-style-type: none"> • <i>Ms. Livleen Kahlon</i> Associate Director, TERI • <i>Ms. Taru Mehta</i>, Fellow & Area Convenor, TERI 	<p>SS 3 - Willow Workshop on Innovative Ways to Teach the SDGs by SDSN</p> <p>Moderator:</p> <ul style="list-style-type: none"> • <i>Ms. Neha Sharma</i>, Education Manager, SDG Academy 	<p>SS 4 - Maple Oral Presentations (Various Speakers) - Theme A and Theme B</p> <p>Chair:</p> <p><i>Ms. Ushio Miura</i>, Programme Specialist, UNESCO Asia Pacific Bureau of Education Bangkok</p> <p>Co-chair:</p> <p><i>Ms. Prarthana Borah</i>, Country Director, Clean Air Asia</p> <p>Rapporteur:</p> <p><i>Ms. Archana Chatterjee</i> (IUCN)</p>	<p>SS 5 - Magnolia Earth Observation education in Sustainable Development by ICRISAT</p> <p>Moderator:</p> <p><i>Prof P S Roy</i>, Senior Advisor, ICRISAT, Pathancheru, Hyderabad</p>
----------------------	---	--	--	---	---

15:30 - 16:00 Tea/Coffee break

16:00 - 17:30	SS 1 continued	<p>SS 7- Silver Oak 2 A Value based Education for a new world by Sri Sathya Sai University For Human Excellence</p> <p>Moderator:</p> <ul style="list-style-type: none"> • Mr. Vijay Sai <p>Speakers:</p> <ul style="list-style-type: none"> • Prof Ron Toomey, Emeritus Professor • Sri B N Narasimha Murthy, Chancellor • Sadhvi Bhagwati Saraswati 	<p>SS 8- Willow Oral Presentations (Various Speakers) Theme E, F and G</p> <p>Chair:</p> <p>Ms. Jayanthi Gunashekra, DG, NIE Sri Lanka</p> <p>Co-chair:</p> <p>Ms. Vinita Apte, President, TERRE</p> <p>Rapporteur:</p> <p>Ms. Shweta Khare, Roots&Shoots</p>	<p>SS 9 - Maple Oral Presentations (Various Speakers) Theme C</p> <p>Chair:</p> <p>Prof. P K Mathur, Lucknow University</p> <p>Co-chair:</p> <p>Dr. Abdes Ghawar, Programme Director, CEE</p> <p>Rapporteur:</p> <p>Ms. Chiteisri Devi, Education Manager, SDG Academy</p>	<p>SS 10 - Magnolia Green School Program as learning laboratory for developing Climate Change and Sustainability practices by Climate Reality Project India</p> <p>Moderator:</p> <p>Ms. Rekha Lalla, Program Manager, Green School Program</p>
---------------	----------------	--	---	--	---

2nd Plenary session: Sustainability Education Approaches & Experiences

Venue: Stein Auditorium

17:30 - 19:10	Chair	Prof. Ashok Kumar , Professor of Management Grand Valley State University, MI USA
	Co – chair	Ms. Malgorzata Luszczek (Gosia) , Director, Foundation for Environmental Education (FEE)
	Rapporteur	Ms. Rahma Elfithri , Senior Lecturer/Research Fellow, Institute for Environment and Development (LESTARI), University Kebangsaan Malaysia (UKM)
	Speakers	<ul style="list-style-type: none"> • Mr. Mark S. McCaffrey, Co-Focal Point for ECOS (Video Message) • Prof Daniella Tilbury, Commissioner for Sustainable Development, University of Cambridge (Video Message) • Dr. Goutam Kumar Dalapati, Department of Physics, SRM University Amaravati • Dr. Rajendra Shende, Chairman TERRE Policy Centre • Prof Rob O' Donoghue, Associate Professor, Rhodes University, South Africa • Dr. Juan Carlos Sandoval, Institute of Educational Research, University of Veracruz, Mexico
19:10 – 19:20	Green Campus Program Awards Ceremony by The Climate Reality Project India	
19:20 – 19:30	Launch of World Environment School, Coorg Speaker – Mr. Pradip Burman, Chairman, Mobius Foundation	
19:30 – 20:30	<p>Cultural Evening Venue: Stein Auditorium</p> <p>Motivational Musical Speaker - Mr. Vineet Tandon Dance performance by Kulachi Hansraj School, Delhi Cultural Song by Ms. Sumita Chandani Rekhi, Vocalist Performance by special needs students of National Association for the Blind, Delhi</p>	
20:30 onwards	<p>Welcome Dinner Venue: Hub Area</p>	

DAY 2: 10th September 2019, Tuesday

Time	Session
8:30 – 9:00	Registration – Hub Hall, Stein Auditorium
9:00 -10:00	<p>3rd Plenary session Sustainability Education Stories – Country Regional Presentations Venue: Stein Auditorium</p> <p>Chair Mr. B M S Rathore - International Centre for Integrated Mountain Development (ICIMOD)</p> <p>Co-chair Dr. Vivek Saxena, Country Representative, IUCN India</p> <p>Rapporteur Ms. Bhuvana Santhanam, Sri Sathya Sai University For Human Excellence</p> <p>Bangladesh Mr. Rishad Abdullah, Research Officer, Secondary and Higher Education, Bangladesh</p> <p>Maldives Mr. Ahmed Athif, Director General, Department of Inclusive Education, Ministry of Education, Maldives</p> <p>Regional South Asian Mr. Shailendra Sigdel, Statistical Advisor, UNESCO New Delhi</p> <p>Nepal Mr. Pradeep Khaple, Vice President of National federation of UNESCO Club and Association of Nepal</p> <p>India Ms. Jyotsna Tiwari, Professor, Art History and Aesthetics, NCERT, India</p> <p>Sri Lanka Dr. Jayanthi Gunasekara, Director General, National Institute of Education, Sri Lanka</p> <p>Bhutan Mr. Kinley Dorji, Royal Thimphu College, Bhutan</p>
10:00 – 11:00	<p>Special Session on Biosphere Reserve as learning sites for sustainability education.</p> <p>Coordinated by: Dr. Tashi Wangdi, Director, Ministry of Environment Forests & Climate Change, Government of India</p> <p>Speakers: Dr. Natarajan Ishwaran, Editor in Chief, Environmental Development (Elsevier), Paris Mr. Uday, PCCF (Principal Chief conservator of the Forest), Government of Tamil Nadu Mr. Ashok Kumar, Conservator of Forest, Government of Tamil Nadu Shri Kapta, The chief conservation of Forest, Himachal Pradesh Shri. Faisan Rashid, The Environmental Planning & Coordination Organisation (EPCO), Madhya Pradesh Mr. Bhuvan Pradhan, The Government of Sikkim Dr. Ram Boojh, Mobius Foundation, Convener ICSE 2019 Dr. Guy Broucke, Natural Sciences Programme Specialist, UNESCO New Delhi Dr. Suprava Patnaik, Indian Institute of Forest Management (IIFM), Bhopal</p>
11:00 - 11:30	Tea/Coffee break

Hands-on workshop on **STEM (Science, Technology, Engineering and Mathematics)** Education by Climate Reality Project, India and Vikram Sarabhai Community Science Centre, Ahmedabad.
Specially for students

Venue: Stein Auditorium (11:00 – 13:00)

Special sessions (SS)

<p>11:30 -13:00</p> <p>SS 11 - Silver Oak 1 Promoting Community-based Education for Sustainable Development Panel and Workshop by UNESCO</p> <p>Moderator: Ms. Huma Masood, UNESCO New Delhi</p>	<p>SS 12 - Silver Oak 2 Working Session on World Environment School by WESC</p> <p>Moderator:</p> <ul style="list-style-type: none"> • Mr. Kartikeya Sarabhai, CEE • Ms. Sanskriti Menon • Mr. Narayan Sharma <p>Speakers:</p> <ul style="list-style-type: none"> • Mr. Pradip Burman, Chairman, Mobius Foundation • Mr. Christopher Ramsey, Headmaster, Whitgift School 	<p>SS 13 - Magnolia Encouraging conservation practice through non-formal learning by Wildlife Trust of India (WTI)</p> <p>Moderator: Mr. Abhilash Khandekar</p>	<p>SS 14 - Maple Oral Presentations (Various Speakers) - Theme D</p> <p>Chair: Prof P S Roy, Senior Advisor, ICRISAT, Pathancheru, Hyderabad</p> <p>Co-chair: Dr. Neelima Jerath, Director General, Science City</p> <p>Rapporteur: Ms. Radhika Suri, WWF, India</p>	<p>SS 15- Willow UN Global Warming to Global Cooling– A Changing Paradigm for Education by UNFCCC and FEE</p> <p>Moderator: Mr. Nicole, FEE</p>
<p>13:00 - 14:00 Lunch Break</p>				
<p>14:00 - 15:30</p> <p>SS 11 continued</p>	<p>SS 17 - Silver Oak 2 Youth Involvement in sustainability education drives, lessons from across the globe by Climate Reality Project India</p> <p>Moderator: Ms. Sheetal Antil, Sr. Project Officer</p>	<p>SS 18 - Magnolia Formalisation and delivery of conservation education by Wildlife Trust of India (WTI)</p> <p>Moderator: Dr. Erach Bharucha</p>	<p>SS 19 - Maple Mainstreaming sustainability education from schools to Higher educational institutions in India by UNEP</p> <p>Moderator: Prof. Gayatri Raghwa, UNEP</p>	<p>SS 20 - Willow 17 SDGs as an effective tool for ESD and building leadership and media skills in youth by YRE and FEE</p> <p>Moderator: Ms. Malgorzata Luszczek (Gosia), FEE</p>
<p>15:30 - 16:00 Tea/Coffee break</p>				

16:00 - 16:45 Concluding Plenary

Venue: Stein Auditorium

Chair	Mr. Kartikeya Sarabhai , Director, Centre for Environment Education (CEE)
Panellists	<ul style="list-style-type: none"> • Ms. Livleen Kahlon, Senior Fellow & Associate Director- Environment Education and Awareness Area, The Energy and Resources Institute (TERI) • Ms. Donna Goodman, Founder and Executive Director of the Earth Child Institute (ECI) • Prof. Ashok Kumar, Professor of Management Grand Valley State University, MI USA • Dr. Christa Henze, University of Duisburg-Essen, Germany • Dr. Pramod Kumar Sharma, Senior Director of Education, Foundation for Environmental Education (FEE)

16:45 – 17:30 Closing Ceremony

Venue: Stein Auditorium

Summary of the two Day proceedings	Ms. Bhuvana , Sathya Sai University For Human Excellence Best Paper and Poster Awards
Little Voices Making Big Difference	Ms. Licy Priya
Remarks by Guest of Honour	Mr. Ashok Khosla , Chairman, Development Alternatives
Address by Chief Guest	Mr. Rajendra Singh , Tarun Bharat Sangh
Vote of Thanks	Dr. Ram Boojh , Director, Mobius Foundation, Convener ICSE 2019

PARTNERS



MOBIUS FOUNDATION



The Climate Reality Project
INDIA



New Delhi Office
Cluster Office for Bangladesh
Bhutan, India, Maldives,
Nepal and Sri Lanka



Centre for Environment Education



ENERGY AND RESOURCES INSTITUTE
Innovative Solutions for a Sustainable Future



Bangkok Office
Asia and Pacific Regional Bureau
for Education



International Conference on Sustainability Education (ICSE) 2019

ICSE Secretariat
4th Floor, Sagar Plaza, Near V3S Mall
Laxmi Nagar, New Delhi – 110092