Enabling Climate Action through Knowledge Campaign
We 4 Climate

Enabling Climate Action through Knowledge Campaign

Organised by CEE
Centre for Environment Education
Acknowledgement

This coffee table book is developed as part of the Indo-German Bilateral project “Climate Change Adaptation in Rural Areas of India (CCA-RAI)” implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in four partner states – Himachal Pradesh, Punjab, Telangana, Tamil Nadu; wherein a programme “Enabling Climate Action through Knowledge Campaign: A Popular Lecture Series on Climate Change and Sustainable Development” was organised by Centre for Environment Education (CEE).

GIZ and CEE would like to thank the four state nodal agencies: Department of Environment, Tamil Nadu; Department of Environment, Science and Technology, Himachal Pradesh; Punjab State Council for Science and Technology, Punjab and Environmental Protection Training and Research Institute, Telangana for their support and guidance for conducting the events. We would also like to thank all our event partners and universities for their support:

- **Himachal Pradesh:** Dr. Yashwant Singh Parmar University of Horticulture and Forestry; Chitkara University-Baddi; Palampur Agriculture University
- **Punjab:** Punjabi University Patiala; Guru Nanak Dev University; Lovely Professional University
- **Tamil Nadu:** Dhan Foundation; M. S. Swaminathan Research Foundation; Tamil Nadu Agricultural University
- **Telangana:** Telangana Water Resources Development Corporation; College of Agriculture Palem; Modern Architects for Rural India; Acharya N. G. Ranga Agriculture University

Design and Contribution:

GIZ: Ashish Chaturvedi, Kirtiman Awasthi, Meghana Kshirsagar, Somya Bhatt, Nidhi Madan

CEE: Kartikeya V. Sarabhai, Kiran Desai, Pooja Dave, Viveka Jani, Shallesh Bhalani, Hemal Solanki, Hitesh Vaza, Ravi Panchal, Hardik Raval

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Foreword

Developing countries are particularly vulnerable to the impacts of climate change. Therefore, having effective adaptation strategies in place is of utmost importance. A comprehensive adaptation strategy needs to involve all stakeholders in knowledge sharing and meaningful dialogue. The United Nations Framework Convention on Climate Change (UNFCCC) identifies six priority areas under its strategy for Action for Climate Empowerment (ACE). These include public awareness, public participation and public access to information, among others.

India has always recognized the importance of raising awareness and has made it a part of its strategy for integrating environmental considerations into its development plans. In 1984, the Centre for Environment Education (CEE) was formed as a Centre of Excellence of the then newly created Ministry of Environment and Forests to play a pace-setting role in environmental education and to integrate education in the strategies to achieve various development goals.

CEE’s work in climate action seeks to engage and empower different stakeholders through interactive educational methodologies. It works closely with UNFCCC for supporting and promoting ACE. It also worked closely with UNESCO during the UN Decade of Education for Sustainable Development (UN DESD) and with policy makers for the Global Action Plan (GAP) on ESD to ensure that education can play a more significant role in achieving the Sustainable Development Goals.

The We4Climate knowledge campaign executed along with GIZ and with support from the state nodal agencies aimed at stimulating the sharing of knowledge and experiences among diverse groups of stakeholders through empathy and understanding. This coffee table book presents glimpses of the campaign and some of the outcomes in the form of Handprint commitments and testimonials from the participants.

Kartikeya V. Sarabhai
Director
Centre for Environment Education (CEE)
Preface

Climate change is real and is being felt by communities across the region and we need to work together to reduce and manage risk and adapt to the changing climate. In view of this, knowledge generation and dissemination is critical for appropriate climate actions and requires engagement with wide range of stakeholders to create awareness about climate change impacts, strategies and best practices related to adaptation and mitigation actions.

India and Germany have had a rich cooperation engagement for the last 60 years which extends to sectors such as natural resource management, urban environment protection, climate change adaptation and mitigation and innovative green technologies. The Indo-German technical cooperation project on “Climate Change Adaptation in Rural Areas of India (CCA-RAI)” being implemented under the bilateral cooperation of MoEFCC and GIZ, is one such engagement that aims to integrate climate adaptation measures into the national and state development planning through capacity development, generating pilot experiences on adaptation and knowledge management.

The Knowledge Campaign on Climate Change and Sustainable Development initiated in the four partner states serves as a platform to promote dialogue and knowledge exchange and experience sharing among a wider community of stakeholders including researchers, practitioners, policymakers and the public including students. This coffee table book provides glimpses of the knowledge campaign towards fulfilling the larger objective of strengthening science-policy-practice connect.

Dr. Ashish Chaturvedi
Director (Climate Change)
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
About the project

We4Climate is a joint initiative between the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and the Centre for Environment Education (CEE) under the Indo-German bilateral project “Climate Change Adaptation in Rural Areas of India (CCA-RAI)”. As part of the initiative, the programme “Enabling Climate Action through Knowledge Campaign: A Popular Lecture Series on Climate Change and Sustainable Development” was organised in four Indian states including Himachal Pradesh, Punjab, Tamil Nadu and Telangana. The objective of this campaign was to promote a dialogue for knowledge exchange and experience sharing about climate change challenges and strategies for climate action among different stakeholders.

A total of 16 lecture cum seminar events were organised in the four states and were attended by diverse groups of participants including government officials, policymakers, students, researchers, academics, NGO representatives, practitioners and many interested persons. The campaign stimulated knowledge exchange in a two-pronged manner: lecture sessions delivered by subject experts followed by interactive thematic group discussions among the wide spectrum of participants. This approach was inspired from the Talanoa Dialogue, an inclusive, participatory and transparent discussion between different stakeholders adopted during the international climate negotiations. Moreover, four informative booklets, one for each project state, briefly explaining climate change, its impacts in India and good practice examples from the project states were developed and shared with the participants, speakers and other dignitaries along with eco-friendly pens made with recycled newspapers at CEE.

This coffee table book highlights glimpses of the 16 events organised under this knowledge campaign.
The Handprint has to see that the Footprint treads lightly on the planet.

Sunita Narain
Director General, CSE

Environment is essential for Himachal Pradesh, especially tourism, agriculture and horticulture in the state. People here are conscious of this and therefore such talks become more useful to initiate discussions on this important subject.

Shri Tarun Kapoor
Addl. Chief Secretary (Env., Sci. & Tech.)
Government of Himachal Pradesh
Dr. Ashish Chaturvedi
Director-Climate Change, GIZ India

“The fact is that climate change is real and it is felt by people.”
Climate change is a global change which will affect everyone across the globe. Water is one of the important resource getting impacted by climate change. We need local, feasible solution for conserving water resource and using it more efficiently for agriculture.

Dr. H.C. Sharma,
Vice Chancellor, YSP UHF
Baddi Event

Date: 28 September 2018

Participants: 300

Chief Guest: Dr. Madhu Chitkara, Pro Chancellor, Chitkara University

Keynote speaker: R. R Rashmi, IAS, former Special Secretary, MoEFCC, GoI & Distinguished Fellow, TERI

Working group experts:
- Dr. Ajay Sharma, Dean Examination, Chitkara University
- Dr. Uma Malik, Deputy Dean, Civil Engineering Department, Chitkara University
- Ms. Monika Sharma, Climate Change Specialist, GIZ India

Dr. Madhu Chitkara, Pro Chancellor mentioned various sustainable practices that are implemented on the campus and encouraged the students to take research based innovative ideas to address climate change.

India is taking different measures for climate change mitigation and adaptation, but there is still a lot of potential to do more, especially in the context of sustainable lifestyle.

R. R Rashmi, IAS
Former Special Secretary, MoEFCC, GoI & Distinguished Fellow, TERI
Climate Change will impact our social life. Due to a rise in the sea level our coastal cities will be submerged and a large amount of migration will happen to the uplands, which will create an issue of social imbalance.

Dr. Ranbir Singh Rana
Principal Scientist (Agronomy), CGRT, COBS

Due to increase in the temperature, crop production is decreasing and there is a shift in the traditional farming practices in Himachal Pradesh.

Dr. Y. P. Thakur
Director, Directorate of Extension Education, Palampur University

Due to climate change, there will be an increase in the sea level and we will see a large amount of migration of our coastal population to the upland areas. This will create an issue of social imbalance.

Dr. Y. P. Thakur
Director, Directorate of Extension Education, Palampur University

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Dr. Ranbir Singh Rana
Principal Scientist (Agronomy), CGRT, COBS
Paving the way for Gender Responsive Adaptation & Local Climate Vulnerability Capacity Assessment at Village Level

The villages like Bhagli, Jadoini, Shilly, Klimo, Palwno, and others in the Dhamun Panchayat are highly vulnerable to varying climate and changes in livelihood activities. To climate-proof the villages, the first ever fully automated Hi-Tech Green House has been piloted. Moreover, through integrated climate resilient actions and scientific management practices ecosystem services are also being strengthened.

Furthermore, the importance of gender-responsive climate adaptation is evident. Through the process of gender focused review, training and capacity building, women farmers have successfully restored their abandoned farmlands through cash-crop farming, community-based revival of traditional kuhls for irrigation, and conservation of local traditional crops. The shift in agriculture practices from traditional crops towards intensive farming of cash crop is driven by variations in climate and socio-ecological evolution in agriculture horticulture practices. The initiative has successfully restored a few traditional crops, motivated the women to collect, store and propagate traditional crop seeds, and to mainstream adaptation in their day-to-day life.

Source: Department of Environment, Science and Technology (DEST), and GIZ-India
Eco-village is an emerging concept in India. To demonstrate villages as models of sustainable development, Government of Himachal Pradesh has launched Eco Village Scheme through Department of Environment, Science & Technology (DEST) in active collaboration with local communities. In the first phase five villages have been identified to be developed as eco-villages, key elements of which include environment sustainability through responsible natural resource management practices, community participation, use of modern and clean technology & practices, convergence of resources available for development to promote climate resilient and ecologically sustainable development with interventions in the areas of water management, waste management and irrigation, sustainable agriculture/ horticulture, energy conservation, spring-shed and natural resources management & climate change adaptation. The approach will not only help those stakeholders who are working to implement sustainable community development programmes but also will set benchmarks for others to adopt and bring a radical change in thinking process of the communities at large in the state, especially in inculcating environmentally responsible behaviour.

Case study

Model Eco Village Scheme of Himachal Pradesh

Punjab
Chandigarh Event

Date: 22 November 2018
Participants: 150
Chief Guest: Dr. Jatinder Kaur Arora, Executive Director, PSCST
Keynote speaker: Prof. C. K. Varshney, Professor Emeritus
Working group experts:
- Sumit Arora, Capacity Building Expert, PMIDC
- Dr. Rahul Mahajan, Vice-president, Organic Sharing
- Dr. Manoj Sharma, Asstt Professor, PU

Your Planet Needs You – Unite to Combat Climate Change. We4Climate provides a platform for multi-stakeholder interaction and learning for climate action.

Meghana Kshirsagar
Technical Advisor-Climate Change, GIZ India

The changing pattern of climate is worrisome for the future of mankind. In Punjab especially, we need to conserve resources, minimize pollution from stubble burning and other sources, and save our water bodies including village wetlands.

Prof. C. K. Varshney
Professor Emeritus
If you love yourself, how can you say no to reducing your footprint?

Dr. Jatinder Kaur Arora
Executive Director, PSCST
India is an emerging and frontier market, but most vulnerable to climate change. Impacts are complex, ranging from crop failure to mass displacement and social conflicts, hunger, illness and mortality. India has taken bold initiatives, and will need huge investments to meet its climate action commitments by 2030.

Harjeet Singh
International Climate Policy Manager, ActionAid
Speaking in terms of climate justice, we are not an equal society globally or within India, or even inter-generationally. Unsustainable development of the past and present is the main cause, and sustainable development thus takes an ever crucial place.

Raman Mehta  
Policy Head, Vasudha Foundation

"For Punjab, one of the main impacts of climate change will be food and nutrition insecurity, water insecurity, leading to declining quality of life. We will have to control our greed and make development sustainable if we want to leave a healthy planet for our future generations."

Dr. Narpinder Singh  
Director (Research), GNDU
Date: 23 October 2018
Participants: 291
Chief Guest: Prof. B.S. Ghuman, Hon’ble Vice Chancellor, Punjabi University Patiala
Guest of Honour: Dr. Satnam Singh Ladhar, Additional Director (Environment), PSCST
Keynote speaker: Prof. (Retd.) A.D. Ahluwalia, Panjab University
Working group experts:
- Dr. Manjit Singh Kang, Former Vice Chancellor, Punjab Agricultural University
- Dr. M.S. Saini, Former Dean Academic Affairs, Punjabi University
- Dr. A.S. Ahluwalia, Dept. of Botany, Panjab University

Research methodology needs an approach which is integrated. Good quality research clubbed with effective communication to policy makers and lay-persons is necessary for research-based policy making.

Dr. B.S. Ghuman
Hon’ble Vice Chancellor, Punjabi University Patiala
Climate Resilient Livestock Production System

Punjab ranks among the top five milk-producing states of India, with animal husbandry being the second most important economic sector for the state, after agriculture. Climate change and the projected rise in temperatures is expected to reduce livestock production. To address these challenges, the Punjab State Council for Science and Technology, Government of Punjab, is implementing a project to ensure sustainable levels of livestock production through scientific interventions, assisted reproductive technologies, water use efficiency in fodder cultivation, climate-resilient housing for cattle, disease forecasting for preventing breakout of bovine diseases. The project also encourages livestock farmers to harness co-benefits by housing stray cattle. Another measure being developed under the project is weather-linked insurance for compensating these farmers when there is a decrease in milk yield because of climate change. The project also focuses on effective gender participation with 30% of the project beneficiaries being women.

The Ministry of New and Renewable Energy, Government of India selected the city of Chandigarh to be developed as a Model Solar City. As per the Master Plan for the Model Solar City, the short term target for 3 years (until 2014) for Rooftop Solar photovoltaic system was 2.5 MW and the long term target is 10 MW for 10 years (until 2022).

The Model Solar City of Chandigarh was launched in July 2013 with the inauguration of two Roof top Grid Interactive SPV Plants at Paryavaran Bhawan in sector 19-B (50 kWp) and at Model Jail, Burail (100 kWp). By the end of 2016, around 5.2 MWp Roof top SPV Plant had been commissioned on more than 99 government buildings in Chandigarh, ranking the city third in the country in Rooftop Solar Plant installation. Another plant with the capacity of 1000 kWp has been commissioned at the Punjab Engineering College.

Case study

**Model Solar City Chandigarh**

The projected GHG emissions reduction by this initiative is 4,04,969 tonnes CO₂ annum by 2022.

Tamil Nadu
Chennai Event

Date: 26 June 2018
Participants: 129
Keynote speaker: Dr. V. Selvam, Executive Director, MSSRF
Working group experts:
- Dr. K Palanivelu, Director, Centre for Climate Change and Adaptation Research, Anna University
- Mr. Jagannathan R, Founder, Nalla Keerai
- Dr. Nammalwar, P, Former Principal Scientist, CMFRI-ICAR, GoI

Kirtiman Awasthi
Senior Policy Advisor, GIZ India

Such outreach can effectively communicate climate change impact and need for appropriate actions at local, state and national level.

We need to enhance the adaptive capacities of our coastal communities to sea level rise.

Dr. Selvam
Executive Director, MSSRF
The STOP movement stands for avoiding consumption of white Sugar which is highly water intensive, promoting the use of Turmeric which has several benefits, reducing the cultivation of oil-seeds and promoting Oil produced from legumes instead, and increasing the production of Pulses for improving soil quality and addressing food security in the country.

Mr. Jaganathan R
Founder, Nalla Keeral
To increase sustainable farming and reduce climate vulnerability, we should promote organic farming of native breeds of crop and farmer producer cooperatives.

Local farmer
Madurai Event

Date: 16 October 2018  
Participants: 114  
Keynote speaker: Dr. T. Velrajan, HoD, Civil Engineering, Thiyagarajar College of Engineering  
Working group experts:  
- Prof. Edwin Rajkumar, Dept. of Sociology, CSI College of Nursing, Pasumalai  
- Dr. B Kumaravadivel, Joint Director of Agriculture  
- Mr. R Adhinarayanan, DHAN Foundation

Sustainable practices in our personal daily lives can directly contribute towards mitigating climate change globally.

— Dr. T. Velrajan  
HoD, Civil Engineering,  
Thiyagarajar College of Engineering
Providing adequate support in terms of cash or in-kind for individuals who pioneer in mitigating climate change will motivate more people to join this campaign.

Youth participant

Initiating a dialogue through popular lecture series on climate change is a good move to begin with addressing the issues of climate change.

Dr. N. Varadharaju
Dean (Engg), TNAU
Integrated Mangrove Fishery Farming Systems

The Integrated Mangrove Fishery Farming System (IMFFS) converts saline wasteland into productive land by planting mangroves and farming commercially significant brackish-water fish. The project involves reclamation of abandoned coastal land and building of infrastructure like ponds with farm bund and embankment for plantation of mangroves. Mangrove not only acts as bio-shield from storms and cyclones but also acts as nutrient for fishes. The IMFFS provides protection against cyclones and storm surges, increases land productivity and creates alternative livelihood for coastal community through fish farming.

The project was implemented by M S Swaminathan Research Foundation (MSSRF), which has regenerated 250 ha of mangroves and provides opportunity to a family to earn between Rs. 15,000 to 30,000 from their ponds within four months of construction.

Source: A compendium of climate action stories: A decade of Earth Care Awards 2008-2018
Telangana
Science is clear about climate change, now is the time to take action at local level.

Dr. Ashish Chaturvedi
Director-Climate Change, GIZ India

"It is time to change every individual’s behaviours, lifestyle choices and actions in order to combat climate change."

Dr. S.K. Joshi, IAS
Hon'ble Chief Secretary, Government of Telangana

Hyderabad Event

Date: 20 August 2018
Participants: 166
Chief Guest: Dr. S. K. Joshi, IAS, Hon'ble Chief Secretary, Govt. of Telangana
Keynote speaker: Dr. Ajay Mathur, Director General, TERI
Special Address: Mr. Prakash Rao, Director and Chairman, TWRDC
Working group experts:
- Dr. G.V. Ramnajeyeyulu, Director, CSA
- Dr. J. Sesha Srinivas, Sr. Scientist, EPTRI
- Mr. Ramisetty Murali, Founder and Chief Functionary, MARI and Regional Convenor, FANSA
- Mr. Sriram Kuchimanchi, Founder and CEO, Smarter Dharma

Event partners

It is time to change every individual’s behaviours, lifestyle choices and actions in order to combat climate change.

Dr. S.K. Joshi, IAS
Hon’ble Chief Secretary, Govt of Telangana
Sustainable production and sustainable consumption can save us from future disasters.

Dr. G. V. Ramjaneeyulu
Director, CSA

We are experiencing climate change. We cannot pretend as if nothing is happening.

Dr. Ajay Mathur
Director General, TERI
There is no culture if there is no Agriculture.

Dr. M. Sudarshan Reddy
Former Dean ANGRAU (Palem)
Killing the soil with pesticides and fertilizers is nothing but killing the biological mother. Let us go organic.

Shri. V. Prakash Rao
Director and Chairman, TWRDC
"Changing food choices in kitchen will change food production in the field."

Dr. L. Jalapathi Rao
Former Registrar, ANGRAU
The newly developed state of Telangana is in a semi-arid zone and has a predominantly hot and dry climate which gets further aggravated due to the changing climate. This project, sanctioned under the National Adaptation Fund for Climate Change, aims to enhance the livelihoods of the farming community in certain villages of Mahabubnagar district by implementing suitable, science-based, climate-resilient agricultural interventions. The project proposes to promote sustainable agriculture practices in the region through the adoption of activities such as soil and water conservation, water conservation through efficient and assured irrigation practices, developing climate-resilient cropping patterns, developing forecasting models and disseminating knowledge and experience to the wider population. The project is expected to benefit more than 2000 farming households of the district, particularly small and marginal farmers, of which 30-50% of the beneficiaries will be women.

Source: weADAPT (2017). Resilient Agricultural Households through Adaptation to Climate Change in Mahabubnagar district, Telangana. [online] Available at: https://www.weadapt.org/placemarks/maps/view/24931.
Media Coverage
Handprint

Handprint is a measure of an individual’s actions which support measurable change of behaviour towards environment and sustainable development. Everyday actions of individuals add up and have a global influence, both positive and negative. Positive actions impact on the three aspects of sustainability—environment, society, and economy, and improve the conditions for life on our planet today and in the future.

Handprint helps in analysing personal sustainable action and to reach out to others around us. It asks which daily behaviours we follow for ourselves, in our family and household, with our neighbours and the surrounding community. Also, it looks at our lifestyle choices in our home, school, university and working space; in our village, town or city; and helps to take stock of how we impact our home planet, for better or worse.

Under this knowledge campaign, we collected Handprint commitments from the participants, speakers and invited dignitaries, with the idea to ‘Reduce Footprint and Increase Handprint’.
Testimonials

I firmly believe there should be more workshops and talks regarding the issue of climate change and environmental destruction in our country to reduce these changes. I am inspired by the efforts delivered in this workshop and conference and personally try to implement these upon the festival affecting Thank You, Viviane C. Bottle.

I think it is our moral responsibility towards nature. Nature is saving us. If we won’t save nature, we should leave the world to the carbon footprint. We all should study and educate ourselves to save the nature. The nature has given us the amazing life. It is our duty to preserve and save it. Thank You.

It was an excellent event. It included events for our generation. We assure that you will definitely come next year.

I really appreciate the idea of celebrities being given by CEC. Would love to learn about many more such events.

I found it very helpful, interesting to attend the workshop. The awareness campaign makes you aware about what the reality is, and what measures we used to take.

I think it is our moral responsibility towards nature. Nature is saving us. If we don’t save nature, we should leave the world to others. We all should study and educate ourselves to save nature. The nature has given us the amazing life. It is our duty to preserve and save it. Thank You.

According to my point of view, these types of events should be organized only if they are truly for creating awareness among future generation which is very important. If done, it will help us to bring our behavior before changing from bad to good.

It was a very good step and an important learning of attending such events. Thank You.

We have to do our part to do much more against fighting the climate change as our culture always taught us by protecting the mother earth, taking only what is enough for us and not wasting it. This way the national and cultural knowledge of our elders and culture will be the main by line against the climate change. "Going back to save it."
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<thead>
<tr>
<th>Abbreviation</th>
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<td>ANGRAU</td>
<td>Acharya N. G. Ranga Agriculture University</td>
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<td>CGRT</td>
<td>Centre for Geoinformatics Research and Training</td>
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<td>COBS</td>
<td>College of Basic Sciences, Palampur</td>
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<td>Institute of Himalayan Bioresource Technology</td>
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<td>YSP UHF</td>
<td>Dr. Tushwant Singh Farman University of Horticulture and Forestry</td>
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<td>Climate Smart Villages - Karnal. 2014. Prashanth Vishwanathan for Climate Change, Agriculture and Food Security (CCAFS). CC BY-NC-SA 2.0. Flickr.</td>
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<td>Climate Change Department, Government of Gujarat. Permission sought.</td>
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