

3.6.3 Q_nM	<p>Number of extension and outreach programs conducted by the institution including those through NSS/NCC/Red cross/YRC during the last five years(including Government-initiated programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. and those organised in collaboration with industry, community and NGOs)</p> <p>3.6.3.1: Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc. during the last five years (including Government-initiated programs such as <i>Swachh Bharat</i>, Aids Awareness, Gender Issue, etc. and those organised in collaboration with industry, community and NGOs) year-wise during the last five years</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Year</td> <td>2016-17</td> <td>2017-18</td> <td>2018-19</td> <td>2019-20</td> <td>2020-21</td> </tr> <tr> <td>Number</td> <td>40</td> <td>30</td> <td>25</td> <td>10</td> <td>15</td> </tr> </table> <p>Data to be provided for the last five years: (As per Data Template)</p> <ul style="list-style-type: none"> Name and number of the extension and outreach Programmes Name of the collaborating agency: Non- government, industry, community, with contact details <p>File description (Upload)</p> <ul style="list-style-type: none"> Reports of the event/s organized Any additional information Number of extension and outreach Programmes conducted with industry, community etc., during the last five years (Data Template) 	Year	2016-17	2017-18	2018-19	2019-20	2020-21	Number	40	30	25	10	15	12
Year	2016-17	2017-18	2018-19	2019-20	2020-21									
Number	40	30	25	10	15									

Data Template

3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years (12)

Name of the activity	Organising unit/ agency/ collaborating agency	Name of the scheme	Year of the activity	Number of students participated in such activities
Pravaah - MBA Conclave (3.6.3.A) (link)	TERI University in collaboration with India Health Organization, Apollo Tyres, Greenlight Planet and DRDO		2016-17	48
Capacity Building for Sustainable Urban Development SDGs (3.6.3.A)	HUDCO		2016-17	61
Implementing SDGs in India: Challenges and Way Forward (3.6.3.A) (link)	Sygenta Foundation for Sustainable Agriculture		2016-17	67
Workshop on Application of Thermal Energy Storage in Refrigeration and Air Conditioning	Centre of Excellence in Thermal Energy Storage		2016-17	33
Effective and Efficient Urban Water and Waste	Coca Cola		2016-17	39

Water Management for Sustainable Cities (link)				
SWASH (Save Water and Save Humanity) (3.6.3.A) (link)	USAID		2016-17	50
Workshop on Emerging Socio Economic and Environmental Challenges in Developing Countries	University of Surrey and Royal Society of Chemistry		2016-17	30
Round Table on Enhancing Policy Impact of Social Science Research in India (3.6.3.A) (link)	Think Tank Initiative (IDRC)		2016-17	18
Capacity Building Programme on Climate Change-Impacts and Responses (3.6.3.A)	Ministry of Earth Sciences		2016-17	20
ICUG - International conference on urban geoinformatics (3.6.3.A)	Map my India, DST and HUDCO		2016-17	150
Remodelling Global Cooperation to Address Global Challenges (3.6.3.A)	Global Challenge Foundation		2016-17	62
Training programme on "Impact of Ozone and other Pollutants on Crops" (3.6.3.A)	CPCB		2016-17	15
ProSPER.Net Young Researchs' School (link)	UNU IAS		2016-17	20
Winter Certificate Course on Nuclear Law (link)	Nuclear Law Association		2016-17	35
Training on Geospatial Technologies under Natural Resources Data Management	DST		2016-17	25
Worskhop on Water and Urban Initiatives	UNU		2016-17	21
GIS Day (3.6.3.A)	TERI University		2016-17	70
REtopia - M Tech Conclave "Democratizing Renewable Energy" (3.6.3.A)	1. Indian Renewable Energy Development Agency; 2. Indian Energy Exchange Limited		2016-17	55
Management Development Programme - Water Management (link)	ICEWARM		2016-17	27
Young Researchers' South Asian Symposium (3.6.3.A)	UNEP		2016-17	45
World refugee day (3.6.3.A)	Embassy of Kazakhstan		2016-17	120
A Building Learning in Sustainable Science (BLISS) School on the	UNEP		2016-17	65

3.6.3.2

theme Ensuring Sustainable Consumption and Production (3.6.3.A)				
BIOTIKOS (National Symposium on Nanobiotechnology) (3.6.3.A)	Monsanto, DBT, Sisco Research Lab., STM Journals		2016-17	116
Evaluation of Decision Support Software by Deltares, Ministry of Water Resources	River Rejuvenation	Swachh Bharat	2017-18	1
National Water Mission	Ministry of Water Resources, River Development and Ganga Rejuvenation	SSAP	2017-18	3
Promotion and conservation of the identity of lake city, Udaipur under Area based development of Smart City mission.	Udaipur Smart City Ltd. (Municipal Corporation of Udaipur)	HRIDAY	2017-18	1
Sector 43 Urban Retrofit Development	Municipal Corporation Chandigarh	Smart Cities	2017-18	1
Sewerage Management and examine its renewable uses	Municipal Corporation	Swachh Bharat	2017-18	1
Smart Elements in PAN city initiative and Electric buses in area based development	Pune Smart City Development Corporation Limited	Smart Cities	2017-18	1
Sustainable Approach to Solid Waste Management	Municipal Corporation	Swachh Bharat	2017-18	1
Mapping Of Waste Collection Points Of Zone I Of Municipal Corporation Of Gurugram & Ward Level Proposal For New Locations And Optimal Proximity Distance For Waste Collection Points Using GIS (Nagina Chawla)	Gurugram Municipal Corporation	Swachh Bharat Mission	2017-18	1
A Study Of Toilet Integration (Ti) - Bus Service And Smart Underground Bin System Under Pune Smart City Area Based Development	Pune Smart City SPV	Smart City + Swachh Bharat Mission	2017-18	1
Waste Management In And Around Dr. Ambedkar Vasahat Slum, Aundh, Pune & Solution For Solid Waste Collection Vehicle	Pune Smart City SPV	Smart City + Swachh Bharat Mission	2017-18	1
Structure Of Municipal Solid Waste Management Action Plan For North Delhi Municipal Corporation	North Delhi Municipal Corporation	Swachh Bharat Mission	2017-18	1
Assessment Of Pilot Project Of Decentralization Solid	East Delhi Municipal Corporation	Swachh Bharat Mission	2017-18	1

Waste Management Through Community Participation In Jhilmil Wards Of East Delhi				
Smart City+Swachh Bharat Mission	Pune Smart City SPV	A Study Of Toilet Integration (Ti) - Bus Service And Smart Underground Bin System Under Pune Smart City Area Based Development	2018-19	1
Smart City+Swachh Bharat Mission	Pune Smart City SPV	Waste Management In And Around Dr. Ambedkar Vasahat Slum, Aundh, Pune & Solution For Solid Waste Collection Vehicle	2018-19	1
Swachh Bharat Mission	North Delhi Municipal Corporation	Structure Of Municipal Solid Waste Management Action Plan For North Delhi Municipal Corporation	2018-19	1
Swachh Bharat Mission	East Delhi Municipal Corporation	Assessment Of Pilot Project Of Decentralization Solid Waste Management Through Community Participation In Jhilmil Wards Of East Delhi	2018-19	1
Swachh Bharat Mission	Jamshedpur Notified Area Committee (JNAC)	Integrated Solid Waste Management- Collection and Transportation at Jamshedpur Notified Area Committee (A proposed model for collection and transportation with optimized routes, and measures to incorporate informal workers in the process)	2018-19	1
Swachh Bharat Mission	East Delhi Municipal Corporation	Municipal Organic Waste Management System in Mayur Vihar Phase-I, EDMC	2018-19	1
Swachh Bharat Mission	Pune Smart City Development Corporation Limited	Solid Waste Management Plan for Pocket 11 of Aundh Ward	2018-19	1
Swachh Bharat Mission	East Delhi Municipal Corporation	Inclusion Of Rag Pickers In Municipal Solid Waste Management, Anand Vihar Ward, EDMC	2018-19	1
Smart City+Swachh Bharat Mission	Guwahati Smart City Limited	Any time water ATMs and Smart Bio-toilets	2018-19	1

		under Guwahati Smart City Mission (An qualitative assessment of the acceptance by citizens and possible interventions for increasing present level of footfalls and generating wider acceptance)		
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DVV requirement

Documents Needed

- Geo-tagged Photographs and any other supporting document of relevance should have proper captions and dates.
- Detailed report for each extension and outreach program to be made available, with specific mention of number of students participated and the details of the collaborating agency

Specific instruction to HEI

Extension activities: The aspect of education, which emphasizes neighborhood services. These are often integrated with curricula as extended opportunities intended to help, serve reflect and learn. The curriculum-extension interface has educational values, especially in rural India. Can be supplemented with Newspaper reports of events.

Avoid the following while uploading data

Events conducted for the benefit of their own students not to be included under outreach programs.

3.6.3.A.

PRAVAAH 2017 "Sustainable Innovation and Entrepreneurship"

Venue : TERI University

Start Date : 21 April 2017

End Date : 21 April 2017

It is undeniable that businesses and innovations play a vital role in shaping a country's future. Number of businesses that accept the need for sustainability is on a rise. Sustainability has become the need of the hour to keep up with the changing business environment.

TERI University is a pioneer in the field of sustainability and environment education. From its inception as a research based institute in 1974, TERI has been a constant source to provide sustainability and environment professionals for roles in consulting, policy making, comprehensive research and corporate houses. TERI has six interdisciplinary departments dedicated to energy and environment, business sustainability, natural resources, biotechnology, water studies, legal and policy making. Department of Business Sustainability has its MBA program wired around innovative ways of creating shared value for the society. Its mission is to provide an experience that equips students to implement an integrated approach to achieve business sustainability, so that the world we share thrives with a secure and green future.



3.6.3.A.

Capacity Building for Sustainable Urban Development SDG

18 April 2017

The MA-SDP programme at the Department of Policy Studies at TERI University organized a one day event titled "Capacity Building for Sustainable Urban Development SDG ". The event brought together renowned academicians, bureaucrats, representatives from industry and development organizations, faculty, and students to deliberate upon the possibilities for sustained action towards implementing Sustainable Development Goals in India.



3.6.3.A.

Implementing SDGs in India: Challenges and Way Forward

Venue : TERI University Start Date : 11 April 2017 End Date : 11 April 2017

The event was started with a welcome address by the Vice Chancellor, Dr. Leena Srivastava, who drew an analogy between the University and a four wheeler. She compared the wheels to University's administration, its engine to faculty members, its board of directors to the steering wheel, its sponsors and funding agencies to the car's accelerator and its academic programmes to the passengers. In his opening speech Dr. Jaco Cilliers (Country Director, UNDP India) emphasized that almost 35% of the goals are relevant to the Indian context and the world is looking at India with a lot of expectation in realizing the SDG goals. He summarized the 17 SDGs into 5 Ps, i.e. People, Prosperity, Planet, Partnership, and Peace, which are interconnected and interdependent on each other for the holistic achievement of SDGs. Highlighting some of the initiatives in this regard, he mentioned the rights based approach, thrust on key priorities and a focus on last mile service delivery as significant. Two panel discussions included specialists from different sectors including Mr. Nitin Desai (Former under Secretary-General, United Nations), Prof. Surinder S Jodhka (CSSS, JNU), Mr. Ibrahim H Rehman (Senior Director, TERI), Ms. Neelima Khetan (Group CSR Head, Vedanta Resources Plc), Dr. Nisha Agrawal (CEO, OXFAM) and Prof. Preet Rustagi (IHD). The panelists highlighted the necessity for integration of perspectives, need to recognize the local perspectives, recognition of interlinkages among sectors, demand-side focus in financing, addressable of historically institutionalized inequalities, problems of data hindering evidence for action, need for rights based discourse, creation of opportunities for underprivileged and marginalized, need for partnership among public, private and civil society organizations and many more issues that are at the core of SDG implementation. The second half of the day saw encouraging participation from youth in poster and debate competitions. The event concluded with cultural event and alumni get together, which charted some way forward for SDP alumni group with a common vision.



SWASH – 2017

3.6.3.A.

Venue : TERI University Start Date : 28 March 2017 End Date : 28 March 2017

The Coca Cola Department of Regional Water Studies at TERI University is organizing their annual event, SWASH (Save Water and Save Humanity) in the campus at Vasant Kunj, New Delhi on Tuesday, 28 March 2017 at 0900 hrs. The theme for this year's programme is "Water and Wastewater".



3.6.3.A.

Roundtable on Enhancing Policy Impact of Social Science Research in India

Venue : TERI University Start Date : 6 March 2017 End Date : 6 March 2017

Globally, the stream of social science research (SSR) had emerged as a major domain in the academic, policy, political as well as governance discourses, despite the popular perception that social science is far from natural and physical sciences. It has been seen that SSR not only helped in developing systematic knowledge relating to social life of human beings and the process of changes and interactions in the socio-economic sphere but also contributed to our understanding of economic, political, and social development process.

There is an inextricable link between policymaking and SSR, which needs to be addressed and moreover, it is of utmost importance to understand how SSR in India has influenced public policies and decision-making and what factors have contributed in fostering and strengthening any such association with government policies and programmes.

In general, government outlook towards social science research in India has been encouraging with two-fold objectives: one, to comprehend social, economic and administrative problems related to national development and second, to strengthen information-base to promote evidence-based policymaking. For instance, the Planning Commission of India (as well as the NITI Aayog) played a significant role in involving social scientists in policymaking. Likewise, several central government ministries and departments have established research institutes and supported research on socio-economic development and policy issues.

In this regard, supported by Think Tank Initiatives Program managed by IDRC, TERI University is organizing a roundtable conference titled "Enhancing Policy Impact of Social Science Research in India" in TERI University on 6th March 2017 from 10.30 am to 1.00 pm followed by Lunch. The main objective of the roundtable is to revisit the strength, barriers and opportunities that can further advances the contribution of social science research in informing policy making towards achieving the sustainable development goals in India.

3.6.3.A.

Capacity Building program "Climate Change--impacts and responses"

Venue : TERI University

Start Date : 2 March 2017

End Date : 3 March 2017

TERI University is organizing a MoES funded capacity building Program that aspires to address critical issues related to worrisome questions of climate change and associated critical issues. The training program intend to provide an in- depth understanding on various aspects of climate change and its implications on sustainability dimensions. Additionally, it will also provide knowledge on synergies between development goals and local climate actions and integrating climate change concerns into other areas.

Coordinators:

Dr. Kamna Sachdeva and Dr. Anu Rani Sharma

3.6.3.A.

International Conference on Urban Geoinformatics

Venue : TERI University Start Date : 22 February 2017 End Date : 23 February 2017

The International conference on Urban Geoinformatics-2017 provides a platform to share and discuss the advancements in Geo? spatial technologies in urban and related disciplines. This conference serves as a platform for researchers, professionals and students from around the world for acquiring/ disseminating knowledge, and experience in the field of Urban Geoinformatics?



Remodeling Global Cooperation to Address Global Challenges Round Table Discussion

Venue : TERI University

Start Date : 25 January 2017

End Date : 25 January 2017

The threats we face as a global community such as climate change and extreme poverty threaten our very survival. We need to re-shape our approach towards collaborations, decisions about challenges that affect everyone, everywhere, and our responses to risks that threaten our world. For this to be possible, we must first start talking and thinking freely about what kind of new frameworks must be established for the global community to be able to tackle the great global challenges that humanity is facing today, and will face in the future.

Since the issues are highly complex, there is a need for formation of cross-disciplinary teams to work jointly on more integrated solutions and for bringing together and drawing on expertise from social sectors - academia as well as business, politics and civil society.

To further facilitate such cross-disciplinary team work, TERI University with support from the Global Challenges Foundation (website:www.globalchallenges.org) is organizing a round table discussion on "Remodeling Global Cooperation to Address Global Challenges".

The Participants shall design a governance model able to effectively address the most pressing threats and risks to humanity. The governance model must also be such that it can be implemented within the foreseeable future. This requires for it to be acceptable to major states and the wider international community. A significant measure of civic acceptance is also required.

TRAINING ON GEOSPATIAL TECHNOLOGIES UNDER NATURAL RESOURCES DATA MANAGEMENT

TERI University, organized a 21-day training programme on 'Geospatial Technologies' sponsored by NRDMS, Department of Science and Technology (DST), Government of India, New Delhi. The objectives of the programme were: • To impart basic knowledge of principles and applications of Geoinformatics; • Provide hands-on training through open sources platform; • Expert lectures on environment, society, natural resources, climate change, and sustainability, identified as the key competence areas of TERI University; • Project work for 3–4 days for participants to use geospatial techniques in various domains followed by the expert lecture. During the programme, participants learnt about geospatial mapping techniques, fundamentals of GIS, mobile mapping, cartographic techniques, principles of remote sensing, Digital Image Processing (DIP), and various other applications of geospatial techniques through thematic lectures using open source platform. Participants also undertook a mini project for three days and presented their outcomes

3.6.3.A.

GIS DAY - 2016

GIS Day is celebrated on 16 November every year and is part of Geography Awareness Week. ESRI provides an international forum for users of GIS technology, thus, making the geo-spatial platform accessible to everyone. TERI University was part of this global celebration and celebrated GIS Day with great enthusiasm, receiving commendable support from ESRI India. Students of TERI University celebrated Ethnic Day wearing their traditional clothes with great zest and joy on 16 November 2016. The celebrations started with the prize distribution ceremony to felicitate the winners of Sports Meet 2016. Students organized an ethnic walk followed by musical and dance performances. The event concluded with a DJ party. The icing on the cake was the introduction of the idea no usage of paper cups on campus by the Eco Club students. First year students of the TERI University bid farewell to the outgoing students with nostalgia on 18 November 2016. It was an occasion for the outgoing students to look back at time spent on campus and the education they acquired during the period. Juniors organized a variety of fun-filled programmes for their seniors. The programme concluded with dance, food, and DJ night. 16 NOVEMBER 2016 16 NOVEMBER 2016 18 NOVEMBER 2016 The event brought together some of the esteemed people of geo-spatial platform, such as Deputy Director General of NIC, Mr. Vishnu Chandra; Wing Commander Mr. Satyam Khushwaha, PMO; and the Technical Head of ESRI India, Mr Vijay Kumar and Dr. Leena Srivastava, Vice Chancellor, TERI University. Dr. Srivastava also inaugurated the GEOMATICS Club on the same day.



3.6.3.A.

REtopia "Democratizing Renewable Energy"

Venue : TERI University

Start Date : 11 November 2016

End Date : 12 November 2016

The Department of Energy and Environment, TERI University invites you to attend the annual technical symposium REtopia. The theme of REtopia 2016 is 'Democratizing Renewable Energy'

REtopia is derived from the English word 'Utopia' referring to an ideal situation or state. The word REtopia extends this concept to the realm of energy and aims to refer to a world which empowers itself from clean energy sources & lives up to the idea of sustainable development. REtopia was started by students from Department of Energy and Environment at TERI University in the year 2011 as an annual technical conclave. The motive behind the fest is to bring together people from academics, industry and government to emphasize the need for clean technologies in techno-commercial and environmental aspects.

Renewable energy sources play a vital role in providing energy services in a sustainable manner and, in particular, in mitigating climate change. With TERI University's unique course structure we are able to excel in interdisciplinary skills, along with the opportunity to focus in specific fields.

'REtopia' is one of the prestigious fest of the university portraying successfully a variety of RE opportunities, shortcomings and remedies to address these various components of RE integration into the energy system. It provides a platform for a variety of crowd, including experts from all the various prospects, students and aspirants of RE, developers and researchers, industrialists, stake holders, policy makers, academicians etc.



3.6.3.16



Young Researchers South Asian Symposium on SDGs 2016

Venue : TERI University Start Date : 6 October 2016 End Date : 8 October 2016

The United Nations' Sustainable Development Goals (SDGs) paves the way to transform our world through sustainable development by 2030. Educational institutions play a vital role as drivers of knowledge creation, human capital development, policy research and multi-stakeholder dialogue. Therefore, it is imperative to establish a community of likeminded researchers and academics, who are working to advance research on sustainable development to strengthen policies that support the SDGs.

In light of this, TERI University and the United Nations Sustainable Development Solutions Network (SDSN) South Asia organize the annual Young Researchers' Symposium on Sustainable Development Goals (SDGs) on the sidelines of the World Sustainable Development Summit (WSDS). The first symposium was held from 5-7 Feb. 2015 alongside the Delhi Sustainable Development Summit 2015.



3.6.3.A.

BLISS 2016: Sustainable Consumption and Production Patterns

Venue : TERI University

Start Date : 18 April 2016

End Date : 22 April 2016

A Building Learning in Sustainable Science (BLISS) School on the theme Ensuring Sustainable Consumption and Production Patterns was launched on 18 Apr 2016 at TERI University in the presence of Mr Jitendra Kumar, Adviser (Natural Resources and Environment), NITI Aayog, Dr Leena Srivastava, Vice-Chancellor, TERI University, Dr Rajeev Seth, Pro-Vice Chancellor, TERI University, Dr Shaleen Singhal, Head, Department of Policy Studies, TERI University and Ms Sara Castro, Programme Officer, UNEP. The keynote address was delivered by Mr Jitender Kumar during the inaugural session. The week long programme will be held upto from 22 Apr , 2016. The BLISS School 2016 is being attended by more than 100 participants, on-campus and online, including policy planners from South Asia (Bangladesh, Nepal, Bhutan, Pakistan, Sri Lanka and India) as well as researchers, practitioners, students and academicians from India.



WORLD REFUGEE DAY – 20 JUNE 2016

WORLD REFUGEE DAY CELEBRATION IN TERI UNIVERSITY World Refugee Day was observed recently in New Delhi to recognize the contribution of forcibly displaced people around the world. On this occasion an event was organized by the office of the United Nations High Commissioner for Refugees (UNHCR) and TERI University to bring together refugees from countries like Afghanistan, Myanmar and Eritrea.

On World Refugee Day, UNHCR unveiled a new campaign, trending on social media websites as #WithRefugees, to create awareness about the problems faced by the people who are compelled to migrate from their countries of origin in the wake of unfavourable circumstances. The hour-long event at TERI University saw several refugees from Afghanistan, Myanmar and Syria share their first-hand experiences. To know more visit <http://www.indialivetoday.com/afghan-refugeenarr.../7996.html>

BIOTIKOS 2016 "National Symposium on Nano Biotechnology"

Venue : TERI University

Start Date : 31 March 2016

End Date : 1 April 2016

The Department of Biotechnology, TERI University organized BIOTIKOS 2016 at University Campus on 31 March & 01 Apr 2016. The theme for this year's event was Nano biotechnology and the event was sponsored by Department of Biotechnology, Government of India, as 'National Symposium on Nano biotechnology'. The programme aimed at creating awareness amongst students and teachers about the upcoming areas in Nano biotechnology and its application in diverse areas of science. The two-day program provided a platform for students to interact with representatives from academia, research and industry.



BLISS 2015: Winter School on Sustainability "SDG 12 - Ensuring Sustainable Consumption and Production Patterns"

Venue : TERI University

Start Date : 2 November 2015

End Date : 6 November 2015

United Nations Environment Programme (UNEP) and TERI University, New Delhi have signed an agreement under the EU funded SWITCH-Asia Programme to support learning on Sustainable Consumption and Production (SCP) among different stakeholders especially policy makers and students in India. To meet this objective, a Winter School on Sustainability is being organized in TERI University from November 2-6, 2015 under the theme - 'SDG 12 - Ensuring Sustainable Consumption and Production Patterns'.

The winter school will be conducted online as well as face-to-face and will be led by experts in the field. A certificate of participation will be awarded to all participants.





REtopia 2015

Venue : TERI University

Start Date : 11 September 2015

End Date : 12 September 2015

The TERI University organized its annual technical symposium REtopia on 11 and 12 September 2015 on campus. Dr. Ajay Mathur, Director General, Bureau of Energy Efficiency (BEE) was the Chief Guest. While addressing the inaugural session he stressed on the need for capacity building and skill development in the renewable energy sector.

A Panel Discussion on the theme "Can India become a renewable energy superpower?" on Day I highlighted the strengths as well as the challenges faced by the renewable energy market. Interactive sessions on Day I and II gave students an opportunity to express their views with professionals from the industry and government alike and helped them achieve a holistic understanding of renewable energy sector.

REtopia 2015 had several parallel events like Trouble Shooting Renewable Energy Problems, Renewable Energy Design (RED) Challenge, Poster Presentation, Group Discussion and Debate, Quiz, and Sustain ovation, which were both informative and fun. Day II ended with the inauguration of the 48KWp solar plant in the TERI University campus by Dr. Chandan Mitra, Member of Parliament and Editor and Managing Director of The Pioneer.

A cultural event was organized on both the days to help participants rejuvenate after a long day of hard work.



3.6.3.A.



BIOTIK 2015



3.6.3.23

3.6.3.A.



Pravaah 2015 - Annual Students' conclave

Venue : TERI University

Start Date : 11 April 2015

End Date : 11 April 2015

Summary

TERI University brings to you PRAVAAH, an annual students Conclave organized by the Department of Business Sustainability. PRAVAAH aims to sensitize students about the increasing need to incorporate sustainable practices in business, development and environment. The theme is "One Earth One Chance". This event will provide a platform for the future minds of our country to express their views and concerns on issues involving implementation of sustainability.

Debate:

In the opinion of the house, investment for sustainability is a wasteful expenditure.

Presentation:

- Business, Development and Environment
- Sustainability in 21st century

Business Quiz

(Related to the issues of contemporary business and sustainability)

Young Researchers' South Asian Symposium on Sustainable Development February 2015

The first Young Researchers' South Asian Symposium on Sustainable Development 2015 invited abstracts submission mainly from doctoral and post-doctoral researchers relating to varied aspects of sustainable

3.6.3.A. development, such as resource use and management, natural human systems, green economy, low carbon growth, policy and governance, environment and development, sustainability engineering and biotechnology.

The Symposium received over 40 abstract submissions from leading academic institutions such as IIT Madras, S.V.T. College of Home Science, Indian Agricultural Research Institute, Lady Irwin College, Indian Institute of Science Bangalore, Aligarh Muslim University, Guwahati University, N M I M S Mumbai, Lady Doak College Madurai, C-USE IIT Bombay, Central University of Rajasthan Kishangarh, Birla Institute of Technology and Sciences, Jawaharlal Nehru University, Amity University, MANIT Bhopal and TERI University. The research papers were under the key thematic areas of: Water, food security, agriculture and public health; Sustainable cities and urban systems including waste management; Business sustainability, sustainable policies and education for sustainable development; Natural resources management and renewable energy; and, Human ecosystem interactions and climate change.

REtopia 2014

Venue : TERI University

Start Date : 17 November 2014

End Date : 18 November 2014

REtopia 2014- an Annual Technical Symposium is being organized by the Department of Energy and Environment on the 17th and 18th of November at TERI University. It will be an event that will bring together minds from academics, industry and the government.

Issues concerning energy and environment will be discussed through various events with the highlight being a Panel Discussion on the topic "How to Make India a Renewable Energy Hub".

Students from various backgrounds of energy and environmental studies are invited to be a part of REtopia 2014.

Two-day training programme on Outdoor/Indoor Air Quality Monitoring

Venue : TERI University

Start Date : 6 November 2014

End Date : 7 November 2014

3.6.3.A. Training programme on outdoor / indoor air quality monitoring was organized from 6-7 November 2014 by the TERI University with support from TSI India. Participants from various universities, corporate and government institutes attended the programme.

The aim of the training programme was to provide a common platform to various experts working in the area of air pollution to get hands-on training on various advanced particle monitoring instruments. The programme helped students and researchers to understand the basics of air quality monitoring techniques and the major challenges associated with advanced air quality monitoring.

PRAVAAH 2014 annual students conclave on Business Sustainability

Venue : TERI University

Start Date : 5 April 2014

End Date : 5 April 2014

Like last year, the Department of Business Sustainability organized its annual students' conclave PRAVAAH on 5th April, 2014. It was a day long programme, divided into three sessions.

After inauguration a panel discussion on 'Business Ethics and Sustainable Development' was held. The speakers were Mr. Asim Parekh of Coca Cola, Mr. Pranshu Singhal of Nokia and Mr. Madhur Kalra from Tata Tele Services. The second session was for competitive presentations by students of Delhi NCR undergraduate colleges. Eight teams were finally shortlisted for the competition. The team from Bharati Vidyapeeth College of Engineering won the first prize.

The post lunch session witnessed an exciting debate, the motion being: 'In the opinion of the House, in the 21st century's business, sustainability remains the touchstone of success.' The debate was won by the team from Ramjas College.

BLISS 2014 - Summer School on Sustainability

Venue : TERI University

Start Date : 10 March 2014

End Date : 14 March 2014

The second Summer School on Sustainability was held from March 10-14, 2014. The school highlighted the inter-linkages between environment, economy and sustainability and discussed different policies and solutions required in both the local and global context.

3.6.3.26

3.6.3.A. The major themes covered included: Sustainable Development Challenges, Sustainability Science: Applications and Challenges, Global Environmental Change, Social and Ethical Approaches to Sustainability, Regulatory and Policy Drivers, and Career Opportunities in Sustainability.

The program was delivered face-to-face but was also broadcast through webinar mode. Around 50 face-to-face participants and 142 online participants registered for the school. The number of international students registered for the program was 16. The participants comprised undergraduate and postgraduate students from 15 different states and from commerce, engineering, basic sciences, business studies and social sciences streams. Besides these, a few participants from the corporate sector, researchers and doctoral students also joined.

Training Course on "Basics of Satellite Meteorology and Environmental Application"

Venue : TERI University

Start Date : 26 March 2014

End Date : 28 March 2014

TERI University in association with India Meteorological Department (IMD), New Delhi organized this 3 day joint - training workshop from 26 - 28th March, 2014. The workshop dealt with fundamental aspects of satellite meteorology and its applications in understanding meteorological phenomena and environmental and climate processes.

The major themes covered included: Multispectral Satellite Applications for Environmental and Meteorological Applications, Applications of Satellite Derived Products in Cyclone Intensity Estimation, Applications of INSAT - 3D Satellite, Applications of Satellite Meteorology in Atmospheric Pollution and Trace Gases Monitoring.

The workshop was attended by 20 participants from diverse backgrounds, including four Indian Air Force officers, scientists from National Physical Laboratory, academicians, researchers, and students. The workshop concluded with a visit to and lab sessions at IMD.

REtopia 2013

Venue : TERI University

Start Date : 24 October 2013

3.6.3.27

End Date : 24 October 2013
3.6.3.A.

Summary

The annual technical event organized by the Department of Energy and Environment at TERI University. A platform for academicians, renewable energy (RE) industry professionals and policy-makers to bring out the importance of renewable energy and sustainable development in today's world. Leapfrogging, on the success of REtopia2012, this year, REtopia2013 will bring new events like Head to Head, aimed at active audience interaction with delegates and exciting events for students.

REtopia 2012

Venue : L 001

Start Date : 11 October 2012

End Date : 11 October 2012

Summary

The second edition of National level interface conducted by M Tech (Renewable Energy Engineering and Management) on behalf of Department of Energy and Environment is scheduled on 11 October 2012. It will bring together the Renewable Energy Industry, the Academia, the Government and Financial Institutions.

The event provides a platform for interaction between students, academicians and professionals about the latest developments in the Renewable Energy Industry.

SYNOD 2012 M.A.-SDP Event

Venue : L - 001 and Amphi theatre, TERI University

Start Date : 17 February 2012

End Date : 17 February 2012

Summary

SYNOD' 12 is a student event organized by the students of MA-SDP (Sustainable Development Practice). The theme will be - 'Practicing Sustainability- from Utopia to Reality'.

The event aims to bring together industry leaders, policy makers, academicians, researchers, and students involved in the field of development to discuss and ideate on ways to achieve sustainable development.

The event will open with a keynote speech by Dr Pronob Sen (Senior Advisor, 12th Five Year Plan, Planning Commission) followed by a panel discussion with eminent practitioners.

A-7

S. No.	Name	Registration	Organisation	Email Id	Contact No	Sign
1	CHANDANA AMAN	Business Plan	TER1	Chandana.sasidharsan@ aman.aggrescoal@	9544802077	Amf
2	SAHANA.L	Business / Contest Plan / Quiz	TER1	sahana.l@	9791588057	l.sahana
3	AISM RIAD ARIF	Bus contest plan CEO / Quiz	South Asian University	riad.arif1952@ gmail.com	92050096 32	Arif
4	MAFRUZA SULTANA	Bus new contest Plan / Quiz	South Asian University	mafruzar@students.sau. ac.in	70551644 80	Mafruz
5	MO. Rubel Nida	"	"	Rubelmaimud346 @gmail.com	750518 0667	Rubel
6	NIAMOT ALI	Corporate Quiz Photography / Contest	"	niamot. emayet @ gmail.com	7650227	Niamot Ali
7	ZAHID OSMANI	Corporate Quiz	SAU	zahid.osmani@sauniversity.edu.pk	99 30 20 20	Zahid



PRAVAAH
21st April 2017

EVENTS

Business
Business
Plan

S. No.	Name	Designation	Organisation	Email Id	Contact No	Sign
8						
9						
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12						
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15						
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17						

EVENTS

S. No.	Name	Designation	Organisation	Email Id	Contact No	Sign
18	RUBEL MAHMUDA	Business Plan	SOUTH ASIAN UNIVERSITY	rabelmahmud346@gmail.com	7503180667	Rubel
19	Ayush Rana	Business Plan, Corporate Quiz, CEO Hunt, Market Maghem	FDDI	ayushrana2008@gmail.com	7888062878	Ayush
20	Soudipon Maistry	Corporate Quiz, CEO Hunt	TERI UNIVERSITY	soudipon.maistry@students.teri.edu.in	9871132058	Maistry
21	Swati	Corporate Quiz & Market Maghem	Jamia Hamdard	swatisingh13794@gmail.com	9990007238	Swati
22	Parth	Business Plan, CEO Hunt	BCAS, DU	dave.parth52@gmail.com	9711343001	Parth
23	Aushutosh	CEO Hunt, Business Plan	BCAS, DU	Alpha.to.h@wconnect.org	9910335555	Aushutosh
24	Shubham	CEO Hunt, Business Plan	BCAS, DU	mellatno.shubham098@gmail.com	9310074759	Shubham
25	Saurobh Bani	Corporate Quiz, CEO, Market Maghem	FDDI - B School (Ministry of Commerce)	saurobh saurobhbania@gmail.com	9871021650	Saurobh Bani
26	Sanchit Kulkarni	Corporate Quiz, CEO, Market Maghem	FDDI - B School	Kulkarni.sanchit29@gmail.com	9011385485	Sanchit
27	Kaartik	Market Maghem	FDDI	Kaartik.divekar@gmail.com		Kaartik

Ambassador

Saurobh Bani
Campus Ambassador

EVENT

S. No.	Name	Designation	Organisation	Email Id	Contact No	Sign
28	ANIMESH	CORPORATE QUIZ	DTU	animesh.9385@gmail.com	8130426205	<u>Animesh</u>
29	Zeba Zosairah Ahsan	CORPORATE QUIZ	TERI UNIVERSITY	zba.ahsan@students.teriuniversity.ac.in	995285619	<u>Zeba Ahsan</u>
30	Sonali Agray	4	" "	,	8800891394	<u>Sonali</u>
31						
32						
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35						
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EVENTS

S. No.	Name	Designation	Organisation	Email Id	Contact No	Sign
38	Al Mahmud	Student CEO Hunt Business Plan	South Asian University	mahmud_s1971 @yahoo.com	9560198 774	Al Mahmud
39	Md. Shohel Rana	Bussnessplan CEO Hunt.	South Asian University	romashohel121990@ gmail.com	70530797 23	Shohel
40	UDIT PALIWAL	Business plan corporate quiz	FDDI	upalwal8@gmail.com	704254698	Udit
41	TARISHI KAUSHIK	CORPORATE QUIZ	TERI UNIVERSITY	tarikaushik@gmail.com	9810072664	Tarishi
42	AASHIMA BHANDARI	CORPORATE QUIZ	TERI UNIVERSITY	Aashima.bhandari.90@gmail.com	886078392	Aashima
43	JNANA BHASKAR BAO	Business Plan	TERI UNIVERSITY	jnana.rao@studenti.	9545471837	Jnana
44	HARSHI GANAPATHI	Business Plan	TERI UNIVERSITY	harsh.ganopathi@studenti. tr	9500770342	Harshi
45	HARSHA	CEO Hunt	TERI UNIVERSITY	harsha.na@studenti. teriniversity.ac.in	971719661	Harsha
46	Noomadeswar	B-plan, QUIZ, CEO HUNT	ICS	noomadeswar189@gmail.com	783591511	Noomadeswar
47	Samrath Singh Chauhan	Quiz, Theme Photography	TERI	Samrathsingh11@gmail.com	9406852927	Samrath

EVENT

S. No.	Name	Designation	Organisation	Email Id	Contact No	Sign
48	ANKIT	QUIZ	DTU	ankit.dtu5@gmail.com	7503065765	
49	AKUL VASHISHTHA	CEO HUNT	TERI	akulvashistha.students@teriuniversity.ac.in	7073067011	
50	GANDHAR UKR DVE	Photography		ukr.dve.gandhar@gmail.com	9763300743	
51	Bramhdeep	Quiz	DTU	bramhdeep.jakhar@gmail.com	9899391326	
52	Aditya	Quiz	DTU	aditya.kubraj81@gmail.com	9899150985	
53	Prantik Mitra Akshay	Quiz CEO Hunt	TERI U	prantik.mitra@students.teriuniversity.ac.in	9654005586	
54	Prantik Akshay	Quiz	TERI U	akshay-shandiga@students.teriuniversity.ac.in	9871083894	
55	Rashmi	Quiz	"	Rashmikubranjan@gmail.com	8105724706	
56	Sneha	Quiz	"	Sneha.hanidas@students.teriuniversity.ac.in	98719880610	
57						

EVENT

S. No.	Name	Designation	Organisation	Email Id	Contact No	Sign
58	Shatabdi Singh	Corporate quiz	IPCW	Shatabdi singh12345@gmail.com	9873716910	
59	Shubham Madam	"	Sheheed Bhagat Singh College		9911875193	
60	Nikhil	CEO market myan	Shyam Lal College	Wlclit7@gmail.com	9853065181	
61	Jat'm	CEO Hunt Market myan	SCMD Khalisa		99712555	
62	Moksh	CEO Hunt Market myan	"		7206699215	
63	Anjita Ray	True Photography CEO Hunt	Sri Venkateswara College	anjitara7vey@gmail.com	9968014001	
64	RUDRA PRATAP RAOU	Ph.D. CEO Hunt	University of Delhi	rudrapratap00@gmail.com	991405185	
65	SANTOSH KUMAR RAPPU	PUD	DOTIMOT	RESEARCH KUMAR PUD Egn	98889985	
66	Akshaya R	CEO Hunt Ph.D. presen. + market myan	TERI	akshaya_r@students.teriniversity.ac.in	8596800588	
67						

EVENT

S. No.	Name	Designation	Organisation	Email Id	Contact No	Sign
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Building Capacity for Sustainable Urban Development: SDG 11

Students and faculty members from
Amity School of Architecture and Planning, Amity University)
(6th April 2017)

Timings	Session	Speakers
10:30 – 11:00	Registration	
11:00 – 11:15	Welcome Address Sustainability Mission: TERI University Video Clip	Dr. Rajiv Seth Pro-Vice Chancellor, TERI University
11:15 – 11:50	SDG11 and Sustainable Urban Development (SUD)	Dr. Shaleen Singhal Head, Department of Policy Studies
11:50 – 12:20	Built environment and transport for SUD	Mrs. Deepty Jain Lecturer, Department of Policy Studies
12:20 – 12:50	Sustainable Housing	Dr. Abhijit Datey Assistant Professor, Department of Policy Studies
13:00 – 14:00	Lunch Break	
14:00 – 15:00	Case study tour of TERI University	Mr. Kamal Sharma Manager - Academic Administration

PROGRAMME SCHEDULE

VENUE: TERI UNIVERSITY CAMPUS
DATE: 11th APRIL 2017
9.30 am- 9.40 am Welcome Address Dr. Leena Srivastava, Vice Chancellor, TERI University
9.40 am to 10.30 am Keynote Speech: Persisting Inequalities and SDGs Speaker: Dr. Jaco Cilliers, Country Director, UNDP India
Panel Discussion 1 : Understanding challenges in implementing SDGs
10.30 am- 11.45 am Speakers <ul style="list-style-type: none"> ▪ Harmonizing Institutions: Mr. Nitin Desai, Former Under Secretary-General, United Nations ▪ Financing SDGs: Mr I H Rehman, Senior Director, TERI ▪ Transformation and Inclusion: Professor Surinder Jodhka, CSSS, JNU
11.45 am to 12.00 pm- Tea Break
Panel Discussion 2 : SDGs in practice
12.00 pm to 1.15 pm Speakers <ul style="list-style-type: none"> ▪ Research Institutes: Professor Preet Rastogi, IHD, New Delhi ▪ INGO/NGO: Ms. Nisha Agrawal, CEO, OXFAM India ▪ CSR: Ms. Neelima Khetan, Group CSR Head, Vedanta Resources Plc & Vice President, CSR, Hindustan Zinc Limited
1.15 pm to 1.20 pm: Vote of thanks to panelists- Dr. Rajiv Seth
1.20 pm to 2.00 pm: Lunch break
2.00 pm- 2.45 pm: Thematic Poster presentation "Innovative Solutions to Sustainability Challenges"
2.45 pm- 4.00 pm: Student Debate & Prize distribution- Capt. Pradeep Padhy
4.00-4.15: Tea Break
4.15 pm to 5.45 pm: Cultural event and MA-SDP Alumni get together

3.6.3.B.

3.6.3.40



Workshop
On
Application of Thermal Energy Storage in Refrigeration and Air-Conditioning

Centre of Excellence in Thermal Energy Storage, TERI University

Plot No. 10 Institutional Area, Vasant Kunj, New Delhi - 110 070

Date 28th April 2017 Time: 10:00 am – 02:30 pm

Centre of Excellence in Thermal Energy Storage (CoE-TES) established under the FAST scheme of the Ministry of Human Resource Development, Government of India is going to organise a workshop on **Application of Thermal Energy Storage in Refrigeration and Air-Conditioning** on 28th April 2017 at TERI University. Agenda of the workshop is attached.

The aim of the centre is to become one of the leading research and education centres in the area of thermal energy storage. The centre is also indulging in developing market ready products to enhance the penetration of TES based systems in India and is engaged in collaboration with several industrial and research organizations.

Objectives

The main objectives of the workshop are:

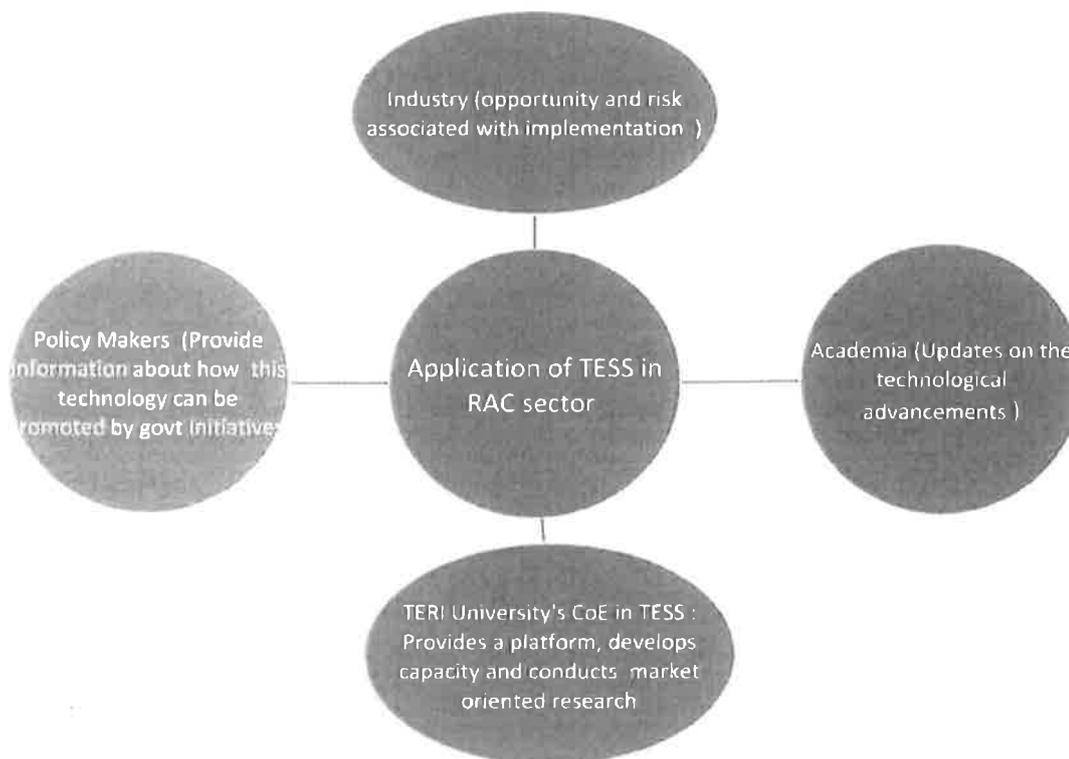
- To bring all stakeholders associated with the promotion of this technology together in India.
- Discussion about the latest development in the field of thermal energy storage for the RAC sector.
- To find out the opportunities and requirements associated with the growth of thermal energy storage sector by discussion in detail.
- To provide a platform for the different stakeholders to forge mutually beneficial collaborations.

India has witnessed an unprecedented growth in emissions from the RAC sector. 387 Mt of carbon emissions are produced by the RAC sector every year in India and this number is soon going to cross 1200 Mt by 2030. According to ACREX India 2017, the Indian HVAC market is small compared to global scale, but is growing much faster. Between 2010 and 2019 (forecast), the global market is expected to achieve 5.6% compounded annual growth rate (CAGR). During the same period, the Indian market is poised for CAGR of 9.16%, outperforming the global market. While the Indian population at 1.25 billion is 17.5% of the global population, the Indian HVAC market at USD 2.74 billion is just 2.7% of the global market and is growing at 9.16% CAGR. The energy consumption growth rate for commercial building sector is noted 9.75% and

3.6.3.B.

for domestic sector, it is 9.88% in 2015-16 over 2014-15. The more growth in domestic sector is due to the rapid increase in the use of Air Conditioning in India.

Use of thermal energy storage systems can improve the performance of HVAC units by storing cold. They can also be integrated with passive cooling systems (i.e earth air tunnels) to reduce the cooling load of buildings drastically. It also allows for the functioning of thermally driven cooling systems like vapour absorption cycle by solving the problem of intermittency and variable input associated with solar, biomass, waste heat.



A few ventures like Coolelectrica, Tessol, Ecozen, Pluss Advanced Technologies, Inficold, Cristopia etc are utilizing the concept of thermal energy storage to provide cooling solutions in the agriculture and cold storage industry in India.

The workshop would be attended by prominent people from academia, industry and government. Proceedings of the workshop will be available on TERI University website for easy access. This workshop will be followed up with conferences and seminars to increase awareness about application of CTES in the RAC sector.



USAID Funded Third Summer School 2017 on

Effective and Efficient Urban Water and Wastewater Management for Sustainable Cities

21-23 June, 2017

Venue: TERI University, New Delhi

Summer School Brief

The WASH summer school is an initiative to strengthen the capacities among senior and mid-level officials from Urban Local Bodies (ULBs), Infrastructure related departments like public works and public health and planning and other stakeholders who are involved in Water Sanitation and Hygiene (WASH). The third summer school is being organized by TERI University with the support from United States Agency for International Development (USAID) and Coca Cola Foundation and the theme for this year is 'Effective and Efficient Urban Water and Wastewater Management for Sustainable Cities. India's urbanization has put a great stress on the water and sanitation utilities and there is a huge challenge in front of working professionals within the sector for completing the targets put forward by the Government of India under the Swachh Bharat Mission (SBM). Therefore, this summer school is conceived as a platform for sharing advanced knowledge pertaining to innovative technological and institutional solutions. It represents a unique avenue to directly interact with the experts, practitioners and academics in field.

This summer school involves exposure to cases which are termed as good practices in urban water supply and sanitation, policy orientation, sessions on RS/GIS based planning tools and techniques for water supply, and sanitation mapping. The talks would be delivered by experts and practitioners in the field. The summer school also includes a site visit to Reed Bed Technology based Decentralised Septage Management system to understand the specifics regarding practical implementation of technologies.

Programme Highlights

- Unique opportunity to engage with multiple stakeholders in urban water and wastewater management, across academia, government and industry. .
- Comprehensive lectures including discussions and analysis of cases, technology solutions, interaction and experience sharing with key stakeholders, participants.
- Experiential learning through a field visit on solution-oriented learning for decentralized wastewater management.

3.6.3.B.

Learning Objectives

On completion of this summer school, the participants are expected to;

- Gain advanced knowledge from a spectrum of good practices across water supply and waste water management sector and understand different technological and institutional approaches for effective management.
- Gain perspective on application of innovative tools and techniques for better planning and implementation and get oriented towards new policy dimensions.
- Comprehend city specific strategies and upcoming challenges through peer learning from other city officials and discussion of cases.

SWASH- Save Water and Save Humanity**28 March 2017**

Time	Sessions
09:00 am – 10:00 am	Registration
10:00 am – 10:45 am	Inaugural Session <ul style="list-style-type: none"> • Lighting of Lamp • Welcome address –Dr Rajiv Seth, Pro Vice Chancellor, TERI University • Inaugural Address- Prof Arun Kansal, Dean, Research and Relationships & HoD, Department of Regional Water Studies, TERI University • Special Address – Mr. Anand Rudra, Senior Project Management Specialist WASH, USAID • Keynote address – Ms. Shubha Sekhar, Director & Head CSR & Sustainability, Coca-Cola India & South West Asia • Vote of Thanks – Ms. Ranjana Ray Chaudhuri, Lecturer, Department of Regional Water Studies, TERI University
10:45 am – 11:15 am	Group Photo & Tea
11:15 am – 11:30 am	Quiz Preliminary round
11:30 am – 12:00 noon	Poster presentation Theme - Why Waste Water?
12:00 noon- 01:00 pm	Quiz Final round
01:00 pm – 01:45 pm	Lunch
01: 45 pm – 03:15 pm	Technical Discussion <i>“New paradigm in integrated water and wastewater management for sustainable urban habitat”</i> <ul style="list-style-type: none"> • Mr. Romit Sen, Associate Director - Rivers, Wetlands and Water Policy, WWF India • Mr. Anshuman, Associate Director, Water Resources Division, TERI • Mr. Prashant Pastore, Senior Programme Manager, Solidaridad- South & South East Asia • Ms. Ranjana Ray Chaudhuri, TERI University (Moderator)
03:15 pm – 03:30 pm	Tea
03:30 pm – 04:15 pm	Story Writing <ul style="list-style-type: none"> • On the spot
4: 15 pm onwards	<ul style="list-style-type: none"> • Treasure hunt • Tug of war
5: 45 pm	<ul style="list-style-type: none"> • Prize distribution • Vote of Thanks

3.6.3.B.



**UK-India Workshop on
Emerging Socio-economic and Environmental Challenges in Developing Countries
TERI University, New Delhi, India
10 March 2017**

Scope

Through this workshop, we would like to understand and identify the socio-economic and environmental challenges in the context of ODA countries like India, both in rural and urban settings with an aim of improving the overall quality of life. The workshop will be of interest to researchers and decision-makers concerned with these, and related areas.

Research focus areas

Clean air, Clean Water, Clean Energy, Urban/Rural Living, Environmental Sustainability, Socio-economic development

Organisers

Dr Prashant Kumar
University of Surrey (UK Chair)

Prof Suresh Jain
TERI University (India Chair)

09:00 – 09:30	Arrival and Registration with Refreshments
09:30 – 09:40	Welcome and Introduction by Dr Leena Srivastava (Vice Chancellor, TERI University)
09:40 – 09:50	Opening Remarks Dr Prashant Kumar , Reader, Department of Civil and Environmental Engineering, University of Surrey, UK Prof Suresh Jain , Professor & Head, Department of Energy and Environment, TERI University, New Delhi
09:50 – 11:30	Session I – Chair, Dr Prashant Kumar
09:50 – 10:00	Dr Prashant Kumar , Reader, Department of Civil and Environmental Engineering, University of Surrey, UK (Air)
10:00 – 10:10	Prof Suresh Jain , Professor & Head, Department of Energy and Environment, TERI University, New Delhi (Air)
10:10 – 10:20	Dr Devendra Saroj , Assistant Professor, Department of Civil and Environmental Engineering, University of Surrey, UK (Water)
10:20 – 10:30	Prof Prateek Sharma , Professor and Dean (Academics), Department of Regional Water Studies, TERI University, New Delhi, India (Water)
10:30 – 10:40	Prof Michele Louise Clarke , Associate Pro-Vice Chancellor (Global Engagement) Asia-Pacific, School of Geography, University of Nottingham, United Kingdom (Urban Development)
10:40 – 10:50	Dr Shaleen Singhal , Associate Professor and Head, Department of Policy Studies, TERI



	University, New Delhi, India (Urban Development)
10:50 – 11:00	Mr Max Sugarman , External Relations Executive, Institution of Civil Engineers, London, UK (Energy, Transport, Waste and Resource Management)
11:00 – 11:10	Dr Atul Kumar , Associate Professor, Department of Energy and Environment, TERI University, New Delhi (Energy)
11:10 – 11:20	Mr Rajesh Parishwad , The Royal Society of Chemistry
11:20 – 11:30	Dr Anil K Haritash , Assistant Professor, Delhi Technology University, Delhi (Bioremediation)
11:30 – 11:40	Prof Surender Kumar , Professor, Delhi School of Economics, Delhi University, New Delhi, India (Environmental Economics)
11:40 – 12:00	Tea-Coffee and Networking
12:00 – 13:30	Session II – Chair, Dr Shaleen Singhal
12:00 – 12:10	Dr Sandeep Pathak , IIT Delhi (Solar Energy)
12:10 – 12:20	Dr Pooja Arora , Associate Fellow, TERI (Biomass energy and emissions)
12:20 – 12:30	Prof Arun Sharma , Professor, Delhi University (Medical)
12:30 – 12:40	Mr. Anirudh Yadav , Director Sukriti Foundation, IIT Roorkee (Energy Neutral Technology)
12:40 – 12:50	Dr Raja Chaudhary , IIT Roorkee (Sustainability/circular economy)
12:50 – 13:00	Mr Sunil Mittal , MIP, Inventor, Delhi (Innovative Environmental Solutions)
13:00 – 14:00	Lunch and Networking
14:00 – 15:30	Session III – Identifying Challenges Chairs – Prof Michele Louise Clarke & Dr Devendra Saroj Breakaway session and presentation by each group representative
15:30 – 16:00	Tea-Coffee and Networking
16:00 – 17:00	Session IV – Identifying Solutions Chairs – Dr Prashant Kumar & Prof Suresh Jain Breakaway session and presentation by each group representative
17:00 – 17:30	UK-INDIA Collaboration / Opportunities
18:00 – 20:00	Drinks Reception and Networking Dinner

Important Notes for Speakers

Each speaker is kindly requested to have maximum 3 slides, aiming to finish in 5 minutes. Slides could include: (i) who they are, (ii) what are their research interests, and (iii) which areas/topics are their interests of future collaboration.

Workshop webpage

The registration is free of charge.

Please visit this webpage for further information: <http://www.surrey.ac.uk/workshop/>

Venue details

Conference Hall DR. SWARUP DUTTA
ROUNDTABLE

on

Enhancing Policy Impact of Social Science Research in India

Date: 6 March 2017, Venue: TERI University Seminar Hall

Globally, the stream of social science research (SSR) had emerged as a major domain in the academic, policy, political as well as governance discourses, despite the popular perception that social science is far from natural and physical sciences. It has been seen that SSR not only helped in developing systematic knowledge relating to social life of human beings and the process of changes and interactions in the socio-economic sphere but also contributed to our understanding of economic, political, and social development process.

There is an inextricable link between policymaking and SSR, which needs to be addressed and moreover, it is of utmost importance to understand how SSR in India has influenced public policies and decision-making and what factors have contributed in fostering and strengthening any such association with government policies and programmes.

In general, government outlook towards social science research in India has been encouraging with two-fold objectives: *one*, to comprehend social, economic and administrative problems related to national development and *second*, to strengthen information-base to promote evidence-based policymaking. For instance, the Planning Commission of India (as well as the NITI Aayog) played a significant role in involving social scientists in policymaking. Likewise, several central government ministries and departments have established research institutes and supported research on socio-economic development and policy issues.

In this regard, supported by Think Tank Initiatives Program managed by IDRC, TERI University is organizing a roundtable conference titled "***Enhancing Policy Impact of Social Science Research in India***" in TERI University on 6th March 2017 from 10.30 am to 1.00 pm followed by Lunch. The main objective of the roundtable is to revisit the strength, barriers and opportunities that can further advances the contribution of social science research in informing policy making towards achieving the sustainable development goals in India.

Roundtable on	
Enhancing Policy Impact of Social Science Research in India	
Date: 6 March 2017, Venue: TERI University Seminar Hall, Time: 10.30 am -1.00pm	
TIME	PROGRAMME
10:00am-10:30am	Tea
10:30am-10:40am	Welcome address Dr Rajiv Seth, Pro-Vice Chancellor, TERI University
10:40am-11:00am	Inaugural address by Prof. Surinder Jodhka, JNU
11:00am-12.30 pm	
Discussants	Moderator: Dr. Samar Verma, Think Tank Initiative Program <ol style="list-style-type: none"> 1. Dr. Swarup Dutta, TERI University, New Delhi 2. Prof. Alka Acharya, Director, Institute of Chinese Studies, New Delhi 3. Prof. Sanghamitra Archarya, Director, IIDS, New Delhi 4. Prof. Ragini Sahay, GCET, Noida 5. Dr. Satyaki Roy, ISID, New Delhi 6. Ms Tania Friederichs, Delegation of the European Union, New Delhi 7. Dr L N Venkataraman, TERI University 8. Dr S Veeramani, Jamia Milia Islamia, New Delhi
12.30-1.00 pm	Discussion
1:15 pm onwards	LUNCH



DELEGATES



INTERNATIONAL CONFERENCE FOR URBAN GEOINFORMATICS
22nd - 23rd February, 2017

S. No.	Name	Designation	Institute/Organisation	Email Id	Contact No	Signature
1	Bijon Chatterjee	Asst. Dir.	MapmyIndia			
2	S. S. Anantkumar	Head - Remote Sensing	GIS Consultant			
3	V. Krishna Kumar	Chief Scientist	GIS Consultant	1770031@NIC.IN	9880884003	[Signature]
4	Pravati Suman	Asst.	GIS	sumat@nic.in		[Signature]
5	Shishir Kumar	VP	MapmyIndia	shishir.kumar@mapmyindia.com		[Signature]
6	Dr. Raja Chakrabarty	Asst. Consultant (GIS)	National Disaster Management Authority	chakrabarty@ndma.gov.in	9999106925	[Signature]
7	Dr. Anjana Vyas	Professor	CEET University, And	anjana.vyas@ceet.ac.in	9982532284	[Signature]
8	Shashi Kumar	Consultant (GIS)	ISB, Varanasi	120shashi@gmail.com	9953125229	[Signature]
9	Vinod Kumar	Consultant (GIS)	Dalhi Jail Board	vinodkumar77@gmail.com	999824997	[Signature]
10						
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Dr. R. SETH
Ms. RANJANA SAIKIA
Dr. LEENA

"Remodelling Global Cooperation to Address Global Challenges"

Round Table Discussion

**TERI University
Wednesday, January 25, 2017**

Draft Agenda

9:30 am	Registration
9:45 am - 11:15 am	
Welcome Address	Dr Leena Srivastava, Vice Chancellor, TERI University
Introductory Address	Carl Lindgren, Senior Advisor of the Prize Competition, Global Challenge Fund (15 min)
Keynote Address	Ambassador Shyam Saran, Chairman, Research and Information System for Developing Countries (RIS), New Delhi
Panel discussion	Mr R R Rashmi, Special Secretary, Ministry of Environment and Climate Change, Government of India Dr Ashok Khosla, Chairman, Development Alternatives and Member, Board of Management, TERI University Dr Kirit Parikh, Chairman IRADe, New Delhi Prof. Dipankar Gupta, former Professor, Jawaharlal Nehru University and Member, Board of Management, TERI University
11:15 am	Tea/coffee
11:30 am	Open discussion
1:00 pm	Concluding remarks
1:15 pm	Lunch

3.6.3.B.



**Cross-CARIAA Dialogue on Economics of adaptation:
Setting agenda for incremental and transformative change**
9-13 January 2017, TERI University, New Delhi

AGENDA (as on 3 January 2017)

	9 January	10 January	11 January	12 January	13 January
Morning					
09:00	<p>INTRODUCTION Moderator: Manish</p> <p>Opening Address:</p> <ul style="list-style-type: none"> LeenaShrivastava, TU VivekDham, EU Anindhya Chatterjee, IDRC 	<p>MIGRATION Moderator: Amir Bazaz</p> <p>Panel Discussion - Framing 'Migration' within CARIAA:</p> <ul style="list-style-type: none"> TuhinGhosh, DECCMA Chandni Singh, ASSAR South Asia <p>Interactive learning session, titled, 'The Changing Nature of Rurality: Reframing the Discourse on Migration and Commuting'</p> <ul style="list-style-type: none"> Prof S. Chandrasekhar (IGIDR) ShriyaAnand, IIHS Amir Bazaz, IIHS <p>With inputs from AditiSurie, IIHS and Jyoti K, IIHS</p>	<p>Dialogue with ENTREPRENEURS Moderator: Manish</p> <ul style="list-style-type: none"> JaideepSrivastava (NABARD) G.C. Shrotriya (IFFCO-Kisan) SurinderMakhija (Jain Irrigation) ElangoRangaswami 	<p>SURVEYS / EXPERIMENTAL ECONOMICS Moderator: Amir Bazaz</p> <ul style="list-style-type: none"> UlkaKelkar, ATREE (Behavioral Economics, 30') Upasana Sharma, IITD (RCTs, 30') Prof Martine Visser, UCT (Economic experiments and tying up the earlier discussions, with sharing of some examples, 45') 	
09:30	<p>EWG Presentations: Brief introduction on economics work in the 4 consortia</p> <ul style="list-style-type: none"> Christian Siderius: HI-AWARE, Estelle Rouhaud: PRISE Amir Bazaz: ASSAR IñakiArto: DECCMA 				
					EXCURSION



11:00		Break	
11:30	<p>Panel Discussion: Scope of Economics of Adaptation Research</p> <p>Moderator: Christian Siderius</p> <p>Panelists:</p> <ul style="list-style-type: none"> • Sam Fankhauser (LSE) (video) • Prodipto Ghosh (TERI), • Eddy Moors (WUR), • Purnamita Dasgupta (IEG) 	<p>Session Continues</p>	<p>Session continues</p>
13:00	<p>Lunch</p>		
Afternoon	<p>Techniques – CBA / project appraisal / Systems Dynamics</p>	<p>Risk and adaptation finance</p>	<p>MODELLING TECHNIQUES</p>
14:00	<p>Keynote: Purnamita Dasgupta, IEG</p>	<p>Keynote: Swenja Surminski (VC)</p>	<p>Keynote: Anil Markandya (VC)</p>
14:45	<p>Sharing experiences:</p> <ul style="list-style-type: none"> • Christian Siderius, LSE/WUR • Sukanya Das, TU • Mihir Mathur, TERI (Systems Dynamics) 	<p>Sharing experiences:</p> <p>Dipak Dasgupta, TERI</p> <p>Ashok Gulati, ICRIER (tbc)</p>	<p>Sharing experiences:</p> <ul style="list-style-type: none"> • Iñaki Arto • Ignacio Cazcarro (DECCMA economics partners)
			<p>TECHNIQUES: ECONOMETRICS</p> <p>Keynote: Saudamini Das, IEG</p>



Break	
16:00	
16:30	<p>Group activity & plenary: lessons from the session and knowledge gap vs policy demand, towards the production of a synthesis product</p> <p>Group activity & plenary: lessons from the session and knowledge gap vs policy demand, towards the production of a synthesis product</p> <p>Group activity Q&A: lessons from the session and knowledge gap vs policy demand, towards the production of a synthesis product</p> <p>Synthesis and wrap up</p> <ul style="list-style-type: none"> - Setting research agenda - Future collaboration
Evening	
17.30	<p>Welcome drinks & snacks</p> <p>Getting to know each other exercise</p> <p>Close</p> <p>Close</p> <p>Workshop dinner</p>



3.6.3.B.



Impact of Ozone and other pollutants on crops

January 4-6, 2016

Venue: TERI University

10, Institutional Area, Vasant Kunj, New Delhi - 110 070, India

Ozone is formed in the troposphere when sunlight causes complex photochemical reactions involving oxides of nitrogen (NO_x), volatile organic hydrocarbons (VOC) and carbon monoxide. Periods of high ozone concentration coincide with the growing season and damage to plants can occur without any visible signs. Numerous findings have suggested that ozone pollution harms forests and agriculture crops and prolonged exposure has serious consequences. However, the precise extent of ozone damage to agriculturally important crops has proven a difficult issue to resolve. This training program will provide basic understanding of ozone pollution situation and its effect on yield of several crops and other impacts with help of lecture, case studies and hands on training. The training will also focus on other pollutants such as particulate matter and its cumulative impact on crops and plants.

The programme is structured to address the following thematic areas:

Day 1: Introduction to Air pollution, Sources and over all impacts

Learning Objectives:

This module will introduce participants to various sources of air pollution, ambient air quality standards, instrumentation and satellite datasets available for monitoring pollutants.

Day 2: Impact of air pollution on crops and field visit to Indian Agricultural research Institute (IARI)-CESRA division

3.6.3.B.



Learning Objectives:

This module will provide an overall understanding about impact of air pollution on crops. Further, participants will also visit various facilities such as Facility of Protected Cultivation; Facility of Controlled Environment, Phytotron at IARI and will also learn about experimental design on the crop fields.

Day 3: Modeling of air pollutants and impacts

Learning Objectives:

This module will provide an overall understanding of air pollution modelling and further brief about role of India Meteorology Department (IMD) in crop health monitoring. Additionally, participants will also learn about INFO Crop model and its efficacy in understanding impact of pollution on crops.

WINTER COURSE ON NUCLEAR LAW

NUCLEAR LAW ASSOCIATION, INDIA & TERI UNIVERSITY, NEW DELHI

MONDAY 11 TO FRIDAY 16 JANUARY, 2016

Day 1 (Monday 11 January): Introduction & Nuclear Science, Technology and International regulation	
(9:00 AM to 9:30 AM)	
Inaugural Function Inaugural address: Mr Amandeep Singh Gill, Joint Secretary (D&ISA), Ministry of External Affairs	
Topics	Lecturers
(9:30 to 11:00AM) Introduction and evolution of international nuclear law and nuclear-law related treaties –establishment of IAEA, its role and functions	Ms Peri Johnson, Director of Legal Affairs, IAEA
Break	
(11:30 to 12:00 PM) Nuclear Non-Proliferation Treaty, Nuclear Suppliers Group & IAEA Safeguards	Ms Peri Johnson, IAEA
Lunch break	
(1:30 to 3:00PM) Nuclear energy development - Science to technology - nuclear energy fuel cycle – types of NPPs- India's nuclear energy program - governance structure - other application of nuclear energy -risk assessment and challenges	Dr. Suresh Gangotra, Outstanding Scientist & Head, Safeguards, Safety and Security Division, Department of Atomic Energy
Break	
(3:30PM to 4:30 PM) Nuclear trade control & India –India -US Civil Nuclear Agreement – India's negotiations with NSG - India specific IAEA safeguards agreement	Ambassador Sheel Kant Sharma
Panel Discussion: Iran Nuclear Deal followed by Welcome Dinner & Cocktails	
Ambassador Sheel Kant Sharma Vinod Kumar, IDSA	
Followed by Dinner event	
Day 2 (Tuesday 12 January):	
Radiation Protection & Nuclear Security	
Topics	Lecturers

(9:00 AM TO 10:30 AM) Basic Radiation Biology for Nuclear Regulatory Purposes	Professor P C Kesavan, Distinguished Fellow, MS Swaminathan Research Foundation
Break	
(11:AM to 12:00PM) Concepts of physical protection - Convention on the physical protection of nuclear material, 1980 Illicit trafficking and nuclear terrorism (UN Convention on the Suppression of Acts of Nuclear Terrorism, 2005)	Dr. Odette Jankowitsch, former Senior Legal Officer, IAEA
Lunch break	
(1:00 PM to 2:00 PM) Case study – group work on NPT	A Vinod Kumar, IDSA
Break	
(2:30 PM to 3:30 PM) (IAEA) Code of Conduct on the Safety and Security of Radioactive Sources- Convention on Nuclear Safety; developments post-Fukushima Convention on the-safety of radioactive waste management and on the safety of and spent fuel management	Mr. Patrick Reyners, Scientific Secretary, International Nuclear Law Association
(4:00 to 5:00PM) Special talk: Fukushima accident and changes in regulatory and liability laws in Japan Noriko Endo, Project Professor, University of Keio, Japan	
Day 3 (Wednesday 13 January): Nuclear safety & regulatory – international & India	
Topics	Lecturers
(9:00 AM – 10:30 AM) International law of nuclear and radioactive materials transport- IAEA, UN and other various regulations Convention on Early Notification of a Nuclear Accident, 1986; Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, 1987);	Dr. Odette Jankowitsch, former Senior Legal Officer, IAEA

Break	
(11:00 PM to 12:00PM) Comparative nuclear regulatory structures and regimes in Europe— evolution and status- uniqueness of countries- peer-review process- the role of the OECD-NEA	Ms. Kimberly Sexton, Lawyer, OECD Nuclear Energy Agency
Lunch break	
(1:00 PM to 2:00PM) Nuclear regulatory process in United States - NRC- licensing process, public consultation, etc.	Mr Tyson Smith, Partner Winston & Strawn LLP
Break	
(2:30 PM to 3:30 PM) India's nuclear regulatory structure and processes; the Nuclear Safety Regulatory Authority Bill, 2015	Dr. R. Bhattacharya, Officer on Special Duty, AERB; former Vice- Chairman AERB
Break	
(4:00 PM to 5:00PM) <i>Case studies</i> on best practices in regulation, consent process, comparative studies from other countries, public consultation and involvement	Ms. Kimberly Sexton, Lawyer, OECD Nuclear Energy Agency
Day 4 (Thursday 14 January): Nuclear Projects and Environmental and Social Laws; Judicial Decisions in India	
Topics	Lecturers
(9: 00 AM to 10:30 AM) Kudankulam Judgments of Supreme Court: case analysis	Dipankar Bhandopadhyay
Break	
(11:00 AM to 12:30 PM) Land acquisition and nuclear projects: Land Acquisition and Resettlement Act, 2014; Rules and the proposed new amendments	Prof Shiju, TERI University
Lunch break	
(1:30 PM to 2:30 PM) Environmental law and nuclear projects: statutory consents, Environmental Impact Assessment procedures, public consultation and National Green Tribunal decisions	Ms Shibani Ghosh, Lawyer; Fellow, Centre for Policy Research
Break	
(3:00 to 4:00 PM)	

Round Table Discussion: Day-to-day functioning & perspectives from the Operator and Suppliers	
<ul style="list-style-type: none"> - Mr Bhaskar Pandit, Chief Engineer, NPCIL - Dr. M P Ram Mohan, TERI University 	
Day 5 (Friday 15 January):	
Nuclear Liability and Insurance: International and Indian Legal Framework	
(9: 00 AM to 10:30 AM) International nuclear liability and insurance principles – the evolution of Paris and Brussels conventions – Joint Protocol liability developments post-Fukushima- Vienna Convention and Convention on Supplementary Compensation (CSC) selected country liability regimes- The role of the IAEA International Expert Group on Nuclear Liability (INLEX)	Mr. Patrick Reyners Scientific Secretary, International Nuclear Law Association
Break	
(11:30 AM to 12:30 PM) United States nuclear liability law and case laws	Mr Tyson Smith, Partner Winston & Strawn LLP
Break	
(1:30 to 2:30 PM) The Civil Liability for Nuclear Damage Act, 2010 and related Rules	Mr Amandeep Singh Gill, Joint Secretary, MEA
Break	
(3:00 to 4:00 PM) Briefing on Nuclear Insurance in India: Indian Nuclear Insurance Pool (INIP) and its operation	Y Ramulu, General Manager, General Insurance Corporation of India (GIC Re), and GM, India Nuclear Insurance Pool (INIP)
Break	
(4:30 to 5:00 PM) Case study on liability and compensation	Mr. Patrick Reyners Scientific Secretary, International Nuclear Law Association
Certificate Distribution	
Day 6 (Saturday 16 January): Study visit to Narora Nuclear Power Plant in Uttar Pradesh	

Partner Meeting

Wednesday, 27 January

Programme

January 27, Wednesday	Partner Meeting	
10.00-11.00	Partners visit Rural Spark <i>(E 151 Greater Kailash 3)</i> <i>Hotel guest shuttle together from hotel.</i>	
11.00-12.00	Drive to TERI University	
12.00-13.00	TERI University Tour	
13.00-14.00	Lunch at TERI University	
14.00-14.30	Welcome & Intro (incl. intro of partners)	JH, GV, Amit Kumar
14.30-15.30	Update by partners	all
15.30-16.00	Valorization meeting preparations	
16.00-19.00	"tourist break" <i>(for those interested a short sightseeing tour to Qutub Minar is organized.)</i>	
19.00	<i>All core members go out for dinner in Delhi. (Address will be announced on Wednesday.)</i>	

Participants

	Name	Affiliation
1	Menno Kardolus	PRE
2	Evan Mertens	Rural Spark
3	Marcel Heist	Rural Spark
4	Amit Kumar	Teri U
5	tba	Teri U
6	Geert Verbong	TUe
7	Auke Pols	TUe
8	Ankit Kumar	TUe
9	Johanna Hoeffken	TUe

Valorization Meeting

NWO Project Developing and Implementing Smart Grids in India

Thursday, 28 January 2016

January 28, Thursday		Valorization Meeting – max 21 persons	
<i>Morning: arrival of Valorization Partners</i>			
<i>Block 1</i>	11.00-11.30	Introduction (Incl. round of introduction)	Amit Kumar, Geert Verbong, Johanna Hoeffken
	11.30-11.50	Work Package 2	Rural Spark – Evan Mertens, Marcel van Heist
	11.50-12.10	Work Package 1	PRE – Menno Kardolus
	12.10-12.30	Work Package 3	TUe – sociology-Ankit Kumar
	12.30-12.50	Work Package 4	TUe-ethics -Auke Pols
	12.50-13.00	Discussion	
	13.00-14.00	Lunch	
<i>Block 2</i>	14.00-15.00	Break out in groups: per WP's (1-4)	World Café Format (15 min each table) <i>Here, WPs receive feedback from valorization partners on specific questions</i>
	15.00-15.30	Report back	(each WP has 5 min each)
	15.30-15.45	Coffee/tea break	
<i>Block 3</i>	15.45-16.15	Feedback on project proposal by valorization partners (6x5 min)	
	16.15-16.45	Discussion	
	16.45-17.00	Coffee/Tea Break	
<i>Block 4</i>	17.00-17.15	Scaling WP 5	JH
	17.15-18.00	Break out in groups: How to scale up?	Plenary Meeting open format discussion in Conference room
	18.00-18.30	Report back	(each WP has 5 min each)
	18.30-19.00	Wrap up	
<i>Cultural evening at TERI University (incl. drinks and dinner)</i>			



3rd Sustainable Energy Leadership Programme

8 – 19 February 2016 | New Delhi, India

Sunday February 7, 2016 ARRIVAL AND AIRPORT PICK-UP	
Monday February 8, 2016 Scene setting (TERI University)	
0930 – 1020 hrs	Inaugural Session Dr. R. K. Pachauri, Chancellor, TERI University Dr. Leena Srivastava, Vice Chancellor, TERI University Dr. Ajay Mathur, Director General, TERI Ms. Ayumi Fujino, Regional Director and Representative to India, UNIDO Dr. Pradeep Monga, Director of Energy, UNIDO Dr. Sijin Lee, President & CEO, Korea Environment Corporation
1025 hrs	Inaugural address
1030 – 1110 hrs	Group Photograph
1110 – 1125 hrs	Session 1: COP21 and its implications Tea
1125 – 1210 hrs	Session 2: Global Energy Scenario and Outlook, Energy Demand and Supply Situation
1210 – 1245 hrs	Visit of Solar Lighting Laboratory
1245 – 1345 hrs	Lunch
1345 – 1530 hrs	Visit to TERI Gram
1540 – 1630 hrs	Visit to National Institute of Solar Energy
1715 – 1745 hrs	Session 3: SDGs, SE4All, and UNIDO
1745 – 1815 hrs	Evening interaction Dr. Pradeep Monga, Director of Energy, UNIDO Dr. Sijin Lee, President & CEO, Korea Environment Corporation
1815 hrs	Reception & Dinner: Dr. Sijin Lee, President & CEO, Korea Environment Corporation, Ms. Ayumi Fujino, Head of UNIDO Regional Office, Dr. Pradeep Monga, Director of Energy, UNIDO, Dr. R.K. Pachauri, Dr. Ajay Mathur, Dr. Rajiv Seth

Tuesday, February 9, 2016. Energy Efficiency Day (TERI University)	
0930 – 1015 hrs	Session 1: Global initiatives for improving industrial energy efficiency Session 2: DELP: LED Programme
1015 – 1115 hrs	Mr. Prosanto Pal, Senior Fellow, Industrial Energy Efficiency Division, TERI Mr. Saurabh Kumar, Managing Director, Energy Efficiency Services Ltd.
1115 – 1130 hrs	Tea
1130 – 1300 hrs	Group work
1300 – 1400 hrs	Lunch
1400 – 1445 hrs	Session 3: Design of the PAT Scheme and implementation challenges
1445 – 1500 hrs	Tea
1500 – 1600 hrs	Session 4: Industrial Energy Efficiency: Approaches, technologies and policies
1600 – 1700 hrs	Session 5: Special challenges of the SME sector
1700 – 1800 hrs	Evening interaction
Wednesday, February 10, 2016. Site visit (Chandigarh)	
0600 hrs	Travel to Chandigarh
1130 – 1600 hrs	Field visit to a dairy processing plant in Punjab followed by a visit Green building of Punjab Energy Development Agency
1700 hrs	Departure to Delhi
Thursday, February 11, 2016. Sustainable Transport & Smart Cities Day (TERI University)	
0930 – 1015 hrs	Sustainable transportation: case studies
1015 – 1145 hrs	Session 1: Sustainable Transport – Emerging choices and challenges
1145 – 1200 hrs	Tea
1200 – 1300 hrs	Session 2: Recent trends in sustainable transport
	Ms Akshima Tejas Ghate, Associate Director, Centre for Research on Sustainable Urban Development & Transportation System, TERI Mr. Shri Prakash, Distinguished Fellow, TERI Mr Mukul Mathur, Executive Director, Perspective Planning, Railway Board Mr. I.V. Rao, Executive Advisor, Engineering & Director, Maruti Centre of Excellence

1300 – 1400 hrs	Lunch	
1400 – 1500 hrs	Session 3: Smart Cities and Green Buildings: Incentivizing the transition	Mr. Pradeep Kumar, Director, Sustainable Habitat Division, TERI
1500 – 1515 hrs	Tea	
1515 – 1630 hrs	Innovations and entrepreneurship	Mr. Kevin Braithwaite, Vice President of Global Programs, Cleantech Open US
1630 – 1715 hrs	Sustainable transportation: a global overview	Dr. Geetam Tiwari, Professor, Transport Engineering, IIT Delhi
1715 – 1800 hrs	<i>Group work</i>	
1800 – 1845 hrs	Evening Interaction	Dr. Leena Srivastava, Vice Chancellor, TERI University
Friday, February 12, 2016. Energy Access Day (TERI University)		
0930 – 1030 hrs	Session 1: Access to clean energy - Challenges and opportunities	Mr. Debajit Palit, Associate Director, Social Transformation Division, TERI
1030 – 1115 hrs	Session 2: Bioenergy for rural areas and MSMEs	Mr. N K Ram, Fellow, TERI
1115 – 1130 hrs	Tea	
1130 – 1230 hrs	Session 3: Energy access – Social and gender dimensions	Dr. G. Mini, Fellow, Social Transformation Division, TERI
1230 – 1330 hrs	Lunch	
1330 – 1445 hrs	Cooking energy choices: a case study from rural India	Mr. Anandajit Goswami, Fellow, TERI
1445 – 1500 hrs	Tea	
1500 – 1700 hrs	<i>Group work</i>	Ms Amrit Raj, National Project Coordinator, GEF UNIDO CLEANTECH Program and Mr. Sapan Thapar, TERI University
1700 – 1800 hrs	Session 4: Energy Storage Technologies	Dr. Rahul Walawalkar Executive Director, India Energy Storage Alliance
1800 – 1845 hrs	Evening interaction	Dr. Mohua Mukherji, The World Bank
Saturday, February 13, 2016: Site visit (Jagdishpur, Uttar Pradesh)		
0730 hrs	Departure for Lucknow for field visit to Jagdishpur	

	<ul style="list-style-type: none"> • Visit to see the working of improved stoves in rural kitchens • Visit to a solar based micro-grid that serves the local village market and interaction with the Village level Entrepreneur (VLE) and shop owners (customers of the grid) • Lunch with the Energy Efficiency team and state level experts • Hands on training and group discussion
1700 hrs	Travel from Lucknow to New Delhi
Sunday, February 14, 2016: Agra sightseeing	
Monday, February 15, 2016. Renewable Energy Day (TERI University)	
0930 – 1015 hrs	An overview of India's RE sector Dr. P. C. Maithani, Director, MNRE
1015 – 1100 hrs	Session 1: India's Solar Mission: policies and strategies Mr. Shirish Garud (Director, Energy - Environment Technology Development Division, TERI)
1100 – 1115 hrs	Tea
1115 – 1215 hrs	Solar energy for industrial applications Mr. S. K. Singh, Director, National Institute of Solar Energy
1215 – 1300 hrs	Session 2: India's wind energy programme Mr. Mahesh Vipradas, Head-Regulatory Affairs, Suzlon Energy
1300 – 1400 hrs	Lunch
1400 – 1700 hrs	Group work Mr. Abhishek Nath, National Project Manager, GEF-JNIDO-BEE Project on EE/RE in MSMEs
1700 – 1800 hrs	Evening interaction: Panel discussion 1 Panelists: Dr. N. P. Singh, Former Advisor, MNRE and DG, National Institute of Solar Energy; Dr. Ashvini Kumar, MD, Solar Energy Corporation of India; Mr. Sumil Jain, CEO, Hero Future Energy; Mr. B. V. Rao, IREDA
Tuesday, February 16, 2016, Site Visit to Small Hydro Power Plant	
0600 hrs	Travel to Roorkee
1400 hrs	Visit to Small Hydro Power Plant Site
1600 hrs	Arrival at Roorkee
1900 hrs	Dinner

Wednesday, February 17, 2016, Alternate Hydro Energy Centre, IIT Roorkee	
0900 hrs	Visit to National Small Hydro Energy Centre including SHP laboratories and Real-time Digital Simulator
1230 hrs	Lunch
1400 hrs	Departure from Roorkee for Delhi
Thursday, February 18, 2016. Financing & Innovation Day (TERI University)	
0930 – 1015 hrs	Session 1: Global initiatives for financing clean energy projects Mr. Dipak Dasgupta, Former Principal Economic Adviser, Ministry of Finance, Government of India & Board Member, Green Climate Fund.
1015 – 1115 hrs	Panel 2: Financing for sustainable energy Chair: Mr. K. S. Popli, Chairman & Managing Director, IREDA Panelists: Mr. Jaisingh Dhumal, Chief Manager, Technology Finance Group, ICICI Bank Ltd.; Ms. Preeti Sinha, YES Institute; IL&FS
1115 – 1130 hrs	Tea
1130 – 1215 hrs	Session 3: Innovation and SMEs Dr. Anup K. Pujari, Former Secretary, MoMSME
1215 – 1300 hrs	Session 4: Green initiatives in industrial clusters Mr K S Venkatagiri, Executive Director – Designate, CII - Sohrabji Godrej Green Business Centre
1300 – 1400 hrs	Lunch
1400 – 1700 hrs	Visit to Regional Load despatch Center
1745 – 1830 hrs	Evening interaction Mr. Anil K. Jain, Advisor (Energy/GA/SP-MP/Mah./WB), NITI Aayog
1830 hrs	Cultural programme
Friday, February 19, 2016	
1000 – 1100 hrs	Sustainable development outreach Dr. Annapurna Vancheswaram, Director, TERI
1100 – 1115 hrs	Tea
1115 – 1300 hrs	Panel discussion 3: Sustainable Energy Leadership - developing countries' perspective Panelists: Dr. Prodipto Ghosh, Distinguished Fellow, TERI; Ambassador Ajai Malhotra, Distinguished Fellow, TERI; Mr. Pramod Deo, Former Chairman, Central Electricity Regulatory Commission
1300 – 1400 hrs	Lunch

1400 hrs onwards	<p style="text-align: center;">Closing Session</p> <p style="text-align: center;">Chairs: Dr. Pradeep Monga, Director, UNIDO Dr. Leena Srivastava, Vice Chancellor, TERI University Dr. Rajiv Seth, Pro Vice Chancellor, TERI University</p> <ul style="list-style-type: none"> • Presentation by groups • Feedback by Participants
Saturday, February 20/Sunday, February 21: DEPARTURE	





**3-day Training workshop on
“Geospatial Technologies and Applications using Open Source Software”**

March 30-April 1st, 2016

TERI University, Vasant Kunj, New Delhi - 110 070, India

Agenda

Time	Topics	Instructor
Day-1		
9:00 -9:30AM	Registration/Inaugural/Introduction to the training program	Dr. Anu/Dr. Neeti/ Dr. Nithiyanandam
9-30 - 10:00AM	TEA	
10:00- 11:00AM	Emerging trends in Earth observation	Dr. Anu Rani Sharma
11:00-12:30 PM	Remote Sensing in Practice	Dr. Anu Rani Sharma
12:30 - 1:30 PM	LUNCH	
1:30 - 2:30 PM	Earth Observation System for Environmental Monitoring	Dr. P K Joshi, JNU
2:30 - 4:30 PM	Visualization, Analysis of Various Datasets Available in Public Domain	Dr. Vinay SP Sinha
Day -2		
10:00 - 11:00AM	GIS in a Nutshell: Theory to Practice	Dr. Neeti
11:00-11:30 AM	TEA	
11:30 – 12:30 PM	Practicing GIS for Tackling Real World Challenges	Dr. Neeti
12:30 - 1:30 PM	LUNCH	
1:30-2:30 PM	GNSS for Positioning, Navigation, Timing, and Science	Dr. Nithiyanandam Y
2:30 – 4 PM	A practical guide to GNSS - Accuracy, Precision and Errors	Dr. Nithiyanandam Y
Day 3		
10:00 – 1 PM	“R” for Environmental Geoinformatics	Dr. Neeti
1 PM onwards	Lunch, Feedback and Certificate Distribution	Dr. Anu/Dr. Neeti/ Dr. Nithiyanandam

3.6.3.B.

		Stakeholder Workshop on Water and urban Initiatives Lucknow, India Organised by TERI University and United Nations University, Tokyo, Japan 27th to 28th October 2016				
S. No.	Name	Designation	Institution	Email Id	Contact No	Signature
1	Dr. Ashok Kumar	Asst Dir	UP	muskariyogi@gmail.com	9415410043	
2	Dr. Mahank. Singh	CGM	IDE (INDIA)	pawnsingh7878@gmail.com	983911606	
3	Dr. Venkatesh Datta	Prof	BBAU	dventk@gmail.com	9918466778	
4	Ms. Urvashi Shasma	Student (PhD)	BBAU	urvashishasma33@gmail.com	9871066062	
5	D. N. Yadav	Project Manger	UP. Jai Nigan, Lucknow	pm-typer@rediffmail.com	9373553553	
6	Savabh Srivastava	Project Engineer	UP Jai Nigan, Lucknow	iom.savabh-iiit@ychoo.co.in	9473941831	
7	Mamta Chauhan	Faculty	IEDUP, Lucknow	mamtachauhan06@gmail.com	9838501685	
8	A. S. RATHORE	Director	IEDUP, Lucknow	directoried@gmail.com		
9	Dr. Ashok Kumar	Asst Director	SIRD, BKT.	ajam - ashok@rediffmail.com	8765957410	

S. No.	Name	Designation	Institution	Email Id	Contact No	Signature
10	R. K. Srivastava	faculty	S.I.R.D Lucknow	rkm-yank2003@gmail.com	8765557421	
11	Minkeshi Singh	Researcher	University of Lucknow	minkeshi21singh@gmail.com	7408691814	
12						
13	Pankaj Kumar	Researcher	UNU-IAS, TOKYO	P. Kumar@unu.edu	81-070-1412-4622	
14	MISATO DILLIP	programme associate	UNU-IAS	billey@unu.edu		
15	Anand Kumar	PhD Scholar	TERE University, Delhi	anandkumar2002@rediffmail.com	9015498809	
16	Sandeep Arora	Addl General Manager	JERU UNIVERSITY	Sandeepaetri.res.in	9811799046	
17	Pulak Tripathi	Correspondent	Dainik Jagran	publik.tripathi@dc.jagran.com	9415959222	
18	Sudhendra Kumar	STANAGAN DIRECTOR	K BVS	KBVSgms@gmail.com	9412518329	
19	Prof. NISHAT HAIDER	IWS, LU	University of Lucknow	nishatjzon@yahoo.com	9415528584	
20	SHANU SOMWANSHI	PROJECT COORDINATOR	PI	shanusom19@gmail.com	9721067733	
21	R. S. Sinha	Ex-Senior Hydrogeologist	Groundwater Deptt U.P.	R.S.sinha11@gmail.com	9415087818	
22						
23						



GIS Day 2013

TERI University, New Delhi

20th November 2013
(Wednesday)

L 001, TERI University, New Delhi 110 070

01:45 PM – 02:00 PM	Registration
02:00 PM – 02:15 PM	General Introductions – Dr P K Joshi, Professor & Head, Department of Natural Resources Welcome Address – Dr Leena Srivastava, Vice Chancellor, TERI University
02:15 PM – 02:45 PM	GIS technology trends* – Mr Rakesh Raina, Senior Vice President, NIIT GIS Ltd (ESRI India)
02:45 PM – 03:15 PM	GIS related activities in TERI/TU* – Ms Seema Kundu, Research Associate, TERI
03:15 PM – 03:45 PM	Rooftop solar WebGIS tool for India* – Mr Alekya Datta, Research Associate, TERI
03:45 PM – 03:55 PM	Summary & Conclusions – Dr Rajiv Seth, Registrar, TERI University
03:55 PM – 04:00 PM	Vote of Thanks
04:00 PM – 04:30 PM	High Tea/Coffee & Interactions (including Cake Cutting)

*Sessions will include Q&A and doubt clearing interactions/discussions

No registration or participation fee.



**Management Development Programme on
Gender, Equity and Water Management
7-8 November 2016
Programme**

DAY 1

07 Nov 2016 Monday	Time		Activity	Presenter
	9:00-9:30	30'	Registration	
	9:30-10:30	60'	Inaugural Session	<p>Screening of Film Daughters of the Soil by TERI</p> <p>Welcome Address Dr Leena Srivastava, Vice Chancellor, TERI University, New Delhi Mr Daryll Day, Managing Director, ICE WaRM, Australia</p> <p>Keynote Address Mr Chris Elstoft, Deputy High Commissioner, Australian High Commission</p> <p>Address Prof. Arun Kansal, Head of the Department, Department of Regional Water Studies, TERI University</p> <p>Address Dr. Georgina Drew, Assistant Professor Department of Anthropology and Development Studies, University of Adelaide</p> <p>Vote of Thanks Group Photo</p>
	10:30-10:45	15'	Tea break	
	10:45-11:30	45'	<p>Session 1 Overview of the Course</p> <p>Understanding Gender and gender and water linkages</p>	<ul style="list-style-type: none"> • Fawzia Tarannum, TERI University • Dr G Mini, Fellow, Green Growth and Resource Efficiency Division, TERI
	11:30-12:45	75'	<p>Session 2 Group activity Case Study</p>	<p><i>Shifting the focus from women to gender relations: assessing the impacts of drinking water supply interventions in the Morni-Shivalik Hills of North-West India</i></p> <ul style="list-style-type: none"> • Dr Georgina Drew, University of Adelaide • Fawzia Tarannum, TERI University

3.6.3.B.

	12:45-13:30	45'	Lunch	
	13:30-15:00	90'	Session 3 Mainstreaming gender in water policy and planning	<ul style="list-style-type: none"> • Ms. Rita Sengupta, Trainer, Gender Equality • Dr Renu Khosla, Director of the Centre for Urban and Regional Excellence (CURE) • Ms. Chandni Bedi Taneja, Director, Navjyoti India Foundation (TBC)
	15:00-15:30	30'	Tea Break	
	15:30-17:00	90'	Session 4 Group Activity Screening and discussion of Film	<p>"Status of women water professionals in South Asia"</p> <ul style="list-style-type: none"> • Fawzia Tarannum, TERI University • Ranjana Ray Chaudhuri, TERI University
	17.15	15'	Close	

DAY 2

08 Nov 2016 Tuesday	Time		Activity	Presenter
	09:30-11:00	90'	Session 5 Institutions and water rights	Dr. Vishal Narain Associate Professor , School of Public Policy and Governance MDI, Gurgaon
	11:00-11:15	15'	Tea break	
	11:15-12:45	90'	Session 6 Group activity Case Study	<p><i>Mediating scarcity by design: water rights and legal pluralism in protective irrigation</i></p> <ul style="list-style-type: none"> • Dr. Vishal Narain • Dr. Georgina Drew
	12:45-13:30	45'	Lunch	
	13:30-15:00	90'	Session 7 Institutions, rights and water equity	<ul style="list-style-type: none"> • Dr. Georgina Drew, Assistant Professor Department of Anthropology and Development Studies, University of Adelaide • Dr. Vishal Narain, Associate Professor, School of Public Policy and Governance MDI, Gurgaon
	15:00-15:30	30'	Tea break	
	15:30-17:00	90'	Session 8 Group Discussion and Questions Gender Relations	<ul style="list-style-type: none"> • Dr. Georgina Drew, Assistant Professor Department of Anthropology and Development Studies, University of Adelaide • Dr. Vishal Narain, Associate Professor, School of Public Policy and Governance MDI, Gurgaon • Dr G Mini, Fellow, Green Growth and Resource Efficiency Division, TERI
	17:00-17:15	15'	Distribution of Certificates and Vote of Thanks	<ul style="list-style-type: none"> • Dr. Ian Reid, Education Services Manager, ICE WaRM • Fawzia Tarannum, TERI University



Young Researchers' South Asian Symposium on Sustainable Development Goals (SDGs) 2016
Sustainable Consumption and Production

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Sustainable Consumption and Production

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Summer School
Changing Sanitation and Hygiene Behaviour
for Overall Public Health Risk Reduction... Towards a Swachh Bharat
August 17-19, 2016

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Summer School
for Overall Public Health Risk Reduction... Towards a Swachh Bharat
August 17-19, 2016
(Sponsored Participants)



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 August 17-19, 2016
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 August 17-19, 2016
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PAN No: AAATT4778L
Service Tax Registration No.: AAATT4778LSD002
Project Ref: Event No. 2016TU02/NT/2
Invoice No: TU/2016-17/NST/07
Date: 24.06.2016

To

UNHCR
Delhi

Invoice/Bill

World Refugee Day
20th June 2016

Detail	Amount (Rs)
Logistic reimbursement towards Venue, TCC & Snacks, AV setup, Projector. Technical manpower etc. 120 nos @ Rs. 160.00 per person	19,200.00
Reimbursement towards printing of Flex & Standees	8,200.00
Total	27,400.00

Total (in Words) Rupees Twenty Seven Thousand Four Hundred Only

(Authorized Signatory)

Dhanraj Singh
Finance Officer
TERI University

Mode of payment

Payment may please be remitted either through Demand Draft/cheque (A/c Payee) drawn in favour of "TERI University" payable at New Delhi or through bank transfer as per bank details given below:

Name of the beneficiary : TERI University
Account No. : 52142908571
Name of the bank : State Bank of Hyderabad
Address : Scope Complex, Core-6, 7 Institutional Area,
Pragati Vihar, New Delhi-110003
Bank IFSC Code : SBHY0020511
9 Digit MICR Code : 110004005

Please mention the invoice number and date in the remittance advice



Agenda for One day ACADEMY for Air Force Officers

21 March 2016

Hosted by TERI University, New Delhi

Date	Time	Schedule
21 st March	09:00 – 9:30 AM	Registration and Introduction of participants
	9:30-9:45 AM	Welcome Address by Dr. Leena Srivastva
	9:45 to 10:00 AM	Objectives of the academy agenda description <i>Dr. Anu R Sharma, Assistant Professor, TERI University</i>
	10:00-11:00 AM	Understanding Climate change: evidences and uncertainties <i>Dr. Kamna Sachdeva, Assistant Professor, TERI University</i>
	11:00-11:30 AM	Tea/coffee break
	11:30 AM - 12:45 PM	Role of satellite monitoring in climate studies <i>Dr. Anu R Sharma, Assistant Professor, TERI University</i>
	12:45-1:30PM	Lunch
	1:30-3:00PM	Geo-Informatics for Urban Climate Research <i>Dr. Nithyanandam Yogeswaran, Assistant Professor, TERI University</i>
	3:00-3:30 PM	Tea/coffee break
	3:30-4:30PM	Understanding climate change vulnerabilities using climate modelling <i>Mr.Saurabh Bhardwaj, Fellow, TERI</i>

3.6.3.B.

BLISS School 2016

Sustainable Consumption and Production Patterns

April 18–22, 2016

Venue: TERI University

10 Institutional Area, Vasant Kunj, New Delhi - 110070, India

BLISS (Building Learning in Sustainability Science) is a series of five-day events organised by TERI University, New Delhi to train and prepare stakeholders for the forthcoming sustainable development challenges. Sustainable Consumption and Production (SCP) is an integral component of the 2030 Agenda for Sustainable Development and the main focus of Sustainable Development Goal (SDG)-12. An agreement signed between TERI University and the United Nations Environment Programme (UNEP) under the EU-funded SWITCH-Asia Policy Support Programme aims to support learning on SCP among different stakeholders, especially policymakers, as well as students, consumers, businesses, and supporting organizations in South Asia.

To meet this objective, the BLISS School on the theme **SDG12: Ensuring Sustainable Consumption and Production Patterns** has been organised at TERI University from **April 18-22, 2016**. It is structured to address the following thematic areas:

Day 1 **Introduction to Sustainable Consumption and Production (SCP)**

Day 2 **Internalizing SCP in Value Chains**

Day 3 **Towards Resource Efficient Urban Habitats**

Day 4 **Innovation, Technology and Financing for SCP**

Day 5 **Mainstreaming SCP through Stakeholder Engagement and Policymaking**

Detailed agenda follows.

Day 1 – Monday, 18 April, 2016 Introduction to Sustainable Consumption and Production		
Time	Agenda Item	Objective(s)
09:00 – 09:30	Registration of Participants	Registration of participants and sharing of registration material
09:30 – 10:10	Opening Ceremony Dr. Leena Srivastava, Vice-Chancellor, TERI University Dr. Rajiv Seth, Pro-Vice Chancellor, TERI University Mr. Jitendra Kumar, Adviser (Natural Resources and Environment), NITI Aayog, Government of India Ms. Sara Castro, Programme Officer, 10YFP and SWITCH-Asia, United Nations Environment Programme (UNEP)	Inauguration, welcome remarks and reflections on the theme of BLISS School 2016- Sustainable Consumption and Production
10:10 – 10:20	Facilitating Learning for Sustainable Consumption and Production Dr. Shaleen Singhal, Head Department of Policy Studies, TERI University	Briefing on the structure and learning outcomes for the BLISS School
10:20 – 10:50	Tea Break and Group Photo	
10:50 – 11:00	Screening of Film on Sustainable Consumption and Production	
11:00 – 12:00	Session 1 – Sustainable Consumption and Production in the Global Development Policy Agenda Ms. Sara Castro, Programme Officer, 10YFP and SWITCH-Asia, United Nations Environment Programme (UNEP)	Overview of UN's Focus on SCP to introduce participants to the global discourse on SCP and its importance for economic competitiveness.
12:00 – 13:00	Lunch Break	
13:00 – 14:00	Session 2 – Paving the way for Sustainable Consumption and Production Mr. Rajeev Vijh, Director, UNIDO International Centre for Inclusive and Sustainable Industrial Development	Overview of UNIDO's activities and projects on SCP
14:00 – 16:00	Session 3 – Group Exercise: National and Regional SCP Policies in South Asia + Tea Break Moderators: Ms. Sara Castro, Programme Officer, 10YFP and SWITCH-Asia, UNEP, and Dr. Ritika Mahajan, Assistant Professor, TERI University	Group exercise with an objective to understand SCP policies and plans in different South Asian countries.
16:00 – 17:00	Presentation of Group-Work	Presentations by groups

Day 2 – Tuesday, 19 April, 2016
Internalizing SCP in Value Chains

Time	Agenda Item	Objectives
09:30 – 10:30	Session 1 – Challenges for Internalizing SCP in Business Strategy Mr. Rajat Batra, CEO, Sternum Asia	Providing insight into issues and strategies for resource efficiency and waste minimization across the value chain.
10:30 – 11:00	Screening of video on Sustainable Supply Chains + Tea Break	
11:00 – 12:00	Session 2 – Life Cycle Thinking Dr. Sanjeevan Bajaj, CEO, FICCI Quality Forum	Introduction to Life-Cycle Thinking and approaches for evaluating impact of products throughout their life cycle and enabling informed decision making for sustainability.
12:00 – 13:00	Session 3 – Building Sustainable Livelihoods by Green Production Focus: Going Green, a SWITCH-Asia Project, in association with Traidcraft UK and All India Artisans and Craftworkers Welfare Association (AIACA) Ms. Pragya Majumdar, Project Manager, Going Green, Traidcraft	Case study on promoting economic competitiveness and building sustainable businesses in the Indian textile industry.
13:00 – 14:00	Lunch Break	
14:00 – 15:00	Session 4 – SCP in the Business Retail Sector Focus: Green Retail, a SWITCH-Asia Project Mr. Shikhar Jain, Principal Counsellor, CII-ITC Centre for Excellence for Sustainable Development	Business models for sustainable and environment-friendly manufacturing leading into green retail
15:00 – 16:30	Session 5 – Group Exercise: Business Models for Sustainable Consumption and Production (Screening of videos) + Tea Break	Participants will create a framework of a sustainable business model incorporating aspects of SCP at various stages in a business model design
16:30 – 17:00	Session 5 continues – Presentations by participants	Presentations by groups or group representatives on the outcomes of exercise in Session 5

Day 3 – Wednesday, 20 April, 2016 Towards Resource Efficient Urban Habitats		
Time	Agenda Item	Objectives
09:30 – 10:00	Session 1 – Sustainable Urban Settlements and SCP Dr. Shaleen Singhal, Head, Department of Policy Studies, TERI University	Introduction to the challenges and opportunities for sustainable urban habitats
10:00 – 11:00	Session 2 – Waste Management in Urban Agglomerations Dr. Lakshmi Raghupathy, Former Director, Ministry of Environment & Forests, New Delhi; Adviser, Environment & Waste Management and Visiting Faculty, TERI University	Overview of effective waste management systems focusing on innovation and designs which promote sustainability in waste disposal and salvaging of raw materials
11:00 – 11:30	Tea Break	
11:30 – 12:30	Session 3 – Water Resilient Cities Dr. Rumi Aijaz, Senior Fellow, Observer Research Foundation	Overview of emerging water related adversities in cities and exploring how this natural resource can be efficiently managed
12:30 – 13:30	Lunch Break	
13:30 – 17:00	Field Visit to Sulabh Complex, New Delhi	Studying sustainable waste management activities, including waste to energy (bio-gas plant) carried out by the Sulabh International Social service Organisation in New Delhi

Day 4 – Thursday, 21 April, 2016		
Technology, Innovation and Financing for Sustainable Consumption and Production		
Time	Agenda Item	Objectives
09:00 – 10:00	Session 1- Presentations by young researchers on start-up projects on SCP Presenters: Ms. Aparna Choudhary, Mr. Sourabh Jain, and Ms. Surbhi Chetwani	Presentations by TERI University students and researchers on affordable housing, sustainable consumer choices, sustainable tourism
10:00 – 11:00	Session 2 - TERI University & Groundbreaking SCP Innovations Moderator: Dr. Chubamenla Jamir , Assistant Professor, TERI University Panelists: Dr. Nandan Nawn , Associate Professor, TERI University; Mr. D Kiran Kumar , Associate Fellow, TERI; Dr. Shilpi Kapur , Fellow, TERI	Discussion on TERI University and UNEP's initiatives and innovations that are moving Indian households to SCP
11:00 – 11:15	Tea Break	
11:15 – 12:00	Session 3 – Innovations and Technology for SCP & Policy Support Mr. Gamini Senanayake , Key Expert 2, SWITCH-Asia SCP NPSC for Sri Lanka; Chairman, GSA, Sri Lanka	Introduction to policies and technological innovations for SCP in South-Asia
12:00 – 12:30	Session 4 – Lessons in Implementing Technology Solutions for SCP: Experiences from ACIDLOOP, a SWITCH-Asia Project Dr. Malini Balakrishnan , Senior Fellow, Energy Environment Technology Development Division, TERI, and Adjunct Faculty, TERI University	Sharing on-site experiences in implementing technology solutions for improving resource efficiency in Indian metal-finishing MSMEs
12:30– 13:30	Lunch Break	
13:30– 14:15	Session 5 – Asia Cleantech MSME Financing Network Focus: Asia Cleantech MSME Financing, a SWITCH-Asia Project Ms. Nisha Jayaram , Confederation of Indian Industry (CII)	New SWITCH-Asia project that will promote uptake of clean technologies by MSMEs through technical support & access to finance
14:15 – 15:00	Session 5 – Financing for SCP: Case studies from TERI Mr. Debajit Palit , Associate Director, Social Transformation Division, TERI	Different cases/examples for SCP and innovative financing mechanisms involved in these cases
15:00 - 15:15	Tea Break	
15:15 – 16:00	Session 6 – Financing for SCP: Surya Project Dr. I.H. Rehman , Senior Director, Social Transformation Division, TERI	Case study on adoption of clean cooking technology and financing models/ mechanisms
16:00 – 17:00	Session 7 – Green Financing Mr. V.S. Balasubramaniam , Assistant General Manager, UPNRM & Climate Change, NABARD	Overview of green financing and NABARD's initiatives and activities for SCP

Day 5 – Friday, 22 April, 2016 Mainstreaming SCP through Stakeholder Engagement and Policymaking		
Time	Agenda Item	Objectives
09:30 – 11:00	Session 1 – SCP Policy Dr. Zinaida Fadeeva, United Nations University Institute for the Advanced Study of Sustainability	Learning to integrate Sustainable consumption and production in national policy planning and decision making process
11:00 – 11:30	Tea Break	
11:30 – 13:00	Session 1 – SCP Policy (Continues) Dr. Zinaida Fadeeva	
13:00 – 14:00	Lunch Break	
14:00 – 15:00	Session 1 – SCP Policy (Continues) Dr. Zinaida Fadeeva	
15:00 – 16:00	3 Minute Presentations by participants Moderator: Ms. Mugdha Malik, Research Associate, TERI University	Participants give a 3 minute presentation on what SCP means to them and/or SCP policy suggestions
16:00 – 16:30	Feedback Session + Tea Break	Participants share their experience and learning from the BLISS School 2016
16:30 – 17:00	Valedictory Session Dr. Ritika Mahajan, Assistant Professor, TERI University	

Funded by the European Union



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TERI University Biotechnology Society
Presents



BIOTIKOS 2016

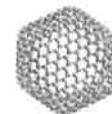
NATIONAL SYMPOSIUM ON
NANO BIOTECHNOLOGY

31st MARCH - 1st APRIL 2016



TERI UNIVERSITY
10, INSTITUTIONAL AREA, VASANT KUNJ, NEW DELHI

3.6.3.105



Teri University

The TERI University was established to disseminate the vast reservoir of knowledge devised by The Energy and Resources Institute (TERI), a not-for-profit, independent research institute recognized globally for its contribution to scientific and policy research in the realms of energy, environment, and sustainable development. The TERI University's academic offering is rooted in the comprehensive research, consultancy, and outreach activities of TERI.

In 1999, the University was granted the “Deemed to be University” status by the University Grants Commission (UGC) and notified vide the Ministry of Human Resources Development, Department of Education, Government of India, notification no. F.9/19/95-U-3, dated October 5, 1999. The University aspires to be an institution of advanced learning which meets the needs of a rapidly growing India. The academic programmes are envisioned to provide the students with a holistic perspective of the subjects offered and encourage interdisciplinary learning.

BIOTIKOS 2016

The greek word “Biotikos” means “matters pertaining to life”. Biotikos is an annual biotechnology seminar organized by TERI University Biotechnology Society. This society comprises of masters and doctoral level students sharing a commitment of generating awareness about latest breakthroughs and current issues in the field of Biotechnology. Biotikos was initiated in the year 2011 and was inaugurated by Dr. M.S. Swaminathan. Since then, this program is organized each year to encourage students to pursue education and research in Biotechnology and contribute to research and development in this fascinating area.

National Symposium on Nanobiotechnology: BIOTIKOS 2016

TERI University Biotechnology Society is organizing a symposium on 31st March - 1st April 2016. The theme of symposium is “**National Symposium on Nanobiotechnology**”. The objective of TERI University Biotechnology Society (TUBS) is to highlight the important role played by biotechnology in modern society, and its relevance to the contemporary imperative of sustainable development. Biotikos 2016 is being organized by the students and faculties Department of Biotechnology, TERI University, to discuss and debate the promises and challenges of Nanobiotechnology. The theme of Biotikos 2016 is “National Symposium on Nanobiotechnology”. The proposed event is aimed at enlightening science undergraduate/post-graduate students and teachers about the upcoming areas in Nanobiotechnology and its application in different scientific fields. The two day program will provide a platform for students to interact with representatives from academia, research and industry.

Nanobiotechnology is growing as an independent discipline and it is adding a new dimension for the growth of biotechnology. Perhaps, nanobiotechnology is most revolutionary and multidisciplinary field of modern science and has a great impact on society through various applications in medical, imaging and sensor development. Nanobiotechnology with the help of medical and biotechnological tools has been used to diagnose, image and deliver the drug to target cell. In multifunctional therapeutics, it offers a platform to expedite its specific targeting to tumor tissue and delivery of an effective treatment, with negligible harm to healthy cells. Nano based microfluidic chip concept lies under the umbrella of nanobiotechnology to study and manipulate the performance of microscopic world of living systems. Nano integrated sensors are being developed to identify the harmful microbes like Salmonella, and other contaminants on food products before packaging and intake. Nano scale bio molecules such as protein, nucleic acid and biopolymers regulate and control biological systems with incredible precision. This symposium includes a series of lectures, panel discussions, quizzes and poster presentation across various domains of nanobiotechnology such as nanomaterials, nanobioscience, nanomedicine, agriculture, environmental nanotechnology, nanobiosensors, etc.



Technical Program

"National Symposium on Nanobiotechnology" BIOTIKOS 2016 TERI University 31st March - 1st April 2016			
TIME	EVENT	DETAILS	VENUE
Day 1 31st March 2016			
Registration 8.30 -9.25 AM			
Inaugural Session: 9.30-10.30 AM			
Tea Break: 10.30-10.45 AM			
Technical Session 1			
10.50 AM- 11.50 AM	Nanotechnology Application in Medicine: The Challenges in Translation	Prof. A. K. Dinda (AIIMS) Professor Department of Pathology All India Institute of Medical Sciences, New Delhi	L-001
12.00-1.00 PM	Nanomaterial Modified Conducting Paper sensors for Cancer Biomarker Detection	Professor BD Malhotra Department of Biotechnology, Delhi Technological University, Delhi.	L-001
Lunch 1.00 - 2.00 PM			
Technical Session 2			
2.00-2.45 PM	Development of a Colloidal Gold-based Immunochromatographic (ICG) Assay for detection of Microalbuminuria	Dr. T. G. Shrivastav Professor & HOD, Nodal Officer for MCTFC, National Institute of Health & Family Welfare, New Delhi	L-001
2.45-3.30 PM	A Combination Strategy Based on Polymer- Peptide-plasmid DNA Hybrid Nanoparticles for Cancer Gene Therapy	Prof. Harpal Singh Indian Institute of Technology Delhi, New Delhi	L-001
3.30-4.15 PM	Inorganic-organic hybrid nanomaterials for controlled and targeted	Prof. Indrajit Roy (DU) Department of	L-001



	drug delivery	Chemistry, University of Delhi, Delhi-110007	
Day 2			
1 April 2016			
8.45-9.25 AM Display of Poster			
Technical Session 3			
9.30-10.30 AM	Innovative Nanomaterials & their Biological Applications	Puneet Mehrotra Director Nano Science and Technology Consortium, Reinste Nano Ventures Pvt. Ltd.	L-001
10.30-11.15 AM	Synthetic Biology: concepts, challenges and opportunities	Prof. Pawan K. Dhar Professor School of Biotechnology Jawaharlal Nehru University, Delhi	L-001
Tea Break and Poster Session: 11.15 AM -12.15 PM			
12.15 PM : 1:00 PM	Playing with the excitons in semiconductor nanocrystals	Dr Sameer Sapra Associate Professor Department of Chemistry IIT Delhi	L-001
Lunch 1.00-2.00 PM			
Technical Session 4			
2.00 -3.00 PM	Applied aspects of Biotechnology and Nanomedicine	Dr. Mohammad Husain Associate Professor and Head Department of Biotechnology Jamia Millia Islamia, New Delhi	L-001
3.00-4.00 PM	Quiz Competition		L-001
4.00-4.15 PM	Prize Distribution Ceremony		L001

Sustainable Energy Leadership Programme April 5 – 17, 2015

Sunday April 5, 2015 ARRIVAL AND AIRPORT PICK-UP	
Monday April 6, 2015 Scene setting (TERI University) (Tea to be served at 11.00 hrs in the morning and at 15.00 hrs in the post lunch session)	
Session 1: Welcome and introductions 1000 hrs 10:15 hrs – Group Photography	Dr. Leena Srivastava (Acting Director General, TERI) Dr. Pradeep Monga (Director, UNIDO) Ms. Ayumi Fujino (Regional Director and Representative to India, UNIDO)
Session 2: Global Energy Scenario and Outlook 10.30 – 11.00 hrs	Dr. Atul Kumar (Fellow, TERI)
Session 3: Food- energy-water nexus Issues 11.15 - 11.45 hrs	Dr. Ritu Mathur (Professor, TERI University, Senior Fellow, TERI)
Visit around TERI Gram 11.45 hrs	Coordinated by Mr. Suresh Kumar Dev , Mr. Vinay Pathak (Manager, TERI Retreat)
Visit to Solar Energy Center (post lunch) (lunch at TERI GRAM)	Coordinated by Mr. Sandeep Arora (Addl. GM (SS&ET))
Reception: Ms Ayumi Fujino, Head of UNIDO Regional Office / Dr Pradeep Monga (Director of Energy, UNIDO)	
Tuesday, April 7, 2015 Energy Efficiency Day (TERI U)	
Session 1: Talk on Lighting 09.30 hrs- 10:30 hrs. "Importance of Test Standards and Testing Labs for Quality Assurance of Solar Lighting Systems" 11:00-13:00 hrs.	Mr. Arvind Sharma (Fellow, TERI)
Session 2: Government interaction – Design of the PAT Scheme and implementation challenges – 1330-1500 hrs	Dr. Ajay Mathur (Director General, BEE)
Session 3: Industrial Energy Efficiency - approaches, technologies and policies - 15:30-16:30 hrs	Mr Prosanto Pal (Senior Fellow, Industrial Energy Efficiency Division, TERI)
Session 4: Special challenges of the SME sector – 1630- 1730 hrs	
Talk by Amarinder on SMEs (To be organized by Vikas – Pick up and Drop)	
Dinner	
Wednesday April 8, 2015, Site Visit	
<ul style="list-style-type: none"> • 06.00 hrs: Travel to Chandigarh • Field visit to a dairy firm in Punjab followed by a visit to show case TERI's work in PEDAs in the area of Energy Efficiency in Buildings 	

3.6.3.B.

<ul style="list-style-type: none"> 1700hrs: Departure to Delhi 	
Thursday, April 9, 2015 (TERI University & UNIDO)	
Session 1: Sustainable Transport – Emerging choices and challenges - 9.30 hrs – 11.00 hrs	Mr. Shri Prakash (Distinguished Fellow, TERI) Mr Mukul Mathur Executive Director, Perspective Planning Railway Board
Session 2: Sustainable Cities and Green Buildings: Incentivizing the transition – 11.15 hrs – 12.30 hrs	Ms. Mili Majumdar (Director- Sustainable Habitat Division, TERI) Mr. Pradeep Kumar (Associate Director, Sustainable Habitat Division, TERI)
LUNCH (TU)	
Recent trends in sustainable transport (applications on vehicular efficiencies) – 14.00 hrs – 15.00 hrs	Mr. I.V. Rao
Session 3: Industry interaction - Clean and Alternate Fuels – Challenges to Euro III, IV transition – 15.15hrs – 17.00 hrs	
<i>Evening: Group work – 3 groups to be formed (6 p.m. onwards) followed by dinner (TU)</i>	
MR SAPAN THAPAR – DISCUSSION ON SE4ALL IN THE CONTEXT OF THE THREE GOALS FITTING TO SE4ALL HUB	
<i>Dinner</i>	
Friday, April 10, 2015 Energy Access (TERI University & UNIDO)	
Session 1 (am): Realising the potential of biomass energy - technological developments, supply chain issues and use challenges - 10.00 hrs – 11.00 hrs	Mr. N K Ram, Fellow, TERI
Industrial prosumers of renewable energy (IPREs) for energy access and security - 11.15 – 13.00 hrs	Mr. Debajit Palit, Senior Fellow, TERI
Session 2A (pm): Structuring an energy access intervention programme - Planning, social mobilization, market development and financial access – 14.00 hrs – 15.00 hrs (UNIDO) 15.30 hrs – 17.00 hrs (TERI)	Mr. I H Rehman (Director, Social Transformation Division)
Evening interaction (6.30 pm) - Energy Storage Technologies and Role of A Regional Approach - Significance of Regional Approach for	
	➤ Energy Storage technologies - Dr. Rahul Walawalkar, CEM, CDSM, CSDP Executive Director, IESA & VP, Emerging Technologies & markets.

Sustainable Energy Interventions	
Dinner	
Saturday, April 11, 2015: Site visit (Jagdishpur, State of Uttar Pradesh)	
<ul style="list-style-type: none"> • 0730 hrs: Departure for Lucknow for field visit to Jagdishpur/Barabanki • Visit to the Solar Field Lab, efficient cook stove testing and monitoring • Visit to see the working of improved stoves in rural kitchens • Visit to a solar based micro-grid that serves the local village market and interaction with the Village level Entrepreneur (VLE) and shop owners (customers of the grid) • Lunch with the Energy Efficiency team and state level experts • Hands on training and case study specific group discussions • Skill Development training programme • 17:00 –hrs Travel from Lucknow to New Delhi 	Coordinated by Mr. Asim Mirza (Field Manager, Social Transformation Division, TERI)
<i>Sunday, April 12, 2015 – Free day/Delhi sight seeing</i>	<i>Coordinated by Mr. Sandeep Arora</i>
Monday, April 13, 2015	
Session 1: Realising India's Solar Mission: policies and strategies - 10.00 hrs – 11.00 hrs	Mr. Shirish Garud (Associate Director, Energy Environment Tech. Development Division, TERI) / Mr. Tarun Kapur (Joint Secretary, MNRE)
Session 2: The ups and downs of developing India's wind energy programme – 11.30 hrs – 13.00 hrs	Mr. N S Prasad (Senior Fellow, Energy Environment Tech. Development Division, TERI)
<i>Afternoon: Group work (14.00 hrs – 17.00 hrs)</i>	
Evening interaction (18.00 hrs) (followed by dinner at TU)	
➤ Talk by Ambassador Arne Walthers	
Tuesday, April 14, 2015, Site Visit (National Small Hydro Energy Centre, Roorkee 0600 hrs: Travel by train to Roorkee (lunch on the way)	
<ul style="list-style-type: none"> • 1400 hrs: Visit to Small Hydro Power Site (To be organized by Dr. Arun Kumar) • 1600 hrs : Arrival at Roorkee • 1800 hrs : Tea • 1900 hrs : Site visit / dinner 	Coordinated by Dr. Arun Kumar

3.6.3.B.

Wednesday, April 15, 2015 Site Visit (National Small Hydro Energy Centre, Roorkee)	
<ul style="list-style-type: none"> • 0900 hrs : Visit to National Small Hydro Energy Centre including SHP testing lab and training simulator • 1230 hrs : Lunch • 1400 hrs : Departure for Delhi 	Coordinated by Dr. Arun Kumar
Thursday, April 16, 2015	
<p>Session 1: Energy and environment challenges and responses – Responses of policy regulations (implications of CPCB, SPCB guidelines)</p> <p>10.00 hrs – 11.15 hrs</p>	Dr. Piyali Das (Fellow, TERI)
<p>Session 2: Managing India’s electricity grid</p> <p>11.30 hrs – 13.00 hrs</p>	Mr. K. Ramanathan (Distinguished Fellow, TERI)
<p>Session 3: Afternoon: Visit to Regional Load despatch Center</p> <p>14.00 – 16.00 hrs</p>	<p>Interaction with Mr K V S Baba (GM, Northern Regional Load Despatch Centre)</p> <p>a) Talk Subject – Role of Regional Load despatch Center in managing India’s electricity grid</p> <p>Visit organized from TERI University side – Mr. Sandeep Arora (to be accompanied by a research professional)</p>
<p>Evening: Interaction (18.00 hrs onwards)</p> <p>Mr Amit Kapur (Jyoti Sagar and Associates) (TBC)</p> <p>a) Dr. Mohua Mukherji (World Bank) – Banks perspective on sustainable energy for all</p> <p>Cultural programme + High Dinner</p>	
Friday, April 17, 2015	
<p>Session 1: Financing sustainable energy</p> <p>- Emerging sustainable energy and climate finance mechanisms and opportunities</p> <p>10.00 hrs – 11.00 hrs</p>	Dr. Manipadma Datta (Professor, TERI University)
<p>Session 2: Overcoming barriers to attain Sustainable Energy Leadership across developing countries: Individual Country Perspectives – A</p>	<p>Ambassador Ajai Malhotra (Distinguished Fellow, TERI)</p> <p>Ambassador C. Dasgupta (Distinguished</p>

3.6.3.B.

Round Table 11.15 hrs – 13.30 hrs	Fellow, Emeritus TERI) Dr. Prodipto Ghosh (Distinguished Fellow, TERI)
Closing Session (14.00 hrs onwards) : Presentation by Participants (in Groups – Presentation on the group exercise case studies and summary take away points of the course and its future application in the specific country contexts of the participants) - Feedback by Participants Chair: Ms. Ayumi Fujino, Head of UNIDO Regional Office in India Dr. Leena Srivastava, Vice Chancellor, TERI University	
DEPARTURE – 17TH NIGHT / 18TH MORNING – AIRPORT DROP	



Young Researchers' South Asian Symposium on Sustainable Development

Date: 5th to 7th February, 2015
Venue: TERI University, New Delhi

Draft Agenda

Day 1: 5th February 2015	
0900 - 0930	Registration
0930 – 1100: Opening Session (Conference Hall)	
0930 - 0935	Welcome address: Dr. Rajiv Seth, Registrar TERI University
0935 - 0940	About the Young Researcher's Symposium: Dr. Shaleen Singhal, Head, Department of Policy Studies, TERI University
0940 – 0955	Multi-media presentation on TERI University and TERI
0955 – 1000	Briefing session: Dr. Chubamenla Jamir, Department of Natural Resources, TERI University
1000 - 1015	Introduction of participants
1015 – 1045: Tea	
1045 – 1300: Poster Presentation Session	
1045 – 1300	Poster presentation to the panel Interaction with faculty members and post graduate students
1300 – 1400: Lunch	
1400 – 1530: Poster Presentation Session	
1400 – 1530	Poster presentation to the panel Interaction with faculty members and post graduate students
1545 – 1645	Attending the address by Former Governor Arnold Schwarzenegger and Dr. R K Pachauri, Chancellor TERI University



Young Researchers' South Asian Symposium on Sustainable Development

Date: 5th to 7th February, 2015
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Day 2: 6th February 2015	
0930 – 1230: Oral presentations at Parallel Session I and II	
Thematic Tracks <ol style="list-style-type: none"> 1. <i>Water, food security, agriculture and public health</i> 2. <i>Sustainable cities and urban systems including waste management</i> 3. <i>Business sustainability, sustainable policies and education for sustainable development</i> 4. <i>Natural resources management and renewable energy</i> 5. <i>Human ecosystem interactions and climate change</i> 	
1230 – 1330: Lunch	
1330: Travel by bus for participation at Delhi Sustainable Development Summit 2015	

Day 3: 7th February 2015	
0930 - 1000	Tour of TERI University
1020 - 1130	Attending the interaction with HE Ms Ségolène Royal, Minister of Ecology, Sustainable Development and Energy, France <ul style="list-style-type: none"> o Ceremonial planting of the trees o Minister's addresses on climate, COP21 and energy transition in France
1130: Travel by bus for participation at Delhi Sustainable Development Summit 2015	



Young Researchers' South Asian Symposium on Sustainable Development

Date: 5th to 7th February, 2015
Venue: TERI University, New Delhi

Details of oral presentations under thematic tracks on 6th February 2015

Parallel Session I (Conference Hall)

Thematic track 1: Water, food security, agriculture and public health

1. Rupak. Kumar, A Sustainable Environmental Solution: Microbial Degradation and reduction of Morpholine in Industrial Effluents, Birla Institute of Technology and Sciences, Hyderabad.
2. Ankit Tulsyan, Sanitation for All, TERI University, Delhi.
3. Sunil Dahiya, Life cycle environmental impact assessment of natural gas combined cycle thermal power plant in Andhra Pradesh, India, TERI University, Delhi.
4. Anthony Oyeogbe, Towards Sustainable Intensification of Climate Smart Agriculture: Precision Conservation Agriculture for Managing Nitrogen and Weed in Maize -Wheat System, Indian Agricultural Research Institute, Delhi.
5. Archana Yadav, Stress tolerant PGPR are potentials for sustainable Agriculture, Amity University, NOIDA.
6. Poonam Khatri, Application of Life Cycle Assessment for Enhancing the Sustainability of Edible Mustard Oil Supply Chain, TERI University, Delhi.

Thematic track 2 Sustainable cities and urban systems including waste management

7. Anurag Varma, "Integration of Cultural determinants in a sustainable urban development paradigm for Case Study: Vrindavan, Brajbhoomi, India," TERI University, Delhi.
8. P. Venkatakrisnan, "A model for the analysis and assessment of the contribution of road traffic to air pollution in the urban area - signal processing approach", K.L.N College of Information Technology, Pottapalayam.
9. Parvesh Kumar, "Financial model for Public Bike Sharing (PBS) system in Indian cities," TERI University, Delhi.
10. Sourabh Jain, "Carrying Capacity based Approach to Sustainable Urban Development" TERI University, Delhi.
11. Ritu Ahuja, "Confluence of BIM-Lean-Green Paradigms for Sustainable Built Environment," Amity University, NOIDA.
12. Chetna Chauhan, "Title: An Assessment and Management of Residues in E-waste Recycling", TERI University, Delhi
13. Preeti Agarwal, "Low carbon transportation in Delhi - current and future projections under various policy measures", TERI University, Delhi
14. Mohammad Ziauddin, "Top-Down and Bottom-up Approaches in Urban Regeneration Integrative Methodology for Sustainable Urban Regeneration in TOD Influence Zones. Case Study: Delhi", TERI University, Delhi.



Young Researchers' South Asian Symposium on Sustainable Development

Date: 5th to 7th February, 2015
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Parallel session II (Seminar Hall)

Thematic track 3: Business sustainability, sustainable policies and education for sustainable development

1. Anupriya Desore, "Strategic Response towards Sustainability Issues in Indian Textile Industry," TERI University, Delhi.
2. Ria Sinha, "Emerging Sustainability Issues in Business: A Study of the Interface between Environment, Social and Governance Variables and Business with special reference to Indian Corporate Sector," TERI University, Delhi.
3. Gagan Preet Kaur, "Education For Sustainable Development: Developing Capacities Of Youth Towards Energy Management And Sustainability," Lady Irwin College, Delhi.
4. Ritu Dhingra, "Natural Resource Use And Management Through Traditional Knowledge Systems- Leading To Sustainable Development," ITM University, Gurgaon.
5. Meenal Jain, "Rural Electrification Programme In Chattisgarh State Of India: Stakeholders' Perspective," Lady Irwin College, Delhi.
6. Parashram Jakappa Patil, "Rural Sustainable Development : - An experience of Indian cashew," B. K. College, Belgaum, Karnataka.

Thematic track 4: Natural resources management and renewable energy

7. Kiran Patil, "How an individual can participate in capacity building for renewable energy in India?" NMIMS, Mumbai.
8. Guru Prasad MR, "State Of environment and natural resources," Indian Institute of Science, Bangalore.
9. Himanshu Govil, "Prospecting for hydrothermal mineral deposits in the Himalaya using short-wave infrared spectroscopy for sustainable development of mineral resources," Aligarh Muslim University, Aligarh.
10. Anusheema Chakraborty – "Climate change and Himalayan forests - adaptive co-management in the face of uncertainty", TERI University, Delhi.

Thematic track 5: Human ecosystem interactions and climate change

11. Gauravi Saini, "Case study: Immediate threats and vulnerabilities in the sundarbans due to climate change at patharpratima blocks, Sundarbans," South Pole Carbon, Delhi.
12. Roopam Shukla, "Assessing vulnerability of mountain communities of Western Himalayas to climate change," TERI University, Delhi.
13. Shilpy Verma, "Climate Change Impacts on Economic Growth: A Cross-country Analysis," Jawaharlal Nehru University, Delhi.
14. Sujata, "Analysis of climate change scenarios and approach to mitigate climate change using Artificial Intelligence tool," TERI University, Delhi.



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Summer School

*Towards a Swachh Bharat:
Managing Risks and Challenges in Urban WASH Service Delivery*

TERI University, 10 Institutional Area, Vasant Kunj, New Delhi-110070

Inaugural Session, August 3rd, 2015

Agenda

10:00 am-10:05 am	Welcoming Guests and Participants- By Dr. Bhawna Bali, Faculty, Department of Policy Studies
10.05 am – 10:15 am	Welcome address by Dr. Rajiv Seth, Acting Vice Chancellor, TERI University
10:15- 10:30 am	Address by the Chief Guest, Shri. Rohit Kakkar, Dy Advisor (PHE), Ministry of Urban Development
10:30 am- 10:40 am	Address by Mr. Paul Seong, Director (A), Office of Partnerships, USAID/India -
10:40 am- 10:50 am	Address by Ms. Neelima Khetan, Director - CSR & Sustainability at Coca-Cola India South West Asia
10:50 am-11:00 am	Address by Prof. Arun Kansal, Head, Coca Cola Department of Regional Water Studies, TERI University
	Vote of thanks- Dr. Shaleen Singhal, Head, Department of Policy Studies, TERI University
11:00- 11:30	High Tea

3.6.3.B.



TERI University
Building Learning in Sustainability Science (BLISS 2015)
March 16-20, 2015

Broad thematic areas and detailed agenda

Theme 1: Society, Environment and Sustainability

- *Session 1: Sustainable Development: Issues and Perspectives in Indian Context*
- *Session 2: Leadership for Business Sustainability*

Theme 2: Sustainable Settlement Systems (Rural and Urban)

- *Session 3: Sustainable settlements: Issues of Shelter, Food Security Health and Employment*
- *Session 4: Urbanisation and Challenges to Human settlements*
- *Session 5: Infrastructure Development and Risk for Sustainable Settlements*
- *Session 6: Panel Discussion on Sustainable Settlements and Governance*
- *Session 7: Advanced Research on Sustainable Settlements*

Theme 3: Innovations and Technologies for Sustainability

- *Session 8: Energy Security*
- *Session 9: Air and Water Resource Management*
- *Session 10: Land Use and Soil Conservation*
- *Session 11: Panel Discussion on Save the Tigers by Aircel*

Theme 4: Innovations and Technologies for Sustainability

- *Session 12: Biotechnology, Food security and Health*
- *Session 13: Combating Climate Change*
- *Session 14 Approaches to Biodiversity Conservation in India – ABS and REDD+*

Theme 5: Implementation and Outreach for Sustainability

- *Session 15: Implementation of SDGs: Role of Stakeholders*
- *Session 16: Panel Discussion on “SDGs: Conflicts among Stakeholders and its Resolution”*
- *Session 17: Career Opportunities for Sustainability*

Day 1: March 16, 2015

Inauguration and Distinguished Lecture: (9.30 AM)

Dr. Leena Srivastava, Acting Director General, TERI

BLISS Theme 1: Society, Environment and Sustainability

Monday, March 16 (10.00 AM-04:30PM)

Theme Anchor: Dr. Ritu Mathur

Session 1	Sustainable Development : Issues and Perspectives in Indian Context (10:00 am- 11:30 am)
Session Moderator	Dr Ritu Mathur, Professor, TERI University
Session Coordinators	Dr. Ritu Mathur
Learning Objectives	The foremost technical session of BLISS 2014 will strive to outline issues of global sustainability challenges across economic, social and environmental dimensions, which will set-up an appropriate tone for learning in later sessions of the school.
Key Speakers	Sustainable Development: Issues and perspectives in the Indian Context Moderator: <i>Prof Kanchan Chopra, TERI University</i> Panelists: <i>Dr Purnamita Dasgupta, Institute of Economic Growth</i> <i>Dr Navroz Dubash, Centre for Policy Research (TBC)</i> <i>Dr. Ritu Mathur, Professor, TERI University</i>
Main Areas of Discussion	<ul style="list-style-type: none"> • Global environmental change: the mega trend • Economy and Society, Key Challenges • Addressing Sustainable Development Challenges through innovative technology, efficient institutions and governance
Pedagogy	Issues of sustainable challenges impacting India and Globe will be brought forth primarily through structured talks. Understanding on issues will also be facilitated through several experiential modes of learning, i.e., a short-quiz event, an innovative skit presented by the students of TERI University and discussion sessions

Session 2	Leadership for Business Sustainability (02:00 pm- 03:00 pm)
Session Moderator	Prof. Manipadma Datta, Professor and Head, Deptt. Of Business Sustainability
Session Coordinators	Dr. Sapna A. Narula, Associate Professor, Deptt. Of Business Sustainability

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<p>Learning Objectives</p>	<ul style="list-style-type: none"> • Giving a broad idea about the leadership challenges to business sustainability; • Reiterating the idea of developing a sustainable mindset; • Providing a clear understanding of the CSR-Business Sustainability interface; • Providing inputs for a new model of leadership
<p>Key Speakers</p>	<ul style="list-style-type: none"> • Business Response to increasing resource constrains due to Climate Change <i>Mr Arupendra Nath Mullick , TERI-BCSD</i> • How sustainable development can be profitable <i>Mr Manoj Kumar Singh, Indus Towers Ltd</i> <i>Dr. Santosh Deshmukh, Jain Irrigation Systems</i> • Time for inclusive business models for sustainable development <i>Mr Roop Salotra, SRF Ltd</i> • Integrating Sustainability into Business <i>Mr. Ashok Chakroborthy, Chief Sustainability Officer, Indian Institute of Corporate Affairs</i>
<p>Main Areas of Discussion</p>	<p>Linking Sustainability with profits</p>
<p>Pedagogy</p>	<p>Interactive lectures</p>

Day 2: March 17, 2015

Theme 2: Sustainable Settlement Systems (Rural and Urban) Tuesday, March 17 (09:30AM -05:00PM)

Theme Anchor: Dr. Papiya Mazumdar

Session 3	Sustainable settlements: Issues of Shelter, Food Security Health and Employment (10:00 am - 11:15 am)
Session Moderator	Dr.Papiya Mazumdar
Session coordinator	Dr.Papiya Mazumdar
Learning Objectives	The session is geared to unfold the overall challenges of sustainable urban settlements spanning across rural and urban terrains. The speaker in the session would touch upon issues of human habitation, food-security, spatial determinants of health, and issues of livelihood and employment.
Key Speakers	Dr. Vishal Narain (Associate Professor, Public Policy and Governance, MDI, Gurgaon) (<i>To be confirmed</i>) Dr. Vijaylakshmi (Vice-President, Development Alternative, New Delhi) (<i>To be confirmed</i>) Dr. Papiya Mazumdar (TERI University)
Main Areas of Discussion	Sustainability challenges of human settlements, with rural and urban focus Issues of settlement links to health, livelihood/employment, food-security, social conflicts over limited resources etc
Pedagogy	Brief case-based presentations by each participants, followed by question/answer session

Session 4	Urbanisation and challenges to Human settlements (11:45 am- 01:00 pm)
Session Moderator	Dr. Bhawna Bali
Session Coordinators	Dr. Bhawna Bali
Learning Objectives	The causes and consequences of rapid urbanization as emerging challenges for sustainable settlements will be discussed. The important concept of 'Smart Cities' be unfolded as solution to many of the existing challenges of Indian urban habitations. Issues and challenges of Transportation, and Waste Management would be discussed at length, with due emphasis given on urban and rural settlement systems Speakers will touch upon the demand-side issues of basic

3.6.3.B.

	infrastructure and transportations, in the rapidly growing cities of developing countries. Issues of consumption pattern of fuel, water, other key-elements and their impacts of overall environment will be discussed with due emphasis.
Key Speakers	On urbanization and smart cities; <i>Dr. Shaleen Singhal</i> Transport: <i>Dr. Yash Sachdeva</i> (To be confirmed) <i>Dr. Suresh Jain</i> : TERI University Waste Management: Challenges and Emerging Models: <i>Dr. Suneel Pandey</i> , TERI <i>Dr. Lakshmi Raghupathy</i> , Visiting faculty, TERI University <i>Dr. Vinay Kumar Tyagi</i> , TERI University
Main Areas of Discussion	Speakers will touch upon issues of Transportation and Waste management, relevant to both urban and rural contexts
Pedagogy	Short presentations by the speakers on issues mentioned above

Session 5	Infrastructure Development and Risk for Sustainable Settlements (2:00pm - 3:00 pm)
Session Moderator	Dr. Papiya Mazumdar, Asstt. Professor, TERI University
Session Coordinators	Dr.Papiya Mazumdar
Learning Objectives	The objective of the session is to make participants aware of the
Key Speakers	Building Infrastructure: <i>Dr. Hina Zia</i> (TERI) (To be confirmed) Best practices in rural/ peri-urban areas <i>Dr. Siddharth Agarwal</i> (Ex. Director, Urban Health Resource Centre) (To be confirmed)
Main Areas of Discussion	Issues of building infrastructure, best practices and probable solutions related to rural and urban areas will be discussed
Pedagogy	Short case-based presentations by two speakers

Session 6	Panel Discussion on Sustainable Settlements and Governance (03:30 pm - 05:00 pm)
Session Moderator	Dr. Suresh Jain
Session Co-ordinator	Dr.Papiya Mazumdar
Learning Objectives	Expert panel will touch upon intertwined issues and challenges involving the key-areas, governance challenges and alternatives would be discussed, to expose participants to certain important aspects of sustainable settlements

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Key Panellists	<i>Dr. Yash Sachdeva Dr. Lakshmi Raghupathy Dr. Siddharth Agarwal Dr. Hina Zia Dr. Suneel Pandey Dr. Vinay Kumar Tyagi Dr. Bhawna Bali</i>
Main Areas of Discussion	Emerging Issues for Sustainable such as transport, waste management and Infrastructure development will be dealt with.
Pedagogy	Panel discussion
Session 7	Advanced Research on Sustainable Settlements (03:30 pm - 05:00 pm)
Session Moderator	(A Senior Ph.D Scholar from UDM)
Session Coordinators	Dr.Papiya Mazumdar
Learning Objectives	Participants would be exposed to the issues of sustainable settlements and robust methodological approaches that are deployed by the students for careful research based investigation.
Key Speakers	Three doctoral-level students from TERI university, working on issues related to sustainable settlements would take part in in the session
Main Areas of Discussion	The myriad issues of urban and rural settlements as being focused through students' doctoral research conducted at TERI University will be presented.
Pedagogy	Power-point presentations followed by interactive session through questions & answers

Day 3: March 18, 2015

Theme 3: Innovations and Technologies for Sustainability I

Wednesday, March 18 (9:30 AM–5:50 PM)

Theme Anchor: Dr. N.S. Prasad

Session 8	Energy Security (10:00 am - 11:30 am)
Session Moderator	Dr. Ritu Mathur, TERI University
Session Coordinators	Dr. Ritu Mathur, TERI University
Learning Objectives	This module will discuss India's energy security challenges from various perspectives and provide insights into possible relevant options for the country
	Mr. AK Jain, Planning Commission, Government of India Panel Discussion
Main Areas of Discussion	Challenges and Options of India's Energy Security
Pedagogy	Lecture by Lead Speaker and subsequent interaction with participants

Session 9	Air and Water Resource Management (11:45 am - 01:00pm)
Session Moderator	Mr Sumit Sharma and Prof. Arun Kansal, TERI University
Session Coordinators	Senior students of Water Department, TERI University
Learning Objectives	To acquaint students about the challenges, innovations and career opportunities in Air pollution and Water Resources Management
Key Speakers	The key speakers includes, Practicing professionals, and Senior Students of Water Department at TERI University
Main Areas of Discussion	The discussion in this session will revolve around how issues of air and water pollution have impacted all living beings on planet and how an urgent action is required from all stakeholders' end.
Key Speakers	Theme Introduction: <i>Dr. N.S. Prasad</i> Water and Future - Engineering and Reengineering of the Sector- <i>Mr Priyank Jain</i> Reducing Water Footprint in Beverage industry - a case study of Coca-Cola (title tbc). <i>Mr Sunil Gulati</i> , Open house discussions-Panel: <i>Prof Kansal, Mr Sunil Gulati, Ms Fawzia Tarranum and Mr Priyank Jain</i>
Pedagogy	Presentations, discussions and question answer sessions

3.6.3.B.

Session 10: Land Use and Soil Conservation (02:00 pm – 03:00 pm)

Session 11	Panel Discussion on Save the Tigers by Aircel (03:30 pm – 05:00)
Session Moderator	Dr. Sapna A. Narula , Associate Professor, TERI University
Session Coordinators	Ms. Vanshaja, Aircel
Learning Objectives	The objective of the session is to spread awareness about tiger conservation and the efforts being adopted by corporate sector
Key Speakers	<p><i>Ms. Brinda Malhotra, Head – Corporate Social Responsibility, Aircel</i></p> <p><i>Mr. Vivek Menon, Conservationist & Executive Director, Wildlife Trust of India</i></p> <p><i>Ms. Shivani Wazir Pasrich, Chairperson – Commonwealth Society of India, Asia Representative of the Royal Commonwealth Society, Celebrated Actor & Theatre Artist (Creator of the play ‘I Am The Tiger’)</i></p>
Main Areas of Discussion (2:00 pm – 3:00 pm)	Aircel’s efforts in the direction of Tiger conservation through its highly successful initiative - ‘Save Our Tigers’ and the impact that it created along with partners
Pedagogy	Panel Discussion

Session	Innovations, Technologies & Processes
Session Moderator	Dr. NS Prasad
Session Coordinators	Dr. N. S. Prasad
Main Speakers	<p>Innovate on Demand, <i>Mr. Alfred Arambhan, Founder & Group Head, Aarambhan Group</i></p> <p>Innovations and Technologies towards sustainability in Agri-Field, <i>Mr. Rantej Sigh, VP, RML Info Services Pvt Ltd</i></p> <p>Innovations in emerging areas of technology- <i>Dr. R Raghunandan, Consultant</i></p>
Main Areas of Discussion	The discussion will focus on how technological innovation can help provide sustainability solutions. The three sessions will focus on cases to showcase the impact new technological innovations have had on society.

3.6.3.B.

Pedagogy	Lectures, Presentations, Demonstrations
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Day 4: March 19, 2015

BLISS Theme 4: Innovations and Technologies for Sustainability II

Thursday, March 19 (09:00AM-05:30PM)

Introduction and Interaction with Participants by Theme Anchor: Dr. Sudipto Chatterjee (9.30AM -10.30 AM)

Session 12	Biotechnology, Food security and Health (10:30 am - 1.00 am)
Session Moderator	Dr. Anandita Singh
Session Coordinators	Convener: Dr. Vibha Dhwan (Deputy Director, Borlaug Institute of South Africa, CIMMYT) and Former Vice Chancellor, TERI University, Executive Director, Centre for Bio resources and Biotechnology, TERI Introductory Remarks and Introduction to Speakers : 10.00 – 10.30 Hrs
Learning Objectives	Applications of Biotechnology for food security and health
Key Speakers	Lecture 1: Biotechnology for Food Security and Health: Promises and Challenges of GM crops Speaker: <i>Dr KC Bansal</i> , Director, NBPGR, IARI (10:30-11:30 AM) Lecture 2: Molecular Breeding for Food Security and Health Speakers <i>Dr Arvind Kapur</i> , CEO, Rasi Seeds @ 11:30 am-12:30 pm)
Main Areas of Discussion	Areas of concern on applications of biotechnology for food security
Pedagogy	Presentations and discussions and interaction of three panelist with participants: 12:30-12:45 PM

Session 13	Combating Climate Change (02:00 pm - 03:00 pm)
Session Moderator	Dr. Kamna Sachdeva & Dr. Anu R Sharma
Session Coordinators	Dr. Kamna Sachdeva
Learning Objectives	Session will be a unique starting point to learn about innovative strategies/technologies which can prove expedient in combating climate change
Key Speakers	<i>Dr. Pradipto Ghosh</i> , Distinguished Fellow, TERI
Main Areas of Discussion	New thinking: Combating Climate change; Role of technology in combating climate change

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Pedagogy	Energiser, lecture and panel discussion
Session 14	Approaches to Biodiversity Conservation in India - ABS and REDD+ (03:30 pm - 05:00 pm)
Session Moderator	Dr. Yogesh Gokhale
Session coordinators	Dr. Yogesh Gokhale, Ms Disha Mittal (PhD scholar), Ms Sahaj Kaur (PhD scholar), Ms Priyanka (PhD scholar)
Learning Objectives	Present status of implementation of Biodiversity Conservation in India
Key Speakers	<p>Access and Benefit Sharing: Instrument for sustainable utilisation of biodiversity in India <i>Dr. Yogesh Gokhale</i></p> <p>Implementation of REDD+ as an financial instrument for biodiversity Conservation. <i>Mr. Suresh Chauhan</i></p> <p>Interactions of participants with panelists. (1700- 17. 30 Hrs)</p> <p>Film on REDD+(Presentation will begin with the film)</p>
Main Areas of Discussion	Convention on Biological Diversity (CBD) and present status and feasibility of implementation of REDD+ in India.
Pedagogy	Presentations and Discussions with speakers

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Day 5: March 20, Friday 2015

Theme 5: Implementation and Outreach for Sustainability

Theme Anchor: Dr. Soumendu Sarkar

9.00 - 10.00 Hrs	Theme Introduction and Interaction with participants: Dr. Nandan Nawn, TERI University
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Session 15	Implementation of SDGs: Role of Stakeholders (10:00 am - 11:30 am)
Session Moderator	Ms Sonika Goyal, TERI University
Session coordinator	Dr. Soumendu Sarkar, TERI University
Learning Objective	To understand the role of stakeholders in achieving sustainable development goals
Key Speakers	Presentations (10.30-12.00 Hrs): Role of Government: <i>Dr Prodipto Ghosh</i> , TERI Role of Industry: <i>Mr Ranjeet Singh</i> , Maruti/Neelima, Coke Bharti Foundation/ <i>Mr Ashis</i> , Tetrapak (TBC) Role of Media: <i>Mr Dinkar Peri</i> , Hindu/ <i>Rajiv Chibber</i> Role of Youth: <i>Ms Ranjana Saikia</i> , TERI Role of Think-tanks: <i>Dr Annapurna</i> , TERI Panel Discussion among presenters on SDGs: Conflicts among Stakeholders and its Resolution (12.00-13.00 Hrs): <i>Anchor: Dr. Nandan Nawn</i>
Main Areas of Discussion	Sustainable Development goals, sustainability, and stakeholders
Pedagogy	15 minutes lecture by each speaker followed by Q&A session and a panel discussion

13.00 - 14.00 Hrs: LUNCH

Session 16: Panel Discussion on “SDGs: Conflicts among Stakeholders and its Resolution” (11:45 am - 01:00 pm)

Session 17	Career Opportunities for Sustainability (02:00 pm - 03:00 pm) (10 minute presentations)
Session Moderator	Mangala Dubey, TERI University
Session	Dr. Soumendu Sarkar, TERI University

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coordinator	
Learning Objective	To explore various career paths in the field of sustainability and sustainable development
Key Speakers	<i>Ms. Geetika</i> , TERI <i>Mr Surender</i> , Shakti Foundation/ECLEI/GRIHA/George, DA/Bharti/HCL (TBC)
Main Area of Discussion	Career in Sustainability
Pedagogy	Presentations followed by discussion with participants

Session 15.30 - 16.00	Open Debate
Session Moderator	Ms Sonika Goyal, TERI University
Session coordinator	Ms Supriya Singh, TERI (TBD)
Learning Objective	Sustainability: The Road Ahead (TBC)
Key Speakers	Participants of the program
Main Areas of Discussion	Sustainability, sustainable development, cleaner and greener societies
Pedagogy	Open debate

For any agenda related queries:

Dr. Sapna A. Narula

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3.6.3.B.



Round table

On the movement abolish nuclear tests worldwide with representatives of the organisation "bike for peace"

Organised by

Embassy of Kazakhstan and TERI University

Agenda

10:30 to 10:35	Welcome: Dr Rajiv Seth, Acting Vice Chancellor, TERI University
10:40 to 10:50	Movie
10:50 to 11:00	Bike for peace representative
11: 00 to 11:05	Vinod Kumar, IDSA
11:05 to 11:10	Rishika Singh, Lawyer; PhD Scholar, TERI University
11: 10 to 11: 20	Students
11:20 to 11: 25	Counselor Serikzhan Akshalov, Embassy of Kazakhstan
11:25 to 11:30	Wrap-up



**Movement To Abolish Nuclear Tests Worldwide With Representatives Of The Organisation
"BIKE FOR PEACE"
3rd December 2015**

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Integrated Water Resources Management program for capacity building in

South- Asian region

January 22 - 25, 2014

TERI University, 10 Institutional Area, Vasant Kunj, New Delhi, India

Day 1, January 22, 2014	
9:30 – 11:00	<p>Session 1 – Inaugural session</p> <ul style="list-style-type: none"> ▪ Round of Introduction ▪ Welcome note and workshop goals: Prof. Prateek Sharma, Dean Faculty of Applied Sciences, TERI University ▪ Introduction to South Asia Water Initiative (SAWI): Dr Bill Young, Program Leader, The World Bank, New Delhi ▪ Water challenges of 21st century: Dr. K M Najeeb, Member, Central Ground Water Board, India ▪ Keynote address by Sh Suresh Prabhu: Trans-boundary water sharing and conflict management ▪ Vote of thanks: Dr. Rajiv Seth, Registrar, TERI University
11:00 – 11:30	High tea
11:30 – 13:00	<p>Session 2 – Water management challenges and capacity building needs</p> <p>Session Chair: Dr. D.K. Chaddha, President Global Hydrological Solutions and Former Chairman, CGWB</p> <p>Speakers</p> <p>Mr G.K. Chhopel, Head, National Environment Commission, Bhutan Dr. Andrea Turner & Prof. Stuart White, ISF, UTS, Australia Mr R K Jain, Central Water Commission, New Delhi Ms Mansi Jasuja, Water Governance Institute, The Netherland</p>
13:00 – 14:00	Lunch
14:00 – 15:30	<p>Session 3 – Experience sharing by institutes offering Water Resources related programmes</p> <p>Session Chair: Prof. Pema Thinley, Vice Chancellor, Royal University of Bhutan</p> <p>Speakers</p> <p>Prof. Imtiaz Ahmed, Dhaka University, Bangladesh Prof. Philip Eberbach, Charles Sturt University, Australia Prof. Nagesh Kumar, IISc, Bangalore Dr. K Ramamohan Reddy, JNTU, Hyderabad</p>
15:30 – 16:00	Tea/Coffee break

3.6.3.B.

16:00-16:15	Session 4 Ms. Archana Chaterjee, Project Manager, IUCN Title: Shared Waterscapes, Shared Opportunities: Ecosystems For Life- A Bangladesh-India Initiative
16:15 – 16:30	Dr. Neena Rao, SaciWATERs, India; Towards a new paradigm in water resources management in South Asia(Exact title -TBC)
16:30 – 17:00	Briefing about programme philosophy and exploratory discussions on partnership and programme delivery model Prof. Arun Kansal, TERI University, India
19:00 onwards	Welcome dinner at Hotel Grand
Day 2, January 23, 2014	
9:30 – 11:00	Session 1 – Open session Reflections from the participants on water conflict management, multi-institutional partnership models & governance, and options for IWRM capacity development in South-Asian region Session Chair: Prof Dr Khem Raj Sharma, Nepal Engineering College, Nepal Speakers Col P K Gautam, IDSA, India Mr Tshering Wangdi, Director, Sherubtse College, Bhutan Dr. Medha Bisht, South Asian University, India Prof. S Singh, North Eastern Hill University, Shilong, India
11:00 – 11:30	Tea/coffee break
11:30 – 13:00	Session 2 – Open session contd... Session Chair: Prof Chandan Mahanta, IIT, Guwhati Speakers Dr. S K Rohilla, Programme Director-Water Management, CSE, India Dr. Uttam Sinha, IDSA, New Delhi Dr. V C Goyal ,NIH, Roorkee Dr. Vishal Narain, MDI, Gurgaon
13:00 – 14:00	Lunch
14:00 – 15:30	Session 3 – Breakaway group activity I Group I: Science and engineering Group II: Governance and policy Group III: Socio-economics Each group will have a team leader who will facilitate discussion within the group
15:30 – 16:00	Tea/Coffee break
16:00 – 17:30	Session 4 – Breakaway group activity I (contd.)
Day 3, January 24, 2014	
09:30 – 11:30	Session 1 – Breakaway group activity I (contd.)
10:30 – 11:00	Tea/coffee break
11:00 – 13:00	Session 2 – Breakaway group activity I (Contd.)
13:00 – 14:00	Lunch

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14:00 – 15:30	Session 3 – Breakaway group activity II Group I: Discussions on regional launch of the programme, dissemination and marketing strategies Group II: development of partnership model, resource requirements and funding opportunities
15:30 – 16:00	Tea/coffee break
16:00 – 17:30	Session 4 – Breakaway group activity II (contd.)
Day 4, January 25, 2014	
09:30 – 11:00	Session 1 – Briefing by Group leaders of the breakaway activity I and discussions
11:00 – 11:30	Tea/coffee break
11:30 – 13:00	Session 2 – Briefing by Group leaders of the breakaway activity II and discussions
13:00 – 14:00	Lunch
14:00 – 17:30	Feedback session from stakeholder organisations and discussions on student intake policy and joint research activities Mr Karma Dukpa, Mr Deo Kumar Biswa, Mr Narayan Pradhan, Mr Ali Hasnain Sayed, Mr Kalimuthu, Mr Usman Mirza, Mr Eklavya Prasad, Dr. V Ratna Reddy, Mr Anuj Kanwal, Dr. Bharat Sharma, and others. Concluding remarks: Dr Leena Srivastava, Vice Chancellor, TERI University, India Workshop ends

3.6.3.B.

Summary proceedings of the workshop on 'Integrated Water Resource Management Programme for capacity building in South Asian region' at TERI University, January 22-25 2014

Background

The complex and inter-disciplinary nature of water resources problems coupled with the multi-level governance frameworks adopted for managing water resources require that they are dealt in an integrated manner by trained professionals who can analyze the problem using a holistic and system-based approach. There are various national and international institutions that offer discipline-specific and interdisciplinary programmes at postgraduate level in water resources engineering. However all these programmes have a major focus either on the science and engineering or on socio-economic aspects of water resource. The science, engineering, technology, legal, governance, socio-economic and other cross-cutting issues are not addressed in a holistic manner. Thus, there is a scarcity of formally trained manpower that has a broader and inclusive perspective towards water related problems. This inadequacy presents a strong case to understand the intersection between science and engineering, societal needs, and legal and governance framework.

In order to bridge this gap and keeping in consonance with the spirit of *UN international year of water cooperation* promulgated by UNGA in the year 2013 and priorities defined in India's *National Water Mission*, TERI University in collaboration with South-Asia Water Initiative (SAWI) and the World Bank, organized a workshop for developing a model course curriculum to develop future water sector leaders who would have the ability to address water issues in South-Asian region. The workshop also focused on developing a plan of action for collaboration amongst potential stakeholders in the region. A large part of South Asia's population lives in trans-boundary basins and aquifers. Water being a primary life support system and a crucial resource for economic growth, each state has its own interests to protect and manage this resource. However, "localized interests" have potential trans-boundary impacts resulting in conflicting interests and situations. Such situations require establishment of trans-boundary cooperation supported by a strong legal and governance framework. The workshop's vision was to create enabling environment for strengthening regional cooperation around water resources.

With this background in mind, a 4-day workshop was organized at TERI University in January 2014, which included participants from the academic and research institutions, NGOs and grass-root organizations, consultancies, and government bodies from India, Pakistan, Nepal, Bhutan, Bangladesh, Netherlands and Australia (see **Annexure I for details**). This paper presents the findings of the Workshop.

Workshop objectives and methodology

Following were the main objectives of the workshop:

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1. Obtain an overview of challenges of water resource management in South-Asian region from different stakeholders
2. Provide an opportunity to share experience amongst institutions active in water resource management, their success stories, and identify existing gaps in this area of capacity building.
3. Develop a model course curriculum for water resources management that can be offered at any University in the South Asian region.
4. To catalyze formation of network of professionals coming from grass root organizations, academic and research institutions, NGOs and consultancies, and government.
5. Explore avenues for potential students to engage with a consortium of organizations and institutions of repute within and outside the region

To provide further focus, a *workshop brief* about the objectives of the workshop along with expected inputs and guidelines for preparation was circulated to the participants in advance. The workshop had about 50 attendees from the government, educational institutions, research organizations, funding agencies, NGOs, grass root organizations and consultancies. A diverse group like this provided a number of different viewpoints and helped to develop a deeper understanding of various challenges associated with water resource management in South-Asian region.

To achieve objective (1), the first day of the workshop was dedicated for various thematic presentations by experts from various regions (**see Annexure II for details**). The forenoon session of the second day provided an open platform to participants to share their experience on water conflict management, multi-institutional partnership models and governance framework, and options for water resource capacity development in South-Asian region. Later part of the workshop adopted a breakaway group- *brainstorming in sandpit* format. Participants were grouped based on their respective field of specializations and interests. The breakaway group activities sought to achieve both the macro- and micro-details of the proposed initiative, viz., nature and name of the program, program objectives; skill sets as an outcome of the program, eligibility criteria, selection procedure, launching, dissemination and marketing strategies, resource requirements, partnership opportunities and models, funding opportunities, and model course curriculum.

ANALYSIS OF SESSIONS AND OUTCOMES

Speakers of the inaugural session of the workshop Mr Suresh Prabhu (Former Cabinet Minister, India), Dr Bill Young (Program Leader, SAWI) and Dr K M Najeeb (Member, CGWB, India) emphasized that not dealing with water is not an option at all and people of the region need to work on this issue on a continuous basis. Water challenges confronted by people of the region have attained such a dimension that it cannot be tackled alone or by a single community and must have an integrated approach across boundaries. Dr Prateek Sharma, Dean, TERI University welcomed the participants and talked about the

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objectives of the workshop. Dr. Young of SAWI in his presentation highlighted the water problem in the region and stressed upon the fact that the challenge of the region is not of water availability but more of water infrastructure, its management and governance. Integrated water resource management (IWRM) attains greater importance in the region in view of climate change induced effects and/or environment induced migration. Dr. Najeeb explained the concept of IWRM and pointed out skills that are required at policy level. Mr. Prabhu shared his apprehensions with regard to trans-boundary water conflicts in the region that has three nuclear weapons states. Further, he linked water management with the objective of improving human development index (HDI) of the region.

In subsequent sessions participants presented the water challenges and current initiatives by the governments in their respective countries, roles and activities of their institution in water sector and their own viewpoints on water resource management. Some thoughts presented by the participants are:

- 1. **Need for availability and sharing of data:** Water flows are scrutinized and not so easy to monitor in river basins that cut across regions. With climate change, current and projected data will further change. These changes must be established by joint studies and understanding so that countries work together for solution. The proposed program can be another pillar of cooperation spurred by academic interests.
- 2. **Need for appropriate choice and use of phrases:** For example, using water resources management, 'resources' brings in an element of commoditization of water and 'management' brings business angle to it. Similarly, 'water conflict management' should be replaced by 'water conflict transformation' as the former is more appropriate for managing water in conventional ways, and has been broadly associated with the demand-supply nexus, whereby the focus was on augmenting supplies through various water infrastructure projects. The current feeling is demand frameworks have spillover effects on societal and ecological domains. Other example is 'diplomacy and security' which implies adversarial elements like segmentation and chopping of rivers and can be replaced by 'harmony and cooperation'. Also, there were arguments against use of 'integrated' and in favor of use of 'comprehensive' as it was felt that the later would include flora, fauna and would entail a prolonged process where every detail is mapped and studied whereas 'integrated' would focus on identifying those key variables which would have a causal effect in integrating the basin in the most effective way.
- 3. **Accordinging attention to ocean pollution:** More than 80 per cent of ocean pollution is due to activities on land. Global warming will further damage sensitive ecosystem and its diversity. Collaborative research needs to be done to prevent Bay of Bengal and Arabian Sea from further pollution.
- 4. **Need for advanced systems:** Use of smart meters, decentralized systems, sophisticated modeling and use of *games and simulations* for pedagogy.
- 5. **Promoting sustainable agriculture:** The political economy of water intensive crops in water scarce regions needs to be re-looked. The various trans-boundary water sharing treaties needs to be reviewed with the lens of climate change scenarios and revised.
- 6. **Need for 'New' definition of water:** Water is 'life'; it is a human, fundamental and a statutory right; it is also treated as a property. It sustains ecology and it is sustained by ecology. The socio-

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technical definition of water could be H₂OP₄, where 4 Ps stands for Pollution, Power, Politics and Profit.

- 1. **Sharing of research results:** India has a prominent position in the world in the area of research on aerosols and black carbons. These are known causes of glacier and ice melt. This knowledge can be shared with neighboring countries as emission of soot is on similar lines.
- 2. **National water law:** It should include national consensus on ground water use which should be acceptable at national, state and community level, intra-and inter-sectoral use of water, and seasonal per capita storage to address the issue of water stress.
- 3. **Need for 'water networks' and their governance:** It is a bottom up approach and refers to processes and practices where actors come together to pursue common goals. This is particularly relevant in the South-Asian context, where water policies have colonial legacies and have been institutionalized from top-down. Since the structures of South-Asian societies (a nexus between irrigation bureaucracy, influential landlords, and corporate interests) are deterrents for any water policy reform, it is important to get like-minded groups/people together. Does South Asia have a common water vision? To start with, a vision for South-Asia is important.
- 4. **Exchange programmes:** Cross country visits with universities and institutions along with field visits are important to bridge the gap between theory and practice. Such exercises will result in future research frameworks which would then add to the broader debates on water issues.

OUTCOMES OF FACILITATED SESSIONS:

Title of the programme: Initial proposed title of 'integrated water resource management' was rejected on the ground that IWRM is just one of the many approaches to water management. Participants identified 11 alternative titles of the proposed program and discussed each title in detail. Consensus emerged for 'Masters in water science and governance'. Other titles accepted by majority of participants are:

- 1. Masters in water futures,
- 2. Masters in water vision and innovations,
- 3. Masters in innovative water management.

It was left to the discretion of a University to choose anyone amongst the proposed title.

Nature of the qualifications: The initial proposal given to participants was for an M.Tech. programme. However, participants from Bhutan remarked that the eligibility criteria for such a degree would be B.Tech or a Master's degree. In such a case, majority of students from Bhutan will get excluded and won't be able to benefit from the programme. Similar may be the case with students from Afghanistan. General suggestion from the participants was that the programme should be modular and based on the modules that the participants opt for and they could be awarded any one of the qualifications: post graduate degree/diploma/certificate (see Annexure III for details). Additionally, it was suggested that programme be designed in such a manner that the students get an opportunity to upgrade their qualifications.

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Program objectives: This was another much discussed topic among the participants. The idea was to define objectives that would reflect the conscience of the South-Asia region on water. Objectives were defined as below:

- ☐ To develop water professionals who are able to think beyond disciplines
- ☐ To bridge gaps between water sciences, policy and practice for sustainable water management
- ☐ To create South-Asian minds for mutual cooperation and empowerment
- ☐ To create a water hub (alternative suggestion is: to provide a platform) for exchange of knowledge and ideas relevant to South-Asian waters

Eligibility Criteria: B Tech or Master's degree in Science/Economics for awarding an M Tech degree; any graduate/ post graduate with Mathematics at senior school level for awarding M.Sc/ M.A. degree; any graduate qualification for awarding diploma, and anyone who has the drive and is opting for selected course work can be provided a certificate.

Selection Procedure: The aptitude, knowledge and vision of a student will be evaluated through interview and written test. A bicameral mode of selection was suggested. Thus, under this method a student will be pre-counseled about the programme modules, the expectations and the opportunities associated with the programme. The participants suggested that this might help the student to come out of his/her comfort zone and opt for additional courses prior to joining the program.

Program details: Based on the inputs gathered by participants on first two days and in their own wisdom, 30 courses were identified (**see annexure IV for details**). These courses were discussed further and 20 courses were identified which participants believed represented the soul of such a program. A participating university in the South-Asian region may select additional courses based on the local context.

Resource requirements: Participants were equivocal about the requirement of a unique set of faculty members to be hired from across South-Asia and beyond for training students. A University offering such a program would need to make substantial investment in developing IT infrastructure and training human resources for creating and management of virtual classrooms, online course materials, and 'simulation games'. The participants also expressed the importance of having a dedicated coordinator responsible for handling logistics like field travel, boarding and lodging for internship and field work and need for financial provisions to include networking cost for creating local partners for field work and dissertation. The host institution should also create an inventory of organizations for student internship placements.

Skill sets as an outcome of the programme: Communication, stakeholder engagement, analytical skills with critical thinking abilities; other relevant skills such as managerial, negotiation and conflict resolution, action-research, collaborative, team work.

Launching, dissemination and marketing strategies: Following propositions were made

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- 121 There can be a pool of institutions from South-Asia and eminent faculty members from these institutions could act as brand ambassadors for the program and disseminate the programme in various conferences/seminars etc they attend.
- 122 The participants opined that advertisements in newspapers and websites are short lived and hence it would be better if in the initial years the programme is marketed by direct interaction with students in various higher educational institutions, by participating in various education fairs, conducting lecture series, etc.
- 123 Identifying a nodal institution in each South-Asian country and selecting a faculty member who would be responsible for publicity of the programme
- 124 Registering the programme with the High Commission of the country
- 125 Publicity of the course could be done through news briefs of the universities, mails to all registered students, etc.
- 126 Scholarships

Partnership opportunities and models: Participants proposed a honeycomb type model of partnership wherein institutions from South-Asia could leverage on each other's strengths. The Royal University of Bhutan and Sherubtse college expressed their willingness to extend support in facilitating research in the Himalayas by acting as a base camp for field visits, by hosting students at the University, by facilitating knowledge and experience sharing of the programme with local students in Bhutan, which in turn can motivate the Bhutanese students to take up the proposed courses. The Royal University also showed their willingness to support a split location programme. The LEAD – Pakistan showed their willingness to jointly supervise student dissertations and was open to hosting students. The Water Governance Center (WGC), Netherlands, offered short-term courses that could be organized in the Netherlands. They were of the opinion that the UNESCO could be jointly approached to secure funds for such a programme. The WGC also suggested that a possible way to give exposure to students in South-Asian countries is through projects such as 'Follow the River Project' wherein a river could be chosen and the water related issues of the countries traversed by the river are studied. Online courses shared between institutions, video conferencing based lectures, and short visits through faculty exchange to conduct a block course were some of the other options of partnerships and course delivery that emerged from the discussions.

Funding opportunities: Ministry of Human Resources Development (MHRD), Government of India could be approached for funds under their innovative program scheme. Institutions from three countries jointly can approach the SAARC Development Fund. Other potential sources could be regional agencies, SAWI, UNESCO, business corporations, and institutions who sponsor employees under various Training and Development programmes.

Concluding remarks

Stakeholder organizations attending the workshop suggested that universities in the region should offer customized short-term programmes to meet local/ specific requirements of companies. Money thus

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generated could be used for subsidizing the education of an economically disadvantaged applicant. Student blog should be created as a part of the program to enhance trans-boundary understanding of water issues. A comprehensive courseware for the program can be developed using all possible resources i.e., Books/ Internet/ You Tube/ Ted Talk etc. First batch of students who have completed the course would be very crucial as they would later act as ambassadors of the programme. The participants also suggested that TERI University should begin on a strong footing by testing the course curriculum by organizing workshops, interacting and taking feedback from students and strategically publicizing the programme prior to its launch (**see Annexure V for additional other feedback**). Post workshop, many participants expressed (via e-mail) their support to the proposed initiative and expressed their deep satisfaction to the organizers for the smooth conduct of the workshop and for the productive discussions in the workshop.

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Annexure I

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Integrated Water Resources Management program for capacity building in South-Asian region

January 22 - 25, 2014

TERI University, 10 Institutional Area, Vasant Kunj, New Delhi, India

Day 1, January 22, 2014	
9:30 - 11:00	Session 1 - Inaugural session <ul style="list-style-type: none"> ☐ Round of Introduction ☐ Welcome note and workshop goals: Prof. Prateek Sharma, Dean Faculty of Applied Sciences, TERI University ☐ Introduction to South Asia Water Initiative (SAWI): Dr Bill Young, Program Leader, The World Bank, New Delhi ☐ Water challenges of 21st century: Dr. K Md Najeeb, Member, Central Ground Water Board, India ☐ Keynote address by Sh. Suresh Prabhu: Trans-boundary water sharing and conflict management ☐ Vote of thanks: Dr. Rajiv Seth, Registrar, TERI University
11:00 - 11:30	High tea
11:30 - 13:00	Session 2 - Water management challenges and capacity building needs Session Chair: Dr. D.K. Chaddha, President Global Hydrological Solutions and Former Chairman, CGWB Speakers Mr. G.K. Chhopel, Head, National Environment Commission, Bhutan Dr. Andrea Turner & Prof. Stuart White, ISF, UTS, Australia Mr. R K Jain, Central Water Commission, New Delhi Ms. Mansi Jasuja, Water Governance Institute, The Netherland
13:00 - 14:00	Lunch

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14:00 – 15:30	<p>Session 3 – Experience sharing by institutes offering Water Resources related programmes Session Chair: Prof. Pema Thinley, Vice Chancellor, Royal University of Bhutan Speakers Prof. Imtiaz Ahmed, Dhaka University, Bangladesh Prof. Philip Eberbach, Charles Sturt University, Australia Prof. Nagesh Kumar, IISc, Bangalore Dr. K Ramamohan Reddy, JNTU, Hyderabad</p>
15:30 – 16:00	Tea/Coffee break
16:00-16:15	<p>Session 4 Ms. Archana Chaterjee, Project Manager, IUCN Title: Shared Waterscapes, Shared Opportunities: Ecosystems For Life- A Bangladesh-India Initiative</p>
16:15 – 16:30	Dr. Neena Rao, SaciWATERS, India; IWRM & Capacity Building in South Asia; SaciWATERS Experience
16:30 – 17:00	Briefing about programme philosophy and exploratory discussions on partnership and programme delivery model Prof. Arun Kansal, TERI University, India
19:00 onwards	Welcome dinner at Hotel Grand
Day 2, January 23, 2014	
9:30 – 11:00	<p>Session 1 – Open session Reflections from the participants on water conflict management, multi-institutional partnership models & governance, and options for IWRM capacity development in South-Asian region Session Chair: Prof Dr Khem Raj Sharma, Nepal Engineering College, Nepal Speakers Col P K Gautam, IDSA, India Mr Tshering Wangdi, Director, Sherubtse College, Bhutan Dr. Medha Bisht, South Asian University, India Prof. S Singh, North Eastern Hill University, Shilong, India</p>
11:00 – 11:30	Tea/coffee break
11:30 – 13:00	<p>Session 2 – Open session contd... Session Chair: Prof Chandan Mahanta, IIT, Guwhati Speakers Dr. S K Rohilla, Programme Director-Water Management, CSE, India Dr. Uttam Sinha, IDSA, New Delhi Dr. V C Goyal ,NIH, Roorkee Dr. Vishal Narain, MDI, Gurgaon</p>
13:00 – 14:00	Lunch

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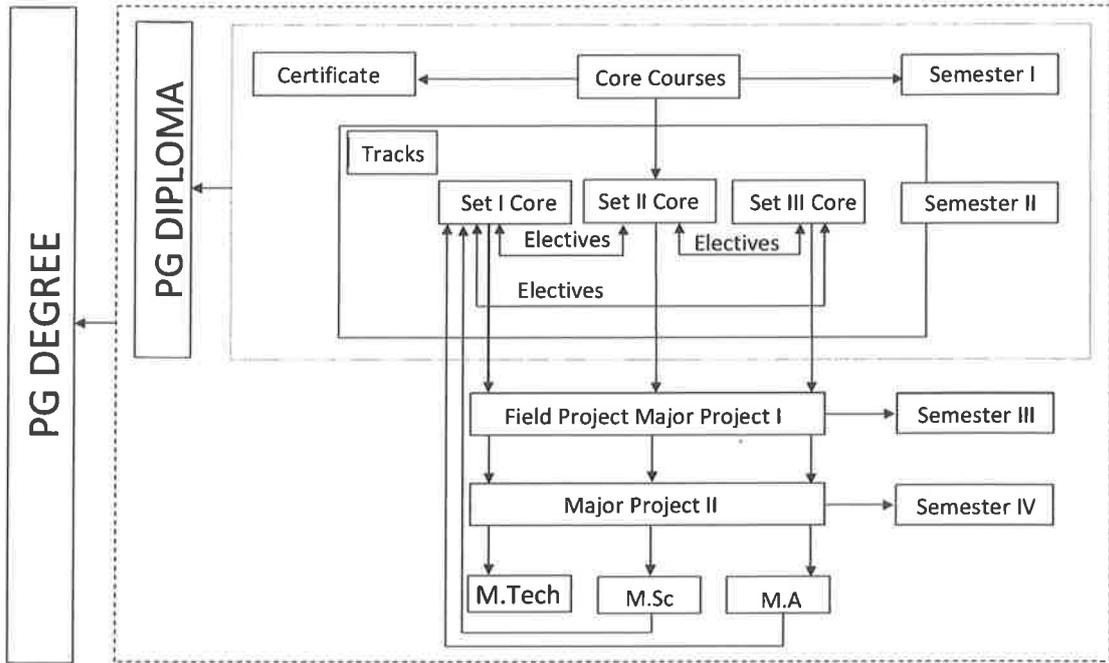
14:00 – 15:30	Session 3 – Breakaway group activity I Group I: Science and engineering Group II: Governance and policy Group III: Socio-economics Each group will have a team leader who will facilitate discussion within the group
15:30 – 16:00	Tea/Coffee break
16:00 – 17:30	Session 4 – Breakaway group activity I (contd.)
Day 3, January 24, 2014	
09:30 – 11:30	Session 1 – Breakaway group activity I (contd.)
10:30 – 11:00	Tea/coffee break
11:00 – 13:00	Session 2 – Breakaway group activity I (Contd.)
13:00 – 14:00	Lunch
14:00 – 15:30	Session 3 – Breakaway group activity II Group I: Discussions on regional launch of the programme, dissemination and marketing strategies Group II: development of partnership model, resource requirements and funding opportunities
15:30 – 16:00	Tea/coffee break
16:00 – 17:30	Session 4 – Breakaway group activity II (contd.)
Day 4, January 25, 2014	
09:30 – 11:00	Session 1 – Briefing by Group leaders of the breakaway activity I and discussions
11:00 – 11:30	Tea/coffee break
11:30 – 13:00	Session 2 – Briefing by Group leaders of the breakaway activity II and discussions
13:00 – 14:00	Lunch
14:00 – 17:30	Feedback session from stakeholder organisations and discussions on student intake policy and joint research activities Mr. Karma Dukpa, Mr. Deo Kumar Biswa, Mr. Narayan Pradhan, Mr. Kalimuthu, Mr. Usman Mirza, Mr. Eklavya Prasad, Dr. V Ratna Reddy, Mr. Shah Ahmed Shafi, Mr. Naveen Kumar and others. Concluding remarks: Dr. Leena Srivastava, Vice Chancellor, TERI University, India Workshop ends

The proposed programmes to be offered

The format of the entire programme has been kept flexible that provides the fresh graduates as well as the working professionals to gradually upscale their qualifications. Thus, the graduates depending on their qualifying degree have the option to directly go for the two-year postgraduate degree programme; or can opt for a Certificate course, which can be obtained by successfully completing all core courses offered in the first semester; or can obtain a postgraduate diploma by completing the first two semesters (one year); and finally, the students can obtain the degree on completing the field work and research component which is spread over in the next two semesters (second year). There is a provision of awarding three postgraduate degrees – M.Tech., M.Sc. and M.A., entry to which would depend on the qualifying degree. The programme also offers the flexibility to the non-engineering graduates to obtain an M.Tech degree. This has been shown in the schematic diagram. Thus, alumnus of M.Sc and MA of this scheme have an incentive to go for the M.Tech degree at any stage of their career by directly entering into the semester II with core courses designed for the track for the M.Tech degree.

The post graduate programme spread over four semesters will have course work and on-field research work. The programme involves two semesters of course work for 45 credits and two semesters of research work for 15 credits each. The student is required to earn a minimum of 75 credits over the two-year period with a minimum CGPA of 6.0 as academic requirement for this programme. In order earn a Certificate, a student is expected to earn 25 credits; 45 credits for a post graduate diploma; and 75 credits, as stated above to earn a PG degree.

Proposal Programs to be offered- Schematic representation



Annexure-IV

Summary of courses in water science and governance programme

S. No.	Course title	Key inputs
1.	Equity and Social Justice in Water Resources	Equitable distribution and access of water for the local population/community. Including multiple uses of water like domestic, livelihoods, health, cultural, energy, environmental, recreational etc. also the aspects of power, landholdings, and upper/lower riparian conflicts.
2.	Gender and Water	To introduce gender dimension into the water debate, including the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes in the water sector.
3.	Water Diplomacy	Deal with water diplomacy in the South-Asian perspective. International trans-boundary water issues and the possibilities of cooperation.
4.	Water Legislation and Law	Current status and historical evolution of water law in South Asia. The procedural aspect of making laws.
5.	Water Economics	Property rights debate, Water pricing, tradable water rights/Licensing, virtual water, water markets, debate of delinking land and water.
6.	Water Policy, Institutions and Governance	Includes state, society, policy, Institutions, markets. Good governance in relation to water. Review of Water Policy in the South-Asian region. Question of integration within and between sectors and levels. Inter-basin transfer of water.
7.	Water Security and Conflict Management	Availability of water for multiple uses, Water security from a South-Asian perspective in terms of trans boundary conflicts. Also water conflicts at all scales (international, inter-state, villages etc.)
8.	Water in Civilizations and Culture	The relationship between society and water. Water in different civilizations, Hydraulic societies. Traditional and indigenous ways of managing water. Religious values of water.
9.	Water Planning	Approaches to water planning (top-down, bottom-up), key stakeholders in water planning, community engagement. Instruments for regulation of water, water accounting/budgeting. Taking an inventory of all sources of water in a region.
10.	Water Ecology	Understanding of ecology of the river system, fresh water bodies and deltas.
11.	Impact of Water Development on Aquatic Ecology	Considers the impact of interventions in streams and other water bodies on the ecology and riverine environment (Dams, diversions, altered seasonality of water flow patterns etc.). Environmental flows and assessments.
12.	Critical approaches to water management	IWRM concept Political/social/economic/cultural/engineering/environmental; different approaches and frameworks for water management.
13.	Communication and Media for Water Awareness	Using communication (print media, social media, case studies, best practices, blogs, conferences, campaigns) as a tool for better dissemination of information.
14.	Water and Disasters	Droughts and floods (both coastal and riverine), risk assessments, preparedness, disaster risk reduction policies (Resilience Strategies), post disaster relief.
15.	Water and Climate Change	Understanding climate variability and change, its impact on water resources, adaptation and mitigation strategies.
16.	Water Leadership	Helps emerging leaders to develop the abilities they need to exert influence, drive change and advance challenging integrated water management projects — abilities associated with the most effective integrated water management leaders.
17.	South Asian Water History	To familiarize the students with the historical and civilizational background of water in South Asia, understand the water geographies. Understanding of historical background would help in using past as a tool, questioning the present and planning.

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18.	Water Politics	To understand the political dynamics that controls the management of water resources, space that water occupies in politics. Gain understanding of various stakeholders engaged in the process of water management and usage.
19.	Water Anthropology	To comprehend social dynamics of water values and vulnerabilities and approaches to assessing stakeholder alignment.
20.	Water Aesthetics	To include the concepts Arts, Water and Art (Paintings, cartoons, music, sculptures, photography, Videos, films).
21.	Water Innovations	To come up with Integrated solutions for urban, agriculture and industry and dealing with water scarcity.
22.	Basics of IWRM	To understand fundamental principles of IWRM, learn the methodologies involved in application of IWRM, have exposure to examples and case studies in IWRM with respect to South Asia. Will serve to provide the necessary back drop and basic concepts of IWRM, the Methodology and tools involved.
23.	Water Resource Systems	To study the physical dimensions of water resource systems including the hydrological cycle, understand the chemical and biological aspects of water resource system in conjunction with physical parameters; explore the inter-linkages of geomorphology, hydrogeology and hydrometeorology within water resource systems. Will serve to provide the necessary background about why a systemic approach to water resources can facilitate better solutions compared to discrete treatment.
24.	Statistical applications in Water Resources	Introduction and exposure to Statistical Tools and Model for Water Resource Application.
25.	Geoinformatics in water resources	Fundamental of GIS, Principles of Remote Sensing, Terrain Modeling (DEM) and its use in water sector management.
26.	Water Policy, Planning and Governance	To focus on National Water Policies of South Asia, Water Resource Planning Processes, Governance Institutions and Mechanisms.
27.	Water Management	Objective would be to link water management with Environmental management, Social management, Economic management, Financial management and Basin management
28.	Water Quality and Health	Natural purification process, Water contamination, Water quality standards, sanitation Issues, Human health hazards
29.	Research Methodology and Project Management	Introducing the student to the fundamental concepts and terminology of research as they relate to the field of research; Prepare the student to write and propose research ideas and Develop students' skills in using library and web resources. Also to prepare them for the working in various projects right from conceptualization to delivery of products.

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Final list of course modules

S. No.	Name of the course modules
1.	Introduction to IWRM/ Approaches to water management
2.	Water Quality
3.	Watershed Management
4.	Applied Hydrology- Glacier, Surface, Urban, Ground water
5.	Agriculture and water
6.	Water Disasters
7.	Hydrological Modeling and Applications
8.	Geo-informatics in Water Resources
9.	Legal and Institutional frameworks in Water
10.	Water Planning
11.	Water Policy and Governance
12.	Communication skills- research, newspaper, blogs, social media etc.
13.	Water Aesthetics
14.	Water History
15.	Water Politics
16.	Water Diplomacy
17.	Water Economics
18.	Water Security
19.	Water Anthropology
20.	Water Ecology

3.6.3.B.

Annexure V

Feedback from Stakeholders

1. **Mr P K Gautam, Research Fellow, IDSA:** Theoretical projects must be first given for understanding the links and how do they operate on ground. Each day in the morning prayer each student must be asked to give some new idea. A running record of this should be maintained for them to revisit what they say later. Many bright ideas will surely come up which can be solved. This mantra will make them doers. Students must also spend a day a two in water scarce regions in rural areas and in slums in the urban to have the grass root knowledge.
2. **Mr Eklavya Prasad- Megh Pyne Abhiyan:** People use media to highlight their work which has a short life. Therefore, students can play an important role for continuance of efforts to face challenges and provide a long term solution as against quick fix solutions. His organization will welcome students who are willing to work under compelling situations.
3. **Mr Usman Mirza- LEAD, Pakistan:** Suggested change in approach for policy engagement and dialogue with government and emphasized for student research output to be communicated to policy makers. He expressed the willingness of his organization to be associated with the program.
4. **Dr. V Ratna Reddy- Livelihood and Natural Resource Management Institute:** Proposed development of water security plans at hydrological level and focus on missing links between research and action. Further, specialization in the field of water and sanitation is required to meet the current demands.
5. **Ms Mansi Jasuja- Water Governance Centre, Netherlands:** Emphasized on inter-disciplinary study and inter-regional courses where students could physically travel around and gain knowledge. Also, expressed the keen interest of her organization to collaborate in this program.
6. **Mr Karma Dukpa, CEO; Natural Resources Development Corporation Limited, Bhutan:** From his country perspective he expressed the need of a cadre of people who are enabled to develop an inventory of water resources in their country.

**INDIAN SOCIETY OF REMOTE SENSING, DELHI CHAPTER****invites**

to workshop on

Indian Remote Sensing (IRS) Series: A Saga of 25 Years

at

**TERI University, New Delhi**

Indian Remote Sensing Satellite (IRS) Program has completed its 25years successful operation on the 17th March 2013. Today IRS system is not only the largest constellation of remote sensing satellites for civilian use, but also has been potentially used to meet the need of hour for integrated national development since its inception. To recognize this contribution and on the eve of 25years IRS series, Indian Society of Remote Sensing, Delhi Chapter is organizing a one day workshop on '***Indian Remote Sensing (IRS) series: A Saga of 25 Years***' on **January 31, 2014** at **TERI University, New Delhi** to share and celebrate the success stories of IRS satellite systems. The workshop will be attended by participants from different universities, academic and research institutes/organizations and members of academic societies in and around Delhi.

Indian Society of Remote Sensing, Delhi Chapter cordially invites your kind presence and request to make a wide circulation for large participation in the deliberation and make the workshop a great success.

The details program of the workshop is enclosed here with. You may contact Dr. R N Sahoo (Mobile : 09868206724, email : rnsahoo.iari@gmail.com), Secretary, ISRS Delhi Chapter and Dr. P K Joshi (Head, NRM Division Mobile : 09818025993, Email : pkjoshi27@hotmail.com) for any further details.



INDIAN SOCIETY OF REMOTE SENSING DELHI CHAPTER

celebrates

Indian Remote Sensing (IRS) Series: A Saga of 25 years

Venue: L001, TERI University, New Delhi

31 January 2014 (Friday)

0930 – 1000 Hrs	Registration Welcome – Dr. P. K. Joshi, TERI University
1000 – 1030 Hrs	About the Chapter and its activities – Dr. A.K. Singh, Chairman, ISRS DC and Vice President – ISRS Remarks – Dr. Rajiv Seth, Registrar, TERI University
1030 – 1130 Hrs	<i>Role of Satellites in Earth System Science - Dr. Shailesh Nayak, Secretary, MoES</i>
1130 – 1200 Hrs	High TEA
1200 – 1300 Hrs	<i>Reaching the Unreached – Geomatics in Agriculture – Dr. J.S. Parihar, SAC/ISRO, Ahmedabad</i>
LUNCH	
1400 – 1445 Hrs	<i>Space Science Inputs to Weather and Climate Studies – Dr. Sarat C. Kar, NCMRWF, New Delhi</i>
1445 – 1530 Hrs	<i>National Missions & Resource Management – Dr. J.R. Sharma, ISRO, New Delhi</i>
1530 – 1600 Hrs	Summary & Conclusion and Vote of Thanks – Dr. R N Sahoo, Secretary, ISRS, Delhi Chapter
1600-1630 Hrs	TEA
1630-1730 Hrs	Annual General Body Meeting of ISRS, Delhi Chapter



Seminar on
“Creating Leadership for Sustainable Urban Development”

3rd – 4th February, 2014, TERI University, New Delhi

3rd February, 2014

10.00 - 10.30 AM	Registration Tea/Coffee
10.30 - 11.15 AM	Welcome Address Sustainability Mission: TERI and TERI University Video Clip
11.15 - 12.00 PM	Guided Tour of TERI University Campus: An Exemplar of Green Campus
12.00 - 1.00 PM	Lunch
01.00 PM	Departure for TERI RETREAT, Gual Pahari
02.00 - 04.30 PM	Guided Tour of TERI RETREAT Campus: An Exemplar of Sustainable Habitat
04.30 PM	Departure for TERI University

4th February, 2014

10.30 – 11.10 AM	Technical Session I: Sustainable Urban Development Challenges and Opportunities, Dr. Shaleen Singhal, TERI University
11.10 – 11.30 AM	Tea/Coffee
11.30 – 01.00 PM	Technical Session II: Sustainability Rating for Buildings and Large Developments, Dr. Hina Zia, Fellow, TERI
01.00 – 2.00 PM	Lunch
02.00 – 3.30 PM	Technical Session III: Urban Transitions to Sustainability, Prof. François Mancebo, Professor Planning & Sustainability, Rheims University, France
03.30 PM	Closing Session

UNIDO – TERI

Sustainable Energy Leadership Programme

1 – 14 February 2014, New Delhi, India

Programme Outline:

The programme "*Sustainable Energy Leadership Programme*" will be organized jointly by TERI University (TERI U), The Energy and Resources Institute (TERI) and United Nations Industrial Development Organisation (UNIDO), in New Delhi from 1 to 14 February 2014.

The main objective of the programme is to familiarize the participants with key global trends, innovative technologies, policies and inter-disciplinary solutions in the field of energy, climate change and sustainable development. The participants will mainly comprise select mid-level officials, policy makers and experts associated with UNIDOs on-going renewable energy and energy efficiency projects in different developing countries and economies in transition.

The schedule of the programme is given below:

Programme Schedule:

February 1-5, 2014, Field Visits
Field visits to select interventions in energy access, energy efficiency and renewable energy projects
February 1, 2014 <ul style="list-style-type: none"> • 1030 hrs : Welcome, Introductions and Programme briefing at TERI University <p style="margin-left: 40px;">Addresses by: Ms. Ayumi Fujino, UNIDO Regional Director in India Dr. Rajiv Seth, Registrar, TERI University</p> • 1130 hrs : Departure to TERI Gram • 1215 hrs : Briefing at TERI Gram • 1230 hrs : Visit to TERI Gram : Various applications of biomass gasifire systems and Smart Mini Grid (SMG) • 1400 hrs: Lunch • 1500 hrs : Departure for guest house • Dinner at TERI University

February 2, 2014, Site Visit (Firozabad and Agra)

- 0600 hrs : Travel to Firozabad by road
- Visit to one of the pot furnace unit with energy efficient design for the glass industry
- Visit to the bangle baking shed to see energy efficient muffle furnaces under operation
- 1300 hrs : Lunch
- 1500 hrs : Sight seeing at Agra
- 1700 hrs : Departure for Delhi
- Dinner enroute

February 3, 2014, Site Visit (National Small Hydro Energy Centre, Roorkee)

- 0800 hrs: Travel to Roorkee
- 1200 hrs: Visit to Small Hydro Power Sites and 20 MW Sugar Mill power plant
- Lunch on the way
- 1700 hrs : Travel to Haridwar
- Dinner in Hotel

February 4, 2014 Site Visit (National Small Hydro Energy Centre, Roorkee)

- 0900 hrs : Visit to National Small Hydro Energy Centre and SHP training simulator
- 1300 hrs : Lunch
- 1400 hrs : Departure for Delhi
- Dinner at TERI University

February 5, 2014 Workshop

- 1000 hrs : Workshop on Sustainable Energy For All at Hotel Taj Palace – to leave at 08:45 hrs from TERI University
- 1300 hrs : Lunch
- 1400 hrs : Convocation Ceremony at TERI University
- Dinner at TERI University

February 6-8, 2014, Delhi Sustainable Development Summit 2014

February 6, 2014 DSDS Summit

- 0830 hrs : Departure for Delhi Sustainable Development Summit (DSDS) 2014
- 0900 hrs : Registration at DSDS
- 0930 hrs : DSDS- Day 1 (Opening Session)
- 1400 hrs : Lunch
- 1900 hrs : Evening Reception
- Dinner at Hotel Taj Palace

February 7, 2014 Delhi site visit and Overview of UNIDO programme	
<ul style="list-style-type: none"> ● 0830 hrs : Departure for Delhi site visit ● 1345 hrs : Lunch ● 1430 hrs : Departure for UNIDO India office ● Dinner at TERI University 	
February 8, 2014 DSDS Summit	
<ul style="list-style-type: none"> ● 0830 hrs : Departure for Delhi Sustainable Development Summit (DSDS) 2014 ● 0930 hrs : DSDS- Day 3 ● 1330 hrs : Lunch ● 1430 hrs : Group formation and discussions on group work ● 1900 hrs : Departure from DSDS venue ● Dinner at TERI University 	
February 9, 2014 Site Visit (Jadishpur, State of Uttar Pradesh)	
<ul style="list-style-type: none"> ● 0730 hrs: Departure for Lucknow for field visit to Jagdishpur ● Visit to the Solar Field Lab, efficient cook stove testing and monitoring ● Visit to see the working of improved stoves in rural kitchens ● Visit to a solar based micro-grid that serves the local village market and interaction with the Village level Entrepreneur (VLE) and shop owners (customers of the grid) ● Lunch with the Energy Efficiency team and state level experts ● 17:00 –hrs Travel from Lucknow to New Delhi 	
February 10-14, 2014 Technical Sessions	
All Technical Sessions will break for Lunch and Tea	
Dinner will be served at guest house at 9pm daily	
February 10, 2014	
Inaugural Session (Tea will be served after the inaugural session around 10.45 a.m.)	Dr. R.K. Pachauri, Dr. Pradeep Monga and Dr. Leena Srivastava
Session 1: Global Energy Scenario, energy, climate change and SDGs – 11.00 hrs – 13.00 hrs	Ambassador C Dasgupta, Dr. Ritu Mathur
Case Studies and Presentations	
<i>Visit to Solar Energy Centre - 1400 hrs onwards</i>	
February 11, 2014	
Session 1: Integrated energy modelling – 9.30 – 13.00 hrs	Dr. Atul Kumar, Mr. Anandajit Goswami
Session 2: Energy policy reforms and regulation – 14.00 – 15.30 hrs	Mr. P.K. Aggarwal
Session 3:- Energy Policy Reforms and Regulations – 1530 – 16.30 hrs -	Mr. Gurudeo Sinha
Case Studies and Presentations	

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February 12, 2014	
Session 1: Promoting energy efficiency: Industry sector – 9.30 – 11.00 hrs	Mr. Prosanto Pal
Section 2:- Energy Efficiency in the industrial sector – 11.00 h – 1130 h	Mr. P K Mukherjee
Session 3: Promoting energy efficiency: Transport sector/Railways Sector – 11.15 – 13.00 hrs	Mr. Shri Prakash, Mukul Mathur
Session 4: Promoting energy efficiency: Buildings and appliances – 14.00 – 16.30 hrs	Ms Mili Majumdar, Mr Pradeep Kumar
Session 5: 1840 h	Dr. Ajay Mathur
Reception at Cafeteria - 1900 hrs	
February 13, 2014	
Session 1: Scaling up renewable energy technologies: Centralized power generation technologies – 9.30 – 13.00 hrs	Mr. Shrish Garud + External Faculty
Session 2: Scaling up renewable energy technologies: Decentralized application – 14.00 – 16.00 hrs	Mr. Amit Kumar + Ms. Parimita Mohanty
Session 3: Scaling up renewable energy technology applications: Decentralized applications – 16.00 – 16.30 hrs	Mr. R K Caprihan
Group discussion 1700 – 1800 hrs	
February 14, 2014	
Session 1: Overcoming barriers to universal energy access – 9.30 – 11.00	Mr. I.H. Rehman + External Faculty
Closing Session: Presentation by Participants (in Groups) (11.15 – 16.30 hrs) Feedback by participants Chair: Dr. Leena Srivastava, Vice Chancellor TERI University	
14th night / 15 February 2014, Departure	
Departure of participants from the New Delhi Indira Gandhi International Airport	

Field Visits:

The entire programme will start with field visits that would set the tone for participation in both the Delhi Sustainable Development Summit 2014 and the Technical Sessions that will follow. Field visits will expose participants to a learning experience from a practitioner's perspective. It will help them to understand about necessary associations between renewable energy, energy efficiency and climate mitigation options. The connections between clean energy access, renewable energy and developmental needs of communities and SMEs will be dealt with in these field visits. Further, these visits will provide participants with a realistic view on how technological solutions have to be rooted to the needs of SMEs and specific economic sectors in developing countries to exercise climate mitigation options by means of implementation of energy efficiency programmes. Role of implementation of technological options like smart mini grids in addressing clean energy access needs of rural people will also be touched upon through field visits.

DSDS Exposure:

It is becoming increasingly clear that the challenges the world faces in respect of energy, water and food security are interlinked. Consequently, if strategies have to be developed for tackling one or the other aspect of this integrated challenge we would need to consider comprehensive and critical aspects of managing supply and demand for energy, water and food in a manner that ensures security in each of these.

The world today has reached a population of seven billion, which in a few decades is likely to increase by another two billion according to most projections. It is also expected that despite the current economic problems that several countries and societies are facing, incomes will grow, particularly, in some of the largest and most populous countries in the world. All of this would translate into greater demand for all three inputs which are at the core of human activities. Participants would interact with, and hear from, world leaders – political, academic and practitioners – on the challenges and opportunities to move towards a more sustainable future.

UNIDO's Energy and Climate Change Portfolio

Given its mandate to promote inclusive and sustainable industrial development, UNIDO is working closely with its partner organizations and key national and international stakeholders in industry, private and public sector and academia to deliver integrated energy solutions that provide a broad range of benefits to economy and society, including poverty reduction, industrial productivity and competitiveness and global environmental and climate change benefits.

UNIDO sees its role in aligning the transformational agenda of the energy sector, with the opportunities for realizing higher-value low carbon growth and business opportunities across

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industrial sectors, driven by clean, efficient and sustainable energy technologies and systems. The opportunity will be used to inform participants about UNIDO's energy and climate change portfolio, major strategic programmes and emerging opportunities and challenges in years ahead.

Technical Sessions

Day 1: February 10, 2014

Inaugural Session

Dr. R.K. Pachauri, Dr. Pradeep Monga and Dr. Leena Srivastava

The inaugural session will set the stage for familiarizing the participants with key global trends, innovative technologies, policies and inter-disciplinary solutions in the field of energy, climate change and sustainable development.

Session 1: Global Energy Scenario

The global demand for energy has been steadily rising for more than a century for a variety of reasons which include enhancements in the quality of life, population increase, industrialization, economic growth, increased demand of transportation of people and goods etc. There is a variety of energy sources available worldwide, the demand of which is strongly depends on application and use, location and regional resources, cost, environment impacts, safety of generation and utilization, socio-economic factors, global and regional politics etc. Commercial energy resources are finite and are not distributed uniformly across the world. While some countries have surplus domestically available energy resource, many countries depend on import of energy sources from other countries.

This session aims to provide broad overview of global energy scenario including: information on different sources of commercial and non-commercial energy, trend of energy consumption, energy supply situation over the time, major energy producing countries, major energy consuming countries, contribution of different sources, contribution to the energy consumption by major end use sectors, linkage of energy sources with other sectors, various issues around value chain of energy sources, etc. Participants would be able to benchmark their own country scenario with the global scenarios.

Case Studies and Presentations

Session 2: Energy, climate change and the SDGs

Dr. Ritu Mathur

Global climate change due to rising levels of greenhouse gases (GHGs) in the atmosphere is one of the most serious environmental challenges of the present time. In 2007, the Intergovernmental Panel on Climate Change (IPCC) concluded that climate change is not only accelerating but has been induced by human activity, particularly by the combustion of fossil fuels for energy.

However, energy is also a prime mover of economic growth and development. This is critically important for developing countries where the economy is developing rapidly. Simultaneously providing adequate and equitable access to basic amenities and services is the immediate priority of policymakers. Without access to basic energy services, daily needs like cooking, heating and lighting can only be met at the expense of economic productivity. Energy is hence required to meet the targets defined in the Millennium Development Goals adopted at the UN Millennium Summit in Johannesburg in September 2000 to improve the condition of the world's poorest by 2015.

The IPCC assessment and several other studies indicate that climate change impacts could have potential negative impacts on poverty alleviation efforts, and could possibly disrupt many of the development gains made in recent decades. However, a lot could be done to turn the challenge of climate change into opportunities for sustainable development. For example by promoting clean energy technologies and energy efficiency opportunities, there are prospects to address concerns related to greenhouse gas emissions and energy security challenges at the same time.

This session would discuss integrated approaches to address energy, climate and sustainable development issues. Many mitigation options have clear co-benefits, and these synergies could turn the challenges of climate change into opportunities for sustainable development.

Case Studies and Presentations

Day 2: February 11, 2014

Session 1: Integrated energy modelling

Dr. Atul Kumar, Mr. Anandajit Goswami

Given the decisive influence of energy upon economic activities at large, especially during the last three decades and so, a growing number of countries are making increasing efforts to develop a comprehensive national energy plan. However, so far national energy planning in the most of developing countries has continued to follow traditional, sub-sectoral disaggregated approaches. Disaggregated planning approach has many inherent shortcomings such as (a) inter-sectoral conflict of objectives, (b) inter-sectoral sub-optimization, (c) diffusion of conservation efforts due to lack of co-ordinated policies by demand groupings (d) absence of mechanisms to deal with larger interface issues etc. On the other hand, principles of Integrated Energy Planning (IEP) are based on analysis of energy issues within a unified policy framework in order to arrive at a set of nationally optimal energy solutions over the long term.

However, one of the main constraints in the developing countries in using IEP for national energy planning is lack of understanding of modelling tools and techniques used for developing IEP.

In addition, the session will also indicate how the outputs of energy system models can be integrated with the computable general equilibrium models to understand the larger socioeconomic implications across the economy. It will also provide a direction on how a change in energy demand across the sectors of the economy impact the social and welfare indicators of employment, inequality and income changes across different classes of households of an economy through an integrated MARKAL – CGE model.

This session aims to provide participants with a broad understanding and appreciation of various concepts, analytical tools and techniques for energy sector assessment. This session would discuss the application of commonly used methods and modelling tools that can be applied for examining the potential and overall costs as well as benefits of various policy options and pathways in the energy sector.

Case Studies and Presentations

Session 2: Energy policy reforms and regulations

Mr. P.K. Aggarwal

It is understood that, in order to disseminate the energy devices or services successfully at a country level, a coherent, consistent and conducive policy and regulatory framework would be required. Some time it is found that there is absence of clear direction and leadership from the government as well as absence of coordination between multiple agencies of government. Therefore, a set of defined energy policy options implemented through reforms and regulations are essential.

This session aims to familiarize the participants with the various reforms, regulatory, policy Institution framework used in the energy sector around the world. Case studies will be carried out to examine impact on energy sector due to select reforms/regulations being carried out in the past. This would be an interactive session where participants will also discuss energy reforms and regulations of their respective country.

Case Studies and Presentations

Day 3: February 12, 2014

Session 1: Promoting energy efficiency: Industrial sector (Energy Management Standards, ISO 50001 and Policies)

Mr. Prosanto Pal's

Session 2: Promoting energy efficiency: Transport sector

Ms Akshima T. Ghate

Session 3: Promoting energy efficiency: Buildings and appliances

Ms Mili Majumdar, Mr Pradeep Kumar

In recent years, energy efficiency has emerged as an important option to meet twin goals of achieving sustainable energy for all and mitigating climate change. It has been recognized that energy efficiency offers a powerful and cost-effective pathway for achieving a sustainable energy future. Improvements in energy efficiency can reduce the need for investments in energy infrastructure, increase competitiveness of industry, make buildings eco-friendly and reduce fuel consumption in the transport sector. Many countries have adopted national level energy efficiency programmes targeted at industry, transport, buildings and appliances that are among the most energy intensive ones.

The above three sessions aim to illustrate, through practical case studies, an understanding on energy use patterns across sectors, energy conservation opportunities, barriers to energy

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efficiency in industry as well as energy management standards, regulatory and policy mechanisms; cost-benefit analysis and possible ways of connecting the various policy/programs with financing mechanisms and, the technological and human resource related opportunities to support the same.

Energy efficiency components, while important, provide no assurance that energy savings will be attained by industry unless the entire system is properly designed and operated. Energy Management Programme works to bring about behavioural change and shifting organizational culture to generate a sustainable market transformation through the implementation of energy management standards that provide structured and comprehensive framework to facilities to integrate energy efficiency and system optimization into their daily energy management.

There is a growing realisation that a focus on improving the efficiency of vehicles is only part of the solution in the transport sector. A more holistic approach involving the reduction of transport demand and a concrete shift to more environmentally friendly and energy efficient transport modes is needed.

Building codes can dramatically improve the efficiency of homes, offices, and other structures by prescribing the design, materials, and equipment, or by setting a performance standard that gives developers and architects more freedom in achieving compliance. Appliance standards can shrink energy use by specifying particular features and devices, or by setting a minimum standard and allowing manufacturers to engineer a solution.

Day 4: February 13, 2014

Session 1: Scaling up renewable energy technologies: centralized power generation technologies

Mr Shirish Garud, External Faculty

Session 2: Scaling up renewable energy technologies: decentralized application

Mr. Amit Kumar, External Faculty

The situation caused by fast depleting fossil fuels, coupled with the environmental degradation resulting from their combustion is alarming and calls for a paradigm shift in energy supply approach. Increasingly, renewable energy technologies (RET) are coming across as one of the most viable and benign options for meeting energy needs of not only the developing countries but also of the developed world. RETs are especially appropriate for developing countries, which have diverse and dispersed energy-demand centers including remotely located rural habitats.

In such a scenario, greater utilization of RETs is possible through encouraging and facilitative policy environment that facilitates (a) targeted R&D for developing/adapting products that

meet user needs and (b) establishment of necessary framework and mechanism for taking such products to commercialization stage. Experience sharing and collaborations are essential for utilization of resources in most cost-effective manner.

There would be two separate sessions on scaling up of renewable energy technology. First session will be devoted on grid connected centralized renewable technologies for electricity generation and second session will cover various other decentralized applications of renewable energy including off grid electricity generation.

These sessions are formulated for providing an overview of the research and development in renewable energy technologies and the latest trends. It would also give a comprehensive outlook on the institutional set up for effective implementation. It will also provide a view on how bilateral and multilateral co-operative approach could be used to harness the renewable energy technologies.

In order to make the training interactive and participatory, an exercise on preparation of RE programmes based on the inputs received in the training program is also planned. The participants would be divided in groups, depending on common interests.

Case Studies and Presentations

Day 5: February 14, 2014

Session 1: Overcoming barriers to universal energy access

Mr. I.H. Rehman

Modern energy access can pave a path for better living conditions and yet, globally, 1.3 billion people do not have access to electricity and 2.7 billion people still rely on traditional biomass for their cooking fuel needs. The high monetary and physical costs associated with the use of the unimproved energy sources forces rural households to divert essential resources away from other critical needs. Access to modern energy services for the majority of the population in developing and under-developed countries of the world is grossly inadequate.

The balance between energy services for meaningful economic growth, on the one hand and general welfare gains, on the other, continues to be a source of unnecessary conflict among stakeholders, as both are essential and complimentary. Efforts are required to be made to produce more clean energy and also to make it available to people at affordable price in evenly manner. Along with existing form of production- thermal, hydro and nuclear focussed attempt required to be made for solar and wind energy, wherever it is possible.

It is understood that, in order to disseminate the energy devices or services successfully at a country level, a coherent, consistent and conducive policy and regulatory framework would be required. Normally it is found that there is absence of clear direction and leadership from the

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government. Absence of coordination between multiple agencies of government happens to be another issue. As and when it comes to establishing of plant or manufacturing unit clearances from multiple agencies are required, which not only waste resources but negatively impact the atmosphere.

This session deals with scaling up and replication of existing as well as new energy access interventions initiated by a variety of stakeholders. It elaborates upon different approaches to scale up business models that have already crossed the threshold of proof-of-concept and ready to be replicated. It also provides details about the complex combination of environmental factors that are essential for any business model or an intervention in the energy access space to be scaled up. At the end of this session participants would be able to:

- Understand the barriers to scale up a potential and proven business model or energy access intervention
- Recognize the essential conditions that need to be fulfilled in order to scale up any given activity or business model pertaining to rural energy access such as the following:
 - Conducive National Energy Policies (taxes, feed-in tariffs, quality benchmarks etc.)
 - Innovative Business Models that start small but grow as the policies become favourable
 - Financing instruments to cater to different segments of business cycle as well as entities to avail finance (projects, enterprises or directly consumers)

Session II:

- Presentations by Participants (in groups)

This session will provide the participant learnings on the various contents of the training programme. Participants through individual presentations and case studies will show case how they will relate the learnings from the training programme to address the challenges in their own country. They will also indicate any similar learning on the same content of the training programme from their work experiences in Africa and larger developing world.

Closing Session

Chair: Dr. Satish Balram Agnihotri, Secretary MNRE, Government of India
Ms. Ayumi Fujino, UNIDO Regional Director in India
Dr. Leena Srivastava, Vice Chancellor TERI University

Feedback by participants

Reception (Participants, Speakers)

Departure to the Airport



Training Program
on
Importance of RS & GIS
&
Rooftop Solar Web-GIS Tool for Indian Solar Cities

February 21, 2014 (Friday)
Hall: L001, TERI University, Plot No. 10 Institutional Area
Vasant Kunj, New Delhi - 110 070, India

AGENDA

0930 – 1000 Hrs	REGISTRATION
1000 – 1030 Hrs	General Introductions – Dr P K Joshi, TERI University Welcome Remarks – Dr Rajiv Seth, Registrar, TERI University
1030 – 1130 Hrs	Browsing GRASS GIS - Alexandris, Nikos
1130 – 1200 Hrs	TEA
1200 – 1300 Hrs	Satellite Meteorology and Climate Change Studies – Dr Anu R Sharma, Assistant Professor, TERI University
1300 – 1400 Hrs	LUNCH
1400 – 1430 Hrs	Web-GIS Tool for estimating the Rooftop Solar Power potential for Indian Solar Cities – Mr. Alekhya Datta, Research Associate, The Energy and Resources Institute
1430 – 1530 Hrs	Demonstration of Rooftop Solar Web-GIS Tool for Chandigarh – Mr. Alekhya Datta, Research Associate, The Energy and Resources Institute
1530 – 1600 Hrs	TEA

Please contact for details: alekhya.datta@teri.res.in | alekhya.sec@gmail.com
Website: www.teriin.org | www.regisindia.com

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**TERI University
Building Learning in Sustainability Science (BLISS 2014)
March 10-14, 2014**

Broad thematic areas and detailed agenda

1. Sustainable Development Challenges (India and Globe)
2. Sustainability Science: Applications and Challenges
3. Global Environmental Change
4. Social and Ethical Approach to sustainability
5. Leadership for Business Sustainability
6. Sustainable Human Settlements
7. Career Opportunities in Sustainability
8. Regulatory and Policy Drivers
9. Innovation for Sustainability

Day 1: March 10, 2014**Theme 1: Sustainable Development Challenges (India and Globe)**

Monday, March 10 (10.00AM -1.00PM)

Session Anchor	Dr. Papiya Mazumdar, TERI University
Session coordinators	Julien/Nidhi Pande
Learning Objectives	<p>The foremost technical session of BLISS 2014 will strive to outline issues of global sustainability challenges across economic, social and environmental dimensions, which will set-up an appropriate tone for learning in later sessions of the school</p> <p>Participants will gather an overall understanding on global challenges, coupled with familiarity with issues relevant for India</p>
Key Speakers	<ul style="list-style-type: none"> • Dr. Papiya Mazumdar, TERI University • Ms Ruchika Singh, TERI • Dr. Bibhu Nayak,, TERI • Dr. Kaushik Bandopadhyay, TERI University
Main Areas of Discussion	<ul style="list-style-type: none"> • Global environmental change: the mega trend • Economy and Society, Key Challenges • Addressing Sustainable Development Challenges through innovative technology, efficient institutions and governance
Pedagogy	Issues of sustainable challenges impacting India and Globe will be brought forth primarily through structured talks. Understanding on issues will also be facilitated through several experiential modes of learning, i.e., a short-quiz event, an innovative skit presented by the students of TERI University and discussion sessions

Theme 2: Sustainability Science: Applications and Challenges

Monday, March 10 (2.00PM-5.00PM)

Session Anchor	Dr. J. Schmerbeck, Assistant Professor TERI University
Session	Chander K. Singh / Anurani Sharma

Coordinators	
Learning Objectives	<p>Learn that science has to play a key role in the development of a sustainable world</p> <p>Learn the challenges of putting scientific findings into practice</p> <p>Be able to critically reflect on scientific approaches in the selected fields</p>
Key Speakers	<ul style="list-style-type: none"> • Dr. Arvind Kapur, CEO, Rasi seeds • Dr. S Chaterjee, TERI University • Prof. Om Rajora, University of New Brunswick • Prof R.L. Sawhney, TERI University • Prof A Kansal, TERI University
Main Areas of Discussion	<ul style="list-style-type: none"> • What is Sustainable Science? • Sustainable Agriculture: The role of Biotechnology • Forests and Biodiversity: An Introduction • Applications of Genetics and Genomics Research to the Sustainable Management of Forests • Challenges and Solutions for a Sustainable Water Management in India • Role of Renewable Energy in a Sustainable World
Pedagogy	lectures, Interactive discussions with students and a panel discussion

Day 2: March 11, 2014**Theme 3: Global Environmental Change**

Tuesday, March 11 (10.00 AM-1.00PM)

Session Anchor	Dr. Kamna Sachdeva, TERI University
Session Coordinators	Chubamenla Jamir/Pallavi Somvanshi
Learning Objective	Giving an overview of how outcome of locally manifested processes has multiple-scale consequences at global level
Key Speakers	<ul style="list-style-type: none"> • Dr. P G Dhar Chakrabarti, Distinguished fellow TERI • Dr. Pradipto Ghosh, Distinguished fellow TERI • Dr. T K Joshi, Director, Centre for Occupational and Environmental Health • Dr. P K Joshi, Professor, TERI University
Main Areas of Discussion	<ul style="list-style-type: none"> • Global environmental issues • Global Change and society • Global Environmental Hazards to human health
Pedagogy	Quiz, Documentaries, talk and Panel discussion

Theme 4: Sustainable Human Settlements

Tuesday, March 11 (2.00PM -5.00PM)

Session Anchor	Dr. Shaleen Singhal
Session coordinators	Bhawna Bali / Nidhi Pande
Learning Objective	To develop an advance understanding of key challenges faced by human settlements, particularly in urban India and gain an exposure to sustainable solutions for human settlements.
Key Speakers	<ul style="list-style-type: none"> • Dr. Shaleen Singhal, TERI University • Prof. S Sundar, TERI University • Dr. Hina Zia, TERI • Dr. Bhawna Bali, TERI University
Main Areas of Discussion	<ul style="list-style-type: none"> • Challenges and Opportunities for sustainable human settlements • Global environmental challenges, managing impacts and building resilience

	<ul style="list-style-type: none"> • Solutions for sustainable built environment and settlements • Innovation through student-led research
Pedagogy	Interactive lecture sessions, film screening, TU student's research presentation and Q&A by a panel

Day 3: March 12, 2014

Theme 5: Leadership for Business Sustainability

Wednesday, March 12 (10.00AM-1.00PM)

Session Anchor	Dr. Manipadma Datta, Professor, TERI University
Session Coordinators	Subir Sen/ Ishita Gupta
Learning Objectives	<ul style="list-style-type: none"> • Giving a broad idea about the leadership challenges to business sustainability; • Reiterating the idea of developing a sustainable mindset; • Providing a clear understanding of the CSR- Business Sustainability interface; • Providing inputs for a new model of leadership
Key Speakers	<ul style="list-style-type: none"> • M.S. Sahoo, Secretary, ICSI. • Dipankar Sanyal, CEO, TERI BCSD. • Rajiv Seth, Professor and Dean (Administration), TERI University • Manipadma Datta, Professor and Head, Department of Business Sustainability, TU. • Sapna A. Narula, Associate Professor, Department of Business Sustainability, TU.
Main Areas of Discussion	<ul style="list-style-type: none"> • Emerging Leadership Attributes for Business Sustainability • Emerging Business Risk and Sustainability: The need for Leadership Style • Changing Paradigm of Corporate Social Responsibility • Leadership for Sustainability- the global scenario • Conclusion: Developing a sustainable mind sets
Pedagogy	Interactive lectures

Theme 6: Regulatory and Policy Drivers

Wednesday, March 12 (2.00PM-5.00PM)

Session Anchor	Prof. S Sundar, TERI University
Session coordinators	Bhawna Bali/Priyanka Kaushal
Learning Objectives	<p>This session would expose the participants to the role of policies and regulations in driving and supporting economic, environmental and social dimensions of sustainability. The session will essentially try to address two moot questions-</p> <ul style="list-style-type: none"> • Do the existing policies and regulations adequately address sustainability concerns? • What are the mechanisms to influence public policies and regulations so that they adequately facilitate and support sustainability?
Key Speakers	<ul style="list-style-type: none"> • Prof. Vinod Tiwari, TERI University • Dr. Gerber Julien-Francois, TERI University • Mr. M.V. Shiju, TERI University
Main Areas of Discussion	<ul style="list-style-type: none"> • Introduction to Regulations and Sustainability • Environmental Regulations • Economic Regulations • Social Regulations
Pedagogy	The session will rely on best practices and examples from India. In addition to lectures by the anchor and designated speakers, the session would include extensive interaction with the audience.

Day 4: March 13, 2014

Theme 7: Career Opportunities in Sustainability

Thursday, March 13 (10.00AM -11.30AM)

Session Anchor	Dr. Anil Gupta, TERI University
Session Coordinator	Sonika Goyal
Learning Objectives	To acquaint the students regarding the career opportunities available in sustainability domain
Key Speakers	The key speakers include sustainability professionals from corporates, public sector ; entrepreneurs and TU alumni

Main Areas of Discussion	<ul style="list-style-type: none"> • Integrating Sustainability with Business Functions] • Job Opportunities in public , private and not-for-profit sector • Entrepreneurship Opportunities in Sustainability • Preparing Human Resource for Sustainability
Pedagogy	Panel Discussion

Theme 8: Social and Ethical Approach to Sustainability

Thursday, March 13 (11.45 AM to 1.00 PM)

Session Anchor	Dr. Mala Narang Reddy, TERI University
Session coordinators	Ruchika Singh/ Nimish Jha
Learning Objectives	<ul style="list-style-type: none"> • Understand the nature of social inequality that exists in India and why inequality is a barrier to sustainability • Understand the issue of marginalization of women and lower castes
Key Speakers	<ul style="list-style-type: none"> • Dr. Smriti Das, Asstt. Professor , TERI University • Dr. Mala Narang Reddy, Asstt. Professor,TERI University
Main Areas of Discussion	The session would provide an overview of the kind of inequalities that exist in society-economic and social (tribals, lower castes, gender bias, region and religion). Specific examples of marginalization of women and tribal communities would be discussed
Pedagogy	Interactive Lectures and Discussion

Day 5: March 14, 2014

Theme 9: Innovation for Sustainability

Friday, March 14 (10.00AM-1.00 PM)

Session Anchor	Dr. N S Prasad, TERI University
Session Co-ordinators	Dr Priyanka Kaushal/Dr Najmur Rahman
Learning Objectives	To make the participants learn about Concepts, Innovations , business models and emerging technologies in the field of Sustainability

3.6.3.B.

Key Speakers	<ul style="list-style-type: none">• Mr. A Arambhan• Prof Anil Gupta, Professor IIMA Coordinator, SRISTI Founder, Honey Bee Network Executive Vice Chair, National Innovation Foundation• Mr. Raghunath M, Vice-President, Wellspun Energy• Dr. Parimita Mohanty, Fellow, TERI• Mr. Sunil Dhingra, Senior Fellow, TERI• Dr. Priyanka Kochhar, Senior Programme Manager, ADaRSH• Mr. Prashnato Paul, Senior Fellow, TERI
Main Areas of Discussion	<ul style="list-style-type: none">• Concepts of Innovation• Innovation in Energy/Climate/RE• Solar multi utility/Solar mini grids• Biomass gasifiers for industrial applications• Green Buildings• Energy efficient and environmental interventions in foundry sector
Pedagogy	Lectures, Case studies and Panel discussion

Programme Co-ordinator: Dr. Sapna A. Narula;
email: sapna.narula@teriuniversity.ac.in
Ph: 011-71800222



**3 days – Joint Training workshop on
“Basics of satellite meteorology and Environmental applications”**

March 26-28th, 2014

TERI University, Vasant Kunj, New Delhi - 110 070, India

Agenda

Day -1		
9:00 -9:30AM	Registration	
9-30 - 10:00AM	Inaugural	Welcome address by VC of TERI University, Dr. Leena Srivastava and IMD Director General Dr. L. S. Rathore
	Vote of thanks	Dr Anu Sharma/ Dr. Kamna Sachdeva, TERI University
10:00- 10:30AM	HIGH TEA	
10:30-11:30 AM	Introductory lecture on Satellite meteorology and its broader applications	Dr. Virendra Singh, Scientist, IMD
11:30 - 12:30 PM	Overview of meteorological satellites, Data need, Indian scenario and operational and future satellite missions	Dr. Anu Sharma, Asst. Professor, TERI University
12:30 - 1:15 PM	LUNCH	
1:15 - 2:00 PM	INSAT 3D and its products: Applications in the Environment and meteorology field	Dr. Virendra Singh, Scientist, IMD
2:00 - 2:15 PM	Video on INSAT – 3D Applications	
2:15 -3:15 PM	Interpretation of satellite imageries and identification of weather features in satellite imageries	Dr. Suman Goyal, Scientist, IMD
3:15 -3:30 PM	TEA	
3:30-4:30 PM	Tutorial/Lab	Dr. Anu Sharma, Dr. Kamna Sachdeva & Dr. Suman Goyal

3.6.3.B.

Day 2		
9:00 - 10:00AM	Multispectral satellite applications in Environment and Climate field: Case study approach	Dr. P K Joshi, Professor, TERI University
10:00-10:15 AM	TEA	
10:15 – 10:30 AM	Video	
10:30 – 11:30 AM	Application of satellite derived parameters in cyclone intensity estimation/tracking and cyclone warning system in India	Dr Suman Goyal, IMD
11:30 - 12:30PM	Aerosols and Climate change	Dr. Kamna Sachdeva, Asst. Professor, TERI University
12:30 - 1:30 PM	LUNCH	
1:30-2:30 PM	Applications of satellite meteorology in atmospheric pollution monitoring	Dr. Sagnik Dey, Asst. Professor, IIT - Delhi
2:30-3:30PM	Basics of Monsoon Forecasting	Dr. Naresh Kumar, Scientist, IMD
3:30-3:45PM	TEA	
3:45 - 4:30PM	Tutorial/labs	Dr. Suman Goyal, Scientist, IMD
Day - 3		
9:00 -10:00AM	Advanced weather forecasting and data assimilation in numerical models	Dr A. K Das, Scientist, IMD
10:00- 10:15 AM	TEA	
10:15 -11:15 AM	Tutorial/lab	Dr. Naresh Kumar, Scientist, IMD
11:15 -12:00 PM	Tutorial/lab	Dr Kamna Sachdeva, Asst Professor, TERI University
12:00 - 1:00 PM	LUNCH	
1:00PM	Departure for IMD	
2:00 PM-Onwards	Visit to IMD Distribution of certificates and Tea	

Pravaah 2014 Event Schedule

5th April 2014

Start Time	End Time	Event
8:30 AM	9:30 AM	Participant & Audience Arrival/ Registration
9:30 AM	10:00 AM	Inaguration of the Event
		On stage: Dr Rajiv Seth, Dr. Manipadma Datta, Dr. Kaushik Bandhopadhyay, Dr. Subir Sen, Dr. Sapna Narula
		Lighting of the Ceremonial Lamp
		Inagural Speech by Dr. Seth
		Welcome Address by Dr. Datta
		Program Description by Dr. Sen
		Speech by Deepti Mahajan on behalf of TU students
10:00 AM	11:00 AM	Panel Discussion on Business Ethics & Sustainable Development
		Panel Chaired by Dr. Datta. Panelists:
		Asim Parekh - VP, Technical, Coca Cola
		Madhur Kalra - Deputy Manager, Corporate Affairs, TATA Tele Services Ltd.
		Pranshu Singhal - Head, Sustainability, Nokia
11:00 AM	11:15 AM	Tea Break
11:15 AM	1:30 PM	Presentation Competition: Business Ethics & Sustainable Development
		Judges: Dr. Narula, Dr. Bandhopadhyay, Mr. N.S. Prasad
		8 teams. For each team: 10 minutes to present, 5 minutes question & answer
1:30 PM	2:30 PM	Lunch
2:30 PM	3:30 PM	Debate Competition: "In the 21st century's business, sustainability remains the touchstone to success."
		Judges: Dr. Datta, Dr. Sen, Ms.Ritu Goyal
		6 teams. For each team: 3 minutes for 1 team member to present views, 2 minutes for questions
3:30 PM	3:45 PM	Tea Break
3:45 PM	4:30 PM	Business Tambola
4:30 PM	5:00 PM	Prize Distribution & Vote of Thanks delivered by Deepti Mahajan
Event Comperes:		Monica Simha
		Ananya Khosla
Event Managers:		Deepti Mahajan
		Ayush Gupta

Training Program on Air Quality Modelling and Source Apportionment

26-28th November 2014

TERI University Campus, Vasant Kunj, New Delhi

Organised by
The Energy & Resources Institute
Supported by
Central Pollution Control Board

Agenda

Day No./ Date	Time	Programme
26 th Nov	10:00 AM- 10:20 AM	Inaugural session - Dr. Leena Srivastava (Vice Chancellor, TERI University)
	10:20 AM-11:20 AM	Air Pollution – Issues in India
	11:20 AM- 1 PM	Need and basic concepts for source apportionment studies
	2 PM- 3:30 PM	Air quality monitoring and analysis
	3:30 PM-5 PM	Meteorology
27 th Nov	10 AM-11 AM	Visit to the TERI University
	11 AM- 12PM	Primary data collection
	12 PM- 3 PM	Emission inventorisation - (Hands on exercise)
	3 PM- 4 PM	Basics of dispersion modeling
	4 PM-5 PM	Demo case study of Dispersion model (ISCST3)
28 th Nov	10 AM- 11 AM	Demo case study of Dispersion model (AERMOD)
	11 AM- 1 PM	Statistical modelling
	2 PM- 3 PM	Basics of Receptor modeling
	3 PM- 4 PM	Demo case study of Receptor model
	4 PM- 5 PM	Air quality management using source apportionment

3.6.3.B.

Open Society Scholarship Programs
South Asia Spring Conference
March 28th - 29th, 2013
TERI University, New Delhi

March 27th

Students from Tata University are staying at:

ISID

4, Institutional Area

PB# 7513, Vasant Kunj

Conference venue:

Teri University – Conference Hall

10, Institutional Area, Vasant Kunj

New Delhi, India

March 28th

- 8:30 Breakfast will be available in the Cafeteria
- 9:30 Welcome – Martha Loerke, Director, OSF Scholarship Programs
- 10:00 Research and Thesis Updates from Fellows
- 11:00 Coffee Break
- 11.15 Research and Thesis Updates from Fellows con't
- 12:30 Lunch
- 1:30 Excursion to Qutab Minar
- 4:30 Back to Teri Campus
- 6:30 Travel to Restaurant
- 7:00 Group Dinner

March 29th

- 8:30 Breakfast will be available in cafeteria
- 9:30 Deepak Thapa, Director, Social Science Baha, Kathmandu, Nepal; *Conflict in Post-Conflict Nepal*
- 11:00 Conversation with Rukmini Bhaya Nair, Indian Institute of Technology, New Delhi and OSF Scholarship Programs Sub-board member; Sujata Sriram, Tata Institute of Social Sciences; Mala Narang Reddy, TERI University
- 1:00 Lunch
- 2:00 Raghbir S. Basi, Chairman, Village Life Improvement Foundation, India; *A Holistic Approach to Modernizing Villages in India*
- 3:30 Coffee Break – Fruit and cookies available
- 4:00 Hari Sharma, Director, Alliance for Social Dialogue, Kathmandu, Nepal; *Civil Society's Role in Shaping Discourse on Conflict and Public Policy.*
- 5:30 Conference closing – Rasjit Basi
- 6:00 Group Dinner at the Grand Hotel <http://www.thegrandnewdelhi.com/restaurants-at-the-grand/dining.htm>

March 30th

Check out for TATA Students - bus to the airport



Workshop on
“Opportunities and Challenges to Increase Regional Energy Cooperation in South Asia”

Date: 17th April 2013

Venue: TERI University, Plot No. 10 Institutional Area

Vasant Kunj, New Delhi - 110 070

Objectives:

- Discuss barriers and opportunities to increase regional electricity cooperation and extra-regional energy trade in South Asia
- Identify potential steps forward toward greater integration of power systems in South Asia

Agenda

9.00 hrs to 9.30 hrs

Registration

9.30 hrs to 10.00 hrs

Welcome & Opening remarks

Mr K Ramanathan, Distinguished Fellow, TERI

Objectives and scope of the study

Mr Mike Toman, Manager, Environment and Energy, Development Research Group, World Bank and Project TTL

10.00 hrs to 11.30 hrs

A comparative picture of power systems in South Asia

Mr Govinda R. Timilsina, Senior Economist, Environment and Energy, Development Research Group, World Bank

An overview of regional electricity integration around the world and implication to South Asia

Mr Ioannis N. Kessides, Lead Economist, Environment and Energy, Development Research Group, World Bank

Challenges in developing integrated electricity market in South Asia

Mr Shahid Hasan, Associate Director, TERI

Energy Cooperation in South Asia-SARI/EI Experience

Mr Srinivasan Padmanaban, Director, SARI/EI



11.30 hrs to 11.45 hrs

Coffee Break

11.45 hrs to 13.15 hrs

Structured Moderated Discussions among participants

13.15 hrs to 13.45 hrs

Further comments on the presentations and the broader study design

Mr K Ramanathan, Distinguished Fellow, TERI

Mr Ashish Khanna, Lead Energy Specialist, World Bank Country Office, Delhi

13.45 hrs to 13.50 hrs

Vote of Thanks by TERI/ World Bank

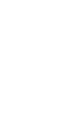
13.50 hrs onwards

Lunch

Workshop on "Opportunities and Challenges to Increase Regional Energy Cooperation in South Asia"

IERI University, Vasant Kunj, New Delhi

17-Apr-13

S No	Name	Designation	Organisation	Signature
1	Mr S K Soonee	Executive Director and CEO	POSOCCO	
2	Mr P Varshney	Vice President	PTC India Limited	
3	Mr Srinivasan Padmanaban	Sr. Energy Advisor	USAID	
4	Mr Amol Bhutad	Program Officer	USAID	
5	Mr Vallabh Rao Karbar	Teamleader-Energy	ADB	
6	Mr Ujjwal Mathur	Senior Manager	EDF-India	
7	Mr R C Dhup	Technical Specialist	IRADE	
8	Mr H L Bajaj	Former-Chairman	Central Electricity Authority	
9	Mr Manish Chauhan	OSD (SAARC)	Ministry of External Affairs	
10	Mr Madhu Sethi		Ministry of External Affairs	
11	Mr A K Saxena	Chief-Engineering	Central Electricity Regulatory Commission	
12	Mr V K Kanjlia	Secretary	Central Board of Irrigation & Power	
13	Mr Gopal Menon	Country Manager	AusAID	
14	Mr Russell Rollason		AusAID	
15	Mr Awdhesh Kumar Yadav	Deputy Director, SP&PA	Central Electricity Authority	

S No	Name	Designation	Organisation	Signature
16	Mr K Ramanathan	Distinguished Fellow	TERI	<i>KR</i>
17	Mr Mike Toman	Manager, Environment and Energy, Development Research Group	World Bank and Project TTL	<i>MFT</i>
18	Mr Govinda R Timilsina	Senior Economist	Environment and Energy, Development Research Group, World Bank	<i>Govinda</i>
19	Mr Ioannis N Kessides	Lead Economist, Environment and Energy, Development Research Group	World Bank	<i>IK</i>
20	Mr Shahid Hasan	Associate Director	TERI	<i>AS</i>
21	Mr Ashish Khanna	Lead Energy Specialist	World Bank Country Office	
22	Mr. Pradyumn Sengupta	---	TERI	<i>Pradyumn</i>
23	Gurudeo Singh		TERI	
24	Chetan Yadav	Research Associate	TERI	<i>Chetan</i>
25	Ragmit Malhotra	Associate Fellow	TERI	<i>Ragmit</i>
26	Gopal K. Dutt	TERI University	TU	<i>GK</i>
27	Anshu Gupta	TERI		<i>Anshu</i>
28	Sandhya S.	TERI		<i>Sandhya</i>
29	Sandeep	TERI	TERI	<i>Sandeep</i>
30	A S Negi	EOF	EOF	<i>AS Negi</i>
31	S Nageshwar		TERI	<i>S Nageshwar</i>
32	R K Medhraj	EX	EX	<i>RK Medhraj</i>



Department of Energy & Environment
Presents

REtopia 2013

24th October 2013
TERI University, Vasant Kunj
New Delhi

Agenda:

0930 – 1030 hrs.	Registration
1030 – 1130 hrs.	Inauguration with Chief Guests Speech
1130 – 1200 hrs.	High Tea
1130 – 1300 hrs.	Best out of Waste – Recycle and Reuse
1200 – 1300 hrs.	Panel Discussion on <i>“Renewable Energy for Inclusive Growth”</i> <i>(Panelists from Ministry, RE Industry and Academia)</i>
1300 – 1400 hrs.	Lunch Break
1400 – 1530 hrs.	Head to Head (“Renewable Energy Transformation – Challenges and Opportunities”)
1530 – 1630 hrs.	Greenovators
1630 – 1700 hrs.	General Quiz
1700 – 1800 hrs.	REtopia Design Challenge (RED)

Note: Participative events planned throughout the day

3.6.3.B.

Technical Program

“Current Challenges of Bioinformatics in Biotechnology” BIOTIKOS 2013 TERI University, 9-10 April, 2013			
TIME	EVENT	DETAILS	VENUE
Registration 8.30 -9.25 AM			
Inaugural Session: 9.30-10.30 AM			
9.30-9.35 AM	Welcome Address	Dr. Sitaraman Ramakrishnan Head, Department of Biotechnology TERI University	L-001
9.30-10.00 AM	Inaugural Address	Padma Bhushan Prof. R.B. Singh President NAAS, & Ex ADG FAO of UN.	L-001
10.30-11.00 AM	Key Note Address	Dr. Alok Adholeya Director Biotechnology and Bioresources Division, TERI, IHC complex, Lodhi Road	L-001
11-11.10 AM	Vote of Thanks	Dr. Rajiv Seth Registrar TERI University	L-001
Tea Break: 11.10-11.25 AM			
Technical Session			
11.30 AM-12.15 PM	Precision Genome Engineering with programmable DNA-binding proteins	Dr. D. Sundar Assistant Professor Department of Biochemical Engineering & Biotechnology IIT Delhi	L-001
12.15-1.00 PM	Plant microRNA predictions in NGS data	Dr. Dinesh Gupta Bioinformatics Laboratory, SCB Group ICGEB, New Delhi	L-001
Lunch 1.00 - 2.00 PM			
2.00-2.45 PM	Challenges and opportunities in structure- based rational drug design	Dr. Md. Imtiaz Hassan Assistant Professor (Biophysics) Centre for Interdisciplinary Research in Basic Sciences,	L-001

3.6.3.B.

		Jamia Milia Islamia, New Delhi	
2.45-3.30 PM	Computational Systems Biology for understanding Floral Transition in Plants	Dr. Gitanjali Yadav Scientist, Computational Biology Laboratory NIPGR, New Delhi	L-001
3.30-4.15 PM	Lecture	Dr. Anand Mishra Department of Computational Biology Group Pfizer Ltd. Mumbai	L-001
10 April 2013			
8.30-9.25 AM Display of Poster			
9.30-10.30 AM	Lecture	Industry personal Monsanto	L-001
10.30-11.15 AM	Lecture	Prof. P. K. Seth Chief Executive Officer, Biotech Park, Lucknow	L-001
Tea Break: 11.15-11.30 AM			
11.30 AM -12.45 PM	Mind Sport	CURIOSO	L-001
Lunch 1.00-2.00 PM			
2.00 -3.00 PM	Poster Session	PLAKAT Applications of Bioinformatics in various fields of Biotechnology I st Prize (worth Rs 5000) II nd Prize (worth Rs 5000) III rd Prize (worth Rs 5000)	Amphitheatre
3.00-4.00 PM	Mind Sport	CURIOSO I st Prize (worth Rs 5000) II nd Prize (worth Rs 5000) III rd Prize (worth Rs 5000)	L-001
4.00-4.30 PM	Prize Distribution ceremony	Dr. Gautam Goswami Deputy Director DST TIFAC	Amphitheatre



Australian Government



**East Asia Summit
Climate Change Adaptation Workshop**

'Climate Change, rural-urban interactions and livelihoods'

New Delhi, 6-8 November 2013

Program

Day 1

0800	Bus departs Jaypee Vasant Hotel for TERI University
0830	Registration commences(Tea and coffee)
0900-0945	<p><u>Session 1 – Welcome and workshop overview</u></p> <p>Welcome and introductions</p> <ul style="list-style-type: none"> – Dr Leena Srivastava, Vice Chancellor, TERI University & Executive Director, TERI Welcome to delegates – Ms Alexandra Borthwick, Director, Department of Environment, Australian Government Workshop overview and objectives – Dr Mark Howden, Chief Research Scientist, CSIRO Climate Adaptation Flagship Participant introductions – Dr Arabinda Mishra, Dean, Faculty of Policy & Planning, TERI University Workshop logistics
0945-1110	<p><u>Session 2 – Setting the scene: Climate change, rural-urban interactions and livelihoods</u></p> <p>Targeted presentations by Indian participants that highlight initiatives and barriers in building community capacity to improve water and food security outcomes in the context of climate variability and change. This session focuses on practitioner experiences.</p> <ul style="list-style-type: none"> – Dr Purnamita Dasgupta, Ford Foundation Chair in Environmental Economics, Institute of Economic Growth, University of Delhi Enclave. Provisional title: <i>Climate Change and Rural Urban Interactions</i> – Dr Arabinda Mishra, Dean, Faculty of Policy & Planning, TERI University. Title: <i>Adaptation, public policy and rural livelihoods in India</i> – Dr Anurag Danda, Head - Climate Adaptation & Sundarbans Landscape, WWF-India. Title: <i>Food security in the context of climate variability and change: Lessons from West Bengal Sundarbans</i> – Dr K S Murali, Senior Program Officer, CARIAA, IDRC India Title: <i>Rural livelihoods in the changing global climate</i> <p>Session facilitator: Dr Uday Nidumolu</p> <p><i>Session outcomes:</i></p> <ul style="list-style-type: none"> – Documentation of common aspects. – Participants exposed to a range of Indian initiatives and discussion on the impact of these programs with a particular focus on the interface between community vulnerability and policy responses.
1110-1130	Morning tea

1130-1250	<p><u>Session 3 – EAS partner country presentations</u></p> <p>Targeted presentations by EAS participants highlighting initiatives and barriers in building community capacity to improve water and food security outcomes in the context of climate variability and change. This session focuses on practitioner experiences.</p> <ul style="list-style-type: none"> – Dr Roberto Sandoval, Climate Change and Food Security Specialist at the Food and Agriculture Organization of the United Nations, Manila, Philippines Title: <i>Addressing Climate Change and Food Security Linkages through Impact Assessments, Food Insecurity Vulnerability Analysis, Community-based Adaptation, and Improved Socio-Institutional Mechanisms: FAO's AMICAF Framework</i> – Mr Emani Kumar, Deputy Secretary General and Executive Director, ICLEI, South Asia. Title: Overview of ICLEI activities in South Asia. – Ms Nguyen Hoang Thuy, Researcher, Climate Change Research Centre, Vietnam Institute of Meteorology Hydrology and Environment. Title: <i>Transforming information of climate and climate change into adaptation measures in Quang Ngai Province</i> <p>Session facilitator: Dr Mark Howden</p> <p><i>Session outcomes:</i></p> <ul style="list-style-type: none"> – Documentation of common aspects. – Participants exposed to a range of initiatives across the East Asian region and discussion on the impact of these programs.
1250-1300	Presentation on field trip logistics Dr Arabinda Mishra
1300-1400	Lunch & Group Photo

1400-1600	<p><u>Session 4 – The role of science in climate adaptation policy</u></p> <p><i>(Delegates will be served afternoon tea during the session)</i></p> <p>The session will commence with a presentation by Dr Mark Howden, Chief Research Scientist, CSIRO, titled <i>The public policy challenge of climate change adaptation: lessons for rural-urban interactions and livelihoods</i></p> <p>Following the presentation by Dr Howden, participants will work in small breakout groups to discuss the role and application of science in informing climate change adaptation policy. Four key aspects will be analysed:</p> <ul style="list-style-type: none"> – Moving beyond a focus on scientific uncertainty for policy-making. – Mainstreaming of climate changes issues into the broader policy arena. – The role of local expertise in implementing adaptation initiatives. – The interface between community vulnerability to food and water security and the impact of policy responses. <p>– Breakout groups report back to plenary, followed by plenary discussion.</p> <p>Session facilitator: Dr Neil Lazarow</p> <p><i>Session outcome:</i></p> <ul style="list-style-type: none"> – Broadened understanding of opportunities and approaches to improve science-policy impacts water and food and water security.
1600-1715	<p><u>Session 5 – Innovation and technology</u></p> <p>This session provides an opportunity for presentations that describe the incorporation of technology and innovation to improve food and water security outcomes for local communities.</p> <ul style="list-style-type: none"> – Dr Christian Roth, Senior Principal Research Scientist, CSIRO. Title: <i>The human dimensions of science and technology: design principles for research aimed at building the adaptive capacity of farmers in S and SE Asia.</i> – Mr Rantej Singh, VP Strategy and Innovation, Reuters Market Light. Title: <i>Using mobile phones as a platform for Sustainable Agri Solutions</i> – Dr Vishal Narian, Management Development Institute Title: <i>Improving peri-urban water security in the face of climate change.</i> <p>Session facilitator: Ms Suruchi Bhadwal</p> <p><i>Session outcome:</i></p> <ul style="list-style-type: none"> – Opportunity for participants to learn more about the use of technology and innovation to address food and water security outcomes in South and South East Asia.
1715	<p>Wrap up and conclusion to Day One Dr Mark Howden</p>

3.6.3.B.

1800-2100	Cocktails, hosted by Vice Chancellor, TERI University Workshop dinner – TERI University
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Day 2

0600-2100	<p>Field site visit – Tarun Bharat Sangh, Rajasthan state.</p> <p>The focus here is on community level initiatives to manage a variable and changing climate alongside several other social issues. Mr Rajendra Singh who leads the Tarun Bharat Sangh was awarded the Ramon Magsaysay Award in 2001 for community service. More on the activities of this society is available http://tarunbharatsangh.in/.</p> <ul style="list-style-type: none">– 0600 Buses depart from hotel at 0600 sharp!– 0600-1030 The bus ride to the site takes approximately 4 ½ hours each way. Breakfast will be served on the bus (included coffee and tea), and participants will take a rest break at approximately 0800.– 1030-1500 Activities at field trip site.– 1500 Depart field trip site. We will break for tea and coffee at approximately 1730; and then for dinner at 1900.– 2100 arrive at hotel. <p>The field visit site is optional for participants. More information will be provided on Day 1 of the workshop.</p>
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Day 3

0900	Buses depart hotel
0930-0945	<p><u>Session 1 – Recap and discussion of key insights from Day 1 and Day 2</u></p> <p>Dr Mark Howden</p>
0945-1115	<p><u>Session 2 – policy responses: improving food and water security outcomes for rural communities in a changing climate</u></p> <p>Keynote address</p> <ul style="list-style-type: none"> – Dr B Venkateswarlu, Director, Central Research Institute for Dryland Agriculture (CRIDA) Title: National Initiative on Climate Resilient Agriculture <p>This panel session will focus on the potential policy responses that are fit for purpose in improving rural community outcomes for food and water security in a changing climate.</p> <p>Panelists:</p> <ul style="list-style-type: none"> – Mr IH Rehman, Director, Social Transformation Division, TERI University – Dr Vidisha Shamarashekara, Senior Adaptation Specialist, ADB India <i>TBC</i> – Dr Mark Howden, Chief Research Scientist, CSIRO – Mr Zin Aung, Director, Department of Meteorology and Hydrology, Government of Myanmar – Dr M Sengupta, Country Director MacArthur Foundation India <i>TBC</i> – Mr Rajesh Ranjan, Director, International Cooperation, Ministry of Agriculture, Government of India <i>TBC</i> <p>Session facilitator: Mr Stephen Cook</p> <p><i>Session outcome:</i></p> <ul style="list-style-type: none"> – Improved understanding of the range of policy responses across the bottom-up to top-down spectrum.
1115-1130	Morning tea
1130-1245	<p><u>Session 3 – Leading practice approaches: a way forward</u></p> <p>Through a facilitated discussion, followed by breakout groups, participants will capture the main elements required for progressing local community capacity to improve food and water security in a changing climate. Breakout groups will focus on themes developed over the course of the workshop.</p> <p>Session facilitator: Dr Mark Howden</p> <p><i>Session outcomes:</i></p> <ul style="list-style-type: none"> – Working towards development of a series of common approaches to climate change and rural livelihoods to build on and add value to the Singapore Declaration and EAS EMM; and to inform current and future planning processes.

3.6.3.B.

1245-1330	Lunch
1330-1430	<u>Session 3 continues – Leading practice approaches: a way forward</u>
1430-1500	Afternoon tea
1500-1615	<p><u>Session 4 – Leadership panel on climate change and rural livelihoods</u></p> <p>Session Chair: Dr Ashok Gulati, Chairman of the Commission for Agricultural Costs and Prices</p> <ul style="list-style-type: none"> – Keynote address: Dr V Rajagopalan, Secretary, Ministry of Environment & Forests, Govt of India (15 mins) <p>A facilitated panel discussion will follow the presentation by Dr Rajagopalan (25 mins)</p> <p>Panelists:</p> <ul style="list-style-type: none"> – Dr Ghosh, Distinguished Fellow & Director Climate Change Division, TERI. – EAS delegate (TBC) – Dr Arabinda Mishra, Dean, Faculty of Policy & Planning, TERI University – Dr Mark Howden, Chief Research Scientist, CSIRO – Mr Varad Pande, OSD, Ministry of Rural Development, Govt of India <i>TBC</i> <ul style="list-style-type: none"> – Summary of workshop proceedings and release of workshop communiqué. Introductory remarks by His Excellency, Patrick Suckling, Australian High Commissioner to India, followed by Ms Alexandra Borthwick and Dr Leena Srivastava (10 mins). – Observations from the participants (15 mins) – Concluding remarks from the Chair, Dr Gulati (10mins) <p>Session outcomes:</p> <ul style="list-style-type: none"> – Overview of workshop learnings and opportunities for application. – High level governmental support for workshop outcomes.
1615-1630	Concluding remarks Dr Mark Howden and Dr Arabinda Mishra

WORKSHOP GOALS

1. Exposure to **leading practice climate change adaptation and development practices and policies** for incorporation into existing and future planning processes.
2. Improved understating of how to best **incorporate scientific uncertainty into decision-making**.
3. A bet ter **understanding of the decision-making contexts for which climate change science information is likely to be most effective** for the development of robust public policy.
4. EAS member countries are **empowered to increase their adaptation capacities and resilience** to climate change and variability through consideration in national environmental planning processes and self-management of climate risk.
5. Improved **regional networks and inter-connectivity** on climate change adaptation.

WORKSHOP FOCUS

The workshop will focus on the challenge of food and water security and strategies to build local community capacity to respond to these vulnerabilities. The workshop will have strong institutional, social and policy components that focus on opportunities to incorporate climate adaptation and development strategies into existing planning processes and frameworks. This is particularly important as climate change is one of the many factors that impact on rural livelihoods and the urban-rural interface.

GENERAL APPROACH OF THE WORKSHOP

In order to attain these goals activities in the workshop are based on the following assumptions:

No one "right" way. The highly contextual nature of adaptation means that there is no single "best" way to improve food and water security for vulnerable communities in a changing climate. However, we have found, by working with practitioners, policymakers and academics from a variety of fields, that it is possible to develop theory, guidelines and practical tools that facilitate the joint problem solving that is required for such complex issues.

Builds skills and capacity. We support an approach that promotes policy design culture, build skills and capacity in a collaboratory manner. This approach recognises that climate adaptation cannot be considered in isolation from issues such as food security, livelihoods, water, urban expansion and ecosystem functions; and that policy decisions are highly contextual.

The value of working on process independent of substance. We have found that busy professionals can benefit from taking time from their schedules to reflect on their current practice. This workshop aims to provide you with an opportunity to discuss your practice, learn from the experience of your colleagues, experiment with new ideas in a safe environment and to develop and new skills to complement those you already possess.

NEXUS OBSERVATORY WORKSHOP

LIFE-CYCLE COST ASSESSMENT OF INFRASTRUCTURE PROJECTS

TERI UNIVERSITY,
NEW DELHI, INDIA
18 - 19 DECEMBER 2013

PROGRAMME

Organized by



UNITED NATIONS
UNIVERSITY

UNU-FLORES

Institute for Integrated Management
of Material Fluxes and of Resources



flores.unu.edu

Background

Previous research on governance has concluded that costs of providing water and sanitation services are understated. This is because standard government measurement criteria does not account for support services and maintenance costs. For example, activities focused on maintaining source sustainability of water supplies, labour costs for construction of toilet facilities and costs involved in transporting materials to construct school toilets are seldom factored into calculations of sanitation services. Further, costs that households and communities bear to boil water or on programs that raise awareness of safe hygiene practices are not included in project costing methodologies. Therefore, from a nexus perspective it is imperative that planners and decision makers adopt a lifecycle cost approach that factors in the cost of constructing, operating and maintaining water and sanitation infrastructure over a 10 to 15 year time horizon. Besides focusing on the divide between the short and long term, a lifecycle cost approach will make it imperative to examine opportunities to forge a nexus between: (a) public-private sectors, (b) centralized- decentralized management, (c) concerns of efficiency and equity, (d) short term budget cycle concerns and longer term focus on sustaining ecosystem services and (e) sector/disciplinary approaches versus trans-disciplinary/cross-sectoral approaches to problem solving and management.

Workshop Objectives

1. Discuss case studies from different sectors (*water, sanitation, energy and transport*) to explore relevance of LCA in advancing the nexus approach to management of environmental resources.
2. Documentation of practical applications of LCA for project and program planning.
3. Explore opportunities for piloting LCA approaches in Asia Pacific region

Expected Outcomes

1. Policy brief on European experience with LCA in wastewater projects
2. Position paper on Lifecycle cost analysis of infrastructure projects
3. Marketing of UNU-FLORES online course on LCA in Asia Pacific region
4. Process documentation of practical lessons of LCA for project and program planning

PROGRAMME AGENDA

18TH DECEMBER

09:00 – 09:30 AM **Registration of Participants**

09:30 - 10:15 AM **Inaugural**

Moderator: Dr. Suresh Jain

Speakers:

1. Welcome address by Dr. Leena Srivastava, Vice Chancellor, TERI University
2. Introduction of the workshop by Dr. Reza Ardakanian, UNU-FLORES
3. Keynote speaker by Sh. Gajendra Haldea, Adviser to DCH (Infrastructure), Planning Commission, Government of India

10:15-10:45 AM **High tea**

10:45 AM – 12.15 PM **Technical Session – I**

Theme: Initiative for infrastructure project planning and implementation- an Indian experience

Chairperson: Mr. A. S. Bhal, Economic Advisor, Ministry of Urban Development, Government of India

Speakers:

1. Dr. Regina Dube, GIZ, India
2. Mr. Rajesh Kashyap, Asstt. Engineer, Water Supply & Sewerage Disposal, Municipal Corporation, Government of Himachal Pradesh
3. Dr. Avinash Tyagi, Secretary General, International Commission on Irrigation and Drainage (ICID)

12:15 - 01:00 PM **Technical Session II**

Theme: LCA and LCCA for infrastructure project planning reforms- A conceptual overview

Chairperson: Dr. S.N. Pati

Speaker:

1. Dr. V. Ratna Reddy, Director, Livelihoods and Natural Resources Management Institute
2. Ms. Iznazunia Ismail, SIRIM, BERHAD, Malaysia

01:00 - 02:00 PM **Lunch**

02:00 – 3:30 PM

Technical Session III

Theme: Triple bottom-line approach for decision-making in the infrastructure sector: Costs, environmental impacts and the desired social benefits

Chairperson: Dr. Venkatesh Govindarajan, Norwegian University of Science and Tech, Norway

Speakers:

1. Dr.-Ing. Georg Schille, European Experience with LCA in water and wastewater projects (Leibniz Institute of Ecological Urban and Regional Development, Dresden, Germany)
2. Mr. Sreenivasan Sreenath, Nanyang Technological University, Singapore
3. Dr. S.N. Pati, NCBM, Delhi

03:30 – 04:00 PM

Tea Break

04:00 – 05:30 PM

Technical Session IV

Theme: LCCA for infrastructure project planning and implementation - case studies (3 Asian countries)

Chairperson: Dr. Thumrongrut Mungchareon, Kasesart University, Thailand

Speakers:

1. Dr. S. V. Srinivasan, CLRI, Chennai
2. Prof. Shabbir Gheewala, JGSEE, Thailand
3. Mr. Alireza Ebrahimi, Ministry of Energy, Government of Iran

07:00 - 09:00 PM

Welcome dinner

19TH DECEMBER 2013

09:30 – 11:00 AM

Technical Session V

Theme: LCCA for infrastructure project planning-case studies (3 Asian countries)

Chairperson: Prof. Atsushi Inaba, Kogakuin University, Japan

Speakers:

1. Dr Thumrongrut Mungchareon, Kasetsart University, Thailand
2. Ms. Iznazunia Ismail, SIRIM, BERHAD, Malaysia

11:00 – 11:30 AM

Tea Break

11:30 - 01:00 PM

Technical session VI - Breakaway group discussions

Group I: Methodological perspectives in planning for infrastructure projects.

Group Leader: Prof. V.K. Sharma, founding President of the Indian Society for Life Cycle Assessment (ISLCA) and Member of UNEP's International Life Cycle Board

- Other members of the group to be identified from the members present

Upshot of the discussion: Identify key elements of a reform framework for infrastructure project and program planning.

Group II: Introduction of LCCA in existing planning structure and processes.

Group Leader: Dr. Venkatesh Govindrajan, Norwegian University of Science and Technology, Norway

- Other members of the group to be identified from the members present

Upshot of the discussion: Identify practical entry points for introduction of LCA in existing planning structures and processes and prospects for pilot/field testing of LCA approaches in the Asia Pacific region.

01:00 - 02:00 PM

Lunch

02:00 - 03:30 PM

Presentation by group leaders and concluding session

Presided by:

- Prof. V.K. Sharma
- Dr. Venkatesh Govindrajan
- Dr. S K Sarkar, Secretary, DoPT, Government of India
- Dr. Mathew Kurian, UNU- FLORES
- Dr. Rajiv Seth, Registrar, TERI University
- Vote of thanks - Dr. Mathew Kurian (from UNU FLORES)

3.6.3.B.



TERI-BCCR Climate Research School – III on Statistical Downscaling

25th – 29th November 2013

TERI University, Vasant Kunj, New Delhi

Agenda

Day1 25th November

Time		Speaker
8:30 – 9:00 am	Registration	
	Inaugural Session	
9:00 – 9:05 am	Welcome Address	Dr. R.K. Pachauri Director General, TERI and Chancellor, TERI University
9:05 – 9:10 am	Video Message	Prof. Eystein Jansen Director, BCCR
9:10 – 9:15 am	Special Address	Mr Håvard Hugås Councillor, Royal Norwegian Embassy
9:15 – 9:20 am	Inaugural Address	Dr. Shailesh Nayak Secretary, MoES, GoI
9:20 – 9:25 am	Vote of Thanks	Dr. Leena Srivastava Vice Chancellor, TERI University and Executive Director, TERI
9:25 – 10:00 am	Tea	
	Technical sessions	
Time	Topic	Speaker
10:00 – 11:30 am	Introduction to Climate System and Variability	Prof. K. Mohan Kumar, CUSAT
11:30 am – 12:30 pm	Tele-connections in Climate	Dr. M. Rajeevan, MoES
12:30 – 1:30 pm	Lunch Break	
1:30 – 3:30 pm	Role of Atmosphere in Climate	Prof. K. Mohan Kumar, CUSAT
3:30 – 3:45 pm	Tea Break	
3:45 – 4:45 pm	Role of Ocean in Climate	Dr. Madhusoodanan M.S. TERI
7:00 pm onwards	Conference Dinner	

Day2 26th November

Time	Topic	Speaker
9:00 – 10:00 am	Climate Modelling – I Introduction and basics	Dr. Michel d S Mesquita, BCCR, Uni Research
10:00 – 10:45 am	Introduction to Statistical Downscaling - I Definitions; Philosophy	Dr. Rasmus Benestad/ Dr. Abdelkader Mezghani Met.no
10:45 – 11:00 am	Tea Break	
11:00 – 11:45 am	Introduction to Statistical Downscaling - II Definitions; Philosophy	Dr. Rasmus Benestad/ Dr. Abdelkader Mezghani Met.no
11:45 am – 1:00 pm	Climate Modelling – II Applications, case study, downscaling	Dr. Michel d S Mesquita, BCCR, Uni Research
1:00 – 1:45 pm	Lunch Break	
1:45 – 2:30 pm	Improvements over three generations of climate model simulations for eastern India	Dr. Lalu Das, BCKV
2:30 – 3:30 pm	Introduction to Linux	Saurabh Bhardwaj, TERI
3:30 – 3:45 pm	Tea Break	
3:45 – 4:30 pm	Methods and preprocessing - I EOF and de-trending; domain size; predictor choice	Dr. Rasmus Benestad/ Dr. Abdelkader Mezghani Met.no



Day3 27th November

Time	Topic	Speaker
9:00 – 9:45 am	Methods and preprocessing - II EOF and de-trending; domain size; predictor choice	Dr. Rasmus Benestad/ Dr.Abdelkader Mezghani Met.no
9:45 – 10:30 am	Predictions & diagnostics – I Linear methods: LM, GCL, CCA; non-linear methods: analogs	Dr. Rasmus Benestad/ Dr.Abdelkader Mezghani Met.no
10.30 – 10.45 am	Tea Break	
10:45 – 11:30 am	Predictions & diagnostics – II Linear methods: LM, GCL, CCA; non-linear methods: analogs	Dr. Rasmus Benestad/ Dr.Abdelkader Mezghani Met.no
11:30am – 12.30 pm	Writing and Presentation skills in Climate Sciences	Dr. Michel d S Mesquita, BCCR, Uni Research
12:30 – 1:30 pm	Lunch Break	
1:30 – 2:15 pm	Validation & limitations of the statistical downscaling approach – I Diagnostic of GCM skill; ESD-skill; out-of-sample tests; physics considerations	Dr. Rasmus Benestad/ Dr.Abdelkader Mezghani Met.no
2:15 – 3.15 pm	Introduction to R statistical package	Dr. Michel d S Mesquita, BCCR, Uni Research
3:15 – 3:30 pm	Tea break	
3.30 pm onwards	Lab (R and other tools) continued	

Day4 28th November

Time	Topic	Speaker
9:30 – 10:15 am	Validation & limitations of the statistical downscaling approach – II Diagnostic of GCM skill; ESD-skill; out-of-sample tests; physics considerations	Dr. Rasmus Benestad/ Dr.Abdelkader Mezghani Met.no
10.15 – 10:30 pm	Tea Break	
10:30 – 11:30 pm	Training session with new R-package 'esd'- I	Dr. Rasmus Benestad/ Dr.Abdelkader Mezghani Met.no
11:30 – 12:30 pm	Training session with new R-package 'esd'- II	Dr. Rasmus Benestad/ Dr.Abdelkader Mezghani Met.no
12:30 – 1:30 pm	Lunch Break	
1:30 – 2.45 pm	Training session with new R-package 'esd'- III	Dr. Rasmus Benestad/ Dr.Abdelkader Mezghani Met.no
3.00 – 3:15 pm	Tea Break	
3:15 pm onwards	Lab Sessions continued	

Day5 29th November

Time	Topic	Speakers
9:00 – 10:30 am	Nowcasting in Aviation with special reference to flying in mountains	Gr. Capt. R.K. Mehajan, Scientist, MoES
10.30 – 10.45 am	Tea break	
11:00 am – 12.30 pm	Invited Lecture on Coupled Modelling	Dr. A.K. Mitra Scientist, NCMRWF
12:30 – 1:30 pm	Lunch Break	
2:00 – 3:00 pm	Valedictory session	

Open Society Scholarship Programs
South Asia Program Mid-Year Conference
December 9-11, 2013
Vasant Kunj, New Delhi

Conference venue:
Teri University – Conference Hall
10, Institutional Area, Vasant Kunj
New Delhi, India

December 8th

8.30pm Welcome Dinner at the Grand Hotel, Vasant Kunj

December 9th

- 9:00** Breakfast will be available in the TERI Cafeteria
10:00 **Welcome**
10:30 **Gender, Equality and Development**, *Ms. Valorie Vojdik, Professor of Law and Director of Clinical Programs, University of Tennessee, College of Law*
11.30 Coffee Break
11.45 **Gender, Equality and Development cont'd**
13:00 Lunch
14:00 **Student Reports**
16:00 Coffee Break
16:15 **Student Reports con't**
17:15 **OSF Question and Answer**
18:15 **Poverty and the Environment**, *Mr. Srinivasan Iyer, Assistant Country Director and Head, Energy and Environment unit, UNDP, India*
19:00 Free evening

December 10th

- 8:30** Breakfast will be available in the TERI Cafeteria
9:00 **Understanding the Processes of Campaigns for Advocacy**, *Mr. E. Premdas Pinto, Director, Research and Advocacy, Centre for Health and Social Justice, India*
10:30 Coffee Break
10:45 **Understanding the Processes of Campaigns for Advocacy**
13:00 Lunch
14:00 **Designing and Executing your Research Project**, *Mr. Vishal Narain, Associate Professor, School of Public Policy and Governance, MDI, Management Development Institute*
16:30 Coffee Break
16:45 **Reconnecting to your Home Community; seeking employment or internship opportunities post-fellowship**
Nepal: Mr. Hari Sharma, Director, Alliance for Social Dialogue; Mr. Deepak Thapa, Director, Social Science Baha
Afghanistan: Mr. Farhad Faqiri, Scholarships Coordinator, Open Society Afghanistan, Dr Abbas Payandehnik, Executive Director, FEKER, Afghanistan
19:00 Group Dinner

3.6.3.B.

Developing Young Geo-Professionals TERI University, New Delhi



Government of India



Supported by

Department of Science & Technology, GoI

July 09-13, 2012

3.6.3.B.



Land use related Biodiversity in India

Seminar 2012

Department of Natural Resources (TERI University)

and the

Institute of Silviculture (University of Freiburg, Germany)



Conduct a seminar on the outcome of the student research work done under their joint project
"Land use related Biodiversity in India"

Conference room, TERI University, 10 Institutional Area, Vasant Kunju, New Delhi

25.08.2012, 10 am -3:30 pm

Time	Topic
10:00	Welcome note by (Leena Srivastava)
10:15	Round of introduction
10:45	The project "Land use related Biodiversity in India" <i>Joachim Schmerbeck (TERI University)</i>
11:00	Tea break
11:30	Regeneration of Shola tree species under <i>Eucalyptus</i> plantations in the Upper Palni Hills, South India <i>Anjana Srimathi (TERI University)</i>
11: 50	The impact of Cyclone Thane on the restoration of Tropical Dry Evergreen Forest in Auroville, South India <i>Lena Veller (University of Freiburg) and Joachim Schmerbeck (TERI University)</i>
12:10	Regeneration under the canopy of <i>Prosopis juliflora</i> in Delhi <i>Niyati Naudiyal (TERI University)</i>
12:30	Lunch
13:30	Multi-sensor approach for forest structure attribute and biophysical parameter estimation <i>Aniruddha Ghosh (TERI University)</i>
13:50	Mapping biomes of India using Holdridge Life Zone Model – identifying footprints of climate change <i>Anusheema Chakraborty (TERI University)</i>
14:10	Summary and Discussion <i>P.K. Joshi (TERI University)</i>
15:30	<i>Tea and end of seminar</i>

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German Academic Exchange Service

