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**Report on Refresher Course On the theme “Climate Change Education: Integrating Mission LiFE into the Curriculum with People in Practice & Action”**

1 message

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**Report on  
Refresher Course On the theme*****“Climate Change Education: Integrating Mission LiFE into the Curriculum with People in Practice & Action”***

Organized by

**Department of Environmental Science**

Under the Aegis of

**Human Resource Development Centre, Integral University, Lucknow**

The Refresher Course on **“Climate Change Education: Integrating Mission LiFE into the Curriculum with People in Practice & Action”** was organized by the **Department of Environmental Science under the aegis of Human Resource Development Centre**, Integral University, Lucknow in offline mode from **28th September 2024 to 1st March 2025**. We are highly thankful to the **Director HRDC Prof. Syed Aqeel Ahmad** and his team for their valuable support throughout the refresher Course. This refresher course seeks to equip educators with the means to incorporate climate change education into their curricula, focusing on scientific research, innovation, environmental preservation, public engagement, and governance. The program is aligned with the seven themes of Mission life and 17 Sustainable Development Goals (SDGs).

The objectives of the programme are to increase comprehensive understanding of climate change and its impacts, highlight the importance of scientific research and innovations in combating climate change, promote environmental conservation and sustainable practices, promote sustainable food system and waste management, promoting and supplementing people participation and community engagement in climate action.

The specific outcomes of the refresher course are that participant will gain updated knowledge of climate change and practical strategies for integrating climate change education into curricula. Participants will learn new ideas, research, tools and technology in climate change mitigation. Participants will also gain the knowledge of innovative techniques of sustainable agriculture, and environmental conservation. The knowledge and skills acquired during the refresher course positively impact participants, influencing their ongoing work, research, and educational practices.

**Day 1**

The theme of First session of refresher course was **“Understanding Climate Change and the Current World Environment Concern”**. The first session started by Dr. Shweta Yadav Assistant Professor Department of Environmental Science at 12.30 pm on 28 Sept 2024. Resource person of this session was **Prof. Vinod Pravin Sharma**, Chief Scientist & Prof AcSIR, CSIR-IITR Lucknow. Welcome address was given by **Dr. Ambrina Sardar Khan**, Head Department of Environmental Science, she also explained the mission and objectives of this refresher course. She explained in great detail about the various sessions that will be held in the coming days. Prof. V.P Sharma gave the presentation on the “climate changes, Lifestyle and sustainability: issues strategic planning and pathways Mission life and environmental safety”. He covered the topic such as, climate change and its impact on ocean and coral reef, on human beings, Global Warming, application of agrochemicals, Sustainable food production, Sustainability of resources, environmental toxicology, microplastic. In the technical session he focused on water conservation techniques and he also encouraged for the adoption of sustainable water management practices, including the promotion of water-efficient agricultural techniques, the implementation of stricter regulations on groundwater extraction, and the enhancement of public awareness about the importance of water conservation. He also stressed the need for innovative solutions such as artificial recharge of aquifers and the development of alternative water sources, and he also focused on eco-restoration techniques, wildlife conservation practices. The assessment was followed by the session with both open and close end question. The session came to end with the vote of thanks given by **Dr. Rushda Sharf**, Assistant Professor, Department of Environmental Science, Lucknow.

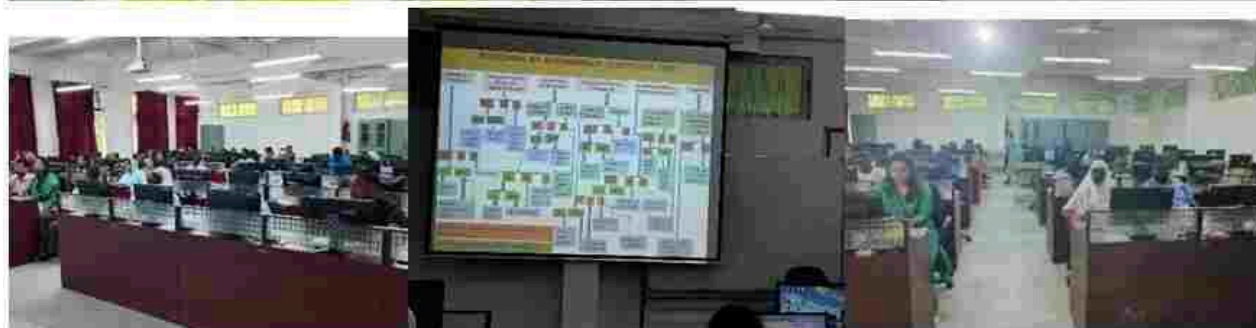
## Glimpses of Day 1



## Day 2

The second session of refresher course was conducted on “**Advance Tools and Techniques for Climate Change Crisis**” on 5<sup>th</sup> October 2024. The resource person of this session was **Dr. Rajeev Pandey**, Professor, Department of Statistics, Lucknow University, Lucknow. The session was started with welcome address given by **Dr. Ambrina Sardar Khan** Head Department of Environment Science. She also explains the objective of this theme. Dr. Rajeev Pandey gave the presentation on the topic “basis statistical techniques and overview of SPSS”. He started his lecture with the history of statistics and uses of statistics. He also emphasized on SWOT analysis statistical presentation of data, role of normality, tools for assessing normality. Dr. Rajeev explained the importance of knowing the data type and data scale, as this information is vital in selecting statistical techniques and methods for data analysis. After lunch break, the second session began with an introduction to SPSS software. All the participants were provided with training material as well as web-link to download trial version of the software in advance. This helped the participants to have a hands-on experience of the software. The Dr. Rajeev explained how to code and enter data and data filtration. He guided that in case of missing values, any of the following values can be used: mode, median, beta coefficients or closer moving average methods. He also discussed, application of t-test, one-way ANOVA. The session was highly interactive, engaging, and proved to be a remarkably effective learning experience for all participants. Assessment was followed by the technical session with the open and close end questions. Vote of thanks of the session was delivered by Miss Rumesa.

## Glimpses of day 2



### Day 3

The third Session was conducted on 1<sup>st</sup> February 2025 on “**Strategies for increasing Sustainable Food Production**”. **Dr. Sudhir Kumar Shukla** (Principal Scientist (Agronomy) ICAR-IISR, Lucknow) was the resource person of this session. Session was started at 12.30 pm with a warm welcome of resource person Dr. Sudhir Kumar Shukla by Dr. Shweta Yadav Assistant Professor, Department of Environmental Science. Dr. Sudhir Kumar Shukla started his lecture with primary goal of sustainable agriculture which is to minimize the adverse impacts to the immediate and off farm environments while providing a sustained level of production and profit. Dr. Shukla also described impact of sugarcane waste burning on soil, impact of temperature and heat stress on the crop growth. Dr. Shukla offers insightful overview of different innovative technologies such as Space transplanting techniques (STP), cane node technology, ring pit method, double row planting method, Ratoon management, bioresource management strategies, water management conservation technologies in crop production. He stated that by integrating these practices, agriculture can contribute to the long-term resilience of both local and global food systems. The session enhanced the knowledge of participant in the field of sustainable agriculture practices. Assessment was followed by the technical session with the open and close end questions. Session was ended with vote of thanks by **Dr. Shweta Yadav**.

### Glimpses of day 3



#### Day 4:

Fourth session was conducted on 22 February 2025 on “**Mobilizing Communities for Climate action through Education and Participation**” Miss Anuradha Gupta Founder and CEO of Prithvi Innovations was the resource person of this session. She explained that community engagement is more than just seeking public opinions; it involves active participation, collaboration, and empowerment of communities in the decision-making process. She stated that one of the foundational elements of effective community engagement is awareness and education. She also explained that encouraging residents to participate in data collection, monitoring, and analysis helps foster a sense of ownership and responsibility for the environment. Miss Anuradha emphasized the sustainable life style, she also invited us for workshop on sustainable practices in her NGOs.

For hands on training all the participants went to Prithvi Innovations NGO, Lucknow. All the participants were welcomed whole heartedly after which there was introductory session in which Miss Anuradha spoke about NGO and its Function. She asked participant to inculcate good habit and healthy life style which could make their life better and also gave brief description of 10 R's. i.e. redefine, rethink, revive, refuse, reduce, reuse, recycle, repair, redesign react and report. Miss Anuradha gave hand on training based on the concept of best out of the waste. Different types of activity based on sustainable practices, were performed by the participants. It was wonderful experience of educational visit to Prithvi Innovations, the environment was so natural, this visit enhanced the knowledge of the participants, for making sustainable product from different type of waste sources. Assessment was followed by the training session with open and close end questions.

#### Glimpses of training session of Day 4





## Day 5

The fifth Session on this course was conducted on **Conservation Strategies and Protected Areas Management** on 1 March 2025, **Dr. Ajey Kumar Pathak** (Principal Scientist ICAR-NBFGR, Lucknow), was the resource person of this session. Session was started with the welcome address given by **Ambrina Sardar Khan** Head Department of Environmental Science. Dr. Ajey started his lecture with the introduction of climate change, and biodiversity. He gave the description of Climate database, protected areas and their significance in biodiversity conservation, IUCN categories of protected areas. He stated the role of Protected Areas in Climate Change Mitigation and Biodiversity Conservation. He described the innovation technologies for management strategies. He also highlighted that the application of innovative technologies can create more adaptive management strategies that respond to changing environmental conditions. Assessment was followed by the training session with open and close end questions. The Session ended with a vote of thanks by **Dr. Rahila Rahman Khan**.

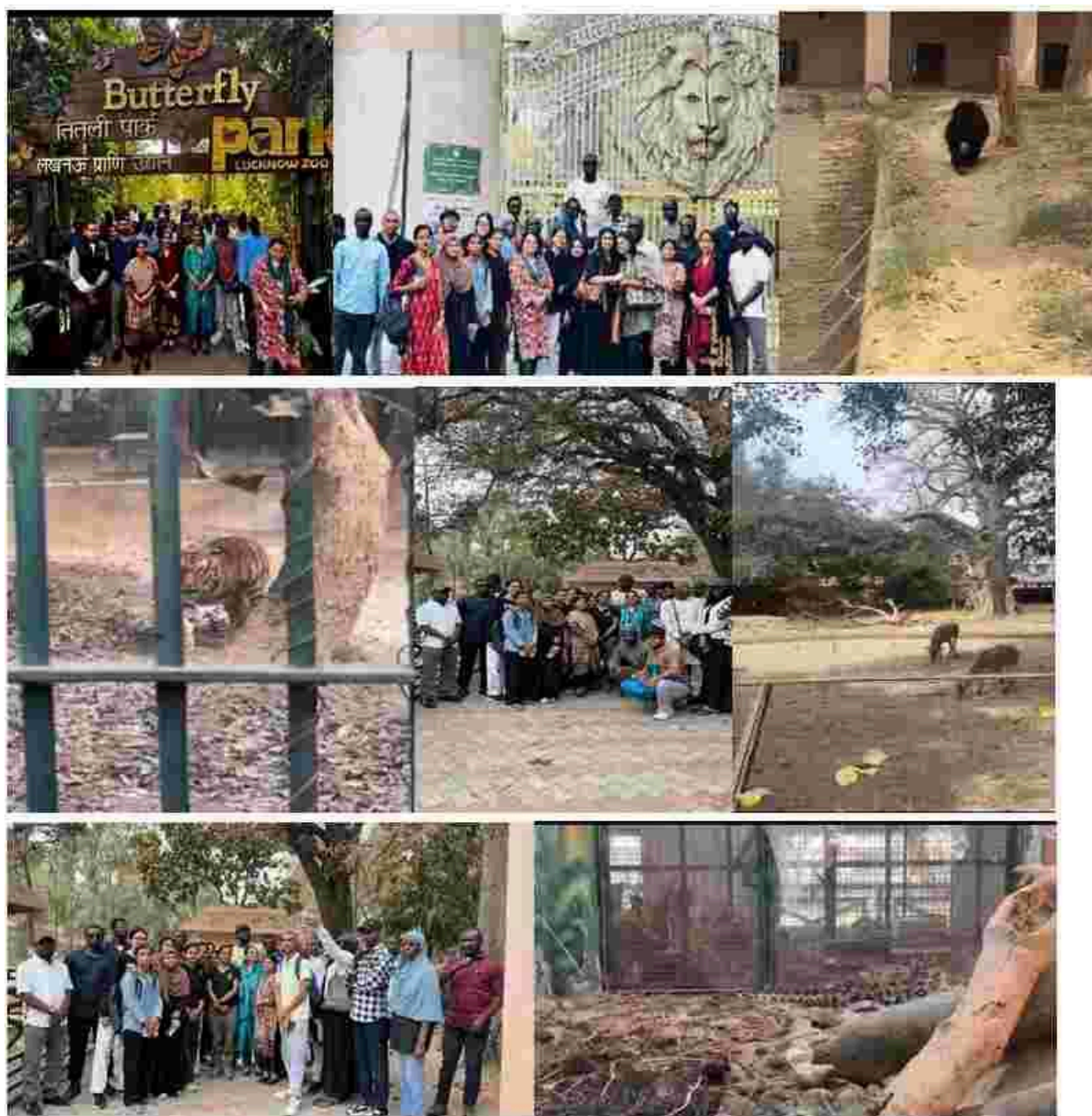
## Glimpses of Day 5



For understanding the conservation strategies based on our of fifth theme **Conservation Strategies and Protected Areas Management** participants went to Lucknow Zoo on 28 Feb 2025 for gaining practical knowledge of ex-situ type of conservation strategies. **Ambrina Sardar Khan** explained the conservation strategy adopted by zoo department.

## Glimpses of Lucknow Zoo for enhancing the practical knowledge of conservation strategies





Under the supervision of **Dr. Ambrina Sardar Khan** Head Department of Environmental Science, Refresher Course sessions were well coordinated by **Dr. Rushda Sharf**, Assistant Professor Department of Environmental Science. The department is very thankful to the University mangement, competent authority, HRDC, transportation service etc. for their support in conducting this refresher course which was not only theoretical but also helped the teachers to attain practical knowledge.

*With Deep Regards*

*Dr. Ambrina Sardar Khan*

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**"We are not heading towards a bright & hi-tech future;  
Instead, we are heading into a dark and suffocated EARTH.."**