

Ist Floor, Godrej & Boyce Premises, Gasworks Lane, Lalbaug, Parel, Mumbai 400012, India (PH) +91 22 24713565

To Dr Devdas Laata, **Associate Professor and Head Department of Energy Engineering** Central University of Jharkhand, Ranchi

Date: 29th July 2022

Subject: Requesting to conduct Training on Energy Access Explorer (EAE)

Dear Sir,

WRI India in collaboration/guidance of Department of Energy Engineering, Central University of Jharkhand intends to conduct a training program on Energy Access Explorer to students and scholars of departments.

WRI India is a research organisation turning big ideas into action at the nexus of environment, economic opportunity, and human well-being. WRI has a strong focus on research and stakeholder engagement and leverages its experience at national and state levels and knowledge to develop local relationships and expertise. WRI's Energy program focuses on energy access, renewable energy, and energy efficiency, engaging with utilities, regulators, state governments, central agencies, academia, civil society organisations, media, and the private sector to achieve its vision of improving access to reliable, sustainable, and affordable power for all.

WRI India has developed Energy Access Explorer which is an online, open-source, interactive, geospatial platform that enables clean energy entrepreneurs, academia, energy planners, donors, and development-oriented institutions to identify high priority areas where energy access can be expanded. Using spatial data to link energy supply with growing or unmet demand is essential to gaining a better picture of energy access and expanding energy services to those who need it the most.

The objective of training is to introduce the importance of energy access for sustainable development, concepts of energy planning, energy systems models and their gaps, importance of geospatial planning in the energy access space, introduce EAE (both theoretical background and practical handson exercises), discuss how EAE can be used to provide insights toward a more sustainable energy future for Jharkhand.

This will benefit students who are looking forward to building their career in energy access, policy, and research. This will help students to gets a practical experience on data driven energy planning.

The students who will be able to do exercises on will also be provided with the certification. We request you kindly guide us on co-organizing the training session and request other willing departments to join the training session. The total cost of the training, material supplies and operations will be borne by WRI India. Please allow us 9th September for the training session.

WRI India is an environmental group that works closely with leaders to turn big ideas into action to sustain India's natural resources - the foundation of economic opportunity and human mell-being q [20].

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The draft agenda and concept note for training is attached as annexure. We look forward for your guidance and support.

Sincerely,

Dheeraj Kumar Gupta

Senior Program Associate

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Hands on training on Energy Access Explorer

Why GIS and About EAE

Energy is a critical service that is highly interconnected with socioeconomic development and human well-being. To effectively expand energy access, government planners need to understand and have access to data and analytical tools that capture key attributes of the unserved and under-served populations they are trying to reach. Although recently developed energy planning tools based on geographic information systems (GIS) focus on identifying technology and investment needs to provide access to unserved areas, these tools currently integrate limited information on aspects of demand.

To this end, World Resources Institute has developed the Energy Access Explorer (EAE), a data-driven, integrated and inclusive approach to planning for the expansion of energy services which accounts for the multi-dimensionality of the energy access challenges. EAE is an online, open-source, interactive, geospatial platform that enables clean energy entrepreneurs, energy planners, donors, and development-oriented institutions to identify high priority areas where energy access can be expanded. Using spatial data to link energy supply with growing or unmet demand is essential to gaining a better picture of energy access and expanding energy services to those who need it the most. EAE synthesizes several geospatial datasets to visualize and analyse demand for energy services and allows users to compare the demand with energy supply. EAE enables all users to generate high resolution multi-criteria decision analysis on-the-fly in order to identify high-priority areas for energy access interventions. Presently the tool has been publicly launched in six countries and is under development in 8 additional geographies. There are over 2,000 "returning users" and more than 100 documented partnerships or use cases.

Objective of training

Introduce the importance of energy access for sustainable development, introduce concepts of energy planning, introduce energy systems models and their gaps, introduce the importance of geospatial planning in the energy access space, introduce EAE (both theoretical background and practical hands-on exercises), discuss how EAE can be used to provide insights toward a more sustainable energy future for Jharkhand.

Components

This is going to be a <u>free of cost hands on training</u> for students of CUJ. This will benefit students who are looking forward to building their career in energy access, policy and research.

- Concepts of energy planning
- Introduction to energy systems model and their gaps
- Basics of Remote Sensing and GIS
- Importance GIS in energy access and transitions.
- Examples of geospatial dataset within EAE
- Walk through EAE
- Hands on exercise on EAE

Certification

For the students who have finished hands on exercise and given a presentation

<u>Tentative Agenda</u>: Hands on training on EAE and energy planning

9th September 2022, 11AM to 5PM

Central University Jharkhand

Time	Agenda	Duration	Responsible
10:00 AM	Introduction	15 mins	Prof Lata (CUJ) /8
10:15 AM	Our work in Jharkhand (tea/coffee on tables)	10 mins	Dheeraj
10:25 AM	Concepts of energy planning; Introduction to energy systems model and their gaps	30 mins	Dr. Dimitrios Mentis (WRI)
11:00 AM	Basics of Remote Sensing and GIS; Importance of GIS in energy access and transitions; Examples of geospatial dataset within EAE	30 mins	Douglas Ronoh /Abdul Khalid (WRI)
11:30 AM	Walk through EAE	20 mins	Akansha
11:50 AM	Break	10 mins	
12:00 PM/noon	Hands on Exercise on EAE	2 to 3 hours	WRI team
2:00 or 2:30 PM	Lunch		

In Hands on Exercise, we will ask students to work on the tool. Do their analysis and a certificate will be provided to those who are able to do the exercise successfully.

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