



UNNAT BHARAT ABHIYAN

(A Movement for Progressive India)

Report

on

Workshop

on

“Empowering Rural Communities”

December 13, 2024



Organic Farming



Water Management



Renewable Energy



Artisans, Industries & Livelihood



Basic Amenities



Convergence

Supported By:
NHPC: A CSR Initiative

Jointly Organized By:
Centre for Sustainable Rural Development
&
Regional Coordinating Institute (RCI)

Unnat Bharat Abhiyan 2.0
Indian Institute of Technology Roorkee
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Introduction

The Workshop on “**Empowering Rural Communities**”: Sustainable Planning for Future Development was conducted on **13th December 2024 (Friday)** at the **Lecture Hall Complex -001, APJ Abdul Kalam Block, IIT Roorkee**. The Event was jointly organized by the **Centre for Sustainable Rural Development & Regional Coordination Institute (RCI), Unnat Bharat Abhiyan (UBA), Indian Institute of Technology Roorkee (IITR)**, and supported by **NHPC- A CSR Initiative**.

The workshop was conducted to discuss strategies for Empowering Rural Communities & Sustainable Planning for the Future Development of villagers and educate Participants about sustainable agricultural practices and their importance in rural development. The workshop highlighted the significance of these practices in ensuring Crop security, mitigating climate change impacts, promoting rural livelihoods, etc. Farmers of the village -Toda Kalyanpur, Block-Roorkee, District-Haridwar, Uttarakhand attended the workshop. The main goal of the workshop is to:

- To raise awareness among farmers about the importance of water management and soil health for agricultural sustainability.
- To encourage sustainable agricultural practices, such as organic farming, as a means of preserving soil health, biodiversity, and human health.
- Highlight the role of waste management in improving agricultural efficiency and reducing environmental impact.
- Emphasize skill development to empower farmers to adopt modern and efficient agricultural practices.
- To facilitate knowledge sharing and discussions among farmers and experts regarding sustainable agricultural practices.

Role of Unnat Bharat Abhiyan: In Empowering Rural Communities

The Unnat Bharat Abhiyan (UBA) Scheme 2.0 is pivotal in empowering rural communities and driving sustainable planning for future development. Its contribution, as evident in the context of the workshop “Empowering Rural Communities: Sustainable Planning for Future Development,” can be summarized as follows:

- *Facilitating Knowledge Dissemination*
- *Promoting Sustainable Agricultural Practices*
- *Capacity Building and Skill Development*
- *Facilitating Collaborative Platforms*
- *Enhancing Resource Management*
- *Creating Awareness of Government Schemes*
- *Promoting Resilience and Climate Adaptation*
- *Building Rural-Urban Connections*

In summary, UBA is a catalyst for integrating sustainable development practices into rural communities, ensuring they are equipped to meet future challenges and improve their quality of life through informed community-driven planning. The workshop program is given in Annexure-I and II. List of the participants is given in Annexure-III.

Inaugural Function

In the inaugural function of the workshop, **Prof. Ashish Pandey**, Head, Centre for Sustainable Rural Development & Coordinator, RCI-UBA, IIT Roorkee, **Prof. R.D. Garg**, Dean of Resource and Alumni Affairs, IIT Roorkee, and P.I. of the project, Prof. **Kritika Kothari**, Assistant Professor, Department of WRD&M, IIT Roorkee were present and addressed the participants.

The session began with a warm welcome of the participants by **Prof. R.D. Garg**. He also emphasized how water management can be made more effective through modern techniques. He advocated minimizing chemical inputs and promoting eco-friendly solutions such as **bio-fertilizers** and **crop rotation**. Prof. Kothari encouraged farmers to adopt practices that enhance **soil health**, ensuring long-term **productivity** and **sustainability** in agriculture.

Prof. Ashish Pandey, Head of the Department, Center for Sustainable Rural Development, and Coordinator of RCI-UBA, IIT Roorkee, delivered an insightful speech on adopting modern agricultural practices. He emphasized advanced methods such as precision irrigation, including drip and sprinkler systems, and advocated for the adoption of micro-irrigation techniques to optimize water usage, particularly in drought-prone areas. Prof. Pandey highlighted how small yet strategic interventions in water management have led to significant improvements in agricultural productivity. He further encouraged farmers to organize themselves into **Farmer Producer Organizations (FPOs)** to enhance collective efficiency and improve market access.

Prof. Kritika Kothari, Assistant Professor in the Department of Water Resources Development and Management (WRDM), IIT Roorkee, spoke on the importance of sustainable agriculture and environmental balance and said that sustainable agricultural practices not only conserve the environment but also help in increasing the income of farmers. He explained in detail the techniques related to organic farming and soil conservation.

In the end, a formal vote of thanks was delivered by Prof. R.D. Garg, P.I. of the project. He expressed heartfelt gratitude to the speakers for sharing their invaluable knowledge and to the farmers for their enthusiastic engagement. Prof. Garg emphasized the workshop's significance in fostering a future-ready agricultural community through collaboration, innovation, and sustainable planning.

Technical Session

The esteemed speakers were as follows:

- Prof. R.D. Garg, Dean of Resource and Alumni Affairs, IIT Roorkee, and P.I. of the Project.
- Prof. Ashish Pandey, HOD, Centre for Sustainable Rural Development & Coordinator of RCI-UBA, IIT Roorkee.
- Prof. Kritika Kothari, Assistant Professor, Department of WRD&M, IIT Roorkee.
- Shri Ravi Kiran Saini, CEO, BhuAmrit Farmer Producer Company Limited.
- Shri Naveen Saini, Chairman, BhuAmrit Farmer Producer Company Limited.

Prof. R.D. Garg, Dean of Resource and Alumni Affairs, IIT Roorkee, chaired the session on **Water Adequacy and Management**. He discussed innovative methods of rainwater harvesting and emphasized the role of infrastructure development in ensuring water resource efficiency. Prof. Garg elaborated on civil engineering solutions such as check dams, water recharge pits, and integrated water resource management systems tailored for rural communities.

Prof. Ashish Pandey, HOD, Center for Sustainable Rural Development & Coordinator of RCI-UBA, IIT Roorkee presented his views on the importance of water conservation and management in rural areas. He explained through examples how locally available resources and traditional knowledge can be used for sustainable water management. He emphasized the need to adopt a scientific approach in the field of water conservation. He emphasized that ensuring proper water adequacy is not only vital for current farming practices but also a key strategy to mitigate the impacts of **climate change**. Prof. Pandey also highlighted the importance of Agro Advisory Services (AAS) disseminated under the GKMS project operating at the Department of Water Resources Development and Management IIT Roorkee. He emphasized applying organic farming practices and prioritizing **water security** to ensure sustainable agricultural development in the future.

Prof. Kritika Kothari, Assistant Professor in the Department of Water Resources Development and Management (WRDM), IIT Roorkee, delivered an informative session on **Soil Quality and Health**. She highlighted the importance of **soil testing, nutrient mapping**, and the role of **organic farming** in enhancing soil fertility. Prof. Kothari shared practical insights into sustainable agricultural practices, such as the use of **vermicompost, green manure**, and **eco-friendly pesticides** to maintain soil health. She emphasized that prioritizing soil health is essential for achieving **long-term productivity** and **sustainability** in farming.

Mr. Ravi Kiran Saini, CEO of BhuAmrit Farmer Producer Company Limited, spoke about organic farming and explained how it can become a means of sustainable income for rural farmers. He shared examples of successful experiments of his organization **Bhu Amrit FPO**, where farmers abandoned traditional farming methods and adopted organic farming and earned good profits in the market along with better production. He elaborated on effective strategies for managing agricultural residues, including **composting, bio-fertilizer production**, and transforming waste into **value-added products**. Ravi Kiran emphasized that adopting proper

waste management practices can not only significantly reduce **environmental impact** but also contribute to **enhancing soil health**, thereby supporting sustainable farming practices.

Mr. Naveen Saini, Chairman of BhuAmrit Farmer Producer Company Limited, spoke on sustainable agriculture and emphasized that rural farmers should be aware of modern agricultural techniques and market needs. He explained the strategies to strengthen food security and tackle climate change through sustainable agriculture. Shri Saini also emphasized the importance of collaboration through Farmer Producer Organizations (FPOs) to enhance the economic and social well-being of rural farmers, fostering resilience and sustainable growth in agricultural communities.

Enthusiastic participation from the farmers, who actively shared their experiences, asked insightful questions and engaged with the experts to learn **practical, actionable techniques** for improving their agricultural practices.

Outcomes:

The workshop concluded with the following key outcomes:

- Farmers gained **practical knowledge** of **water-saving techniques, soil health improvement, and waste management methods**.
- A stronger understanding of **sustainable farming practices** was fostered, motivating participants to adopt **environment-friendly approaches**.
- Participants learned effective **crop disease prevention methods** and **natural solutions** to enhance farm productivity.
- Commitments were made by farmers to implement **organic farming** and **water-saving practices** in their agricultural activities.
- Farmers were inspired by **case studies and demonstrations** from **BhuAmrit Farmer Producer Company Limited**, recognizing the value of **collaborative and innovative farming practices**.



Annexure-I

Workshop
on
Empowering Rural Communities

Jointly Organized by

Centre for Sustainable Rural Development
&
Regional Coordinating Institute (RCI),
Indian Institute of Technology Roorkee

Date: December 13, 2024 (Friday)

Venue: A.P.J. Abdul Kalam Block, LHCC-001, IIT Roorkee

Minute-to-Minute Program of the Inaugural Session

| Time | Program |
|--|--|
| Tea Break (10:30 – 11:00) | |
| Inaugural Session (11:00 – 11:25) | |
| 11:00 – 11:07 | Welcome Address & Introduction of the Workshop by Prof. R.D. Garg, P.I. and Dean of Resources and Alumni, IIT Roorkee |
| 11:07 – 11:14 | Address by Prof. Ashish Pandey, HOD, Centre for Sustainable Rural Development & Coordinator, RCI-UBA, IIT Roorkee |
| 11:14 – 11:21 | Address by Prof. Kritika Kothari, Assistant Professor, Department of WRD&M, IIT Roorkee |
| 11:21 – 11:25 | Vote of Thanks by Prof. R.D. Garg. |



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Schedule of Technical Sessions (11:25-13:25)

| Time | Program |
|------------------------------|---|
| 11:25 – 11:45 | Prof. R.D. Garg P.I. and Dean of Resources and Alumni, IIT Roorkee, discussing innovative methods ensuring water resource efficiency during the technical session |
| 11:45– 12:05 | Prof. Ashish Pandey , HOD, Centre for Sustainable Rural Development & Coordinator, RCI-UBA, IIT Roorkee addressing Water Quality & Security, Waste Management and precision irrigation methods |
| 12:05 – 12:20 | Address by Prof. Kritika Kothari , Assistant Professor, Department of WRD&M, IIT Roorkee |
| 12:20 – 12:40 | Mr. Ravi Kiran Saini , CEO, BhuAmrit Farmer Producer Company Ltd. speaking on Farmer-Led Innovations in Sustainable Agriculture |
| 12:40 – 13:00 | Mr. Naveen Saini , Chairman, BhuAmrit Farmer Producer Company Limited, addressing Crop Disease Prevention |
| 13:00 – 13:25 | Q&A Session |
| Lunch (13:25 – 14:30) | |



Annexure-III

List of Participants

| S. NO. | Name | Address |
|--------|----------------------|--|
| 1 | Nand Kishore | Village – Toda Kalyanpur, Tehsil- Roorkee, District- Haridwar, Uttarakhand |
| 2 | Raj singh | |
| 3 | Ayush Pal | |
| 4 | Harsh Kumar | |
| 5 | Aarush Kumar Singh | |
| 6 | Parveen kumar | |
| 7 | Ravi Singh | |
| 8 | Pankaj Kumar | |
| 9 | Naveen Saini | |
| 10 | Suraj shavant | |
| 11 | Shravan Ram | |
| 12 | Nitin Singh | |
| 13 | Kamal Saini | |
| 14 | Vipin Kumar | |
| 15 | Sunil Kumar | |
| 16 | Aman Singh | |
| 17 | Punit Negi | |
| 18 | Ravindra Kumar Saini | |
| 19 | Dharmendra Saini | |
| 20 | Harsh Kumar | |
| 21 | Santosh Yadav | |
| 22 | Amit Patel | |
| 23 | Arjun Singh | |
| 24 | Ravi Saini | |
| 25 | Vinod | |

PHOTO GALLERY



Prof. R.D. Garg, Joint Faculty, Centre for Sustainable Rural Development & Dean of Resource and Alumni Affairs, IIT Roorkee.,
welcoming the participants & addressing the gathering during Inaugural Function



Prof. Ashish Pandey, HOD, Centre for Sustainable Rural Development & Coordinator, RCI-UBA, IIT Roorkee
addressing the gathering during Inaugural Function



Prof. Kritika Kothari, Assistant Professor, Dept. of WRD&M, IIT Roorkee addressing the gathering during Inaugural Function



Vote of thanks by Prof. R.D. Garg



Prof. R.D. Garg, Joint Faculty, Centre for Sustainable Rural Development & Dean of Resource and Alumni Affairs, IIT Roorkee addressing the gathering during Technical Function



Prof. Ashish Pandey, HOD, Centre for Sustainable Rural Development & Coordinator, RCI-UBA, IIT Roorkee addressing the gathering during Technical session Function



Shri Ravi Kiran Saini, CEO, BhuAmrit Farmer Producer Company Ltd. addressing the gathering during Technical session Function



Shri Naveen Saini, Chairmen, BhuAmrit Farmer Producer Company Ltd., addressing the gathering during Technical session



Feedback/Discussion Session during Technical Function



Group photograph of the participants after the workshop

किसानों को जैविक खेती और मृदा संरक्षण की जानकारी दी



रुड़की आईआईटी में शुक्रवार को ग्रामीण समुदायों के सशक्तीकरण पर आयोजित कार्यशाला में उपस्थित लोग। • हिन्दुस्तान

रुड़की, संवाददाता। आईआईटी में ग्रामीण समुदायों के सशक्तीकरण पर शुक्रवार को एक दिवसीय कार्यशाला का आयोजन किया गया। कार्यक्रम का उद्देश्य ग्रामीण विकास में टिकाऊ और व्यावहारिक समाधानों पर चर्चा करना और इन समाधानों के जरिए ग्रामीण समुदायों को सशक्त बनाना था।

उद्घाटन सत्र में सेंटर फॉर सस्टेनेबल रूरल डेवलपमेंट के प्रमुख प्रो. आशीष पांडेय ने ग्रामीण क्षेत्रों में जल संरक्षण और प्रबंधन के महत्व पर विचार प्रस्तुत किए। उन्होंने जल संरक्षण के क्षेत्र में वैज्ञानिक दृष्टिकोण

आईआईटी में एक दिवसीय कार्यशाला का आयोजन

अपनाने की आवश्यकता पर जोर दिया। जल संसाधन विभाग की प्रो. कृतिका कोठारी ने टिकाऊ कृषि और पर्यावरणीय संतुलन के महत्व पर बताया कि टिकाऊ कृषि पद्धतियां न केवल पर्यावरण को संरक्षित करती हैं, बल्कि किसानों की आय बढ़ाने में भी मददगार होती हैं। उन्होंने जैविक खेती और मृदा संरक्षण से संबंधित तकनीकों को विस्तार से समझाया। रिसोर्स एंड

एलुमनी अफेयर्स के डीन प्रो. आरडी गर्ग ने इस बात पर जोर दिया कि कैसे आधुनिक तकनीकों के माध्यम से जल प्रबंधन को और अधिक प्रभावी बनाया जा सकता है। तकनीकी सत्र में रवि किरण सैनी ने बताया कि जैविक खेती कैसे ग्रामीण किसानों के लिए टिकाऊ आय का एक माध्यम बन सकती है।

कार्यक्रम का संचालन जल संसाधन विभाग के आलोक शुक्ल ने किया। कार्यशाला का आयोजन सेंटर फॉर सस्टेनेबल रूरल डेवलपमेंट और क्षेत्रीय समन्वय संस्थान के संयुक्त तत्वावधान में किया गया।

जल संरक्षण के क्षेत्र में वैज्ञानिक दृष्टिकोण अपनाने की आवश्यकता

जागरण संवाददाता, रुड़की: भारतीय प्रौद्योगिकी संस्थान (आईआईटी) रुड़की में “ग्रामीण समुदायों के सशक्तीकरण” विषय पर आयोजित कार्यशाला का उद्देश्य ग्रामीण विकास में टिकाऊ एवं व्यावहारिक समाधानों पर चर्चा करना और इन समाधानों के जरिए ग्रामीण समुदायों को सशक्त बनाना था।

आईआईटी रुड़की में शुक्रवार को कार्यशाला का आयोजन सेंटर फॉर सस्टेनेबल रूरल डेवलपमेंट और क्षेत्रीय समन्वय संस्थान (उन्नत भारत अभियान) के संयुक्त तत्वावधान में किया गया। कार्यशाला के उद्घाटन सत्र में सेंटर फॉर सस्टेनेबल रूरल डेवलपमेंट के प्रमुख प्रो. आशीष पांडेय ने ग्रामीण क्षेत्रों में जल संरक्षण और प्रबंधन के महत्व पर व्याख्यान दिया। उन्होंने बताया कि कैसे स्थानीय स्तर पर उपलब्ध संसाधनों और पारंपरिक ज्ञान का उपयोग टिकाऊ जल प्रबंधन के लिए किया जा सकता है। उन्होंने जल संरक्षण के क्षेत्र में वैज्ञानिक दृष्टिकोण अपनाने की आवश्यकता पर जोर दिया। जल संसाधन विकास एवं प्रबंधन विभाग की प्रो. कृतिका कोठारी ने टिकाऊ कृषि और पर्यावरणीय



आईआईटी रुड़की में 'ग्रामीण समुदायों के सशक्तीकरण' विषय पर आयोजित कार्यशाला के दौरान उपस्थित प्रोफेसर और किसान • साप्ताहिक-संस्थान

संतुलन के महत्व के बारे में बताया। उन्होंने बताया कि टिकाऊ कृषि पद्धतियां न केवल पर्यावरण को संरक्षित करती हैं, बल्कि किसानों की आय बढ़ाने में भी मददगार होती हैं। उन्होंने जैविक खेती और मृदा संरक्षण से संबंधित तकनीकों को विस्तार से समझाया। बताया कि ग्रामीण समुदायों को इस दिशा में प्रेरित करना क्यों आवश्यक है। रिसोर्स एंड एलुमनी अफेयर्स के डीन एवं परियोजना के प्रिंसिपल इन्वेस्टिगेटर प्रो. आरडी गर्ग ने ग्रामीण भारत में जल संरचनाओं जैसे-बांध, जलाशयों और सिंचाई प्रणालियों के निर्माण के महत्व के बारे में बताया। उन्होंने इस बात पर भी जोर दिया कि कैसे आधुनिक तकनीकों

के माध्यम से जल प्रबंधन को और अधिक प्रभावी बनाया जा सकता है। वहीं, तकनीकी सत्र में रवि किरण सैनी ने बताया कि जैविक खेती कैसे ग्रामीण किसानों के लिए टिकाऊ आय का एक माध्यम बन सकती है। उन्होंने अपनी संस्था भू अमृत एफपीओ के सफल प्रयोगों के उदाहरण साझा किए। जहां किसानों ने पारंपरिक खेती के तरीकों को छोड़कर जैविक खेती अपनाई और बेहतर उत्पादन के साथ-साथ बाजार में भी अच्छा मुनाफा कमाया। नवीन सैनी ने कहा कि ग्रामीण किसानों को आधुनिक कृषि तकनीकों और बाजार की जरूरतों के बारे में जानकारी होनी चाहिए।