

ICRABR 2023 Report
Sardar Swaran Singh National Institute of Bioenergy, Kapurthala, India

Sardar Swaran Singh National Institute of Bio-Energy (SSS-NIBE), an Autonomous Institute of the Ministry of New and Renewable Energy (MNRE), Government of India organized the 4th International Conference on Recent Advances in Bio-energy Research-2023 (ICRABR-2023) from 9-12th October 2023.

ICRABR 2023 was envisioned to serve as a holistic learning event and congregation of all the stakeholders in the bioenergy sector including the policymakers, government, industry, UN agencies, academia, and research. The diverse participation received from over 300 national/international participants from all these stakeholders fructified the aim of the conference.

During the conference, Mr. Bhupinder Singh Bhalla (IAS), Secretary, Ministry of New and Renewable Energy, highlighted the importance of bio-energy to meet rapidly increasing energy demand in future and also informed about the vital support that the MNRE is providing for the sector to grow quickly in India. He also called to scale up the existing solutions and innovate to accelerate energy transition. Mr. Bhagwanth Khuba, Hon'ble Minister of State (Chemicals and Fertilizers and MNRE) delivered his message for the conference with a pre-recorded video highlighting the relevance of bioenergy in Indian context and opportunities. Prof K K Pant, Director IIT Roorkee, addressed the gathering and apprised them about the role of research and innovations for developing a sustainable bio-based economy. Director General NIBE, Dr G Sridhar highlighted the role of bioenergy in achieving an energy-self-reliant and carbon-neutral India and NIBE's efforts towards these goals.

Secretary, MNRE launched the communication kit for better outreach of the National Bioenergy Programme and an anthem on the theme of Jaiv Urja i.e. Bioenergy indicating its importance in day to day life of citizens. He also flagged off mobile vans to spread awareness about the ill effects of stubble burning of biomass majorly paddy straw and instead use it for various Bioenergy Projects under National Bioenergy Programme.

The delegates also get a glimpse of some of the advances in bioenergy from the stall exhibition at ICRABR wherein several prominent industries/organizations showcased their bioenergy-related technology solutions and projects to the participants.

Over the course of three days in the conference, there were multiple Plenary and Technical Sessions on the different themes of the conference from distinguished scientists, faculty and scholars, from USA, Europe, Canada and other Asian countries. Broad themes of the conference included but were not limited to Biomass Resource Management; Biomass/waste conversion to energy; Biomass Valorisation/ Waste to value added materials/ Products; Modelling of Bio-energy system; and Biorefinery and Biohydrogen. Sessions during the conference covered the latest research developments in bio-energy including case studies, state-of-the-art practices, supply chain management, financing, sustainability, carbon neutrality, and policy aspects. The conference discussions explored the research activities in the areas of bio-energy including biogas, bio-hydrogen, biorefinery, biodiesel, bioethanol, fuel cell, biomass-derived electrodes for energy generation, biomass gasification and biomass cookstoves, and carbonaceous materials.

Besides the scientific focus, the conference also provided a wholesome knowledge exchange by featuring dedicated Industry Sessions on Technology Advances, Implementation, and Financing opportunities in the bioenergy sector; Success Stories from the Field, and Poster Sessions. The session on field stories generated great interest in the participants as they got to hear from people who have successfully implemented bioenergy projects on the ground, overcoming the real-time challenges faced when a technology gets translated from lab to land. The session had presentations on Ensuring Food/Energy Security with Carbon Sequestration which presented biochar as a key solution, Livelihood Opportunities in the bioenergy sector with the focus on skilling needs for feedstock supply chain, fabrication/installation, operation and maintenance of bioenergy plant, Uptake of Biomass-Based Interventions through agriculture waste management for farmers income and energy access enhancement, Community Biogas Plants for decentralized energy generation and organic fertilizer production in rural areas etc.

The fourth day of the conference (12.10.2023) witnessed an exciting Bioenergy Industry Exposure Visit of participants to Sukhbir Agro Energy Ltd. Biomass Power Plant in Ferozepur Dist., Punjab. It is an 18 MW capacity power plant that consumes around 600 tonnes of paddy straw in a day. The participants got a real-time feel of a live commercial bioenergy plant and understood the functioning and the scale of operations, including the

storage, handling and transport of paddy straw required for running a large-scale bioenergy plant.

Discussions held during the conference also illustrated that collaboration remains the need of the hour for progress. They reinforced that partnerships among government, industries, societal organisations, farmers and research institutions can shape a future where sustainable energy solutions will drive the global progress.

Particularly now, after the launch of the Global Biofuels Alliance during G20 by Hon'ble PM Narendra Modi with the highlighted need to quickly achieve the SDGs, the knowledge exchange between researchers across disciplines and regions is needed to enhance the dissemination of concepts and ideas.

Glance into ICRABR









