



TRAINING ON BAMBOO

DURATION

22-27 JANUARY, 2024

SPONSORED BY

BTSG-ICFRE, DEHRADUN

ORGANIZED BY

भा:वा:अ:शि:प:-वर्षा वन अनुसंधान संस्थान

ICFRE-RAIN FOREST RESEARCH INSTITUTE

भारतीय वानिकी अनुसंधान एवं शिक्षा परिषद

Indian Council of Forestry Research & Education

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, भारत सरकार

(Ministry of Environment, Forest & Climate Change, Govt. of India)

देववन, जोरहाट-785010(असम)/ Deovan, Jorhat-785010 (Assam)

TRAINING ON BAMBOO CONDUCTED BY ICFRE-RFRI, JORHAT

ICFRE-Rain Forest Research Institute, Jorhat (Assam) successfully conducted week-long National level training on bamboo from 22nd to 27th January, 2024. The Training was sponsored by ICFRE-BTSG where fifteen participants from different States of India such as Maharashtra, Gujarat, Himachal Pradesh, West Bengal, Jharkhand and Assam participated. The training program was inaugurated by Dr. Nitin Kulkarni, Director, ICFRE-RFRI, Jorhat. In his inaugural speech, Dr. Kulkarni urged the participants to learn various aspects of bamboo so that it can pave the way of self-employment in future.

During the training, participants were provided with theoretical as well hands-on training on establishment of bamboo nursery, bamboo propagation techniques, value addition in bamboo, such as preservative treatment of bamboo and techniques of making bamboo charcoal and briquettes from bamboo charcoal etc. As a part of field study of the training, the participants visited National Orchid and Biodiversity Park, Kohora as well as Kaziranga National Park.

Shri R. K. Kalita, Scientist F imparted training on bamboo propagation and nursery techniques. He quoted a line stating the varied utility of bamboos '*A man is born in a bamboo cradle and goes away in a bamboo coffin. Everything in between is possible with bamboo*'. He spoke about three most important aspects for development of bamboo sector such as need of quality planting stock to enhance productivity, large scale commercial cultivation and entrepreneurship development. He put emphasis on selection of species based on location, climatic & edaphic conditions; common uses; commercial uses; market preference; availability of planting materials. He put emphasis on growing at least two-three species together. He dealt other silvicultural practices such

as land preparation, planning method, spacing, fertilizer and irrigation, intercultural operations, intercropping, harvesting etc. A documentary on bamboo of the Institute was also shown to the Trainees.

Shri Debojit Neog, Technical Officer, imparted training on identification of different species of bamboo. He explained various characters of bamboo through which identification can be done. He also practically showed different characters of bamboo in the field.

Shri Debojit Neog, Technical Officer, also delivered a presentation on commercial cultivation of bamboo. He mentioned the role of bamboo for social, cultural, economic, food security and various types of ecological applications such as soil stabilization, reclamation of land and environmental degradation etc. He mainly emphasized establishment and management of bamboo nursery and shared his experience on standardization of nursery techniques for propagation of commercially important bamboo species through culms and branch cuttings, selection of superior planting material, planting techniques for different bamboo species, fertilization trials on bamboo plantation, improved harvest technology for crop management and productivity enhancement, and different bamboo based agroforestry intercropping.

Dr. R. D. Borthakur, Chief Technical Officer, RFRI, Jorhat delivered a detailed presentation on '*Bamboo Charcoal: An opportunity for livelihood generation*'. She spoke about the importance of bamboo charcoal, different processes of making of bamboo charcoal and its variants, various uses of bamboo charcoal etc. She gave an account of research and development work of RFRI on bamboo charcoal. She spoke about the role of bamboo charcoal in generating livelihood of people in rural areas. Hands-on sessions were also conducted by Dr. Borthakur where she showed various steps in making on bamboo charcoal. Dr. Borthakur also delivered a presentation on bamboo preservative treatment.

Shri Priyam Ballav Goswami, Architect, Jorhat, Assam delivered a presentation on the topic entitled, '*Bamboo in structural construction*'. He deliberated upon the distribution of bamboos and earthquake epicenters all over the world. Professing it as a very good raw material due to its tensility, he told that bamboo buildings are very good in earthquake prone areas. He drew examples from Ethiopia, Myanmar and our own country as well (Arunachal Pradesh and Assam). He spoke about Components of a Bamboo House – Hat, Jacket and Boots drawing examples from Manizales pavilion (Columbia), Bamboo Cathedral (Columbia), Contemplation bamboo pavilion (France), Green school (Bali), Panyaden school (Thailand), etc. He informed the trainees of his own projects which included Ecovillage Tengani (Golaghat, Assam), Jatiya Vidyalaya (Lakhijuri, Assam), Chalo hoppo camp fabian (Shnongpdeng, Meghalaya), Breezy bamboo resort (Phushito village, Nagaland), Footbridge at Khanapara and Sukreswar (Guwahati, Assam) and Banh Bithika at RFRI (Jorhat, Assam). He also apprised the participants of the workshops which he had conducted at Arunachal Pradesh, Manipur, Meghalaya and Assam.

Shri Parikshit Borkotoky, Entrepreneur from Jorhat, Assam delivered a motivation talk on Bamboo Based Entrepreneurship Development: Challenges and Opportunities. He sensitized the participants on different risks and opportunities involved in bamboo business.

Practical Demonstrations:

Shri Kumud Bora, TO and Shri Debojit Neog, TO demonstrated different bamboo propagation techniques such as rhizome, culm cutting, branch cutting, macro-proliferation. They also demonstrated preparation and application of hormones in cuttings, nursery methods, soil solarization process, planting methods etc. Casual nursery man, Shri Budheswar Rajkhowa assisted various operations.

Dr. R. D. Borthakur, CTO, RFRI, Jorhat demonstrated firing process of bamboo charcoal making technique. The Trainees actively participated in the activity and performed with their own hands. Dr. R. D. Borthakur, ACTO, RFRI, Jorhat also taught the making of bamboo charcoal briquettes.

In the sideline of the bamboo training, there was also a session on the most important natural resource on North East Region having tremendous economic implications. The Session was on Agarwood which was conducted by **Dr. R. K. Borah, Scientist G, RFRI, Jorhat** who delivered a comprehensive presentation on *Aquilaria malaccensis*, *the potential aromatic and medicinal plant for livelihood generation in N E India* where he emphasized on nursery techniques, cultivation of *Aquilaria malaccensis*, insect pest diseases of agar trees and their control measure through scientific methods. The presentation covered various aspects such as natural Agarwood formation, artificial Agarwood induction using physical, chemical and biological methods. He also emphasized on Agarwood research in India and other countries, agar based high-value agro forestry practices, market potential, harvesting methods, cost-benefit ratio and employment opportunities.

At the end of the training, Training Completion Certificates were presented to the participants. The entire training programme was successfully conducted under the supervision of Rajib Kumar Kalita, Head, Extension Division and Course Director of the Training.

GLIMPSES OF THE TRAINING











Media Coverage

RFRI conducts skill development training

STAFF CORRESPONDENT

JORHAT, Jan 27: The Indian Council of Forestry Research and Education (ICFRE)-Rain Forest Research Institute (RFRI) at Sotai here organised a skill development training programme from January 22 to January 27 on propagation, nursery management, cultivation, and value addition of bamboo for 15 participants from several states across the country.

An RFRI official informed that the training programme, sponsored by ICFRE-BTSG, was attended by participants from Maharashtra, Gujarat, Himachal Pradesh, West Bengal and Jharkhand, apart from Assam.

RFRI director Dr Nitin Kulkarni, who inaugurated the programme, in his address, urged to the trainees to learn various aspects of bamboo cultivation so that it can pave the way of self-employment in future.

The participants were imparted hands-on training on establishment of bamboo nurseries, bamboo propagation techniques, value addition in bamboo such as preservative treatment of bamboo, techniques of making bamboo charcoal and briquettes from bamboo charcoal, etc.

As part of the training programme, the participants were taken for field study visits to the National Orchid and Biodiversity Park in Kohora as well as Kaziranga National Park. Rajib Kumar Kalita, Dr Runumee Devi Borthakur, Kumud Borah, Debojit Neog and Dulal Chandra Borah were the resource persons of the training sessions.

An interactive session with two young entrepreneurs from Jorhat - Parikshit Borkotoky and Priyam Ballav Goswami - was also held as part of the training programme.

Eastern Chronicle

WEATHERWATCH
 Max 22°C
 Min 11°C
 Humidity 74%



RAM MANDIR SPECTACLE TO
 be a key driver of BJP's
 campaign P 2



ISRAEL SAYS WILL STOP UN
 agency's activities in Gaza after
 war P 2

WE EVOLVE IN NATURE TO BE
 the bring out the better version
 of ourselves P 8



VOL 14, ISSUE 288

PUBLISHED SIMULTANEOUSLY FROM GUWAHATI KOLKATA SILCHAR PAGES 10 epaper at: www.easternchronicle.net

PRICE ₹ 6

SUNDAY, JANUARY 28, 2024

National level training on bamboo conducted by RFRI, Jorhat

CHRONICLE NEWS SERVICE

JORHAT : ICFRE-Rain Forest Research Institute, Jorhat (Assam) successfully completed a weeklong National level training on bamboo on 27th January, 2024.

The training, started on 22nd January, 2024 was sponsored by ICFRE-BTSG where fifteen participants from different states of India such as Maharashtra, Gujarat, Himachal Pradesh, West Bengal, Jharkhand and Assam participated. The training program was inaugurated by the Director of the Institute, Dr. Nitin Kulkarni, in his inaugural speech, urged the participants to learn various aspects of bamboo so that it can pave the way of self-employment in future. During the training, participants were provided with hands-on training on establishment of bamboo nursery, bamboo propagation techniques, value addition in bamboo, such as preservative treatment of bamboo and techniques of making bamboo charcoal and briquettes from bamboo charcoal etc. As a part of field study of the training, the participants visited National Orchid and Bio-



Participants of the National level training on bamboo

diversity Park, Kohora as well as Kaziranga National Park. During the training programme, different resource persons such as Rajib Kumar Kalita, Dr. Runumee Devi Borthakur, Kumud Borah, Debojit Neog, Dulal Chandra Borah imparted the training. Besides, two young Entrepreneurs from Jorhat, namely, Parikshit Borkotoky and Architect, Priyam Ballav Goswami interacted with the participants on problems and opportunities of development of bamboo-based entrepre-

neurship and application of bamboo in construction, respectively. Dr. R. K. Borah, senior most Scientist of the Institute also sensitized the participants on Agarwood and its applications in the sideline of the training. At the end of the training, Training Completion Certificates were presented to the participants. The entire training programme was successfully conducted under the supervision of Rajib Kumar Kalita, Head, Extension Division and Course Director of the Training.

জাতিৰ আবেগ সমাজৰ বিবেক

দৈনিক জনমভূমি

portal : www.dainikjanambhumi.com // e-paper : www.dainikjanambhumi.co.in // f Dainik Janambhumi



নিউজৰ পুথিখন পঢ়



১৯ সংখ্যক বহুৰ • মাম্বা ১০০ • গোবৰ্গু • পোকৰপুৰ • ১৪ মন ১১৪৪ কক RSN No: 2462373 THE DAINIK JANAMBHUMI Journal thursday January 29, 2024 • ১৬ পৃষ্ঠা • যোৰহাট, তিনিকোঁটা হাৰু ওৰহাটৰ পৰা প্ৰকাশিত • মূল্য ১.৯ টকা

বৰ্ষাৰণ্য প্ৰতিষ্ঠানত ৰাষ্ট্ৰীয় পৰ্যায়ৰ বাঁহ সম্পৰ্কীয় প্ৰশিক্ষণ

যোৰহাট : ২৮ জানুৱাৰী : যোৰহাটৰ টাটাইস্থিত বৰ্ষাৰণ্য প্ৰতিষ্ঠানত ২২ জানুৱাৰীৰ পৰা আৰম্ভ হোৱা বাঁহ সম্পৰ্কীয় এখন ৰাষ্ট্ৰীয় পৰ্যায়ৰ প্ৰশিক্ষণ কৰ্মশালাৰ ২৭ জানুৱাৰীত সমৰণি পূৰ্ণ। এই প্ৰশিক্ষণ কৰ্মসূচী ভাৰতীয় বন তথা শিক্ষা পৰিষদৰ বাঁহ সম্পৰ্কীয় কাৰিকৰী গোটৰ অৰ্থ সাহায্যত অনুষ্ঠিত কৰা হয়। প্ৰশিক্ষণত মহাৰাষ্ট্ৰ, গুজৰাট, হিমাচল, পশ্চিমবংগ, ঝাৰখণ্ড আৰু অসমৰ পোন্ধৰ জন বাঁহৰ সগত জড়িত হৈ থকা ব্যক্তিয়ে অংশগ্ৰহণ কৰে। কৰ্মসূচী উল্লেখন কৰি প্ৰতিষ্ঠানৰ সঞ্চালক ড° নীতিন কুলকৰ্নীয়ে প্ৰশিক্ষাৰ্থীসকলক বাঁহৰ বিভিন্ন প্ৰিয়সমূহ ভাস্কৰদৰে আয়ত্ব কৰি যাতে আহুতসংস্থাপনৰ বাট মুকলি কৰিব পাৰে, তাৰ প্ৰতি আহ্বান জনায়। এই কৰ্মসূচীত বাঁহৰ পুলি

বাগান প্ৰস্তুতকৰণ, বাঁহৰ বিভিন্ন সংৰ্বন কৌশল, বাঁহৰ খেতি কৰা, বাঁহৰ মূল্য সংযোজনৰ ওপৰত ব্যৱহাৰিক প্ৰশিক্ষণ প্ৰদান কৰা হয়। বাঁহৰ মূল্য সংযোজন হিচাপে বাঁহৰ পৰিশোধনৰ বিভিন্ন কৌশলসমূহ, বাঁহ কমলা প্ৰস্তুত কৰা কৌশল, বাঁহ কমলাৰ পৰা 'ব্ৰিকেট' বনোৱা কৌশল আদি হাতে-কামে কৰি দেখুওৱা হয়। প্ৰশিক্ষণৰ মাজতে প্ৰশিক্ষাৰ্থীসকলে ক্ষেত্ৰ অধ্যয়নৰ বাবে কঁহোৰা জৈৱ বৈচিত্ৰ্য তথা অৰ্কিড উদ্যান আৰু কাৰ্জিৰা ৰাষ্ট্ৰীয় উদ্যান ভ্ৰমণ কৰে। এই প্ৰশিক্ষণত সমগ্ৰ ব্যক্তি হিচাপে উপস্থিত থাকে প্ৰতিষ্ঠানৰ বাৰ্জীৰ কুমাৰ কলিতা, ড° কশীমী বৰঠাকুৰ, কুমুদ বৰা, দেৱজিৎ নেওগ আৰু দুলাল চন্দ্ৰ বৰা। ইয়াৰ বাহিৰেও যোৰহাটৰ উদ্যোগী যুৱক পৰিচালিত বৰকটকী আৰু স্বপতিবিদ প্ৰিয়ম ব্লড



গোহামীও যথাক্ৰমে বাঁহ ভিত্তিক উদ্যমিতা গঠনৰ সময়ক আৰু সুবিধাসমূহ আৰু খৰ সজাত বাঁহৰ প্ৰয়োগৰ সম্পৰ্কে প্ৰশিক্ষণ আগবঢ়ায়। প্ৰশিক্ষণৰ শেষত প্ৰশিক্ষাৰ্থীসকলক মানপত্ৰ প্ৰদান কৰা হয়। প্ৰতিষ্ঠানৰ সম্প্ৰসারণ বিভাগৰ মুৰব্বী তথা প্ৰতিষ্ঠানৰ জ্যেষ্ঠ বিজ্ঞানী বাৰ্জীৰ কুমাৰ কলিতাৰ তত্ত্বাবধানত সমগ্ৰ প্ৰশিক্ষণ কৰ্মশালা সম্পন্ন হয়।

TRAINING SCHEDULE

Day 1: 22 January, 2024 (Monday)		
02.30-03.15 pm	Introduction	Shri R. K. Kalita
03.15-05.00 pm	Visit to Bambusetum, Bamboo Nursery, Tissue Culture Lab, BCC, Preservation Unit, Bah Bithika	Shri Debojit Neog Shri Kumud Borah

Day 2: 23 January, 2024 (Tuesday)		
10.00-10.30 am	Inaugural Session	
10.30-10.45 am	Tea Break	
10.45-11.45 am	Identification of Bamboo (Theory)	Shri Debojit Neog
11.45-12.30 pm	Bamboo Propagation and Nursery Management	Shri R. K. Kalita
12.30-01.30 pm	Bamboo Charcoal Making: Staking (Practical)	Dr. R. D. Borthakur
01.30-02.15 pm	Lunch Break	
02.15-05.00 pm	Identification of Bamboo (Practicals), Practical Demonstrations on Bamboo Propagation, Nursery Techniques	Shri Debojit Neog Shri Kumud Borah

Day 3: 24 January, 2024 (Wednesday)		
09.30-10.00 am	Initiate Firing of Bamboo in Kiln	Dr. R. D. Borthakur
10.00-11.00 am	Commercial Cultivation of Bamboo Cultivation (Theory)	Shri Debojit Neog
11.00-11.15 am	Tea Break	
11.15-12.00 pm	Pest and Disease Management in Bamboo	Shri R. K. Kalita
12.00-01.00 pm	Bamboo Preservation Treatments (Theory)	Dr. R. D. Borthakur
01.00-02.00 pm	Lunch Break	
02.00-03.30 pm	Commercial Cultivation of Bamboo Cultivation (Demonstration)	Shri Debojit Neog Shri Kumud Borah
03.30-05.00 pm	Bamboo Preservation Treatments (Demonstrations)	Dr. R. D. Borthakur

Day 4: 25 January, 2024, (Thursday)		
09.30-10.30 am	Bamboo Based Agroforestry and Economics of Bamboo Cultivation	Shri Kumud Borah
10.30-11.15 am	<i>Aquilaria malaccensis</i> , the most important medicinal and aromatic plant of North East India for livelihood generation	Dr. R. K. Borah
11.15-11.30 am	Tea Break	
11.30-01.00 pm	Bamboo Preservation Treatments (Demonstrations)	Dr. R. D. Borthakur
01.00-02.00 pm	Lunch Break	
02.00-05.00 pm	Bamboo Charcoal: Practical Demonstrations	Dr. R. D. Borthakur

26 January, 2024, (Friday)		
Republic Day Celebrations Field Visit to Biodiversity Park, Kohora and Kaziranga National Park		

Day 5: 27 January, 2024, (Saturday)		
10.00-01.00 pm	Bamboo Charcoal: Making of Briquettes (Theory & Practice)	Dr. R. D. Borthakur
01.00-02.00 pm	Lunch Break	
02.00-03.00 pm	Bamboo Based Entrepreneurship Development: Challenges and Opportunities	Shri Parikshit Borkotoky
03.00-04.00 pm	Bamboos in Construction	Shri Priyam B. Goswami
04.00-04.15 pm	Discussion and Filling up of Feedback Forms	
04.15-05.00 pm	Valedictory Session	

LIST OF PARTICIPANTS

SN	Name	Postal address	Contact Number	Email
01	APURBA BORAH	Vill:Panikhati,P.O:Mowamari ,P.S:Jengraimuk,Pin:785105, Dist: Majuli	8136029768	apurbaborah407@gmail.com
02	BHUSHAN RAJU NANDANWAR	Chatrapati Nagar, Ward no 2, Takum, Chandrapur (Maharashtra), Pin:442401	8007507839 7020646909	bhushanaritaruar@gmail.com
03	DIPANKAR SAIKIA	Tinsukia, Borhapjan	8283066860	dipankarsaikia8283@gmail.com
04	HRISHIRAJ BERIYA	Tangla, Bazaar Road, Dist: Udlaguri, BTAD (Assam)	7086384481	beriyahrishiraj@gmail.com
05	LAKHYAJYOTI GOHAIN	Vill: Gondhoiguri, P.O: Dirak Maithong(786152), P.S: Kakopther	9706590840	lakhyagohain@gmail.com
06	PRASHANT ATMARAM DATE	PO Lakhalgaoon, Taluka & Dist: Nashik, Maharashtra	9923648361	pdate3333@gmail.com
07	PRAVIN KESHRA VEKARIYA	98,Ruralia Nishorg No 1,Pahudivistar,Vill:Sukhpar,B huj-Kutch,Gujarat-370040	9727980682	pravinkekariya264@gmail.com
08	ROHIT DEVIDAS KHADE	Flat No:2, Sadashiv Complex, Adgaon, Nashik, Maharashtra, 422033	9850255746	rkade97@gmail.com
09	RUSHIKESH KISHOR VIDHATE	At-Babhulkheda ,Post: Salabatpur, Tal: Newasa, Dist: Ahamad Nagar, State: Maharashtra, Pin: 414603	9763807137	rishikeshvidhate3@gmail.com
10	SANKET KUMAR	At: Dhumadih, P.O: Karkara, Joypur, Puralia(West Bengal),Pin:723123	7050722739	sanketkr1999@gmail.com
11	SHELLY THAKUR	Vill & P.O: Dho, Tehsil:Bhozary, Dist:Hamizpur, Himachal Pradesh Pin:177026	8988541649	shellythakur@yahoo.com
12	SHIVAJI LOTAN RAJPUT	PO Tal Shirpur, Mansazam Dalal Nagar, Dist: Dhule (Maharashtra)	9850103980	shivajirajput 98@gmail.com rajputprashant171@gmail.com

		Pin Code: 425405		
13	SONU KUMAR YADAV	Arkhang, P.S: Dhanwar, Dist: Giridih, Jharkhand - 825418	9771102266	studentsonuyadav@gmail.com
14	TILOK NEOG	Vill:Baghjan,P.s:Baghjan,P.O: Dighaltarrang,Dist:Tinsukia,P in:786151	8753942845	tilokneog20@gmail.com
15	UMESH DINKAR SONAR	PO Morfal,Taluka :Pakola, Dist: Jalgaon (Maharashtra)	7021187007	umeshsonar54@gmail.com