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Dr Jitendra launches state-of-art Helicopter-borne Survey technology

CSIR-NGRI

4th October, 2021

JODHPUR, Oct 5: Union Minister of State (Independent Charge) Science & Technology; Minister of State (Independent Charge) Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh today launched state-of-the-art Helicopter-borne or Heli-borne survey technology for groundwater management, developed by CSIR-NGRI



Hyderabad. Union Minister for Jal Shakti and Lok Sabha MP from Jodhpur, Gajendra Singh Shekawat graced the occasion with his presence.

To start with, the States of Rajasthan, Gujarat, Punjab and Haryana are being taken up for this latest heli-borne survey for groundwater and the beginning was made today from Jodhpur in Rajasthan.

Speaking on the occasion, Dr Jitendra Singh said that the water technologies of CSIR from source finding to water treatment will benefit millions of people across the country and positively contribute to Prime Minister Narendra Modi's "Har Ghar Nal Se Jal" as well as "doubling farmers income" goals. He said, the latest state-of-the-art technology is being employed by Council of Scientific & Industrial Research (CSIR) for mapping groundwater sources in arid regions and thus help utilize groundwater for drinking purposes.

Dr Jitendra Singh said, the technological wealth of CSIR will be a great asset for the various programs of the Ministry of Jal Shakti and this is the right time to join hands to take up bigger challenges of the country in the Water sector.

Dr Jitendra Singh said, CSIR, along with National Geophysical Research Institute NGRI, have undertaken High Resolution Aquifer Mapping & Management in Arid Regions of North Western India to augment the groundwater resources. He said that the Heli-borne geophysical mapping technique of CSIR-NGRI provides a high resolution 3D image of the sub-surface up to a depth of 500 meters below the ground.

The Minister said that he is very pleased to note that the Ministry of Jal Shakti is trying to use this technology for providing ground water solutions in the arid and semi-arid regions of Rajasthan, Gujarat, Punjab and Haryana states and signed a Memorandum of Agreement with CSIR-NGRI for executing a very important project “High Resolution Aquifer Mapping & Management in Arid Regions of North Western India”.

Dr Jitendra Singh informed that the project is aimed at mapping potential groundwater sources and its management for providing safe drinking water to millions of people living in the water scarce arid regions of our country. This is a mega project of Rs. 150 crores to be implemented in two phases in collaboration with the Ministry of Jal Shakti as a part of National Aquifer Mapping Project. This project is expected to bring high visibility to CSIR in implementing the Government of India’s most ambitious project Jal Jeevan Mission.

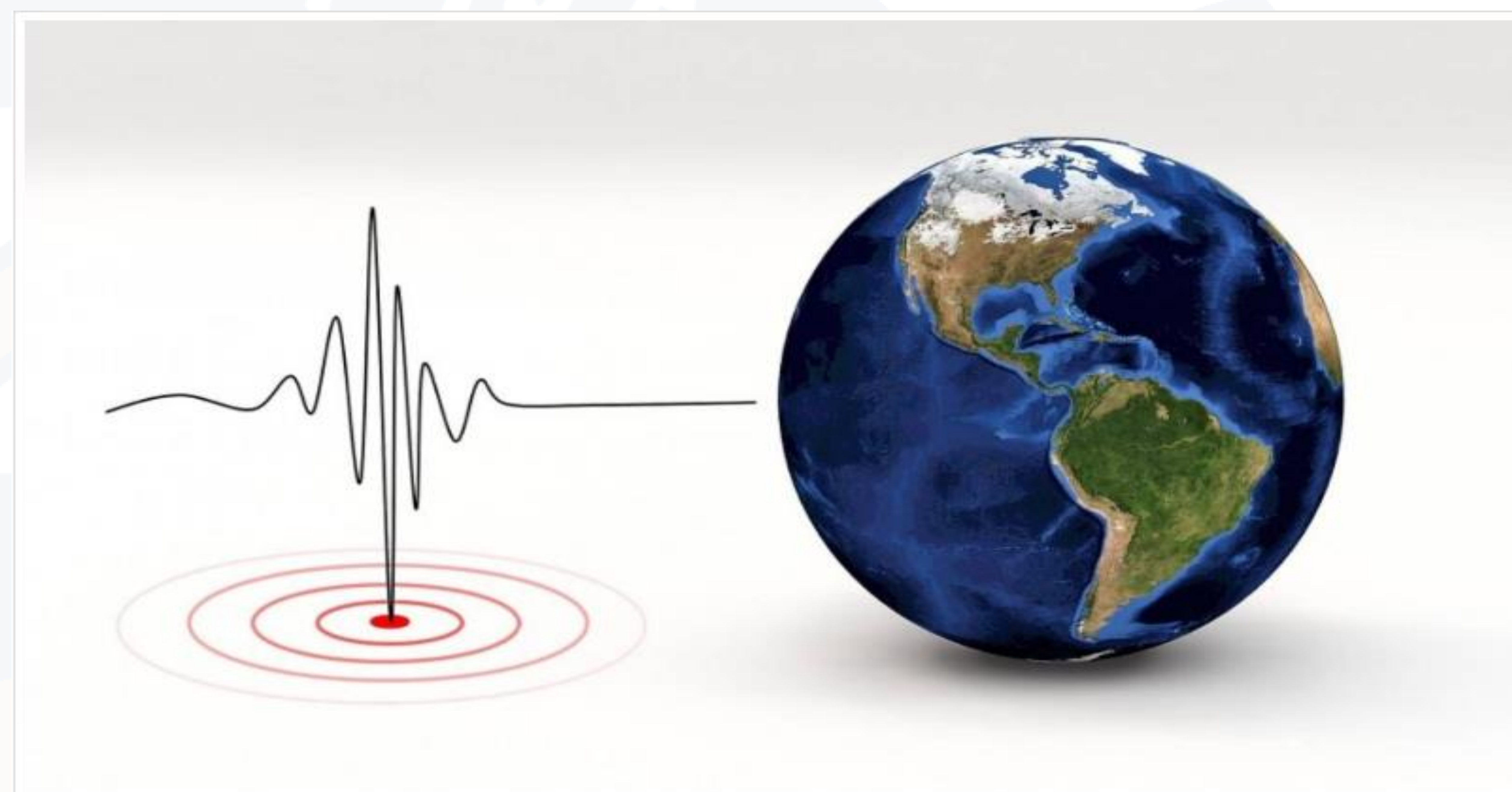
Dr Jitendra Singh said that Arid areas in north western India spread over parts of States of Rajasthan, Gujarat, Haryana and Punjab cover nearly 12% of the total geographical area of the country and are home to more than 8 crore people. He said, with an annual rainfall in the range of less than 100 to 400 mm, this area faces an acute shortage of water throughout the year and it is proposed to take up high-resolution aquifer mapping and management to augment the groundwater resources.

Environmental Seismology: Hyd-based CSIR – NGRI to develop landslide, flood warning system for Himalayas

CSIR-NGRI

4th October, 2021

Hyderabad-based CSIR- National Geophysical Research Institute (CSIR-NGRI) has launched an Environmental Seismology (ES) group to develop a landslide and early flood warning system for the Himalayan region based on real-time monitoring. CSIR - NGRI said this would enable crucial warning several hours prior, which will save precious human lives and



property in the future. This also has important implications for the planning of infrastructural development of dams, power plants, and other projects by governments that are of great strategic and societal importance to the country, the NGRI statement added.

CSIR – NGRI said landslides, rockslides, and flooding events are a cause of major concern. They have claimed thousands of lives. Ironically there still does not exist a clear mechanism for early warning and mitigation of these hazards.

The recent rockslide-flood disaster of February 7, 2021, in Chamoli district of Uttarakhand state, is a classic example. A steep glacier on the Nandadevi peak in the Garhwal Himalaya got detached causing a major avalanche that induced flash floods in the Rishi Ganga and Alaknanda rivers carrying huge debris of rock, ice, water, and slush. The event caused severe damage to two power plants and killed several people downstream.

The CSIR - NGRI, Hyderabad Operates a dense network of about 100 seismograph stations in the Uttarakhand state in the western Himalayas. Scientists at NGRI in collaboration with German scientists at GFZ, Potsdam used Spectrogram analysis techniques to identify and

separate the various phases including that of the rockslides, debris flow, and flooding.

The greatest strength of the broadband seismic network is that it enables complete spatiotemporal tracking of the entire disaster sequence using polarization and back tracing approaches. Since climate change is a major player in accelerating ice loss through glacier melt and flash floods caused by glacier retreat, major efforts are needed to maintain the fragile ecosystem in the multi-hazard prone Himalayan region.

Exposure Training on Metallic Pipes at NML

CSIR-NML

4th October, 2021

CSIR-National Metallurgical Laboratory (CSIR-NML), Jamshedpur organised a five- day off-line Corporate Programme on Exposure Training on Metallic Pipes. Nine delegates from different CIPET centres like Kochi, Hyderabad, Haldia, Bhubaneswar, Lucknow, Vijaywada, and Korba attended the programme.

The main objective of the event was to provide an exposure on various metallic alloys and materials, which are frequently inspected / examined / evaluated by different CIPET centres for specific purposes.

The training schedule included structural characterization, evaluation of various mechanical properties, non-destructive evaluation, manufacturing techniques and allied limitations for pipe materials, outline of different inspection procedure as per standards and highlights of in-service material degradation. The proceeding of each day consisted of lectures on relevant areas by eminent scientists, acclimatization to the experimental practices using various instrumental techniques, handling of data and correlating the outcome with the standards / quality judgement of component material.

In the concluding remarks Dr. Indranil Chatteraj, director, CSIR-NML, mentioned that such programme will always be helpful in knowing each other's domain. Moreover, CSIR-NML is actively involved in such activities and ready to support problem solving challenges in the metallurgical domain through close interaction.

Published in:

[The Pioneer](#)

Mineral separator at IREL commissioned

STATESMAN NEWS SERVICE
BHUBANESWAR, 4 OCTOBER:

A group of scientists of CSIR-Institute of minerals and materials technology, Bhubaneswar led by Dr S Angadi have identified the process to recover valuables from plant tailings for which IREL Ltd has signed an agreement to develop the technology.

A number of heavy minerals, such as, ilmenite, rutile, garnet, monazite, zircon, and sillimanite are found in different placer deposits along the coastline of India. IREL Limited (Formerly Indian Rare Earth Limited) is engaged in mining and processing of beach sand minerals in the Eastern and Southern coast of India. Presently IREL has the capacity to process about 6 lakhs tons of beach sand per annum.

During processing, IREL is generating huge quantity of plant tailings which contain about 3.5% of total heavy minerals. The valuable constituents lost in the tailings such

Recently, a new mineral separator was installed and successfully commissioned by CSIR-IMMT at SMP-IV site of IREL. The newly commissioned unit was inaugurated on Sunday by Prof. S. Basu, Director, CSIR-IMMT, Bhubaneswar in the presence of Mr. D. Singh, CMD, IREL Ltd. Chatrapur.

as Garnet (1.77%), Sillimanite (1.24%), Rutile (0.04%) and Zircon (0.03%) are of economic concern.

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NIIST looking to develop 'vegan leather'

CSIR-NIIST

3rd October, 2021

After showing that agro-residues can be used to make chic tableware, the Council of Scientific and Industrial Research (CSIR) – National Institute for Interdisciplinary Science and Technology (NIIST) here is looking to develop 'vegan leather' from agro-wastes such as mango peels and pineapple leaves.

The research on 'vegan leather' and food packaging material from farm waste is the next step in a research programme which used rice husk, sugarcane bagasse, fruit peel and wheat bran for making durable plates and cups, a success story which won the NIIST accolades at the national level in September.

'Vegan leather' is considered an eco-friendly and ethical substitute to leather from animal skin. The NIIST is working on technologies for its cost-effective development for use in consumer goods such as bags, footwear, wallets and belts, according to Anjineyulu Kothakota, NIIST scientist leading the project.

It is not just mango peel and pineapple leaves that are going into the making of vegan leather. For raw material, the researchers are also working with banana stems and mushrooms, but the technique is basically similar.

Vegan leather was durable and soft apart from being eco-friendly and cost-effective, Dr. Kothakota added.

The NIIST had kicked off the work on the technology earlier this year following requests from various quarters for a cost-effective alternative to animal leather. NIIST researchers are keeping the exact process under wraps for the moment as their work is still in progress. However, they explained that only natural materials were used in the process.

Another area they are looking into is production of food packaging material and take-away containers manufactured from post-harvest residues as a viable alternative to plastic packs that are now widely used.

CSIR-NGRI

3rd October, 2021

CSIR-NGRI Launches Environmental seismology group to develop landslide and flood early warning systems for Himalayan region.

హిమాలయాల్లో విపత్తుల్ని

ముందే పసిగట్టవచ్చు: ఎన్జీఆర్ఐ

ఈనాడు, హైదరాబాద్: హిమాలయాల్లో నిత్యం మంచు తుపానులు.. వరదలు.. కొండచరియలు పడి ఆస్తి, ప్రాణనష్టం జరుగుతుంటుంది. ఇలాంటి నష్టాలు లేకుండా జాతీయ భూభౌతిక పరిశోధన సంస్థ(ఎన్జీఆర్ఐ), నేషనల్ జియోఫిజికల్ రీసెర్చ్ ఇన్స్టిట్యూట్ (సీఎస్ఐఆర్) కలిసి జర్మన్ శాస్త్రవేత్తల సహకారంతో కొత్త వ్యవస్థ అభివృద్ధి చేశాయి. వివరాలను శుక్రవారం ఎన్జీఆర్ఐ విడుదల చేసింది. ఇప్పటికే హిమాలయాల్లో 100 ప్రాంతాల్లో సిసిమోగ్రాఫ్ స్టేషన్లు ఏర్పాటు చేశాయి. ఎదైనా ఘటన జరిగే ముందే పసిగట్టి సంకేతాలు పంపుతాయి.

कांगड़ा सवेरा

शिमला, शुक्रवार, 1 अक्टूबर 2021
www.dainiksaveratimes.com

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सीएसआईआर-आईएचबीटी ने दालचीनी खेती का किया शुभारंभ

संस्थान का यह कार्य आत्मनिर्भर भारत की दिशा में महत्वपूर्ण कदम : डा. संजय

पालमपुर, 30 सितंबर (जसवंत कठियाल): हिमाचल के पालमपुर में स्थित सीएसआईआर आईएचबीटी संस्थान के प्रयासों से अब हिमाचल प्रदेश में भी दालचीनी की खेती महकेगी। संस्थान ने इस दिशा में किसानों को भी प्रशिक्षण देना शुरू कर दिया है। गौरतलब है कि सिनामोन, जिसे लोकप्रिय रूप से दालचीनी के नाम से जाना जाता है, एक सदाबहार झाड़ीदार पेड़ है, जिसकी छाल और पत्तियों में एक मीठी-मसालेदार सुगंध होती है। पेड़ का मुख्य भाग इसकी छाल होती है। जिसका प्रयोग मुख्यतः मसाले के रूप में किया जाता है। एशियाई और यूरोपीय व्यंजनों में इसके उपयोग के अलावा, दवा और प्रतिरक्षा बढ़ाने में इसके महत्वपूर्ण उपयोग हैं। असली दालचीनी सिनामोम वेरम से प्राप्त होती है। सिनामोम कैसिया एक अन्य प्रजाति है जिसकी छाल का उपयोग असली दालचीनी के स्थान पर किया

जाता है। हालांकि, सिनामोम कैसिया में उच्च कुमैरिन की मात्रा है, जो स्वास्थ्य के लिए अच्छा नहीं है। इसी वजह से इस प्रजाति को संयुक्त राज्य अमेरिका, आयरलैंड और यूरोपीय संघ में प्रतिबंधित कर दिया गया है। सिनामोम वेरम मुख्य रूप से श्रीलंका में उगाया जाता है, जबकि छोटे उत्पादक देशों में सेशेल्स, मेडागास्कर और भारत शामिल हैं। डा. संजय निदेशक आईएचबीटी ने बताया कि भारत चीन, श्रीलंका, वियतनाम, इंडोनेशिया और नेपाल से प्रति वर्ष 45,318 टन (909 करोड़ रुपए मूल्य की) दालचीनी का आयात करता है। आश्चर्यजनक रूप से भारत कुल 45,318 टन आयात में से 37,166 टन सिनामोम कैसिया (हानिकारक कैसिया) का वियतनाम चीन और इंडोनेशिया से आयात करता है। संस्थान ने देश में दालचीनी के बड़े आयात को देखते हुए पाया है कि भारत में आयात किया जाने वाला सिनामोम

कैसिया है न कि सिनामोम वेरम इसकी खेती के लिए संभावित क्षेत्रों को पहचान की गई तथा देश में उत्पादन क्षेत्र का विस्तार करने की योजना बनाई गई। इसी कड़ी में आगे सीएसआईआर-आईएचबीटी के वैज्ञानिकों ने पाया कि हिमाचल प्रदेश के ऊना, बिलासपुर, कांगड़ा, हमीरपुर और सिरमौर जिलों में इसकी खेती के लिए संभावित क्षेत्र हैं। यह ध्यान देने योग्य है कि देश में दालचीनी की कोई सुसंगठित खेती अथवा प्रसंस्करण नहीं है।

तदनुसार सीएसआईआर हिमालय जैवसंपदा प्रौद्योगिकी संस्थान, पालमपुर ने प्रदेश में सिनामोम वेरम की खेती की शुरुआत और प्रसंस्करण के लिए अथक प्रयास किए। इस परियोजना की परिकल्पना सीएसआईआर हिमालय जैवसंपदा प्रौद्योगिकी संस्थान, पालमपुर द्वारा की गई है और इसे आईसीएआर भारतीय मसाला अनुसंधान संस्थान, कालीकट, केरल और कृषि विभाग,

वीरेंद्र ने ऊना में दालचीनी परियोजना का किया शुभारंभ

ग्रामीण विकास, पंचायतीराज, कृषि, पशुपालन मंत्री वीरेंद्र कंवर ने 29 को गांव खोली, ऊना में प्रगतिशील किसान योगराज के खेतों में इसके पौधे लगाकर हिमाचल प्रदेश में दालचीनी की खेती पर पायलट परियोजना का शुभारंभ किया। पौधारोपण के समय डा. संजय कुमार, निदेशक सीएसआईआर-आईएचबीटी, क्षेत्र के प्रगतिशील किसान एवं सीएसआईआर, आईएचबीटी के वैज्ञानिक और कृषि विभाग के कर्मचारी भी उपस्थित थे।



गांव खोली में मंत्री वीरेंद्र कंवर पौधारोपण कर खेती का शुभारंभ करते हुए।

हिमाचल प्रदेश के सहयोग से कार्यान्वित आईएचबीटी इन दोनों संगठनों के दालचीनी में आत्मनिर्भर बनाने की किया जा रहा है। सीएसआईआर-मूल्यवान सहयोग से भारत को दिशा में कार्य कर रहा है।



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