

# Chhattisgarh State Centre For Climate Change



## Quarterly Newsletter

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### *Message from Editor's Desk.....*



**Dear Readers,**

I am glad to inform you all that this is our 12th issue of the newsletter, and in this issue we have intended to draw the reader's attention towards some very important concerns about Climate Change and its effect on bio-diversity.

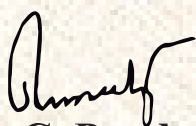
Climate Change is a growing challenge to humanity and sustainable development through directly and indirectly impacts several socio-economic sectors like agriculture, water and human health.

07 Trainings / Workshops were organised by SFRTI, Raipur in which 137 participants participated from various departments.

A review meeting of NAFCC Project "Climate Adaptation in Wetlands along the Mahanadi River Catchment Area in Chhattisgarh" was organised at Chhattisgarh State Centre for Climate Change, SFRTI, Raipur, on dated 17/01/2020.

This issue also carries information about the Forest Man of India who planted an entire Forest by himself.

I hope you will enjoy this issue. Please do let us know if there are any topics you'd like to see covered in the forthcoming issues of this Newsletter.

  
(P. C. Pandey)  
I.F.S.

Director, SFRTI  
Nodal Officer, Chhattisgarh State Centre  
for Climate Change, Raipur

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## 07 Training Workshops were organised by SFRTI, Raipur

State Forest Research and Training Institute Raipur has organized 07 training workshops during January to March 2020 on “Forest Conservation Act 1980, Green Tribunal Act 2010 & Green Tribunal Authority and Procedure” & “Forest Right Act 2006 and Rule 2007 & PESA Act” and “India's National REDD+ Strategy and Starting REDD+ in Districts” to build the capacity of Officers and staffs to play their effective role in Forest conservation. In these workshops, total 137 Officers and Staff from various departments- viz Mining, PWD, Water Resource and Power Grid including Forest Department have actively participated.

## Chhattisgarh State Centre for Climate Change is participated in 04 days capacity building workshop on Climate Change Vulnerability Assessment

The Government of India is intended to develop a common National Level Vulnerability map for all States and Union Territories with the help of Department of Science and Technology, Govt of India. In this regards, a 04 days capacity building workshops has been organized at Delhi during 12-15 February 2020 by Indian Institute of Mandi in collaboration of Indian Institute of Technology, Guwahati and Indian Institute of Science, Bengaluru. The objective of this workshop was to develop the capacity of the States to assess their Climate Change Vulnerability in different Climate Concern Sectors. This is also important in view of inclusion of Vulnerability assessment of different sectors in revision of State Action Plans on Climate Change (SAPCC). Presentations of renowned Climate Scientists like Prof. N. H. Ravindranath, Dr. Jagmohan Sharma etc were made in the workshops. Detail discussion on State wise sectoral Climate Issues were made in the workshops followed by hand on training to the States to develop their District wise Climate Vulnerability maps. Mr. P. C. Pandey, IFS, Director State Forest Research & Training Institute, Raipur and Nodal Officer, Climate Change along with Dr. Anil Kumar Shrivastava, Research Associate, Chhattisgarh State Centre for Climate Change were participated in the workshop. A presentation on primary learning's of the workshop were also been delivered in this occasion by the representatives of the Chhattisgarh. The learning's of this workshops will be helpful to develop a district level Climate Vulnerability profile of the Chhattisgarh State which will be included in revision of the Chhattisgarh State Action Plan on Climate Change as per guidelines issued by Ministry of Environment, Forest & Climate Change, Government of India.



## Review Meeting of NAFCC Project "Climate Adaptation in Wetlands along the Mahanadi River Catchment Area in Chhattisgarh" was held on 17/01/2020.

Review Meeting of NAFCC Project "Climate Adaptation in Wetlands along the Mahanadi River Catchment Area in Chhattisgarh" has been organised at Chhattisgarh State Centre for Climate Change, SFRTI, Raipur, on dated 17/01/2020 to review the progress of Project. Review meeting taken by **Smt. Richa Sharma, IAS**, Joint Secretary, Climate Change Division, Ministry of Environment, Forests and Climate Change (MoEF&CC), Government of India, New Delhi in presence of **Mr. Mudit Kumar Singh, IFS**, PCCF & HoFF and The then Nodal Officer, Chhattisgarh State Centre for Climate Change (CGSCCC) and Director, State Forest Research and Training Institute (SFRTI), Raipur.

The meeting started with introduction of the participants. Brief introduction was given by Smt. Richa Sharma, IAS, Joint Secretary, Climate Change Division, MoEF&CC, regarding the work being done at the Government of India on National level. Smt. Sharma has also given the information about the sources and availability of funds at National and International level in the Climate Change area.

A Presentation was made by the Chhattisgarh State Centre for Climate Change on the latest status of the NAFCC Project. Smt. Sharma suggested to the Forest Officers / Staff to visit the major institutes of the Country which are working on Climate Change issues. Smt. Sharma suggested to NABARD to provide additional fund for Knowledge Management activities of Project such as preparation of case studies, success stories, study material and documentary film etc.

Smt. Sharma, Joint Secretary, MoEF&CC, New Delhi has assured about one year extension to NAFCC Project; and also consented to inform in this regards after the meeting of the "National Steering Committee" of the Project to be held in the month of February 2020. Smt. Sharma directed to ensure the completion of the entire work related to the NAFCC Project by March 2021. In this regard, Mr. Mudit Kumar Singh, The then Nodal Officer, CGSCCC also instructed to concern DFOs to start all the pending works under the Project in all three Divisions immediately. He has also instructed to prepare proposals for the remaining works under the Project and directed to make it available to the office by the end of Feb.2020. Smt. Sharma also suggested to plan a new Project proposal under the "Green Climate Fund" and for this, making a study tour to visit the approved Project in Orissa.



## Chhattisgarh State Centre for Climate Change has participated in the World Sustainable Development Summit



Chhattisgarh State Centre for Climate Change has participated in the World Sustainable Development Summit (WSDS), the annual flagship event of TERI which was held from 29-31 January, 2020 at New Delhi.

The Summit was inaugurated by Mr Prakash Javadekar, Hon'ble Indian Union Minister of Environment, Forest and Climate Change. Mr. Mudit Kumar Singh, IFS, The then Director State Forest Research & Training Institute, Raipur and Nodal Officer, Chhattisgarh State Centre for Climate Change along with Dr. Anil

Kumar Shrivastava, Research Associate. During the event Mr. Mudit Kumar Singh has delivered his view on “Mainstreaming Development and Enhancing Climate Resilience: New Opportunities for States in India” during the Round Table Discussion.

## Do you Know?

### DID YOU KNOW?

Chhattisgarh has



**3** National Parks



**11** Wildlife Sanctuaries

that constitutes the protected area\* network of the State covering **3.44%** of its geographical area!

Protected areas\* are those in which human occupation or at least the exploitation of resources is limited

Source: Summary: India State of Forest Report 2019 – Vol-II



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## Jadav Payeng: The Man Who Planted an Entire Forest by Himself

Jadav Payeng is better known as the Forest Man of India. He earned this name by spending 30 years of his life planting trees, creating a real man-made forest of 550 hectares. Thanks to this reforestation, wildlife has returned to the area. Incredibly, he did it all by himself.

The Molai Reserve is a forest on the Majuli Island in the Brahmaputra River near Kokilamukh in the Jorhat district in Assam, India. It has a total area of about 1,000 hectares and is under continuous threat due to the extensive soil erosion on its banks.

Majuli has shrunk over the past 70 years by more than half. There are concerns that it could be submerged within the next 20 years. To fight this, in 1980, the Assam Forestry Division of Golaghat district began a plan to reforest 200 hectares of the forest in one of the sandbars of the Brahmaputra river.

However, the program was sadly abandoned in 1983. After that, the forest was single-handedly attended by Jadav Payeng during the course of over 30 years. He began planting bamboo. Then, he continued planting other species. He wants to spread his Molai Forest to Bongaon of Majuli.

He planted and tended trees along a sandbar on the Majuli island. Majuli is the biggest river island in the world. The Molai forest now encompasses an area of about 1,360 acres/550 hectares of forest. The area can be compared to the size of 15 football stadiums together.

The Molai forest created by Jadav Payeng is larger than Central Park in New York City. Thanks to him, the Molai forest now houses Bengal tigers, Indian rhinoceros, reptiles, over 100 deers, and rabbits in addition to monkeys and several varieties of birds, including a large number of vultures.

There are several thousands of trees, including valcol, arjun (*Terminalia arjuna*), Pride of India (*Lagerstroemia speciosa*), royal poinciana (*Delonix regia*), silk trees (*Albizia procera*), moj (*Archidendron bigeminum*) and cotton trees (*Bombax ceiba*), among others. Bamboo alone covers an area of over 300 hectares.



## A fashion show at the highest altitude was held to raise awareness about Climate Change

The Fashion show was held at the base camp of Mount Everest at an elevation of 5340 meters (17541 feet), which is at Kalapatthar. The Fashion Show held on 26th January 2020, which was organized by RB Diamonds, Kasa Style with the support of the Nepal Tourism Board and Visit Nepal 2020 Campaign. In this fashion show, models from various parts of the world have participated including Nepal, Finland, Italy Sri Lanka, and Singapore.

The main theme of the Mt Everest Fashion show was to raise awareness about Climate Change by promoting sustainable fashion as well as give the message to the world about the possibility of different activities that can be conducted in Nepal.

Source : <https://timesofindia.indiatimes.com/>



## India assumes presidency of UN body on Migratory Species for 3 years



The Thirteenth Conference of the Parties to the Convention on Migratory Species was held in Gandhinagar in the presence of senior government officials, environment advocates, activists, researchers and biodiversity leaders from as many as 130 countries.

Inaugurating the key UN Summit via video conferencing Prime Minister Shri Narendra Modi said that the CMS COP13 is of particular significance to India, which is known for its rich biodiversity and is one of the seven megadiverse countries in the world.

“India has four biodiversity hotspots – Eastern Himalayas, Western Ghats, Indo Myanmar landscape and Andaman and Nicobar Islands and home to as many as 500 species of migratory birds from across the globe”, said the Prime Minister.

The Prime Minister stressed that his government is committed to championing sustainable lifestyle, conservation and a green development model. He further added that in India’s role as the COP President in the next three years, it will look at conserving the Central Asian Flyway. To achieve this, India has prepared a National Action Plan. He further added that India is keen to facilitate action plans of other countries in this regard and aims at taking conservation to a new paradigm with active cooperation from all.

Source : <https://pib.gov.in/>



## Climate Change impact on agriculture : 50 million to be poor by 2030, says UN body

The International Fund for Agricultural Development (IFAD) has said that Climate Change would push 100 million people into the abyss of poverty by 2030. Close to half of these would be due to Climate Change's impacts on agriculture.

Global development and government representatives from across the world made an appeal to urgently spend more on rural development to avoid a catastrophic situation arising out of the climate emergency during IFAD's 43rd Governing Council meeting in Rome.

"Climate Change's impacts on agriculture are exacerbating existing conflicts and have the potential to cause new conflicts around the world as resources become more limited," Esther Penunia, secretary general of the Asian Farmers' Association, who attended the Fund's meeting, said.

In 2018, 90 per cent of 17.2 million people displaced by disasters were due to weather and climate-related events. In Africa alone, conflicts have risen by 36 per cent between 2018 and 2019. "This has contributed to an increase in hunger and poverty," a statement from IFAD, said.

"Conflict stops agricultural production and stops millions of people lifting themselves out of poverty," Josefa Sacko, ambassador and commissioner for rural economy and agriculture, speaking on behalf of the African Union Commission, said.

She added the role of climate change to this. "Increase in poverty due to conflicts is compounded by natural disasters, like the current scourge of locusts destroying crops in East Africa and a changing climate that threatens African food systems and is the driving force behind migration and conflict."

The Governing Council of IFAD has appealed for more investment in rural development to mitigate this precipitating crisis. "We all agree on the severity of the situation and that there is no time to lose. We need to scale up our actions and leverage our resources in order to eliminate poverty and hunger," Gilbert F Hounbou, president of IFAD, said.

Source : <https://www.downtoearth.org.in/hindistory/climate-change/>



हमारे शहरों को प्राथमिकता के आधार पर जलवायु परिवर्तन का सामना करने के लिए योजना बनाने और पहल करने की जरूरत है। पानी सोखने वाली मिट्टी पर शहर बसाने या प्राकृतिक बाढ़ के मैदानों में निर्माण को रोकना होगा।

## जलवायु परिवर्तन पर हम कितने तैयार

वरुण गांधी



लोकसभा सांसद

ऑस्ट्रेलिया में सूखे के लंबे दौर के बाद हालिया जंगल की आग के फैलाव ने पूरे महाद्वीप को अपनी गिरफ्त में ले लिया है। यह आग स्थानीय वनस्पतियों और जीवों के लिए तबाही बन गई, जिसमें तकरीबन 50 करोड़ जीव खत्म हो गए हैं। इसी समय, तिमोर सागर के दूसरे किनारे पर इंडोनेशिया की राजधानी जकार्ता में बेगैसम बारिश के कारण आई बाढ़ से हजारों लोग विस्थापित हो गए। अपने देश की बात करें तो दिल्ली में वर्ष 1959 और 1968 के बीच, अपेक्षाकृत हल्की गर्मी हुआ करती थी। भारतीय मौसम विभाग के आंकड़ों के मुताबिक उस दशक में करीब 1,350 दिन तापमान 35 डिग्री सेल्सियस से अधिक रहा था। इसी तरह मुंबई में ऐसी गर्मी सिर्फ 113 दिन पड़ी थी, जबकि इसी दशक में बंगलुरु में ऐसे 249 दिन थे।

वर्ष 2018 में भारत में मौसमी अतिरेक के कारण करीब 2,081 मौतें हुईं और 37.8 अरब डॉलर से अधिक का आर्थिक नुकसान (2017 की तुलना में करीब तीन गुना) उठाना पड़ा। 2018 में उत्तर और पश्चिम भारत में नियमित रूप से चलने वाले लू के थपेड़ों के साथ ही ऊष्णटिबंधीय तूफानों गज और तितली के चलते केरल में भारी बारिश हुई। खासकर समुद्रतटीय शहरों की बाढ़ एक बड़ा जोखिम है, जिससे वर्ष 2050 तक तटीय शहरों को सालाना एक ट्रिलियन डॉलर से अधिक का नुकसान पहुंचने की संभावना है। इस सबके बीच क्लाइमेट सेंट्रल की 2019 की रिपोर्ट बताती है कि भारत में मुंबई जैसे शहरों (लोअर परेल, कोलाबा इलाके), कोलकाता (लागभग पूरा), सूरत और काकीनाडा जैसे शहरों के वर्ष 2050 तक पानी के नीचे आ जाने का खतरा है। इधर, देश के अंदरूनी शहरों के भी बचे रहने की संभावना संदिग्ध है।

भारत के नीति निर्माताओं को देश के शहरों की जलवायु और भौगोलिक विविधता को समझने की जरूरत है। यहां 10 लाख से ऊपर की आबादी वाले कम से कम 50 शहर हैं। इनमें से कई (जैसे कि चेन्नई, मुंबई) समुद्र या नदी के पास होने के चलते जलवायु परिवर्तन के प्रति काफी संवेदनशील हैं। इसके बावजूद, हाल के दिनों तक शहर के प्लानिंग एजेंडा में जलवायु परिवर्तन से मुकाबले के स्थाई उपायों का अभाव ही दिखता है। मुंबई, सूरत और कोलकाता में अपशिष्ट-प्रबंधन की एक श्रृंखला की शुरुआत की गई है। सरकार का स्मार्ट सिटी प्लान



भारत में 10 लाख से ऊपर की आबादी वाले कम से कम 50 शहर हैं। इनमें से कई (जैसे कि चेन्नई, मुंबई) समुद्र या नदी के पास होने के चलते जलवायु परिवर्तन के प्रति काफी संवेदनशील हैं।

जलवायु परिवर्तन का मुकाबला करने की दिशा में एक स्वागतयोग्य शुरुआती कदम है। इसी तरह, इंडिया क्लाइमेट एक्शन प्लान का मकसद 2038 तक क्लाइमेट डिमांड को 25 फीसद और रेफ्रिजेंट की डिमांड को 25-30 फीसद तक कम करना है। कई शहरों ने अंतरराष्ट्रीय सहयोग (जैसे पुणे और जर्मन शहर बैमन की बायोगैस और अपशिष्ट प्रबंधन से जुड़ी परियोजनाओं पर साझेदारी) की पहल की है।

हालांकि, इस तरह की पारस्परिक सहयोग की योजनाओं के लिए राज्य और केंद्र सरकार की मंजूरी और वित्तीय सहायता पर निर्भर रहना पड़ता है। किसी शहरी क्षेत्र में जलवायु परिवर्तन का सामना करने के लिए उठाए गए किसी भी कदम के लिए जरूरी है कि इसे स्थानीय स्तर पर तैयार और लागू किया जाए। इसे सुनिश्चित करने के लिए स्थानीय स्तर पर सशक्तिकरण के साथ-साथ हमारे शहरी विकास के दृष्टिकोण में बदलाव की जरूरत होगी, जो कि उन नीतियों के साथ होगा जो शहर के स्तर पर विशिष्ट जलवायु परिवर्तन से पैदा होने वाली चुनौतियों का सामना कर सकती हैं।

हमारे शहरी विकास के नजरिये को बदलने की जरूरत है, असंतुलन दुरुस्त करते हुए

विकास सर्वोपरि के दृष्टिकोण के साथ। हमें परस्पर लाभ के दृष्टिकोण को अपनाने की जरूरत है, जो दोनों पक्षों को लाभ की बात करता हो, जो विभिन्न पॉलिटी एजेंडे के बीच टकराव को दूर करने में मदद कर सकता है। इस तरह के नजरिये से बेहतर ऊर्जा प्राप्ति, अपशिष्ट प्रबंधन, स्वच्छ हवा और रोजगार सृजन हो सकता है। एक अध्ययन में पाया गया कि कोलकाता करीब 4 साल की पे-बैंक अवधि का निवेश करके 2025 तक अपने कार्बन उत्सर्जन को आसानी से 21 फीसदी (परिवहन, घरेलू आदि क्षेत्रों में) तक कम कर सकता है। इस निवेश से हुई आय को पुनर्निवेश करने से शहर के लिए कार्बन उत्सर्जन में और कमी आएगी।

जलवायु परिवर्तन को लेकर भारत की राष्ट्रीय कार्ययोजना (2008) इस दृष्टिकोण को एकीकृत रूप में पेश करती है। हालांकि, इसको जमीनी स्तर पर हकीकत में उतारने के लिए खास उपायों की जरूरत होगी। खासतौर पर, ऐसी परियोजनाओं के क्रियान्वयन के लिए एक अधिकार संपन्न उपक्रम (जैसे दिल्ली मेट्रो के मामले में किया गया) बनाने से सरकार में सभी स्तरों और हितधारकों के बीच समन्वय सुगम

बनाने में मदद मिल सकती है। हमारे शहरों को स्थानीय स्तर पर पेश आने वाली किसी चुनौती का सामना करने में, जलवायु परिवर्तन के असर को कम करने के लिए जरूरी कदम उठाने का अधिकार नहीं दिया गया है। 73वें और 74वें संविधान संशोधन (1992 में पारित) ने नगर निकाय के स्तर पर अधिक स्थानीय शासन शक्तियों को जन्म दिया, इसने आर्थिक विकास को दिशा देते हुए शहरों को राजस्व जुटाने में सक्षम बनाया। हालांकि, एक विषय के रूप में शहरी विकास अभी भी राज्य का विषय है, जबकि क्रियान्वयन स्थानीय निकाय में निहित है, जिस कारण एक औसत भारतीय शहर के स्थानीय निकाय की राजकोषीय दशा आमतौर पर कमजोर ही रहती है।

हमारे शहरों की प्राथमिकता के आधार पर जलवायु परिवर्तन का सामना करने के लिए योजना बनाने और पहल करने की जरूरत है। पानी सोखने वाली मिट्टी पर शहर बसाने या प्राकृतिक बाढ़ के मैदानों (जैसे कि चेन्नई में हुआ) में निर्माण को रोकना होगा। खासकर मुंबई को तटीय मैंग्रोव को बहाल करते हुए, अपनी सीबेज और ड्रेनेज क्षमता में सुधार करने की जरूरत है। शहरी तैयारियों में हीट-वेक्स जैसी घटनाओं को लेकर योजना बनाने की जरूरत है। यह अब सार्वजनिक स्वास्थ्य समस्या नहीं रह गई है। स्थानीय निकायों को श्रम, पेयजल और बिजली विभाग के साथ समन्वय करने की जरूरत है।

जलवायु परिवर्तन के असर से भारत के सभी क्षेत्रों में शहरी परिदृश्य प्रभावित होगा। वर्ष 2065 तक भारत की आबादी 1.7 अरब हो जाएगी और इसका अधिकांश हिस्सा शहरी होगा, उस समय रहने योग्य शहरों के लिए 'विकास सर्वोपरि' के एजेंडे को पूरा करना मुश्किल होगा। जलवायु परिवर्तन का सामना करने के लिए किया गया सही निवेश हमारे शहरों की सहनशक्ति बढ़ाने में मदद करेगा, जिससे उन्हें मौसम की मार से पानी की आपूर्ति में कमी होने या हीटवेव चलने पर हालात से निपटने में मदद मिलेगी। हमारे शहरों के लिए व्यवस्थागत सहारे के साथ स्थानीय निकाय स्तर पर नीचे की ओर से सशक्तिकरण, भारत को जलवायु परिवर्तन से पेश शहरी जोखिमों का सामना करने में मदद मददगार हो सकता है। समय रहते तैयारी और उपाय कर लेने से, हम भविष्य में सामने आने वाले पर्यावरणीय महासंकट से बच सकते हैं।

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