

Chhattisgarh State Centre For Climate Change

Quarterly Newsletter

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Message from Editor's Desk.....



Dear Readers,

It is with a sense of great delight that we are presenting to you the January to March issue of Newsletter. The present issue of the newsletter contains useful material relevant to climate change. Chhattisgarh State Centre For Climate Change was officially inaugurated by the Hon'ble Shri Mahesh Gagda, Minister of forests, law and legal affairs, Govt. of Chhattisgarh on February 26, 2018. It is also a great credit to the institute that Faunal survey report based 13 books was released in the Legislative assembly on 26th February, 2018 by Hon'ble Dr. Raman Singh, Chief Minister, Govt. of Chhattisgarh.

Such a district wise and PA area wise faunal survey has been done for the first time by any state in the country.

In the present issue a number of core articles on important state and national level issues contributed by reputed authors are being published. These include articles on Traditional Knowledge is the Key to mitigate the Climate Change Risk, India - France collaboration on satellite technology to tackle Climate Change, Climate Change impacts women more than men: India's Initiative towards solving the problem and The 5 R's : Solid weapon against Climate Change.

We always try to understand the demands and requirement of our readers and their suggestion. We request them to send such local issues to us and we will make all efforts to include them in the next issues of the newsletter. It gives us great satisfaction to know that our readers have unanimously endorsed the utility of the newsletter.

Happy Reading!

(Dr. Arvind Anil Boaz)

Retd. PCCF & HoFF

Former Nodal officer on Climate change
Govt. of Chhattisgarh

Traditional Knowledge Is the Key to Mitigate the Climate Change Risks



Shirish Chandra Agrawal

Principal Chief Conservator of Forests
(Forestry Research, Training and Climate Change)
and Nodal Officer, Chhattisgarh State Centre for
Climate Change

The rapid rise in the human population is a global phenomenon and our ever-growing dependence on fossil fuel-based modes of production has played a considerable role in the growing concentration of Green House Gases (GHG) in the atmosphere. As a result, atmospheric temperature is increasing globally, the sea level is rising and precipitation patterns are changing, while storm surges, floods, droughts and heat waves are becoming more turbulent and severe. Subsequently, agricultural production is decreasing, freshwater is becoming scarcer, infectious diseases are on the rise, indigenous livelihoods are being degraded and human well-being is diminishing. Initial efforts for dealing with the problems of global warming concentrated on mitigation, with the aim of reducing and possibly stabilizing the GHG concentrations in the atmosphere (UNFCCC 1992).

Although indigenous people's "low-carbon" traditional ways of life have contributed little to climate change, indigenous people are the most adversely affected by it. This is largely a result of their historic dependence on local biological diversity, ecosystem services and cultural landscapes as a source of sustenance and well-being. Indigenous people, however, are not mere victims of Climate Change. Comprising only four percent of the world's population (between 250 to 300 million people), they utilize 22 per cent of the world's land surface. In doing so, they maintain 80 per cent of the planet's biodiversity in, or adjacent to, 85 per cent of the world's protected areas. Indigenous lands also contain hundreds of gigatons of carbon - a recognition that is gradually dawning on industrialized countries that seek to secure significant carbon stocks in an effort to mitigate climate change. (<https://unu.edu/publications/articles-climate-change.html>_2011)

Traditional knowledge needs critical attention in global climate change mitigation efforts

"Indigenous or traditional knowledge may prove useful for understanding the potential of certain adaptation strategies that are cost-effective, participatory and sustainable". Previous IPCC assessments, however, were unable to access to this dimension of information because, for the most part, traditional knowledge either appears in grey literature outside the peer-reviewed academic forums, or remains in oral forms, mostly there by falling outside the scope of IPCC process. (IPCC in 2010)

The indigenous knowledge needs to integrate in climate change mitigation and adaptation strategies in following manner:-

- Using indigenous knowledge of rural communities to built capacity of dealing with present vulnerabilities on the basis of past experiences to climatic extremes and other stresses.
- Adopt the bottom-up participatory approach that encourages the highest level of local participation.
- Consider the local communities as equal partners in the development process to build on what already exists, to utilize and strengthen existing capacities by way of recognition of Intellectual Property Right (IPR).
- Avoid developing indigenous practices in climate change mitigation and adaptation as substitutes of modern techniques but pick the 'best practices' for mitigation and adaptation from the modern and indigenous spheres.
- It is to be highly appreciated that local rural people in villages & their past experiences in adverse climate effects have prompted them to have adaptation to some traditional knowledge to mitigate climate change's risks.



The majority of
successful
adaptive strategies
rely in some way
on

traditional
ecological
knowledge

The Paris Agreement recognized Indigenous Peoples' Traditional Knowledge and called for establishment of a new "Exchange Platform", now underway

Paragraph 136: "Recognizes the need to strengthen knowledge, technologies, practices and efforts of local communities and indigenous peoples related to addressing and responding to climate change, and establishes a platform for exchange of experiences and sharing of best practices on mitigation and adaptation in a holistic and integrated manner."

Source:- International Indian Treaty Council

Inauguration Ceremony for Chhattisgarh State Centre for Climate Change

In the line of National Action Plan on Climate Change (NAPCC), A State Action Plan on Climate Change (SAPCC) has been prepared by govt. of Chhattisgarh. To implement the SAPCC, a State Centre for Climate Change has been established.

The State Centre for Climate change & Knowledge Management Cell were established in August 2015 by State Government order and are situated at campus of State Forest Research and Training Institute, Raipur.

On date 26/02/2018 Centre official inauguration by Hon'ble Shri Mahesh Gagda Minister for Forest and Law & Legal Affairs Department. During inauguration of Centre, Dr. A. A. Boaz, PCCF & Head of Forest Force (Forestry Research, Training and Climate Change) and State Nodal Officer on Climate Change, Government of Chhattisgarh and all staffs of Centre for Climate Change, all staffs of State Forest Research And Training Institute, Raipur were present.



Inauguration of State Centre For Climate Change by Hon'ble Shri Mahesh Gagda Minister, Forest and Law & Legal Affairs

Faunal Survey: Highlighted Positive Changes

Chief Minister, Chhattisgarh, Dr. Raman Singh released 13 books on faunal survey. The survey was conducted by State Forest Research and Training Institute, Raipur & Indian Wildlife Survey Organization, Kolkata. After survey of three years in six districts and seven sanctuaries/ National parks and books were published based on survey.

The books with title Faunal Diversity of Bastar, Surguja, Bilaspur, Durg, Kabirdham districts and Korba district. Fauna of Gomarda wildlife sanctuary, Achanakmar Tiger reserve, Bhoramdev Wildlife Sanctuary, Udanti Sitanadi Tiger Reserve, Barnawpara Wildlife Sanctuary and Guru Ghasidas National Park.

During the occasion, Hon'ble, Dr. Raman Singh, Chief Minister, Govt. of Chhattisgarh, by Hon'ble Shri Mahesh Gagda Minister, Forest and Law & Legal Affairs, Kedar Kashyap, Higher education Minister, Ramvihar Netam, Member of Parliament and Dr. A. A. Boaz, PCCF & Head of Forest Force (Forestry Research, Training and Climate Change) and State Nodal Officer on Climate Change, Government of Chhattisgarh were present.



Faunal Survey books released by Hon'ble, Dr. Raman Singh, Chief Minister, Govt. of Chhattisgarh

Climate change 'impacts women more than men'

By Mary Halton BBC News, science reporter

Women are more likely than men to be affected by climate change, studies show.

UN figures indicate that 80% of people displaced by climate change are women. Roles as primary caregivers and providers of food and fuel make them more vulnerable when flooding and drought occur. The 2015 Paris Agreement has made specific provision for the empowerment of women, recognising that they are disproportionately impacted.

source:<http://www.bbc.com/news/science-environment-43294221>

India's Initiative towards solving the problem

PM launches National Nutrition Mission, and expansion of Beti Bachao Beti Padhao, at Jhunjhunu in Rajasthan(Posted On: 08 MAR 2018 4:06PM by PIB Delhi)

Addressing the large gathering on the occasion, the Prime Minister said that through the power of technology, the entire nation is connected with Jhunjhunu. He appreciated Jhunjhunu district for furthering the Beti Bachao, Beti Padhao movement. He said there is no question of discrimination based on gender.

The Prime Minister stressed on the importance of girls getting access to quality education, just like boys. Emphasizing that a daughter is not a burden, he said girls are bringing pride and glory for our nation, and excelling in several fields.

The Prime Minister also spoke of the importance of providing proper nutrition to children. He said Mission Indradhanush has brought an extremely positive change in the lives of women and children.

Sources: <http://pib.nic.in/PressReleaseDetail>, (Release ID: 1523281)

"India, France to collaborate on satellite technology to tackle Climate Change"

"India-France collaboration on satellite technology is part of the Joint Vision for Space Cooperation, signed during French President Emmanuel Macron's visit to India"

Indian Space Research Organization (ISRO) and The French National Centre for Space Studies (CNES) will collaborate on use of satellite technology for addressing global challenges like Climate Change through joint missions — (Megha-Tropiques and Saral-Altika), the ongoing studies of the Trishna satellite for land Infrared monitoring and the Oceansat3-Argos mission.

These were part of the agreements signed by ISRO chairman K Sivan and CNES President Jean-Yves Legall in New Delhi on March month. The two nations will also collaborate on a joint earth observation mission with high resolution imaging capability in optical and microwave domains, as well as pursuing the study of a constellation of satellites for maritime surveillance. There are further plans for cooperation in the satellite navigation field, including reference stations in France and India to improve the orbit determination and clock estimation for the Indian and European navigational systems; and development of navigation applications



Megha-Tropiques is an Indo-French Joint Satellite Mission for studying the water cycle and energy exchanges in the tropics. The main objective of this mission is to understand the life cycle of convective systems that influence the tropical weather and climate and their role in associated energy and moisture budget of the atmosphere in tropical regions. The SARAL mission results from the common interest of both CNES and ISRO in studying ocean from space using altimetry system and in promoting maximum use of the ARGOS Data Collecting System. Radar altimetry by satellite is a technique used in oceanography to measure, globally over the oceans, the sea level needed to understand ocean circulation and its variability. The Oceansat3-Argos mission entails the ISRO satellite hosting Argos-4 Payload from CNES. Oceansat-3 is likely to be launched in 2018 to provide continuity of data for already established services in the area of oceanographic applications. Radar altimetry by satellite is a technique used in oceanography to measure, globally over the oceans, the sea level needed to understand ocean circulation and its variability. The Oceansat3-Argos mission entails the ISRO satellite hosting Argos-4 Payload from CNES. Oceansat-3 is likely to be launched in 2018 to provide continuity of data for already established services in the area of oceanographic applications.

India and France will also develop a wider dialogue on space situational awareness. ISRO and CNES would work together for the design and development of joint products and techniques, including those involving Automatic Identification System (AIS), to monitor and protect the assets in land and sea. Sharing of data including direct reception from each other's Earth observation missions meant for meteorology, oceanography, resource inventory and cartography; and sharing of expertise in data analysis including algorithm development and modeling is also on agenda.

This agreement was part of a larger four day meeting between Indian Prime Minister Narendra Modi and French President Emmanuel Macron to strengthen economic and political ties between the nations.



The 5 R's : Solid weapon against Climate Change

Climate change is any major change in measures of climate, which include temperature, precipitation, rainfall, snow, & air. These change last for decades or longer. Many factors are causing climate change, including human activities. We can help adopt more green practices like recycling in our home and workplace. There have been some fabulous Refuse, Reduce, Reuse, Repurpose, and Recycle idea out there, so some simple ways to start living & protect our natural resources also reduce the amount of waste produce by following the 5 R's

Reuse

- Reuse something you already have instead of buying something.
- Replace needing a single use item, with something you can use over and over again, Both of those options will save you money as well.
- Slowly replace any single use items with reusable ones- like reusable grocery & produce bags, reusable water bottles, travel mugs.
- Instead of tossing those return envelopes you get but don't need, reuse them for permission slips to school or other things that need to be sealed but don't need a fresh envelop.
- Reuse those cereal bag liners.
- Reuse glass jars, containers for leftovers or pantry storage, instead of buying something else.



Recycle

- Recycling is a great way & a chance to rethink your future purchases.
- Recycle all the basics you can paper, plastic, metal and glass.
- Recycle all electronics.
- For a huge list of other things you can recycle checked.

Reduce

- Reduce, to use less. Think about what you use and buy could you use less.
- Do you really need the latest smart phone? Could you make due with the one you have for a bit longer.
- Reduce the amount of energy you use to heat your home by getting on energy.

Repurpose

- Repurpose to make something & use it for something else. This requires a bit of thinking & craftiness, but doesn't have to be gorgeous.



Refuse

- Refuse is to say no to things people offer you don't need, that you never even asked for, refuse to buy products that can harm to you, your family & environment. Use the power of your money to tell companies what you want and don't want.
- Think freebies that companies away, Now if you are going to use that pen or reusable grocery bags, by all means take it, but if it will end up in the trash eventually, just say no thank!
- Say no to plastic grocery bags, especially if you only have a couple of items that you could easily carry.
- Refuse to buy harmful products, like buy more eco- friendly options or make your own.
- Say no to single use plastic.



(Source-www.thegreeningofwestford.com & Google image)

Effort of Raipur Nagar Nigam: towards improving Environment

Climate change related initiatives of Raipur Smart City

Raipur, the capital city of Chhattisgarh is moving on to be a smart city, which mean life style, and livelihood standards more better, smart economy, smart mobility Good Governances and last but not least very important environment friendly, Climate resilience, adoption.

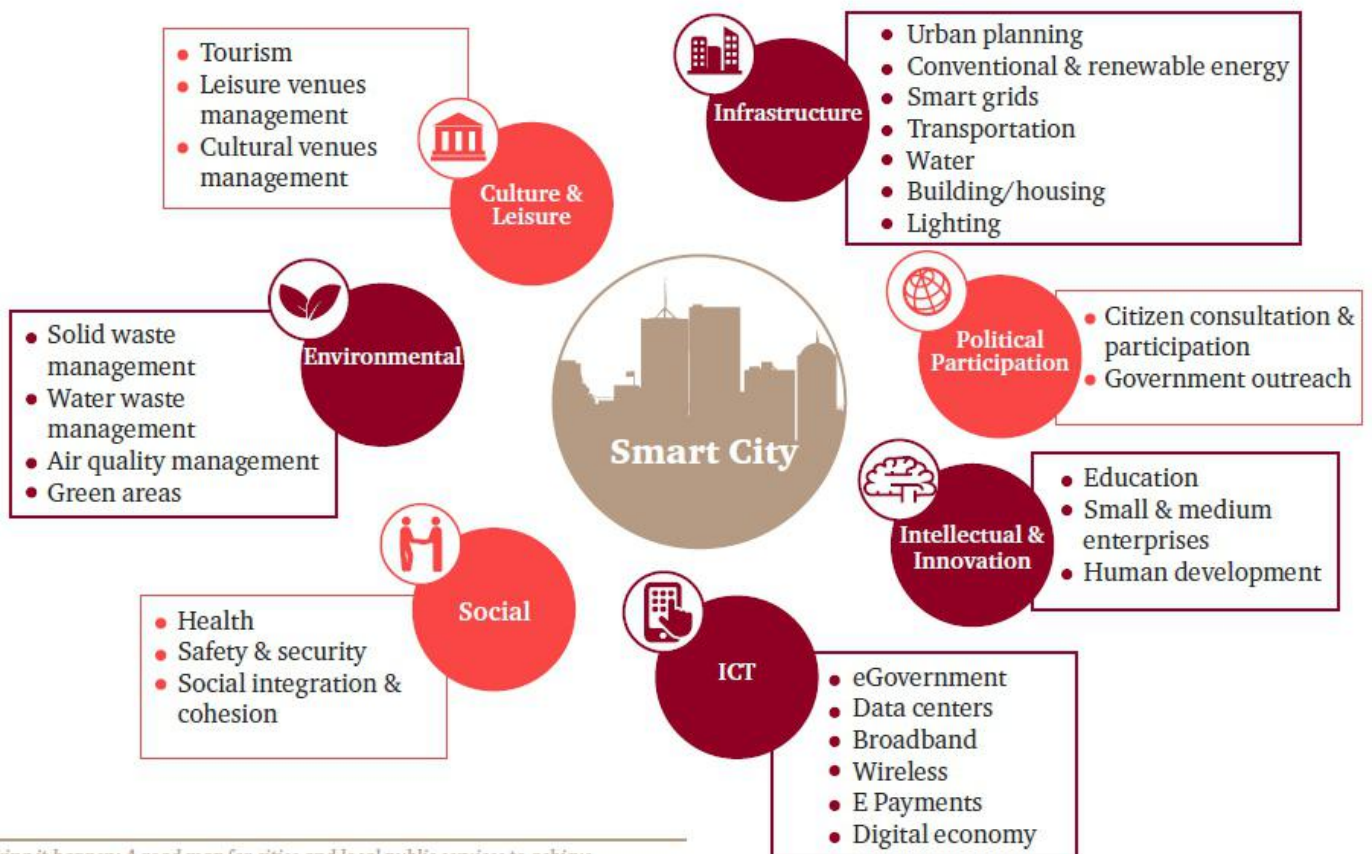
The Raipur Nagar Nigam is initiated number of good initiatives to make climate friendly environment of the city, such as:

Oxy -Zone

Due to develop better environment in the urban area with help of plantation of suitable species & environment parks. Oxy zone play a important role as increase quality of air, reduce pollution in the city and generate awareness among people to adopt greenery. The project will be initiate with the joint collaboration of Raipur smart city limited & Forest department.

Oxy- Reading Zone

Aim to this project for comfortable environment given candidate who fight various competitive examination. Raipur smart city limited has been build up besides of Central Library at G.E. Road Raipur.



¹ Making it happen: A road map for cities and local public services to achieve outcomes', PwC, 2011

Source- [www. Smartcityraipur.org](http://www.Smartcityraipur.org) & google image

Saving our planet, lifting people out of poverty, advancing economic growth... these are one and the same fight. We must connect the dots between climate change, water scarcity, energy shortages, global health, food security and women's empowerment. Solutions to one problem must be solutions for all.

- Ban Ki-moon

India's Effort to Combat Climate Change through Solar Energy

With a sweeping commitment to solar power, innovative solutions and energy efficiency initiatives to supply its people with 24x7 electricity by 2030. India is emerging as a front runner in the global fight against climate change. That's good news, because if the world expects to reach its Paris Climate Agreement objective of containing global warming to under a 2-degrees Celsius increase, it is imperative for India third largest emitter of carbon dioxide to be a global leader on renewable energy.

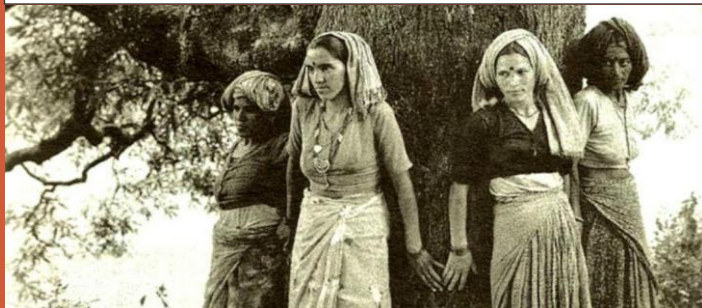
About The International Solar Alliance (ISA)

Consisting of 121 countries led by India, to collaborate on increasing solar energy use around the world and mobilize \$1 trillion in investments by 2030. The ISA is to be headquartered in India. With its conscious choice to use significantly more clean energy to fuel its growth, India is contributing to global efforts to save the planet from the effects of climate change.

(www.wordbank.org)

- The International Solar Alliance is an alliance of more than 121 countries, most of them being sunshine countries which come either completely or partly between the Tropic of Cancer & the Tropic of Capricorn.
- With nearly 300 days of sunshine every year, India has among the best conditions in the world to capture and use solar energy.

Do we need another Chipko: Lets take inspiration from the great Environmental protection



The Chipko movement is an environmental protection movement. This was done by the farmers in India's Uttarakhand state (then part of Uttar Pradesh) to oppose the deforestation. They were opposing deforestation by contractors of the state forest department and claiming their traditional rights on them. This movement started in Chamoli district of Uttar Pradesh in the year 1973. Within a decade it spread across the entire Uttarakhand region. One of the main things of Chipko movement was that women took part in a large number of it. The movement started in 1973 in the eye of the famous environmentalist Sunderlal Bahuguna, Chandi Prasad Bhatt and Mrs. Gauradevi of India. The key to Sunderlal's success is that he had always concentrated on educating the masses. He had made great use of Folk songs, such as "The Appeal of a Tree", originally written in Hindi by folksinger Ghanshyam Salini, a dedicated Chipko activist. Likewise in present scenario we need to take strong action to protect our environment so as Climate Change. And for such strong action we need to educate the masses.

Source: Hinduism and Ecology Seeds of Truth and google image

- JNNSM (Jawaharlal Nehru National Solar Mission)
- Solar Parks
- Rooftop solar power plants
- Ujala program

(Source: www.wordbank.org)

In Chhattisgarh state most of the government institutions have installed solar panels with the help of Chhattisgarh State Renewable Energy Development Agency (CREDA), which provide them electricity 24 hours also helps in generating revenue. Many government building like State Forest Research & Training Institute (SFRTI), Raipur, Raipur Municipal Corporation and Government Colleges, Institute, private offices and other have also installed solar plants in the rooftop of their building.

First conference of International Solar Alliance in New Delhi (India) on 10 /3/2018

The Prime Minister Narendra Modi said the 121 countries associated with ISA, 61 have joined the alliance & 32 have Ratified the framework agreement. PM said India will generate 175 Gigawatts of electricity from renewable energy sources by 2022. Recently Indian Prime Minister Narendra Modi & France President Emmanuel Macron inaugurated Solar plant in UP.

(Source: Various news paper)

POEM – O' AXE MAN!

Halt, O' Axe Man!
Why do you cut my life short?
What have I done to you?
Look, I provide you shade
Bear flowers and fruits,
Purify the air
Harbour birds for you to hear,
Melodious songs.
To lull you to sleep and greet
You, a happy good-morning.
Can't you see my tears?
O'! all powerful one.
Are you not moved?
Spare me now,
For I'll be a boon to your offspring,
When I grow old.
No doubt, they'll hack me to death even then,
But, I'll silently accept that killing.
For, I know, then, I'll provide
Wood, for his cot, his chair, his table,
For his house, his cart, his plough,
Toys, for his children to play with,
Fuel wood, for cooking his food,
I know, I'll provide such great happiness,
To him, then, that I'll be happy,
EVEN IN DEATH

By:- Dr. Arvind Anil Boaz

Retd. PCCF & HoFF

Former Nodal officer on Climate change
Govt. of Chhattisgarh

'War against climate change can be won by technology'

■ By Arul Louis
UNITED NATIONS, Mar 6 (IANS)

SECRETARY-GENERAL Antonio Guterres is betting that the battle against climate change will be won through the technological advances and public mobilisation even if Governments fail to act.

While "there are reasons to be alarmed" about the rapid pace of climate change, "we believe that the right bet is the bet that technology is pointing to, and that bet is the green technology, and cities, companies, consumers are making that bet," he said on Monday.

"I think that what is clear is that the reality is changed by the companies that produce, the consumers, the cities that manage," he said. "Very little depends today, in relation to climate change, on Central Government."

"I am very confident that this battle will be won, because the realities of today's economy are such that the wise decision is the

green decision," he added, while speaking to reporters announcing the re-appointment of Michael Bloomberg, the media tycoon and former New York mayor as his Special Envoy for Climate Action.

"Because of technological advances, the cheapest energy today is green energy," Guterres said. Reinforcing it is the "enormous capacity to mobilise the civil society, the business community and the cities" he said. "And we see cities, but also companies and civil society everywhere, leading climate action, leading the capacity of the international community to be able to beat climate change."

In an apparent warning to US President Donald Trump, who has tried to roll back some of the environmental regulations and programmes for countering climate change, Guterres said without naming him. "Countries that do not back today the green economy will not be leading countries

in the global economy of the future."

Bloomberg said that "without any help whatsoever from the federal government" the US was way ahead in meeting the greenhouse gas reduction goals set for 2025. "In fact, we have done more than any other industrial country in the world to meet those goals." The multi-billionaire is the founder of the financial news and information company that bears his name and he also runs a philanthropy devoted to fighting climate change and issues of immigration, gun control and public health.

He was first appointed the Secretary-General's Special Envoy for Climate Action by Guterres's predecessor Ban Ki-moon in 2015. "Because of public pressure and the low price of natural gas, 268 of about 500 coal-fired electricity plants in the US have closed or are in the process of closing," Bloomberg said.

CM releases 13 books on faunal survey

■ Staff Reporter
RAIPUR, Feb 27

CHIEF Minister Dr Raman Singh released thirteen books on faunal survey conducted on six districts and seven sanctuaries of Chhattisgarh on Monday. As per information, the survey was conducted by state forest research and training organisation and Indian Wildlife Survey Organisation, Kolkata.

During release of books, Forest Minister Mahesh Gagda, Kedar Kashyap, Higher Education Minister and Ramvihar Netam, Member of Parliament were present. Dr A Boaz, Director of Wildlife took initiative in 2011. After survey of



Chief Minister releasing books published on faunal survey.

of Gomarda Wildlife Sanctuary, Achanakmar Tiger reserve, Bhoramdev Wildlife Sanctuary, Badalkhol Wildlife Sanctuary, Udanli Sitanadi Tiger Reserve, Barnawapara Wildlife Sanctuary and Guru Ghasidas National Park.

It may be mentioned that this was unique effort of its kind. Fourteen new species were found. During erstwhile Madhya Pradesh total of 750 species were reported. While in this survey about 1350 new species were included. At present, about 2,100 species have been documented, total of 14 new species were found during research.

three years in six districts and seven sanctuaries/national parks and books were published based on survey.

The books with title Faunal Diversity of Bastar, Sarguja, Bilaspur, Durg, Kabirdham and Korba districts. Fauna

Central Chronicle, Friday, February 23, 2018 page 04

Climate change denial is war on humanity

S Suresh

The Trump administration's roll-backs on environmental policies are a crime against future generations. The most damaging of Trump's egregious actions is the appointment of Scott Pruitt as the head of Environmental Protection Agency (EPA). Prior to assuming the leadership role as its 14th administrator, Pruitt had sued the EPA 14 times as Oklahoma's attorney general. Time and again, Pruitt has refused to acknowledge the scientific consensus that human activity is a primary contributor to climate change.

Upon careful analysis, it will become clear that the position and view point of Trump administration on global warming, carbon dioxide emissions and clean coal have several contradictions. After being a climate change denier for years, America is the largest consumer of resources in the world and the sec-

ond largest greenhouse gas emitter in the world. It is only fair and appropriate that in any reduction of excesses America leads the way by doing more than its share in the international community, not walk away from it.

The actions of the Trump administration in rolling back environmental regulations, pandering to business interests with flimsy excuses and shortsighted economic growth, is a brazen attack on humanity, not just Americans. It is a sad irony that the perpetrators will be long gone when the consequences of their actions are faced by the future generations. If only Pruitt and Trump would reflect on this poignant Ralph Waldo Emerson's quote that "To leave the world a bit better, whether by a healthy child, a garden patch, or a redeemed social condition; to know that even one life has breathed easier because you have lived - that is to have succeeded."

(The opinions expressed in this article are the personal views of the author.)



Forest Minister Gagda dedicates centre on climate

■ Staff Reporter
RAIPUR, Feb 27

FOREST Minister Mahesh Gagda dedicated Chhattisgarh State Centre for Climate Change and Knowledge Management Cell. The centre has been set up for execution of work plan to control climatic change. Extension and empowerment of the centre is done through projects of Science and Technology Department of Government of India.

It's worth mentioning that Climate change centre will work as nodal agency for implementation of programmes, recommendations and evaluation. For implementation of projects from Central government in state and for increasing capacity of beneficiaries coordination will be developed.

In Dhamtari, Mahasamund and Balodabazar, projects are run for communities living close to Mahanadi Catchment area for enhancement of their acclimatisation capacity on climate change.

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