

Quarterly Newsletter



Green Files

Volume 38 April-June 2021



Contents

Activities at iCED **4** | INTOSAI/ASOSAI News **5** | Environmental News **7-10** | Recent International Events- European Union Green Week (2021) **11** | How wet markets have been contributing to pandemics and the way forward **12** | Environmental Governance in India- Post Independence **13-15** | International Audit Report - Performance Audit on “Management of Electronic Waste in Zambia” by SAI Zambia **16-18** | Green Initiative’s – Conservation Efforts of Lemsachenlok Organisation (Nagaland) **19-20** | E-Waste management rules- NGT issues directions to SPCB and CPCB to ensure compliance and monitoring of rules. **22-23** | Performance Audit on Forest and Wildlife in Rajasthan (Report no. 5 of 2019, Government of Rajasthan) **25-26** | Biodiversity in iCED **27** |



Vision

To be a global Centre of Excellence for improving accountability and governance in the area of environment and sustainable development.

Mission

To develop high quality products in training and research to enrich environment audit through an inter-disciplinary approach enabled by valuable partnerships



Manish Kumar

Editorial

Green Files, a quarterly newsletter published by iCED features glimpses of recent environment news, events, emerging trends, innovation, initiatives and efforts of different organizations to protect the environment.

During April- June 2021, one National Training Programme on the subject of “Audit of Health Sector with reference to SDGs” was conducted from 12th April to 16th April, 2021. To mark its 12th foundation day on 1st June 2021, iCED organized talk on the theme “Impact of Covid 19 on Environment”.

This edition of the newsletter gives a glimpse of world environment news, European Union Green Week- 2021 and important developments in INTOSAI WGEA. It also include articles on “How wet markets have been contributing to pandemics and the way forward”. Other themes covered are “Environmental Governance in India- Post Independence- I” and “Green initiatives – Conservation Efforts of Lemsachenlok Organisation (Nagaland)”. It also features recent case law regarding E-Waste management rules.

I am happy to inform you that we have added a new feature “Biodiversity in iCED” in our quarterly newsletter with the objective to provide glimpse of floral and faunal diversity at our campus.

We at iCED, value your suggestions to make Green Files more informative and user friendly. Your contributions within the broad scope of the newsletter will be highly appreciated. It may be sent by e. mail at : iced@cag.gov.in

With regards.

Manish Kumar
Director General
iCED, Jaipur

Activities at iCED

Pavan Meena
AAO

Due to Covid related restrictions and soaring cases during the second quarter (April – June) of 2021, iCED organized only one National Training Programme on “**Audit of Health Sector with reference to SDGs**” from 12th April to 16th April, 2021. The programme was attended by 21 Officers from IA&AD.



Shri Manish Kumar, DG, iCED
inaugurating the National Training

Training programme was inaugurated by Shri Manish Kumar, Director General, iCED. He highlighted the relevance of this training programme, in the Indian context. DG, iCED also impressed upon the fact that universal health coverage is a very important, and requires more systematic and augmented efforts. He emphasized how COVID 19 has underlined the importance of strengthening public healthcare infrastructure. Governance Challenges in Health Sector, Audit of Hospital Management, Financing Health Care Delivery in India, Auditing Health Sector, Hospital Management Information System (HMIS), Healthcare Delivery System, Solid waste management

during and post COVID-19 pandemic, Use of GIS for Health Care Delivery in India, Social disparities in access to Health care facilities were covered in NTP.

To mark its 12th foundation day on 1st June 2021, iCED organized online talk. Shri Pushkar Kumar, Director (T&R) welcomed the delegates and underlined the background of this talk. Drawing upon history, he emphasized on the major landmarks and importance of environmental conservation in the wake of covid 19.



Shri Pushkar Kumar, Director
(T&R), iCED

While addressing participants, Shri Manish Kumar, Director General, iCED emphasized on the role of iCED towards promotion of knowledge sharing related to environmental issues and sustainable development. Total 40 participants including IA&AS officers and officials



Dr. Snehal Lokhandwala

of iCED attended the sessions through video conferencing. The talks were delivered by Dr. Ashish Mittal, CEO, Occupational Health and Safety Management Consultancy Service and Dr Snehal Lokhandwala, Professor, Shroff S R Rotary Institute of Technology, Bharuch, Gujarat on the Impact of Covid-19 on Environment.



Dr. Ashish Mittal

INTOSAI WGEA/ASOSAI WGEA News

Manoj Kumar
AAO

INTOSAI WGEA launches 10th Survey on Environmental Auditing

INTOSAI WGEA surveys have been conducted by each INTOSAI WGEA Chair every three years since the early 1990's. The questionnaire responses valuably contribute to planning of work of the INTOSAI WGEA and provide timely insight into topical issues in the field of environmental audit.

The [10th Survey](#) on Environmental Auditing was released by INTOSAI WGEA Secretariat on 9th April 2021. This global survey was sent to all SAI's.

In a small [preview](#) on a topical matter: whether and how the pandemic has affected environmental auditing in SAIs?, the survey revealed that, out of the 64 answers to this question, 14 SAI's stated that the pandemic had no impact on environmental auditing, or any other auditing. However, 80% of the respondents identified some impacts. Most obvious consequence of the corona crisis is the adoption of remote working and the use of digital tools. Although digital arrangements were usually introduced smoothly, sometimes unstable internet connections have caused problems.

In some SAI's, digital working had been hampered by the fact that all public sector records were not available in digital format. A comprehensive report on the 10th Survey on Environmental Auditing would be finalized later this year.

INTOSAI WGEA provides facility for SAIs to flexibly update audit report database on INTOSAI WGEA website

The INTOSAI WGEA database has been a valuable source of information and benchmarking for SAI's

around the world for over two decades. Rather than inserting all the environmental audits conducted during the past years in one sitting, SAI's can now add audits when it is most convenient and timely, on an ongoing basis.

One can [add environmental audits to the database](#) through the electronic form (one form per audit) on the INTOSAI WGEA Website. After adding, audits would appear in the database within three working day's.

Launching of INTOSAI Digital University (U-INTOSAI)

The Accounts Chamber of the Russian Federation has announced the launch of University of INTOSAI (U-INTOSAI) created under the auspices of the INTOSAI Chair.

It is an open online educational platform for the INTOSAI community and broader audience interested in state audit and its value for governments, academic community and citizens. The official web page of the project is <https://u-intosai.org/>.

Mission of the project is to contribute to open exchange of knowledge and experience within and beyond the INTOSAI in order to nurture auditors of the future and promote the value of SAI's for government's, academic community and citizen's using digital technologies and capacity building tools. The key goal of U-INTOSAI is to aggregate the existing educational initiatives to provide SAI's all over the world with the tool to easily find an educational material on the interesting topic. It allows uploading new courses as well as creating a special landing page with active link to the course located at another platform.



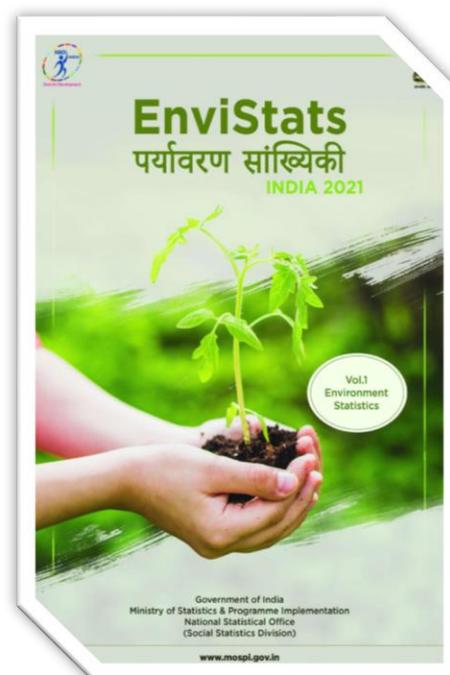
Environmental News

Vijendra Singh Tanwar
AAO

National Statistics Office releases EnviStats India 2021 (Vol. 1)

National Statistics Office (NSO), Ministry of Statistics and Programme Implementation (MoSPI) has released EnviStats India 2021 (Vol. 1) in line with the Framework for the Development of Environment Statistics (FDES) 2013. Tables presented in the publication are sourced from various Departments/ Divisions/ Organisations of the Central/ State Governments. As per FDES 2013, tables of the publications have been categorized into six chapters, each corresponding to one of the components of FDES 2013 viz. Environmental Conditions and Quality; Environmental Resources and their Uses; Residuals; Extreme Events and Disasters; Human Settlement and Environment Health and Environment Protection, Management and Regulation.

The objective of environment statistics is to provide information about the environment, its changes over time and across locations and the main factors that influence them. This is the fourth edition of EnviStats released by NSO since 2018.



National Statistics Office releases Energy Statistics India 2021

National Statistics Office (NSO), Ministry of Statistics and Programme Implementation (MoSPI) has released Energy Statistics India 2021 in line with the International Recommendations on Energy Statistics (IRES) 2011. The data has been collected from various line Ministries/Departments of Government of India including Ministry of Coal, Ministry of Petroleum and Natural Gas, Ministry of Power, Ministry of New and Renewable Energy etc.

It presents the reserve's and potential for energy generation in the country; installed capacity and capacity utilization; production statistics of various energy resources and products; statistics on imports-exports and prices; final availability of energy in the country; consumption of energy sector/industry wise and sustainability in energy.

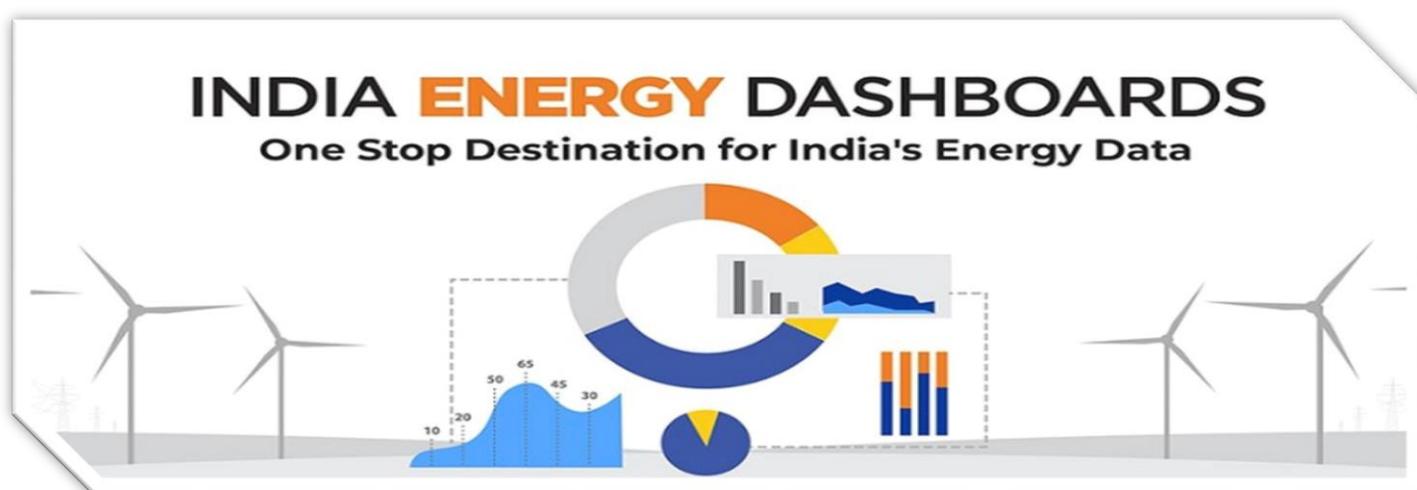


This publication is 28th in the series and is an updated and integrated repository of statistics on energy resources and highlights India's commitment and progress made so far in the area of reliable, sustainable and efficient energy systems in the country.

Niti Aayog launched India Energy Dashboards (Version 2.0)

The India Energy [Dashboards Version 2.0](#) was launched by NITI Aayog in April 2021. India Energy Dashboards (IED) is an endeavour to provide single-window access to the energy data for the country. NITI Aayog launched the Version 1.0 in May 2017.

Energy data published/provided by Central Electricity Authority, Coal Controller's Organisation, and Ministry of Petroleum and Natural Gas is compiled in the Dashboards. The IED provides time series data from FY 2005-06 until FY 2019-20; monthly data sourced from the monthly reports that are regularly published for the electricity, petroleum



and natural gas sectors; and API linked data from Saubhagya, UJALA, PRAAPTI, and Vidyut PRAVAH has been incorporated in the portal.

Department of Science and Technology releases a report on 'Climate Vulnerability Assessment for Adaptation Planning in India using a Common Framework'



The [report](#) on 'Climate Vulnerability Assessment for Adaptation Planning in India Using a Common Framework' identifies the most vulnerable states and districts in India with respect to current climate risk and key drivers of vulnerability. The report identified Jharkhand, Mizoram, Orissa, Chhattisgarh, Assam, Bihar, Arunachal Pradesh, and West Bengal as state's highly vulnerable to climate change. These states, mostly in the eastern part of the country, require prioritization of adaptation interventions. Among all the states, Assam, Bihar and Jharkhand have over 60% districts in the category of highly vulnerable districts.

Assessing vulnerability was the first step towards assessing climate risk. The two other components like Hazard and Exposure are also assessed to arrive at overall climate risk. DST would take up these assessment's in the next phase along with sectoral vulnerability assessments and assessments at sub-district levels.

Common Framework for Vulnerability Assessment for the Himalayan region based on the definition provided in the latest 5th Assessment report of the Intergovernmental Panel on Climate Change (IPCC) along with a manual to apply the framework, was developed by IIT Mandi, IIT Guwahati, and Indian Institute of Science (IISc), Bangalore. The framework was applied to the Indian Himalayan Region, involving all 12 States (including pre-divided J&K).

NITI Aayog releases SDG India Index and Dashboard 2020–21

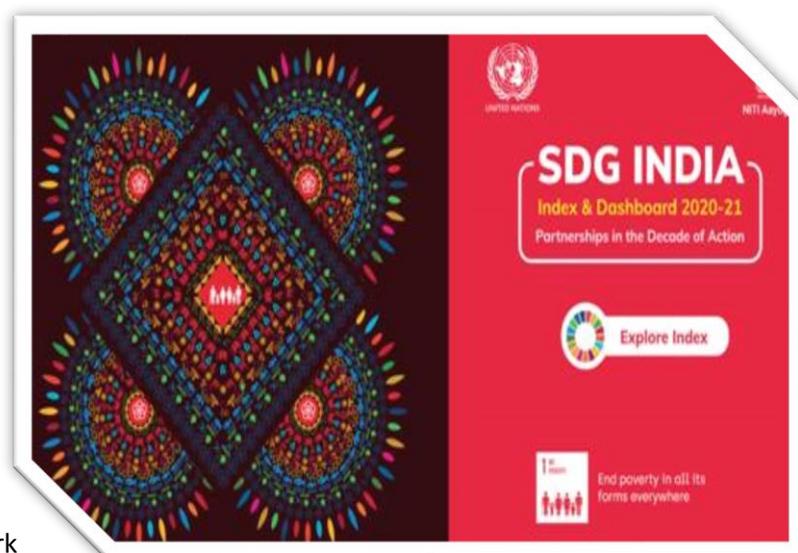
The third edition of the SDG India Index (https://sdgindiaindex.niti.gov.in/assets/Files/SDG3.0_Final_04.03.2021_Web_Spreads.pdf) and Dashboard 2020–21 (<http://sdgindiaindex.niti.gov.in/>) was released by NITI Aayog on 03rd June 2021. The index comprehensively documents and ranks the progress made by State's and Union Territories towards achieving the Sustainable Development Goals. It has become the primary tool for monitoring progress on the SDGs in the country and has simultaneously fostered competition among the States and Union Territories.

The SDG India Index 2020–21 is more robust than the previous editions on account of wider coverage of targets and indicators with greater alignment with the National Indicator Framework (NIF). The 115 indicators incorporate 16 out of 17 SDG's,

with a qualitative assessment on Goal 17, and cover 70 SDG targets. This is an improvement over the 2018–19 and 2019–20 editions of the index, which had utilized 62 indicators across 39 targets and 13 Goals, and 100 indicators across 54 targets and 16 Goals, respectively.

The country's overall SDG score improved by 6 points—from 60 in 2019 to 66 in 2020–21. This positive stride towards

achieving the targets is largely driven by exemplary country-wide performance in Goal 6 (Clean Water and Sanitation) and Goal 7 (Affordable and Clean Energy) where the composite Goal scores are 83 and 92 respectively.



MoSPI releases Sustainable Development Goals National Indicator Framework Progress Report 2021

Ministry of Statistics and Programme Implementation (MoSPI) released Sustainable Development Goal's National Indicator Framework Progress Report 2021 (Version 3.1) on 29 June 2021. Report highlights the progress made so far in the journey of SDG's. The Report also shows the data-based evidence of India's progress towards achieving the SDG's and associated targets. The report shows that, while significant progress has been made in some areas, challenges remain in some other areas too.

National Indicator Framework (NIF) is the backbone for facilitating monitoring of SDG's. Presently, at national level, data flow from National Statistical Office and nearly 30 data source Ministries/Departments are involved in the process of providing data on SDGs. MoSPI coordinates with these line Ministries for institutionalizing the data flow for SDG indicators. At present, there are 295 indicators in the [NIF \(Version 3.1\)](#). The India SDG [Dashboard](#) has been developed by the Ministry of Statistics and Programme Implementation in collaboration with the United Nations Resident Coordinator Office (UNRCO) in India and is a unified data repository on SDG Indicators as per the National Indicator Framework.



Recent International Events- European Union Green Week 2021

Kailash Bajya
AAO

The European Union [Green Week](#) was held from 1st June 2021 to 4th June 2021 under the auspices of The European Commission through a virtual conference. Dedicated to the EU ambition of a zero pollution, the event zoomed in on efforts to tackle pollution of air, soil and water, creating a world where pollution is no longer harmful for people's health and ecosystems. With almost 600 partner events in 44 countries around Europe – from workshops for kids, discussions on green recovery, hackathons, clean-up actions and citizen engagement activities – Green Week highlighted the power of small individual actions alongside the structural changes that the European Green Deal aims to bring about. Over 5300 people attended the virtual conference and an estimated 80000 participated in partner events.

The connection between **health and environment** were at the center of the agenda. The event looked at how zero-pollution ambitions translate into revised ambient air quality laws and how to align EU directives more closely with World Health Organization guidelines. On **biodiversity and pollution**, the Green week emphasized on reducing pollution from nutrients, pesticides and plastics. The EU has planned to take this point forcefully to the 15th meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD COP 15). Another priority was **sustainable production and consumption**. Many discussions looked at how various economic sectors can contribute to the zero pollution ambition, from industrial production to transport or the building sector with the lighthouse projects of the New European Bauhaus. Speaker's also looked at reducing pollution from consumer products, e.g. through the actions under the chemicals strategy or the development of a sustainable product policy.

Some other [highlights](#) of the Green Week are as follows:

Reducing single-use plastics: The European Commission provided guidance to facilitate a correct and harmonized application of the new rules on single-use plastics and adopted an Implementing Decision on the monitoring and reporting of fishing gear placed on the market and waste fishing gear collected. These rule's aim to reduce marine litter from single-use plastic products and fishing gear and promote the transition to a circular economy with innovative and sustainable business models, products, and materials.

The EU LIFE Awards recognized the **most innovative, inspirational and effective LIFE projects** in the fields of nature protection, environment and climate action.

Monitoring pollution: During the Green Week it was showed how Copernicus satellites can track air quality, CO2 concentrations, water quality and other sources of pollution on Earth.

Paying for pollution: There were discussions on new perspectives on taxation, subsidies and market based instruments in the context of policy goals of resilience, sustainable recovery and zero pollution, to make sure nobody pollutes for free.

Translating vision into action on the ground: The European Commission and the European Committee of the Regions launched a Stakeholder Platform to help implement the EU Zero Pollution Action Plan towards Zero Pollution for Air, Water and Soil. The Action Plan was adopted on 12th May 2021. It sets out an integrated vision for 2050 to reduce pollution to levels that are no longer harmful to human health and natural ecosystems, as well as intermediary targets for 2030 and actions to achieve the objectives.

How wet markets have been contributing to pandemics and the way forward

Vivek Sambharya
Director/ DGAC Mumbai

‘Wet markets’ is a collective term for heterogeneous businesses; the adjective ‘wet’ relates to the water and ice used to keep product and premises cool and clean. Most sell vegetables, meat, poultry or fish, some sell and slaughter live animals, some sell wildlife and exotic animals. But for the purpose of this article wet markets would basically mean capture and trade of wildlife, and even protected species and where animals are slaughtered on site.

Wet Markets, consumption of Wild Meat and its role in spreading viruses.

People, in many parts of the world prefer to consume animal dishes which are prepared from live animals rather than frozen animals. They consider it to be more fresh and that is why in many places the wet markets are located near the residences. But such Wet markets bring in an increased risk of viruses such as SARS (Severe Acute Respiratory Syndrome) and other zoonotic severe respiratory viral infections.

Health risk

Poaching is not just a concern for those who care about wildlife and the environmental and economic benefits it brings. It’s also worrying because it makes future pandemics more likely. “We have lost **60% of all wildlife in the last 50 years**, while the number of new infectious diseases has **quadrupled in the last 60 years**. Destruction of ecosystems has coincided with a sharp increase in such diseases,” Marie Quinney, a specialist with the World Economic Forum’s Nature Action Agenda, writes on their agency website. “Natural habitats are being reduced, causing species to live in closer quarters than ever to one another and to humans. We damage the ecosystems, risking that viruses from animals find new hosts – us.”

Quinney cites research that 70% of emerging infectious diseases came from wild animals in recent decades – including Sars, Aids and Ebola. Abolishing/ strictly regulating the wet markets are only a part of the solution. Ending the illegal trade of animals is the most important means of preventing the next pandemic, and that means better regulation and stricter enforcement, especially at a local level. The role of CITES, *Convention on International Trade in Endangered Species of Wild Flora and Fauna*¹ needs to be strengthened and local governments needs to give agencies in-charge of enforcing the Wildlife Protection more teeth to prevent the illegal trade in wild animals.

The Way Forward

The aim of this article is not to debate about non vegetarianism and vegetarianism. This choice has to be made for the preservation of our species. We have to accept that there are certain species of animals that we cannot safely consume, and the thrill, desire and novelty that comes from eating these “exotic” meats is surely not worth it when millions of humans getting infected and dying due to the same.

Food choices are an individual choice but when these choices begin to kill millions of humans on our planet we have to take stand. Humans are known to have the most ego centric view of the planet and its resources far more than any other species, but now since mother nature have given her warning and clarion call regarding human actions, it is time to take notice and take action. Governments of the day need to strengthen their systems and bring an end to these gruesome Wet markets that have propagated disease and misery on us in the name of “Exotic” and “Novel” meats. If we continue to ignore Mother Nature’s warnings next time we may not even have a chance to act

¹ CITES regulates and moderates international trade in plants and animals to ensure that such trade does not threaten their survival

Environmental Governance in India- Post Independence

Manoj Kumar
AAO

Independent India formulated the National Forest Policy in 1952. The policy classified forests functionally into Protected forests, National forests, Village forests and Tree lands.

Protected forests - Forests that were conserved for physical and climatic considerations. No activity was permitted. **National forests** - The forests that need to be maintained and managed for defense, communication, industry and other matters of public importance. These were used for meeting development needs. **Village forests**- Forests that are expected to serve the needs of the local communities living in and around forest areas.

The policy gave the target to cover one-third of the total land area under forests. However, due to high soil erosion in hill and mountain slopes, it was made up to two-thirds of the available land whereas in plains, a modest target of 20% was fixed. There was additional focus on sustainable forest yield which stressed that, while forests must be

exploited for national gains, removal of forest resources must not exceed annual growth in forests. There must be efforts in evolving balanced and complementary land use pattern under which each category of land is to be used according to its land use capacity so that it may produce more and deteriorate less. The policy also advocated for specialized training of forest administration and field staff. The National Forest Policy remained the guiding document for forest management in India until National Forest Policy of 1988.

The Vana Mahotsava² (Tree Festival), [which started](#) in 1947 evolved further, through the National Forest Policy of 1952. The policy discouraged the use of cow dung as fuel by the cultivators. This pushed the communities to plant more trees to meet local fuel demands. These plantations were especially done during Vana Mahotsava in Treeland areas which were outside the scope of forest management.



Dr K M Munshi, inaugurating Van Mahotsava at Rajghat, Delhi on August 21, 1950, when he planted the first of 108 saplings donated by the Delhi Gujarati Samaj.

² The tradition was continued and made into a national activity in 1950 and was moved to the first week of July and renamed it as *Van mahotsav* in 1950.

The policy of 1952 also emphasized on the checking of river erosion and denudation of mountains besides reiterating on the fact that the rights and interest of future generations with respect to the environment, shall not be compromised by the uncontrolled exploitation of the present generation. However, industrialization, agriculture and infrastructure development remained the main focus of development strategy until 1972.

The 1972 United Nations Conference on the Human Environment held in Stockholm paved the way for the concept of sustainable development. India's Prime Minister, Mrs. Indira Gandhi attended the conference. The conference agreed global set of 26 principles for future work in the field of the human environment.

The declaratory principles gave a new impetus to environmental protection initiatives in India. This was followed by a series of new legislative and administrative activities with regard to protection of environment in India. The first such notable action was The Wildlife (Protection) Act passed in 1972.

The Wildlife (Protection) Act 1972

In this act the parliament exercised its overriding power under the Constitution to legislate on a state subject.

The Act created six schedules which gave varying degrees of protection to classes of flora and fauna. Schedule I and Schedule II (Part II) get absolute protection, and offences under these schedules attract the maximum penalties.

The act empowered the Central Government (Sec. 3) and State Government (Section 4) to appoint officials as authorities for preserving wildlife. It included provisions for constituting a Wildlife Advisory Board in States and Union Territories. The Act prohibited the hunting of endangered species and prohibited trading of Scheduled animals. However, the Act granted permission for hunting for special purposes like education, scientific research, collection of specimens and derivation, collection or preparation of snake-venom for the manufacture of life saving drugs.

The Act empowered the State Governments to notify, declare its intention to constitute any area as a sanctuary or a National Park, if it considers that such area is of

adequate ecological, faunal, floral, geomorphological, natural or zoological significance, for the purpose of protecting, propagating or developing wildlife or its environment. The Act identified five types of protected areas viz. Sanctuaries, National Parks, Conservation Reserves, Community Reserves and Tiger Reserves. A [Central Zoo Authority was also established under the Act.](#)

Apart from this Act some of the other wildlife Acts notified until 1980 were, The Wild Life (Transactions and Taxidermy) Rules, 1973 and The Wild Life (Stock Declaration) Central Rules, 1973. **The Wildlife (Protection) Act, 1972, Amendment 1991** resulted in the insertion of the special chapters dealing with the protection of specified plants and the regulation of zoos. This also recognized the needs of tribal and forest dwellers and changes were introduced to advance their welfare. The near-total prohibition on hunting was made more effective by the [Amendment Act of 1991.](#)

The Wildlife (Protection) Act 1972 also plays its role in regulating International trade in all wild flora and fauna in general and species covered under CITES. India became a party to the CITES in 1976. It works to control and prevent international commercial trade in endangered species or their products. CITES work by closing off the international market of endangered species by reducing economic incentive for their poaching.

Project Tiger

The Wildlife (Protection) Act of 1972 declared Tiger as a protected wildlife species. It enumerates the creation of a "National Tiger conservation Authority" under Chapter IV B. The first census of Tiger population was conducted in 1972 which revealed poor numbers of around 1827 tigers only. Following this, a task force was constituted and in 1973, on the recommendations of the task force, a centrally sponsored scheme "Project Tiger" was launched to ensure the maintenance of the population of tigers in India.

Project Tiger has been the largest species conservation initiative of its kind in the world. While the field implementation of the project, protection and management in the designated reserves is done by the project States, who also provide the matching grant to recurring items of expenditure, deploy field staff/officers,

and give their salaries, the Project Tiger Directorate of the Ministry of Environment and Forests was mandated with the task of providing technical guidance and funding support. The National Tiger Conservation Authority (NTCA) was established in December 2005 following a recommendation of the Tiger Task Force constituted by the Prime Minister of India. NTCA has been constituted under section 38 L (1) of Wildlife (Protection) Act, 1972. It is a statutory body under the Ministry of Environment, Forests and Climate Change for strengthening tiger conservation.

Water (Prevention and Control of Pollution) Act 1974

Water (Prevention and Control of Pollution) Act of 1974 was amended in 1988 to conform closely to the provisions of the Environmental Protection Agency (EPA), 1986. The Water Act 1974, was enacted by the Parliament.

The Pollution Control Board at the Centre and in the State came into being in terms of this Act. The boards were empowered to grant consent for establishment of any industry, operation or process, treatment and disposal of affluent or sewage facility. The boards could also set standards for desirable level of discharge and specify conditions for release of effluents. Now, the boards could take action against cases, where to an accident or unforeseen act or for any other reason, harmful waste was found to have been released into water bodies. Preventive powers were also available in case of apprehension of pollution.

The Water Act was followed by the Water (Prevention & Control of Pollution) Rules, 1975 and the Water (Prevention & Control of Pollution (Procedure for transaction of Business) Rules, 1975. Water (Prevention and Control of Pollution) Cess Act, 1977 followed this and provided for a levy and collection of a cess on water consumed by industries and local authorities. It aimed at augmenting the resources of the central and state boards for prevention and control of water pollution. This act was last emended in 2003. The Water (Prevention and Control of Pollution) Cess Rules were formulated in 1978 for defining standards and indications for the kind of and location of meter's that every consumer of water is required to install.

Thus, sincere steps have been undertaken in India mainly after impetus given by the United Nations Conference on the Human Environment held in 1972 for protection of environment. The conference was followed by a number of legislative and administrative actions to protect the environment. Parliament came forward to make laws on the subjects which were under the state purview. These Acts/rules and their amendments in the later years have supplemented the conservation efforts in India and provided framework for environmental governance within the country.

International Audit Report -Performance Audit on "Management of Electronic Waste in Zambia" by SAI Zambia

Anil Beniwal
Sr.AO

Overview

Electronic waste (E-waste) comprises of discarded electrical or electronic devices which are destined for reuse, resale, salvage, recycling, or disposal. E-waste is generally categorized as hazardous waste due to its toxic components.

Audit Objectives

The objective of the [performance audit on E-waste](#) in Zambia was to assess the effectiveness and efficiency of the Ministry of Water Development, Sanitation and Environmental Protection, the Ministry of Local Government and other relevant appropriate authorities in handling and managing of electric and electronic waste. The aim was to ascertain

- Existence of effective legal, policy and institutional frameworks for Management of E-waste in Zambia;
- Availability of infrastructure and information to handle and manage E-waste; and
- Conduct of capacity building trainings, awareness and educational campaigns to introduce the hazardous effects of E-waste to the public and institutions.

The audit assessed the effectiveness and efficiency of the relevant Government Ministries, Departments and other Spending Agencies in the Management of Electronic waste in Zambia.

Audit Criteria

The criteria for the audit questions were extracted from the Basal Convention (the Convention), the Sustainable Development Goals (SDGs), the Seventh National Development Plan 2017-2021 and the various pieces of legislations viz. Environmental Management Act No. 12 of

2011, Solid Waste Regulation and Management Act- 2018 etc.

Audit Findings

Legal, policy and institutional frameworks for Management of E-waste

- Detailed regulations were not formed for management of electronic waste. The National Policies lacked the Government policies, strategies and interventions on hazardous electric and electronic waste management.
- The guidelines on management of E-waste in Zambia that were developed in 2015 had not been adopted, gazetted or launched as of December 2019.
- There was lack of institutionalised policies and strategies on E-waste management and funding towards E-waste interventions at the National and local level.
- There was gap in laws between various authorities and no appropriate authority had the mandate to handle hazardous waste at household level that is 55 kilograms or less.
- There was no law that specifically required that the generator separates electronic waste or hazardous waste from solid waste.
- There was lack of adequate information among waste handlers on the subject matter of E-waste and how to handle, treat and disposal it off in an environmentally sustainable manner.
- Majority of the local authorities did not had bye-laws on domestic or general waste management especially E-waste.

- There was lack of standard procedures, adequate to control the importation of electronic goods thus having adverse socio-economic, public health and environmental impacts from the toxins in E-waste.

Infrastructure and information to handle and manage E-waste

- No database on E-waste transported or stored in the country was maintained by the authorities. There was lack of a holistic impact assessment of the E-waste in Zambia. Local authorities did not keep any waste management plans or report on E-Waste.

- There were no measurable waste codes that were comparable with codes used in other countries or International Best Practice in order to segregate waste effectively. Further, the local authorities were not mandated or licensed to handle hazardous waste.

- There was no segregation of waste generated at household level, as there were no awareness campaigns to encourage separation of different types of waste at source.

- The disposal activities of E-waste from the corporate world and the Government Ministries, Provinces and other Spending Agencies remained undetected by the regulators except for a few mines.

- Most local authorities operated dumpsites that practiced crude dumping. These disposal sites did not have waste cells that would accommodate different kinds of waste which could be sorted and segregated according to its categories.

- There was no E-waste purpose-built landfill/dumpsite in the country. Dumpsites/ landfills lacked offloading bays weigh bridges.

- The dumpsites showed evidence of burning in that the dumpsites were in flames or smoky or evidence of ashes contrary to the regulations that require that waste should not be burnt in open air.

- There were no individuals or companies who were licensed to handle E-waste at any level that is collection, transportation or disposal. There was no dumpsite in the country to manage E-Waste.

- The waste handlers lacked sufficient equipment for segregation and to allow the segregated waste to be collected separately to help them collect, transport and dispose waste.

- Other challenges faced by the authorities were lack of servicing of equipment that were not in working

order, failure by the community to pay for waste collection among others. Moreover, revenue received from waste generators were comingled with other revenues in main accounts. As such the funds were available to other pressing requirements such as paying salaries instead of being prioritised to manage waste collection and transportation.

- Personal protective equipment were not provided for waste handlers that collected, transported and disposed waste. Waste handlers had not undergone medical examination in the period under review from January 2017 to November 2019.

Capacity building trainings, awareness and educational campaigns

- The local authorities and franchised companies had not provided any training on E-waste management techniques or risks and impacts of E-waste to their waste handlers.

- There was no sensitization of the public about E-waste and how it was supposed to be segregated, collected and disposed. Awareness campaigns were not undertaken on E-waste

- There were no capacity building training programmes for key stakeholders enhance implementation of E-waste management. Secondly, there was no short term and long-term training for technicians in handling and management of E-waste.

Recommendations

Ministry of Water Development Sanitation and Environmental Protection

- There is need to develop laws to manage electronic waste in a sustainable manner throughout their life cycle. Appropriate and sound laws specifically addressing E-Waste management should be designed and developed in compliance with the provisions of the Basal Convention.

- Identification and categorization of different types of E-waste, which may call for different ways of handling, should be prioritized.

- Current National Policies be reviewed and holistic National Policies be developed that include all forms of hazardous waste.

Ministry of Local Government

- Local Authorities should conduct an impact assessment in their localities and establish the extent of the problem.
- Local Authorities should put measures in place to quantify the E-waste being collected and disposed at the dumpsites to help plan on how E-waste can be disposed to avoid negative impacts on the environment.
- Local Authorities should put measures in place to raise awareness on the benefits of segregation of waste to all the stake holders in waste management.
- E-waste should be identified and disposed of according to specific E-waste disposal methods.

Zambia Environmental Management Agency

- Formulate regulations which will specifically speak to the local authorities to give them authority to manage E-waste.
 - Utilize the existing instruments to make the hierarchy of E-waste management visible and clearly identify the stake holders to manage E-waste.
 - Come up with regulations that will help in disposing E-waste in a way which will protect the health of the people and protect the environment.
 - Encourage disposal of E-waste in authorized dumpsites.
 - Put measures in place to monitor handlers of waste to ensure that correct collection, transportation and disposal methods are being adhered to.
-

Green Initiatives – Conservation Efforts of Lemsachenlok Organisation (Nagaland)

Saurav Sharma
AAO

Over one billion people live in and around forests, depending on them for fuel, food, medicines and building materials. Forests provide us with shelter, livelihoods, water, food, etc. They are home to 80% of the world's terrestrial biodiversity and they also form the source of livelihood for many different human settlements, including 60 million indigenous people³.

Yet, despite the dependence on forests, human impacts have already led to the loss of around 40% of the world's forests. And today, an area the size of a football pitch is still being destroyed every second. Protecting and restoring forests has never been more urgent. However, a few indigenous communities in India have used partnerships between the forest department and members of indigenous communities as a key medium to conservation. One such initiative has been taken by the Lemsachenlok organisation in Nagaland.

Lemsachenlok is an organization set up in 2007, which works towards conservation of forests and biodiversity in the Yaongvimchen Biodiversity Conservation Area (YBCA). The main conservation area of YBCA comprises of three villages of Yaongyimchen, Alayong and Sanglu under the district of Longleng.

In Nagaland, land ownership of forest or river either belongs to an individual or a clan. The villagers made money from selling timber, wood, forest produce and animals. Rampant use of chemicals and depletion of indigenous crops due to invasion of cash crops had been responsible for decreasing the land fertility in the region. Also, the YBCA area was extensively being used as Jhum fields.

After several years of deliberation among the village councils at the initiative of Lemsachenlok organization, the villagers decided to start YBCA (Yaongyimchen

Community Biodiversity Conservation Area). The first step was to convince families to keep aside some part of their forest land and implement a trespasser's rule. Once they got the land, the organisation started replanting trees for birds and animals. The team also approached farming communities to reduce the traditional practice of 'slash and burn' for *jhum* cultivation. They helped farmers replace cash crops with indigenous plants including jackfruit, mangoes and nitrogen fixation trees. Earlier YBCA area was used as a Jhum fields and previously, a Jhum cycle would be about 15 years but now the cycle has been reduced to six to seven year cycle since the areas have been transformed for biodiversity conservation. To neutralize the adverse impacts of slash and burn cultivation on its fringes, the Lemsachenlok society has been working in collaboration with the Wildlife Trust of



Amur Falcon

India, in introducing an innovative multi-cropping method of an integrated Terrace cultivation.

Since then, the organisation has worked towards the conservation and protection of wildlife and for sustainable resource management.

The conservation efforts of the community has made the area a safe haven for 85 species of birds, including Amur falcons, 15 species of frogs, as well as leopards, barking

³https://www.panda.org/discover/our_focus/forests_practice/importance_for_ests/

deer, serows and otters etc. Some patches of trees in the area are reserved for birds such as falcons and hornbills. The area has become one of the major roosting site for Amur Falcons in the state. The YBCA is also one of the pits stops for Amur falcons

(Convention of Migratory Species, CMS priority species) before their long migration to South Africa. Tens and thousands of these raptors congregate here, making Nagaland, the Falcon Capitol of the World.

The community is also engaged in various research studies involving the Amur Falcon. In 2018, the Lemsachenlok organization commemorated the second cycle completion of the Amur Falcon named "[Longleng](#)" for travelling a distance of 44,000 kilometres, the only 'active' satellite tagged bird, tagged here in 2016.

The Lemsachenlok was recognised by the United Nations Environment Programme in 2015 for its efforts towards conserving the Amur falcon. The organisation received, fourth edition of the India Biodiversity Awards 2018 on the occasion of the International Day for Biological Diversity in the category of Conservation of Wild and Domesticated Species (Institution). The organisation has also received a Governor's Gold Medal Award in 2021.

The efforts of Lemsachenlok organization have come a long way to protect the fragile ecosystem in the region. The conservation mind set of the community has ensured that the forests be transferred to the coming generations in a much better state. Such successful conservation initiatives show that indigenous communities can play a crucial role in preserving the environment.



E-Waste management rules- NGT issues further directions to SPCB and CPCB to ensure compliance and monitoring of rules.

Manoj Kumar
AAO

Background

A common matter of, remedial action against unscientific disposal of e-waste, was raised by three applicants⁴. The issue raised by the applicants was whether in terms of the said rules, there is due enforcement of the Extended Producer Responsibility (EPR), authorization regime, collection and dismantling and other steps.

Summary of proceedings

I. According to the applicant⁵, the e-waste is responsible for 40% of lead and 70% of heavy metals found in landfills. The Tribunal first considered the matter with reference to the grievance of unauthorized recycling/collection/dismantling units, burning, selling of E-waste and other solid waste on the road side/bank of rivers resulting in groundwater contamination, air pollution and soil acidification. The Tribunal directed the Ministry of Environment, Forest and Climate Change (MoEF&CC), Uttar Pradesh Pollution Control Board (UPPCB) and the Central Pollution Control Board (CPCB) to prepare an action plan to ensure enforcement of e-waste and file compliance report⁶. Accordingly, compliance report was filed. **Tribunal directed the CPCB to clearly spell out parameters of compliance and methodology to review by developing appropriate software..**

II. In another case⁷, a report was sought by the Tribunal from the Pollution Control Committee/ Board in Delhi and Uttar Pradesh in coordination with the

District Magistrates of East and North East Delhi and Ghaziabad regd. illegal e-waste processing units operating in and around Delhi as per study by 'Toxic Link'.

As per report of the DPCC, the problem was continuing and time was sought for further action. As regards report of the UP PCB, it was intimated that necessary action has been taken but there is a need for re-verification.

III. The Tribunal had also considered the issue of violation of norms for disposal of e-waste at the bank of Ramganga River in UP⁸.

In pursuance of the orders by the Tribunal in the three matters, following reports were filed:-

1. CPCB reports filed on 11.02.2020 and 18.12.2020.
2. DPCC reports filed on 16.10.2020 and 01.12.2020.
3. UP State PCB dated 10.02.2020 and CPCB dated 12.02.2020 and 16.10.2020.
4. The Oversight Committee for environmental issues in the State of UP, constituted by the Tribunal filed its reports dated 05.08.2020 and 25.11.2020 covering all the three matters in relation to the State of UP.

Observations by the National Green Tribunal

The reports showed that there are significant gaps in compliance of rules. It revealed that there are clear governance deficits on the subject and higher authorities are not adequately concerned about the plight of the

⁴ Original Application No. 512/2018 of Shailesh Singh (Applicant) versus State of UP & Ors. (Respondent), Original Application No. 621/2018 (M.A. No. 1505/2018) (Earlier O. A. No.58/2017) Mahendra Pandey (Applicant) versus Union of India & Ors. (Respondent) and Original Application No. 1001/2019- In Re: News items -The Indian Express - 5,000 illegal e-waste units being run in capital : Study

⁵ In case of Original Application No. 512/2018 of Shailesh Singh (Applicant) versus State of UP & Ors. (Respondent)

⁶ Reference was also made to the report in "Gadget 360" dated 04.06.2018, news item dated 02nd November, 2017, published in Hindustan Times under the title "What happens to e-waste: Your junked gadgets come back to you as toxic fumes" and report of the Comptroller and Auditor General of India,

⁷ In O.A. No. 1001/2019 in Re: News items -The Indian Express - 5,000 illegal e-waste units being run in capital : Study

⁸ In case of O.A. No. 621/2018, Mahendra Pandey v. UOI & Ors

citizens on account of such serious violations, detrimental to the health of the citizens.

The Tribunal stated that coordinated approach is required but unless there is monitoring at higher levels and leadership is provided, leaving the matter to lower levels or issuing paper directions cannot result in improvement of the situation. Above all, constant vigilance is required. It also observed that the liability of manufacturers is not being enforced.

CPCB highlighted the status of enforcement of EPR regime, status of collection and channelization of e-waste, verification of facilities of dismantlers and recyclers, informal trading, dismantling and recycling, collection and disposal and monitoring of compliance. CPCB had also finalized software and conducted exercise of reviewing status of compliance. It had also devised compensation regime.

The Tribunal observed that there is a gap between collection target and the installed dismantling capacity has to be adequate against the E-waste generation.

Finally, annual reports should be compiled. The actions to be taken should also cover transportation, accident reporting and accountability of manufacturers, producer, importer, transporter, refurbisher, dismantler and recycler for any damage to the environment or to the third parties. The Tribunal directed that further steps should be taken for scientific enforcement of EWMR.

Recommendations

Recommendations of Tribunal are given below:

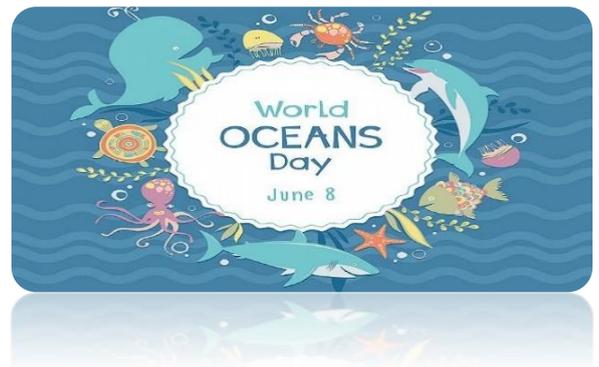
- enforcement of EWM Rules,
- implementation of authorization regime,
- implementation of EPR regime,
- bridging gap b/n collection target & collection,
- enhancing the installed dismantled capacity,
- implementation of environmental compensation regime,
- constant vigilance and monitoring,
- creation of awareness amongst masses and collectors/ handlers/dismantlers/recyclers.

The NGT instructed that the CPCB must update the status periodically at least once in six months and issue appropriate directions in the light of the reports received. The e-waste on the bank of River Ramganga must be shifted in an environmentally sound manner and the banks of river Ramganga should be cleaned and "no deposition of e-waste/black powder observed", the order of January 15, 2021.

The DPCC was directed to ensure that dismantlers and recyclers be located in the conforming areas and provided with proper infrastructure facilities. Further, all the State PCBs/PCCs need to identify the hotspots by constant vigil and to coordinate with the district administration at local levels to prevent damage to the environment and public health and meaningful enforcement of rule of law and the E-waste should be shifted to the nearest TSDFs for safe disposal.

The directions by the Tribunal highlights the gaps in implementation of E waste management rules and paves way for its effective implementation in a more systematic and concerted manner by different stakeholders.

Environmental Awareness Day's (April-June)



Performance Audit on Forest and Wildlife in Rajasthan (Report no. 5 of 2019 - Economic Sector, Government of Rajasthan)

Gaurav Jain
Sr.AO

'Forests' and 'protection of wild animals and birds' have been placed in concurrent list of the seventh schedule of the constitution so as to enable both central and state governments to regulate on this matter.

Audit Objectives:

Rajasthan has recorded forest area of 32,828.37 sq. km (9.59 per cent of the geographical area)⁹. A performance audit on "Protection of Forest and Wildlife in Rajasthan" for the period from 2013-14 to 2017-18 was carried out with the objective of assessing the efficiency, effectiveness and economy in regard to

- measures taken to protect forest and wildlife in the protected area network;
- measures taken to protect forest and wildlife outside the protected area network;
- utilization of fund for protection of forest and wildlife.

Audit Criteria:

- a. Indian Forest Act, 1927
- b. Rajasthan Forest Act, 1953
- c. Wildlife Protection Act, 1972
- d. Wildlife (Protection) Rajasthan Rules, 1977
- e. Forest Conservation Act, 1980
- f. National Forest Policy, 1988
- g. National Wildlife Action Plan (2002-16)
- h. Rajasthan State Environment Policy, 2010
- i. Rajasthan State Forest Policy, 2010
- j. Rajasthan Forest Manual Volume II, 2013

Major Audit Findings:

- The 10-years working plans (WPs) for the forest divisions approved by Government of India were

not being implemented due to non-provisioning of adequate budget.

- Eco Sensitive Zones (ESZs) could not be notified due to incomplete proposals being sent by the Department; resultantly, the activities in ESZs could not be regulated.
- State Level Inter-Agency Coordination Committee and Wildlife Crime Control Units to combat wildlife crime were not established despite the fact that maximum crimes related to environment in the country were committed in Rajasthan.
- Though State Government issued (November 2011) Gazette Notification under section 35 of Wildlife (Protection) Act 1972, declaring government's intention of establishing the Kumbhalgarh National Park for protection of leopard and other species but the final notification for the said Park was not issued (March 2018).
- Tiger Conservation Plan (TCP) for the Ranthambore Tiger Reserve (RTR) submitted in 2013 was still to be approved by the National Tiger Conservation Authority (NTCA). Local Advisory Committee (LAC) was not formed in RTR and Sariska Tiger Reserve (STR) due to which tourist activities in the parks could not be regulated.
- The site selected for construction of Abhera Biological Park at Kota was not conducive due to adjoining garbage dumping yard, industrial areas,

⁹ It is significantly below the national average of 23.34 per cent and the target of 33 per cent as envisaged in National Forest Policy (NFP) 1988.

firing range of Indian Army, existence of unauthorized *kachchi basti*, etc. in nearby area.

- The Department received 28.17 sq. km of non-forest land in lieu of forest land diverted for non-forest activity during 2013-18, however notification for the same is still to be completed.
- As of March 2018, 6,369 cases involving encroachment on 81.91 sq. km of land, 7,879 cases relating to illegal mining and 4,446 cases of illegal grazing were pending for disposal.
- The Department did not recover Additional Compensatory Afforestation (ACA) amount of ₹ 26.52 crore in lieu of diversion of forest land for non-forest purpose.

Good Practices:

There has been a steady increase in the number of Great Indian Bustard (GIB) after the State Government had launched a scheme in the year 2013-14.

Conclusion:

Although the Department had taken certain proactive steps which have culminated in increase in number of tigers in RTR, creation of a new biological park at Machiya, Jodhpur, initiation of Leopard Safari at Jhalana, Jaipur and development of park at Nahargarh, a lot of measures still need to be taken for proper protection of Forest and Wildlife in the State.

Recommendations:

- Concrete steps to achieve the target of increasing the forest cover in the State; special attention may be

devoted for restoration of areas affected by anthropogenic activities and other disturbances.

- Setting up a State Level Inter Agency Coordination Committee and Wildlife Crime Control Unit for ensuring effective deterrence and punishment of wildlife crimes.
- Allocating proper financial resources for effective implementation of the working plans in Forest divisions.
- Finalization of village relocation policy on priority and its implementation without delay.
- Approval of Tiger Conservation Plan on priority;
- Specific programme for protection of peafowl may be considered.
- Completion of mutation, notification, demarcation and digitization of forest land in a time bound manner.
- Strengthening the mechanism to prevent illegal mining/encroachment/ fires on forest land.
- Laying more emphasis on identification of the fire prone areas and ensuring creation and maintenance of fire lines.
- Consider to provide modern gadgets to subordinates staff.
- Strengthening human resources management functions and fill up vacancies in frontline and technical staff.

Biodiversity in iCED, Jaipur



White-throated Kingfisher

(*Halcyon smyrnensis*)



Distribution



Conservation Status-
Least Concern

A White-throated kingfisher is, 27–28 cm (10.6–11.0 in) in length. The adult has a bright blue back, wings and tail. Its head, shoulders, flanks and lower belly are chestnut, and the throat and breast are white. The large bill and legs are bright red. It is the State bird of West Bengal.

It can often be found well away from water where it feeds on a wide range of prey that includes small reptiles, amphibians, crabs, small rodents and even birds.

The nest of a White throated Kingfisher is usually a tunnel (50 cm long, but a nest with a 3-foot tunnel has been noted in an earth bank).