



Green Files

Newsletter on Environment audit and sustainable development issues

International Centre for Environment Audit and
Sustainable Development (iCED)



iCED was set up in 2010. It moved to its new, green campus 40 kms from Jaipur in 2013. Its vision is to be a global Centre of Excellence for improving accountability and governance in the area of environment and sustainable development. Its mission is to develop high quality products in training and research to enrich environment audit through an inter-disciplinary approach enabled by valuable partnerships. iCED is presently headed by Sh. Sunil S. Dadhe, Director General.

Green Files is a quarterly newsletter compiled by iCED Jaipur. This highlights issues on environment and sustainable development. These issues could attract attention of public auditors as also serve as a trigger for research / analysis. It comprises results of recent environmental conferences-national & international; “state in focus” where environment issues in a state in India are highlighted; critical appraisal of national environment related acts; snapshots of recent news on environment; Supreme Court of India’s judgements on environment issues as well as recent national and international audit reports pertaining to environment and sustainable development.

We look forward to suggestions from readers to make Green Files more relevant. Contributions to the newsletter are also welcome. These can be mailed to iced@cag.gov.in.

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I. UN Forum on Forests, 11th Meeting, May 2015

(1) Background

The issue of forests has been a priority on the international policy and political agendas for the past 15 years. At the 1992 United Nations Conference on Environment and Development (UNCED) the forest issue was among the most controversial, polarizing developing and developed countries. In Rio de Janeiro, Brazil, intense negotiations among governments at UNCED resulted in the Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of all Types of Forests, also known as the “Forest Principles”, as well as Chapter 11 of Agenda 21: Combating Deforestation. The UNFF was established by ECOSOC Resolution/2000/35 as part of a new international arrangement on forests.

Following nearly 3 years of intense negotiations, starting from UNFF5 and culminating at UNFF7, the Non-Legally Binding Instrument on All types of Forests was adopted on 28 April 2007. The Instrument was adopted by the UN General Assembly (Resolution 62/98) on 17 December 2007. The purpose of this instrument is:

(a) To strengthen political commitment and action at all levels to implement effectively sustainable management of all types of forests and to achieve the shared global objectives on forests;

(b) To enhance the contribution of forests to the achievement of the internationally agreed development goals, including the Millennium Development Goals, in particular with respect to

poverty eradication and environmental sustainability;

(c) To provide a framework for national action and international cooperation;

(2) Objectives of the conference

The eleventh session of the UN Forum on Forests (UNFF11) considered the future of the international arrangement on forests, based on challenges and its effectiveness. The meeting also reviewed progress in the implementation of the global objectives on forests and the non-legally binding instrument on all types of forests. Thematic issues under consideration were sustainable forest management (SFM) and forest law enforcement as well as cooperation and coordination.

(3) Issues discussed

Ministerial declaration

Forests provide multiple benefits for the lives and well-being of people across the planet. The sustainable management of all types of forests is vital to poverty eradication, economic growth and decent employment, food security and nutrition, gender equality, governance, health, water quality and supply, energy production, climate change mitigation and adaptation, biodiversity conservation, sustainable land management, watershed protection and disaster risk reduction.

Commitments:

(a) To strengthening the implementation of the non-legally binding instrument on all types of forests and to action to achieve its global objectives on forests;

(b) To integrating the forest-related sustainable development goals and targets into the United Nations Forest Agreement/Instrument/Framework, taking into account forest-related developments since 2007;

(c) To working through the governing bodies of member organizations of the Collaborative Partnership on Forests to integrate the implementation of the United Nations Forest Agreement/ Instrument/ Framework and the supportive role of the Collaborative Partnership into their strategies and programmes;

(d) To promoting the implementation and financing at all levels of sustainable management of all types of forests, including by: (i) Mobilizing new and additional resources from all sources for the sustainable management of all types of forests and enhancing the access of countries to forest-related funds; (ii) Strengthening technical and scientific cooperation and capacity-building, including the transfer of environmentally sound technology, as well as forest related governance, law enforcement and enabling environments, and secure tenure and access to forest resources; (iii) Strengthening the Forum, its secretariat and the Collaborative Partnership with associated resources to ensure that they perform their functions;

(e) To developing, by 2017, a strategic plan for the period 2017-2030 to guide the work of the international arrangement on forests and its components;

(f) To ensuring the allocation of adequate resources for the implementation of the present declaration and resolution on the international arrangement on forests beyond 2015 in various forums;

(g) To accelerating coordination and collaboration on all issues relating to forests and promoting complementarity and coherence between the international arrangement on forests beyond 2015 and other forest-related processes;

(h) To fully engaging stakeholders, in particular regional and sub-regional organizations, the forest products industry and local and indigenous communities, in the work of the

international arrangement on forests beyond 2015;

(i) To strengthening monitoring, assessment and reporting by countries and the role of the Forum, in particular with regard to the implementation of the United Nations Forest Agreement/Instrument/Framework and the achievement of the forest related sustainable development goals and targets.

Supporting Agencies

It also called upon (i) The Conference of the Parties to the United Nations Framework Convention on Climate Change, at its twenty-first session, to use the United Nations Forest Agreement/ Instrument/ Framework as the integrated reference framework for its forest-related climate change mitigation and adaptation policies and action in the future; (ii) The Conferences of the Parties to the Convention on Biological Diversity, the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, and the United Nations Framework Convention on Climate Change to strengthen their participation and involvement in the work of the Forum on the sustainable management of all types of forests; (iii) The existing and emerging forest-related financing initiatives, including the Global Environment Facility and the Green Climate Fund, to support the implementation of the United Nations Forest Agreement.

International arrangement on forests beyond 2015

It decided to extend the international arrangement on forests to 2030, with the following objectives:

(i) To advance the implementation of sustainable management of all types of forests, in particular the implementation of the non-legally binding instrument on all types of forests;

(ii) To enhance the contributions of forests to sustainable development, including the achievement of the forest-related sustainable development goals and targets;

(iii) To strengthen long-term political commitment to this end.

Sources:- <http://nr.iisd.org/events/un-forum-on-forests-eleventh-session-unff11/>; <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N15/123/48/PDF/N1512348.pdf?OpenElement>

II. National Green Tribunal Judgment on Kaziranga National Park, 2012

(1) Background

Indian Government established the National Green Tribunal (NGT) in October 2010, under the landmark legislation, the National Green Tribunal Act (2010). It is a specialized body for handling environmental disputes. As a specialized body with expertise to handle multidisciplinary issues, the NGT is expected to provide:

- Effective and expeditious disposal of cases relating to environment, including conservation of forests and natural resources;
- Enforcement of any legal right relating to environment; and
- Relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto

A case was filed by an applicant from village Bokakhat, and is concerned about the ecology of the area and future of the Indian Rhino, Elephant and wide species of flora and fauna available in the Kaziranga National Park. He has approached this Tribunal invoking jurisdiction under Section 14(1) of the National Green Tribunal Act, 2010, inter-alia, praying for appropriate directions to the

Authorities to safe guard Kaziranga and its ecology.

Kaziranga National Park (KNP) has not only been declared as a National Park/Tiger Reserve under the provisions of the Wildlife (Protection) Act, 1972, but is also declared as a World Heritage Site by United Nations Educational, Scientific and Cultural Organisation (UNESCO). It is the home of three-fourth of the total population of the rhino and contains largest single concentration of endangered species and wild animals like swamp-deer, wild buffalo, elephants, tigers and gangetic dolphins, it is the only park of its kind with a viable low land grass land-ecosystem in South Asia.

Unregulated quarrying and mining activities permitted in and around the area of KNP, not only threatens the Eco-Sensitive Zone, but also the survival and existence of rhinos, elephants and other wildlife species. Since KNP harbours the largest population of the Indian One Horned Rhinoceros, its survival is critically dependent on the protection of the boundaries of KNP as well as the adjoining areas including the Karbi-Anglong hills, from pollution.

To safeguard KNP, the Ministry of Environment and Forests (MoEF) notified that the expansion of industrial area, township, infrastructural facilities and such other activities which would lead to pollution and congestion shall not be allowed within “No Development Zone (NDZ)” except with the prior approval of the Central Government as per Environment (Protection) Act, 1986.

In flagrant violation to the aforesaid notification, there was a mushrooming of stone quarries were within the NDZ thereby causing immense adverse impact on the environment, wildlife and ecology. Unfortunately, no action was taken by the

Authorities to stop illegal installation of quarries and crushing units.

Relying upon the GPS mapping and Google Earth Software, the Applicant brought to the notice of the Tribunal that at least seven (7) stone crushing units are situated within 10 km radius of the Kaziranga National Park and are within the NDZ notified by the 1996 Notification. Google Earth Map further revealed that many other stone crusher units were also functioning within the NDZ.

After receiving a notice from the Tribunal, a reply was filed on behalf of MoEF admitting the fact that in the year 1996 a Notification was issued declaring NDZ that 64 units were located in the area of NDZ.

(2) Judgment

In the case of Indian Council for Enviro Legal Action Vs. Union of India and others the Supreme Court has observed that *“A law is usually enacted because the legislature feels that it is necessary. It is with a view to protect and preserve the environment and save it for the future generations and to ensure good quality of life that the Parliament enacted the Anti-Pollution Laws, namely the Water Act, Air Act and the Environment (Protection) Act, 1986. These Acts and Rules framed and Notification issued thereunder contain provisions which prohibit and / or regulate certain activities with a view to protect and preserve the environment. When a law is enacted containing some provisions which prohibits certain types of activities, then, it is of utmost importance that such legal provisions are effectively enforced. If a law is enacted but is not being voluntarily obeyed, then, it has to be enforced. Otherwise, infringement of law, which is actively or passively condoned for personal gain, will be encouraged which will in turn lead to a lawless society. Violation of anti-pollution laws not only adversely affect the existing*

quality of life but the non-enforcement of the legal provisions often result in ecological imbalance and degradation of environment, the adverse effect of which will have to be borne by the future generations.” In the case of M.C. Mehta Vs. Union of India (2006) the Supreme Court observed as follows: *“This Court has a Constitutional duty to protect the fundamental rights of Indian citizens. What happens when violators and / or abettors of the violations are those, who have been entrusted by law with a duty to 30 protect these rights? The task becomes difficult and also requires urgent intervention by court so that the rule of law is preserved and people may not lose faith in it finding violations at the hands of supposed implementers. The problem is not of the absence of law, but of its implementation.”* In the case of T.N. Godavarman Thirumulpad Vs. Union of India 2012 (3) SCC 277, the Supreme Court held *“Environmental justice could be achieved only if we drift away from the principle of anthropocentric to eco-centric. Many of our principles like sustainable development, polluter-pays principle, and intergenerational equity have their roots in anthropocentric principles. Anthropocentrism is always human interest focused and non-human has only instrumental value to humans. In other words, humans take precedence and human responsibilities to nonhuman based benefits to humans. Eco-centrism is nature centred 31 where humans are part of nature and non-human has intrinsic value. In other words, human interest does not take automatic precedence and humans have obligations to non-humans independently of human interest. Eco-centrism is therefore life-centred, nature-centred where nature includes both human and non-humans.”*

Therefore, the Tribunal directed the Authorities to take following actions:

(a) The 11 stone crushers which according to the CPCB report, were located within the NDZ and were non-functional at present were established/ allowed to be established within NDZ in contravention of the 1996 Notification. The State Government was directed to take immediate steps to remove all those illegal stone crushers except one which appeared to be installed before 1996 i.e. prior to the notification. However, since the operation of this causes significant air pollution apart from noise pollution, and would lead to adverse impact on the ecosystem, the government was directed to take steps to relocate this unit outside NDZ.

(b) The Government was asked to take appropriate steps not to allow operation of the 23 stone crusher units existing in the vicinity of NDZ (outside the NDZ) till necessary pollution control equipment and other measures were installed to the satisfaction of Assam Pollution Control Board and CPCB.

(c) According to the CPCB report 34 brick kilns were operating within NDZ out of which only 1 unit was set up before 1996. These 33 Brick Kilns would be closed down immediately. The 1 Brick Kiln which was established before 1996, should be either relocated or should be directed to install stricter air pollution control devices.

(d) The CPCB report further revealed that 11 miscellaneous industries existed within NDZ. Out of these except 4, all other units generated lots of pollution, therefore, they should not be allowed to operate in their present locations and action should be taken to shift them immediately out of NDZ.

(e) The CPCB report further revealed that there were 25 Tea Factories out of which 22 were located within NDZ and 3 within 500 m of outer periphery of NDZ. Only 1 unit had made arrangements to treat its effluent. The rest 22 tea processing units located within NDZ have installed boilers for which, coal, oil, wood is the

main feed stock. They have also not installed any pollution control devices. SPCB and other Authorities were directed to ensure that no tea processing units using fossil fuel operated within the NDZ and take immediate steps to stop their operation. The three tea leaf processing units located within 500 mtrs of the outer periphery of NDZ would be allowed to operate only if necessary pollution control measures as may be stipulated by SPCB, Assam are adhered to by those units. Further, all the tea processing units must provide acoustical enclosures in their electrical generators for providing alternative electricity.

(f) MoEF and the State Government were directed to prepare a Comprehensive Action Plan and Monitoring Mechanism for implementation of the conditions stipulated in the 1996 Notification specifying "No Development Zone" and for inspection, verification and monitoring of the prohibitions imposed in the notification referred to above, as well as the provisions of Rule-5 of the Environment (Protection) Act, 1986.

The Tribunal stated, **"After giving the matter a conscious thought and after taking into account all the factors, we are of the opinion that MoEF and the State Government of Assam have totally failed in their duties with respect to implementation of the provisions of the 1996 Notification and due to the callous and indifferent attitude exhibited by the Authorities, number of polluting industries / units were established in and around the No Development Zone of Kaziranga thereby posing immense threat to the biodiversity, eco-sensitive zone, ecology as well as environment"**. It directed MoEF and the Government of Assam to deposit Rs. 1,00,000/- (Rupees one lakh only) each, with the Director, Kaziranga National Park for conservation and restoration of flora and fauna as well as biodiversity, eco-sensitive zone, ecology and environment of the

vicinity of Kaziranga National Park in general and within the No Development Zone in particular to be utilised exclusively by the Director, Kaziranga National Park for conservation, protection and restoration as well as for afforestation of suitable trees of the local species in and around the No Development Zone.

(3) Significance of the Judgment

The verdict of the NGT was heralded by conservationists in Assam as the first ray of light for Kaziranga in almost two decades. The biggest challenge is to get all 25 tea factories around Kaziranga (22 of which are located within the NDZ and three are within 500 m. of the outer periphery of NDZ) to stop using boilers that require fossil fuels in their processing units. This means that the tea factories will have to install renewable energy heating plants and pollution control devices at the earliest, a welcome and visionary step, if successfully implemented.

Sources:

[http://ercindia.org/files/orders/NGT%20Kaziranga%2038-2011\(App\)_7Sept2012_final_order.pdf](http://ercindia.org/files/orders/NGT%20Kaziranga%2038-2011(App)_7Sept2012_final_order.pdf)

<http://www.sanctuaryasia.com/conservation/news/9084-a-reeprive-for-kaziranga.html>

<http://ercindia.org/index.php/latest-updates/latest-ngt/306-ngt-order-on-kaziranga-national-park>

III. Guidelines for conservation, development and management of Urban Greens (draft)

(1) Background

Cities and towns are emerging as centers of domestic and international investments where most of the commercial activities take place. Cities face a number of environmental challenges including dwindling of tree/ green cover. Urban population in India has increased from 17% in 1951 to 31 % in 2011 and is expected to reach 55% by the year 2050. Tree and forest cover are critical

component of urban & peri-urban environment, which moderate microclimate, enable ground water recharge, provide shade and conserve local biodiversity, improve quality of life for city dwellers by providing recreational avenues. Green spaces in urban areas also serve as insurance against natural disasters. Tree cover and urban greens significantly reduce the cost of management of urban areas as well as positively impacts health of its residents. Trees also serve as reservoir of urban biodiversity and loss of trees adversely impacts biodiversity.

Currently responsibility for development, protection and management of trees in urban areas lies with number of agencies like local bodies, revenue & forest departments etc. From a legal perspective also, this space is covered under various Acts and Rules like the Municipal Acts, Indian Forests Act, Land Revenue Code, Master Plans and bye laws etc. As such the actual functioning and details varies from state to state.

Most of the green areas are neighborhood parks, district and regional parks, and other green areas. The extent of areas that are to be set out as greens under these town planning rules and guidelines have mostly followed empirical guidelines and are not based on scientific findings and requirements. As a result these guidelines have most often fallen short in demarcating adequate land cover under greens resulting in sub-optimal benefits to environmental, health and other related issues. Regulatory authorities entrusted with protection of trees do not have a proactive role to play in planning of green areas in urban landscapes.

There is dearth of information about tree cover in urban areas especially for tier 2 and tier 3 cities and urban agglomerations, as this work has not be attempted in a systematic manner by Government Departments,

academic organizations or NGOs. Forest Survey of India (FSI) has estimated around 20% of the geographical area under tree and forest cover in Delhi and 14.9% in Chandigarh. The tree cover in Hyderabad is 5% of the geographical area. The estimate for Bengaluru Urban district is 6.85%.

With a view to maintaining the environmental balance, the National Forest Policy envisages an average forest and tree cover of 33% of the geographical areas for the whole of the country. Further it has been qualified that 2/3 of the land area should be under forest and tree cover in hills. The Municipal Acts of various States/UTs also prescribe a minimum area for parks and gardens.

(2) Main provisions

Policy & Legal Framework approach for Conservation of Urban Greens

- Integration of existing woodlands, trees, parks in the Development Master Plans of cities Greens
- Preparation of management plans of green spaces after resource assessment of trees
- Need for common guidelines for maintaining/enhancing tree cover based on sound scientific principles, inputs from communities and global best practices and local climatic and geographic situations.
- Organization structure for looking after tree cover and greens in Urban areas
- Guidelines for felling/ removal, pruning and lopping of trees in urban areas
- Financial support for urban greening

Technical guidance for development and maintenance of trees and greens in urban areas

- In order to achieve the national goal of 33% of forest and tree cover at national level, it is desirable to have appropriate proportion of

urban green spaces in city planning and designing of new habitations/cities with the minimum provision of 20% tree cover in new housing, industrial or other related projects in plains and 60% in hilly areas keeping in view the goals enshrined in National Forest Policy, 1988

- One of the principle objectives of the city planning should be to have a uniform well distributed tree/ green cover so that citizens are equally benefitted. This would require integration of forest departments with the civic authorities for comprehensive planning.
- Protection of existing greens/ trees should be given high priority. It is necessary to carry out tree census periodically. A 5 year interval may be considered depending upon resources.
- In new projects, efforts should be made for accommodating existing trees and greens. Their removal should be an exception and subject to detailed scrutiny.
- For safety and providing conducive growth environment for trees in city environment, no concreting, hard surfacing should be done around trees.
- In case of trees felled for road widening, construction of flyovers and other infrastructure projects, appropriate provisions for land for compensatory plantation should be in built in the project design.
- It is necessary to maintain uniform spacing of trees depending upon the tree species on a particular avenue.
- Obligatory role of citizens for supporting tree preservation and incentives for plantation may be through concessions/ rebates in taxes such as property tax be considered. Efforts of private companies, PSUs in greening under their corporate social responsibility (CSR) to be encouraged.
- The role of every institution including Local Bodies. Municipalities, Cantonment Boards,

RWAs etc., including Central & State Government institutions which have land available for enhancing tree cover is important in conserving and expanding tree green cover.

- To support greenery, creation of sufficient nurseries to provide good quality planting stock is important.
- Garden and avenue designing, green corridors & strips should be emphasized in the City Development Planning including their integration with buildings, parking & other facilities.
- Tree management is a specialized skill which needs professional approach and training. Engagement of arboriculturist¹, Tree Surgeons etc. should be institutionalized.
- Sustained availability of irrigation quality water is a critical requirement for successful creation and management of urban greens. Since cities are facing acute scarcity of water, it is proposed to make all necessary arrangements for treatment of waste water for use in urban greens maintenance.
- To enhance urban greens and tree cover, emphasis should be given to create appropriate green areas in old as well as new cities.
- Residents, corporates may be encouraged to contribute in innovative designing including vertical terrace gardening for enhancing green cover including quality, biodiversity conservation and aesthetics of greens.
- Restoration of Urban Greens such as colony parks, avenue trees should be considered as an essential activity under urban renewal project like JNNURM.
- Need for formal consultation with experts, foresters on urban greens in respect of

¹ Arboriculturist is one who practices or studies cultivation, management and study of individual trees, shrubs, vines, and other perennial woody plants.

projects involving alteration of urban greens cutting of trees.

- Surplus lands available with various institutions, agencies like railways, industries, PSUs, companies, universities & other educational institutions etc. if not required by them in immediate future say 5 years can be used for green use or tree plantations.
- While encouraging green spaces, local species should be planted and alien/invasive species should be discouraged and to be planted after successful field trial or experiences documented in similar conditions. It is proposed to create a biodiversity park in each District HQ/ City of over 5.00 lakh population to preserve local species and create public awareness.
- There are many trees of historical importance in cities which need to be identified and preserved. Tree tourism may also be thought of as an activity for generating interest among local people and nature enthusiasts.
- In additions local bodies, district administration, state governments may propose appropriate measures for meeting any specific requirement of a particular area.

Source:
<http://www.moef.nic.in/sites/default/files/draft-fp-24714.pdf>

IV. Snapshots: Environment news (April to June 2015)

India, a victim of e-waste crime

Much of the 40 million tonnes of electronic waste produced around the world viz. old smartphones, TVs, laptops and obsolete kitchen appliances finds its way illegally to Asia and Africa every year, says a report by the United Nations Environment Program (UNEP). Close to 90 per cent of the world's electronic waste worth nearly \$19 billion is illegally traded or dumped each year, to

destinations half way across the world. While the European Union the U.S. and Japan are the primary origins of e-waste shipments, China, India, Malaysia and Pakistan are the main destinations, says the report. The vast majority of illegal e-waste ends up in landfills, incinerators, and in ill-equipped recycling facilities.

NGT wants impact study

The National Green Tribunal (NGT) has directed setting up a proposal to scientifically and comprehensively study the cumulative environmental impact due to construction of dams in Arunachal Pradesh. Admitting a petition, the NGT also issued notices to the Union Power ministry, Union Environment ministry, Assam government, Arunachal government and the Brahmaputra Board, seeking their affidavits within six weeks. The NGT has also sought details of the dams approved in Arunachal Pradesh and their status.

Demarcation of eco-sensitive zones sought in Karnataka

The State Cabinet on Thursday decided to recommend the Centre on demarcation of Ecologically Sensitive Zones (ESZ) around 31 protected areas in Karnataka. The Cabinet has resolved that the 31 national parks (NP) and wildlife sanctuaries (WLS) will have varied extent of ESZ. This may vary from 100 meters to one or two kilometers. The Forest department has already notified ESZ around Bandipur National Park.

State forms panel to check toxic discharge into Yamuna

The Haryana government has constituted a committee and ordered it to come up with an action plan to check the discharge of toxic waste into the Yamuna via the Badshapur drain. Instructions were issued to the Municipal Corporation of Gurgaon, Haryana Urban Development Authority and the

Haryana State Industrial and Infrastructure Development Corporation that all approved colonies are to be covered with 100% facilities for sewage treatment and that no sewer waste is disposed in drains. The action plan would also take into account population growth and associated increase in generation of waste up to 2031.

2,168 tube wells contaminated in Puri

Out of total 8,145 existing tube wells in Puri, water of as many as 2,168 have been tested contaminated. The tests were done in the wake of the jaundice outbreak in the town. 67 tankers would be pressed into service for 24x7 supply of water in Puri town during the upcoming Nabakalebara festival in July this year. A total of 61 water-harvest wells would be dug for the purpose.

893 textile units in Sanganer served closure notices

Following a high court order, the Rajasthan State Pollution Control Board (RSPCB) has issued closure notices to 893 textile units in Sanganer. All these units have failed to install a common effluent treatment plants and are discharging 17-18 million litres per day (MLD) of untreated chemical water into Dravyawati river. The power department and PHED have been asked to snap all electricity and water connections of the identified units. The court has asked to shut 213 units by May 31 and rest by June 30.

After Oil Spill, Unique Mangrove Forest Faces More Threats

On December 9, 2014, a wrecked tanker released approximately 94,000 gallons (78,271 Imperial gallons) of heavy fuel oil into the Shela River, which runs through the Sundarbans, the sprawling and remote mangrove forest shared between India and Bangladesh in the Bay of Bengal. Now another shipping disaster is unfolding, as a capsized cargo vessel, Jabalenoor, leaks 200

tonnes of potash fertilizer into the Sundarbans' Bhola River, southeast of the earlier oil spill. Experts warned that biodiversity of Sundarbans may face severe damage again as the area, where the cargo sank, is sanctuary to dolphins.

Debris piles up at reserve forest

The Sitakunda forest under Kambalakonda Wildlife Sanctuary has been turned into a dumping ground. Garbage, especially construction debris from different parts of the city is dumped here since the last six months. Residents of nearby localities say a huge part of the garbage comes from the adjacent Visalakshinagar, where several new buildings are being constructed. Throwing garbage in a reserve forest is illegal as per Section 9 of the Wildlife Protection Act. As there is no arrangement of an incinerator, the heap is spread over an area of more than three km. Moreover, the polythene in the waste can cause death of herbivorous animals like deer and antelope, which are ample in the area.

Forest fund gets Rs. 38,000 crore boost

In a move which may give a major boost to the country's efforts to increase its green cover under a law, the Union Cabinet in June gave its approval for introducing a new legislation in Parliament. The proposed law - Compensatory Afforestation Fund Bill, 2015 - seeks to create an institutional mechanism to properly utilize a corpus of Rs. 38,000 crore for afforestation and other related works like wildlife care and ecological services under central and state monitoring authorities. Besides utilizing the unspent accumulated amount (Rs. 38,000 crore), the new authorities -which are to be set up both at the central and state levels -will also monitor use of fresh accrual of an estimated Rs. 6,000 crore per annum to newly created "non-lapsable interest bearing" funds.

Windmills wipe out Rayalaseema's green cover

Thanks to suitable climatic conditions and also availability of adequate land to set up windmills, In about 100 km long stretch, from Vajraakarur mandal in the northwest part of the district towards Roddam mandal, have been identified as suitable locations for tapping wind energy and most of the government lands, including semi hillock regions of the forest department, were given on lease to private companies to establish windmills. Unfortunately, with no proper guidelines to protect the existing greenery, these companies have reportedly denuded the hillocks of green cover for setting up the windmills, for building roads to transport equipment and to lay the electricity lines along with transformers at each windmill to connect with the grid.

Mafia plundering Sutlej bed in Ferozepur

The mining mafia continues to dig into the Sutlej riverbed here as the authorities concerned have failed to tighten the noose around the culprits. From the riverbed, the sand is moved to specified dumps at nearby places, to be sold to customers at exorbitant rates. A major portion of the road from the highway till the mining site lies damaged due to the movement of heavy vehicles and loaded tractor-trailers.

1 lakh trees chopped over 8 years for Metro, PWD projects in Delhi

Over one lakh trees were cut during 2006-2014 to make way for Delhi Metro and PWD projects, bringing down the city's green cover to 10% from the minimum desired level of 33%, a Delhi high court appointed amicus informed the court on Wednesday. Stunned by the "magnitude "of trees cut for various projects, a bench of justices B D Ahmed and Sanjiv Sachdeva said it "certainly enabled air pollution to increase in Delhi". The court

directed the state government, PWD, DDA and DMRC to file affidavits on the number of trees cut and number of trees planted in various areas of the capital in the past 15 years.

Rajasthan has no approved geo-reference forest map

Rajasthan leads the country with the largest geographical area under mining leases, hence leading to largest diversion of forest land. But despite the ministry of environment & forest requesting the state for a geo-referenced forest map since 2011, the state still does not have an approved geo-reference map.

Punjab set to lead in rooftop solar power generation

The state government through its nodal agency Punjab Energy Development Agency (PEDA) allotted rooftop solar power projects to three companies and a religious dera. These companies will together generate 65 MW, and commercial generation, after the rooftop solar power plants are set up, will start by March next year. It is looking at generating 100 MW of rooftop solar power in the next one year.

Uttarakhand may hand over mining to Private Firms

Peeved over receiving flak for its perceived failure to check increasing volume of illegal mining activities, the State Government might decide to hand over the mining sector to the private sector, said the Finance Minister. The mining sector is one of the primary sources of revenue for the State Government. However, the Government has reasons to worry over unauthorised mining going on in full swing across the State, particularly along the Teri region, said the Minister.

Move to de-notify parts of 2 Madhya Pradesh sanctuaries for sand mining

Unable to curb wanton illegal sand mining, state government has initiated a move to denotify parts of Chambal and Son gharial sanctuaries in Morena and Sidhi districts, respectively. A proposal is likely to be put up before state wildlife advisory board in its next meeting to consider the same.

Sand mining threatens heritage

Illegal sand and mud mining is rampantly taking place close to the once magnificent garden called Fatehwadi that was built by famous sufi poet Abdur Rahim Khan-i-Khanan, one of the Navratnas of emperor Akbar. Illegal mining has also shaken the foundation of the already dilapidated Fatehwadi that is barely four kilometres from Sarkhej Roza. Sabarmati River, which took a sharp bend in front of the ancient site, is now almost dried up and has become the site of illegal mining over the past few years.

Jharkhand to develop mine management system

Jharkhand Chief Minister Raghubar Das today ordered development of Jharkhand Integrated Mines and Minerals Management System to keep vigil on mining and expedite activities in a transparent manner. Issuing directions to the Mines & Geology Department in this connection, Das said the system would simplify the mining process and prevent illegal mining, according to an official release.

Rampant stone-mining in Dikhow damaging ecosystem

Despite ban on mining of stone along the Dikhow river, illegal stone mining is a thriving and lucrative activity in Sivasagar district. Indiscriminate and illegal mining of stone along the Dikhow river has not only led to depletion of marine life but also posed a

threat to Dikhow river. Illegal stone mining using JCB machines is rampant along the banks of River Dikhow in these areas. The extent of illegal mining can easily be gauged from the large number of trucks carrying stone to stone quarries located in different places near the river, which are common sight.

City wetlands lose 99% value to urbanization

Degradation has stripped the wetlands of Bengaluru of all their value. The loss in value is a staggering 99.8%, an IISc study has revealed. The study put the valuation of a relatively pristine wetland in Bengaluru at Rs. 10,435 per hectare per day. However, a polluted wetland of the city is valued at a mere Rs20 per hectare per day. Pointing out that the number of water bodies in Greater Bangalore has shrunk from 207 in 1973 to 93 in 2010, the study says that 72% of the lakes have lost their catchment areas, 66% are now sewage fed and 14% are hemmed in by slums. According to the study, 54% of lakes have been encroached for illegal buildings.

Govt flip-flops yet again on Uttarakhand dams

The National Democratic Alliance (NDA) government will refer the matter to another expert body it wishes to set up, which will now review not just these six but all the projects on the Ganga basin in Uttarakhand. NDA government, unwilling to outright reject six new dams in the Uttarakhand hills despite its expert panel recommending so, has decided to refer the matter to another expert body it wishes to set up. The new panel will now review not just these six, but all the projects on the Ganga basin in Uttarakhand.

Pali villagers in Rajasthan embark on a mission to protect leopards

Villagers of three panchayats in Pali have come together and unanimously agreed to form a community reserve to protect the leopard. The draft notification of 'Jawai Bandh Leopard Community Reserve - T' is awaiting nod from the government. Once notified, it would be the largest community reserve in the country, where villagers would say no to mining and yes to protecting the forest and the leopard.

Source: <http://www.indiaenvironmentportal.org.in>
(Selected News articles for the period April-June)

V. State in Focus: Assam

Covering an area of 78, 523 sq. km. Arunachal Pradesh, Nagaland, Manipur, Mizoram, Meghalaya, West Bengal, Bangladesh and Bhutan surround Assam. Geology has endowed the state with many hills and rivers. These have tremendous influence on the soil quality, drainage pattern, land use, vegetation pattern, population pattern, culture, etc.

(1) Environment Scenario

(a) Forests

The recorded forest area in the state is 26,832 km² accounting for 34.21% of its geographical area. The forest cover is 35.28% of the state's geographical area. The state has 1444 km² of very dense forests, 11,404 km² of moderately dense forest and 14,825 km² of open forests. There has been a decrease of very dense forests to the extent of 17km² in very dense forests and 154 km² of moderately dense forests since 2009. A few decades ago, Assam had a very large canopy of green cover; but today, the green cover is much below the norm. According to the National Forest Policy, on an average, a region should have 33 percent of the total

geographical area under forest. The forest cover should be 60 percent of total area or more for hills and not less than 20 percent of the total area in plains. The reason for the decrease is attributed to the prevalent shifting cultivation practices/extension of encroachment in some areas.

Alarming deforestation in Assam led the Supreme Court to impose a ban on logging and movement of timber by trucks. This has adversely affected the wood industry in Assam. The Supreme Court ban, however, is till satisfactory working plans for sustainable exploitation of forests are developed. Unfortunately, most of forest divisions have not prepared their working plan. The main causes of deforestation have been excessive logging for industrial uses for meeting fuelwood and other needs by households and for jhuming cultivation.

(b) Biodiversity

The Eastern Himalaya and the Assam plains have been identified as an Endemic Bird Area by the Royal Society for Protection of Birds. The global distribution of 24 restricted-range species is limited to the region. The richness of the Eastern Himalayan region's avifauna is a function of the diversity of habitats associated with a wide altitudinal range and its unique location at the confluence of the Indo-Malayan, Indo-Chinese and Indian biogeographical regions. In fact North East India including Assam supports some of the highest bird diversities in the world, believed to be second only to the Peruvian Andes. Assam also lies along two migratory routes of birds - the Central Asian flyway and East Asian-Australian flyway. Assam falls within a mega biodiversity zone of the world. Assam is famous for its megafauna including the rhino (*Rhinoceros unicornis*), golden langur (*Trachypithecus geei*), hoolock gibbon (*Hoolock hoolock*) and other highly endangered species like the pygmy hog

(*Porcula salvania*), hispid hare (*Caprolagus hispidus*) and the recently rediscovered white winged wood duck (*Cairina scutulata*). A recent camera trapping exercise in the last remaining lowland rainforests of Jeypore-Upper Dehing-Kakojan (ca 570 sq. km) in Assam, indicated that these forests harbor the highest number of wild cat species in the world including the clouded leopard (*Neofelis nebulosa*), marbled cat (*Pardofelis marmorata*), and golden cat (*Catopuma temminckii*), as well as four relatively widely distributed species —tiger (*Panthera tigris*), leopard (*Panthera pardus*), leopard cat (*Prionailurus bengalensis*), and jungle cat (*Felis chaus*). Animals like Pygmy Hog, Hispid Hare, Indian Bison etc., are critically endangered. Assam is also very rich in medicinal plants and many other rare and endangered taxa and is characterized by high levels of endemism. Assam's richness of flowering plants is estimated at about 3010. About 293 species of orchids have been reported from Assam representing 44.39% of North East species and 24.42% of species occurring in India. Assam also has much bamboo (41 species) and cane species diversity (14 species) including some species reported only from Assam. As many as 952 plant species of medicinal value are found in Assam. More than 800 species of birds are recorded in Assam, with sub-species, the total number rises to 960. Among these birds, 8 are listed as Critically Endangered, 9 Endangered and 29 as Vulnerable in the IUCN Redlist. These birds represent a total of 5.8% of the total 800 birds of Assam. The critically endangered include Pink-headed Duck, White-rumped Vulture, Indian Vulture, Slender-billed Vulture, Red-headed Vulture, White-bellied Heron, Bengal Florican and Spoon-billed Sandpiper.

Protected Areas in Assam: Lying along the mighty Brahmaputra River, the Kaziranga National Park covers an area of about 430 sq.

km. Kaziranga park is the oldest national park in Assam. This park is known for the great one horned rhinoceros. But among the tall elephant grass and rugged reeds, marshes & shallow pools are hidden many other animals. Manas National Park is famous for the Majestic Tigers. Hispid Hare, Pigmy Hog and Golden Langur are some of the rare species of animals to be found in the park apart from the Tiger. Orang Wild Life Sanctuary is popularly known as mini Kaziranga and is located towards the north bank of Brahmaputra. Pabha or Milroy Sanctuary is located in Lakhimpur Dist., and was created to protect the wild water buffalo. Sonai Rupai Wildlife Sanctuary is the home for elephant, Indian bison and many other species of birds & animals. Dibru-Saikhowa Wildlife Sanctuary is famous for wild horses and is a safe haven for extremely rare white winged wood duck and many migratory birds. Laokhowa Wildlife Sanctuary is famous for one horned Rhinos, wild buffalo, Swamp deer and many varieties of birds. The other Protected Areas are Pobitora Wildlife Sanctuary, Namer Wildlife Sanctuary, Barnadi Game Reserve and Pani Dihing Bird Sanctuary.

Wetlands

Assam harbours at least 3500 freshwater wetlands covering 1012.29 sq km that, according to satellite data, constitute 1.29 per cent of the total geographical area of the state. Most of these wetlands are in the floodplains of the rivers Brahmaputra and Barak and their tributaries and include beels, swamps and marshes. Two species of endemic aquatic plants, two critically endangered, seven endangered, and 26 vulnerable species of fishes, five near threatened, six vulnerable species of freshwater turtles and 133 species of birds have been recorded from the 35 major wetlands in Assam. However, the wetlands of

Assam are fast shrinking due to both natural and anthropogenic causes. The extensive and uncontrolled growth of water hyacinth, and the raising of dykes and embankments along the river banks are thought to be the main causes of the deteriorating condition of these wetlands. These wetlands are subjected to harsh organic processes caused by debris from floating vegetation and silt carried by rain water. Another alarming cause is rampant human settlements, industrial developments and other economic activities that disturb the ecological balance and lead to the loss of these wetlands.

(d) Waste management

Municipal Solid waste management (MSW)

Assam has shown high decadal urban population growth rate in recent years resulting in tremendous pressures on land, natural resources and basic infrastructural facilities. As per the census 1990 and 2001, number of classified towns increased from 93 in 1991 to 125 in 2001. In Assam, the Municipal Solid Waste generation rate is 196 TPD in 4 main cities.

According to estimates, total quantity of daily solid waste generation in Assam is 300TPD. The Boragaon area site has been earmarked by the Government of Assam for the MSW disposal. The energy that could be generated from the waste in Guwahati city is estimated to be approximately 4.2 MW daily. This energy, if properly harnessed, can solve the power crisis problem of the city to a large extent. The West Boragaon Treatment plant is undergoing certain changes in order to adopt the novel methods of waste treatment. A new provision for treatment of hazardous and electronic waste is also underway at the plant site.

Biomedical waste management

According to a CPCB report, in 2009, 4595 kg/day of biomedical waste was generated

(2009) out of which only 56% were getting properly treated. There were approximately 1004 health care facilities in the state with 19331 beds. However, only 1 Common Bo Medical Treatment Plant was operational and was being utilized by only 75 health care facilities.

(e) Water issues

Surface water pollution

Assam is endowed with enormous water resources. The large perennial rivers and other water bodies with the rich aquifer speak about vastness of its water resource. Surface water is available in the forms of river, stream, lake, swamps, pond etc. The ground water is available at low to moderate depth almost in entire state. Although there is seasonal and regional variation in the availability of water resources, the annual availability of water resource remain almost same.

Brahmaputra it is one of the biggest and most important river of the world. It originates near the upper waters of the Indus and Sutlej, and a little to the east of the Mansarovar Lake in Tibet between the Kailash range and the Himalayan range. The tributaries namely Subansiri, Ranganadi, Dikrong, Buroi, Borgong, Jiabharali, Dhinsiri [North], Puthimari, Manas, Beki, Aie, Sonkosh are the main tributaries on the North while the Noadehing, Buridehing, Desang, Dikhow, Bhogdoi, Dhansiri [South], kopili, Kulshi, Krishnai, Dudhnai, Jinjirana are main on the South Bank of the river Brahmaputra.

Brahmaputra is polluted due to petroleum refining units which contribute most of the industrial pollution load into the basin along with other medium and small industries. The main problem facing the river basin is that of constant flooding. Floods have been occurring more often in recent years with

deforestation, and other human activities being the major causes.

Barak river, the second largest river in Assam, has earned a dubious distinction: it is one of the 37 most polluted rivers in the country. And Silchar has been identified as the single-largest source of the pollutants draining into the river. Water samples were collected from select sites on the highly polluted 20-km stretch of the river near this town and scrutinised against 20 basic parameters to test the quality of water. The tests revealed the presence of an alarming level of bacteriological contaminants in the water samples. The survey traced the presence of the lethal coliform bacteria (both total and faecal) in the samples between 1,500 maximum possible number (MPN) per 100 ml and 1,10,000 MPN per 100 ml in June. The excess coliform spawns a wide spectrum of ailments such as diarrhoea, cholera and hepatitis.

Ground water pollution

The annual replenishable ground water resource is 27.23 BCM with Net Annual Ground Water Availability being 24.89 BCM. The ground water exploitation status is satisfactory with no over-exploited or critical districts. Assam's found waer is contaminated by Flouride (parts of Goalpapa, Kamrup, Karbi Anglong, Nagaon districts), Arsenic (Dhemaji) and iron Cachar, Darrang, Dhemaji, Dhubri, Goalpapa, Golaghat, Hailakandi, Jorhat, Kamrup, Karbi Anglong, Karimganj, Kokrajhar, Lakhimpur, Morigaon, Nagaon, Nalbari, Sibsagar, Sonitpur districts).

(f) Air Pollution

Growing air pollution has emerged as a serious concern in the city, with vehicular emission and dust contributing a major share of the deteriorating air quality. The Pollution Control Board Assam (PCBA) which has been

monitoring the city’s ambient air quality under the National Air Quality Monitoring Programme (NAMP) has recorded high levels of air pollution in all its monitoring stations in the city. Data with the air quality monitoring station at Bamunimaidam reveals presence of respirable suspended particulate matter (RSPM) and suspended particulate matter (SPM) well above the prescribe limits. Air quality data from January to May 2015 shows that levels of PM10 are persistently high in all the monitoring stations of Guwahati.

(2) Laws and Polices

Some of these are:

- Rules framed under the Water (Prevention & Control of Pollution) Act, 1974 (Assam Rules-1977)
- Rules framed under the Water (Prevention & Control of Pollution) Act, 1974 (Assam Rules-1977)
- The Air (Prevention & Control of Pollution) Assam Rule, 1991, framed under Air (Prevention & Control of Pollution) Act, 1981
- The Environment Protection Rules, 1986 (2000).
- The Hazardous Waste (Management & Handling) Rules, 1989 and its Amendments.
- The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 and its Amendments.
- The Bio-medical Wastes (Management and Handling) Rules, 1998, and its Amendments.
- The Municipal Solid Wastes (Management and Handling) Rules, 2000
- The Recycled Plastics Manufacture and Usage Rules, 1999,
- The Noise Pollution (Regulation & Control) Rules, 2000,

(3) Environment Sustainability Index

Environmental Sustainability Index (ESI) is a comparative analysis of environmental achievements, challenges and priorities among Indian states. ESI measures the potential of states to maintain their environment in the coming decades given the various environmental resources that a state is endowed with. Dimensions of sustainability both as historical conditions and present efforts are mapped through 40 indicators. Assam ranks 8th on this scale.

<i>Indicator</i>	<i>Score</i>	<i>Indicator</i>	<i>Score</i>
<i>Population pressure</i>	0.10	Waste Generation and Management	0.49
<i>Landuse and Agriculture</i>	0.42	Water quality and availability	0.11
<i>Environmental Budget</i>	-0.32	Energy Management	-0.16
<i>Air quality and pollution</i>	0.60	Impact on Human Health and Disaster	0.36
<i>Forest and Diversity</i>	-0.44		

Source:
<http://www.nicra-icar.in/nicrarevised/images/State%20Action%20Plan/Assam-SAPCC.pdf>,
http://www.ripublication.com/ijerd_spl/ijerdv4n4spl_01.pdf;
<http://www.cpcb.nic.in/wast/bioimediawast/StatusBioMedicalWaste2009.pdf>,
http://cqwb.gov.in/qw_profiles/st_assam.htm,
<http://www.pcbassam.org/aaq1.php>,
http://www.pcbassam.org/env_laws.htm,
http://www.greenindiastandards.com/assam.php?sta_teid=6

VI. Audit Report: Report No. 3 of 2014 Government of Assam - Report of the Comptroller and Auditor General of India on Kaziranga National Park-Issues and Challenges

(1) Background

The protected area concept for Biodiversity conservation has figured prominently around the world. Kaziranga National Park, legally notified as a National Park in the year 1974,

is a name known worldwide for its success in the conservation history of one horned Indian Rhinoceros. It also provides a natural habitat for a number of rare, threatened and charismatic species. A symbol of dedication for the conservation of animals and their habitat, Kaziranga, with a National Park status represents the single largest protected area within the North-east Brahmaputra valley to provide long term viable conservation. The outstanding conservation values made Kaziranga National Park to get inscribed on the World Heritage List of "Convention concerning the protection of the world cultural and natural heritage" in the year 1985.

However, sudden increase in poaching of Rhinos has attracted attention of the public, wildlife lovers, Government and other non-government organizations working on the field. Further, deaths of animals due to floods, biotic disturbance from human encroachments around the Park had been the matter of concern for the wildlife authorities of the State of Assam. Also, eminent citizens of the State expressed their concerns for protection of the Rhinos from the threats posed from poachers during the meeting of the Audit Advisory Board in December 2013. In view of the above, it was decided to take up this performance audit.

(2) Audit objectives and criteria

The audit objectives were to ascertain whether:

- There was a long term perspective plan supported by annual action plans aligned to the former -for long term conservation, protection and development;
- Funds allocated were adequate to manage the activities of the wildlife habitats and funds were made available to the wildlife managers in time;

- Manpower available was sufficient and adequately trained to effectively face the challenges;
- The protection measures undertaken by the authorities were adequate and effective in view of the present threats;
- Efforts were made to continuously develop the wildlife habitat and notify additional areas to make it favourable for the wild animals and the existing territorial integrity of the park was intact; and
- Efforts were made to reduce the biotic disturbance caused by human settlements and industrial activities around the Park.

The Audit objectives were benchmarked against the following sources of audit criteria:

- The Wild life (Protection) Act, 1972;
- Wildlife Conservation strategy, 2002;
- National Wildlife Action Plan 2002-16;
- Instructions issued by the Government of India and State Government;
- Guidelines of the schemes in operation;
- Various Court verdicts including those issued by the Green Tribunal; and
- Monitoring mechanism prescribed

(3) Audit findings

- Failure to review the management plan despite the need for deviations from the core objectives in view of poaching pressure rendered it partially redundant resulting in a disconnect with the Annual Plan of Operations (APOs) which should otherwise flow from the management plan.
- Against the financial outlay of ₹ 93.76 crore proposed in the original APOs for 2010-11 to 2012-13, the Kaziranga National Park (KNP) authorities got only ₹ 17.37 crore which was about 19 % of the funds demanded.
- The funds allocated by the State Government towards wildlife sector and KNP vis-à-vis total plan outlay of the State ranged between 0.03 to 0.07 per % and 0.005 to 0.02 %

respectively during the years 2008-09 to 2012-13.

- Out of 100 freshly recruited forest guards and Foresters - I deployed in KNP, 73 were withdrawn within one year resulting in deployment of aged staff on frontline duties. Reasons for transferring out the fresh recruits out of KNP despite increase in poaching cases/arrests of poachers were not on record.
- None of the wildlife guards of KNP were imparted any training during 2008-09 to 2012-13. Besides, these guards do not have firing practice as the fresher training module contains only theoretical training on arms and ammunition
- Though 83 personnel had laid down their lives while on duty, family members could only get casual jobs instead of compassionate appointment; besides, there is no adequate insurance on the life of the frontline staff. Further, the additional allowances paid to the frontline staff are not commensurate with the arduous nature of duties.
- There is neither adequate number of anti-poaching camps on the periphery of the park nor a fool-proof periphery protection plan which resulted in increased poaching instances mainly near the park boundaries.
- Out of six additional areas preliminarily notified in 1984-85, the KNP authorities are yet to take over three additional areas though records available show that these areas had already been handed over to them by the civil administration in 2005. Survey conducted by Circle Officer in 2009 revealed that substantial area of Government land was under illegal encroachment.
- 33 eco-development committees had been formed in 2002, but not a single has started functioning even after 12 years.

(4) Audit recommendations

Major audit recommendations are as under:-

- *Timelines for preparation of management plan, submission of APOs, release of funds and its*

proper and timely utilisation needs to be prescribed and strictly complied with, preferably by adopting the system being followed by other States where the cycle works on quarterly basis. Also, periodic reports/returns may be devised to monitor progress of the activities within the prescribed timeframe.

- The vacancies in the staff strength, especially in the frontline cadre need to be filled up immediately and a staff motoring mechanism prescribed.
- Additional allowances commensurate to the arduous nature of duties need to be rolled out for the frontline staff; existing allowances need to be revised periodically to be at par with market rates and given uniformly to all types of personnel on frontline duties.
- Anti-poaching camps and watch towers need to be installed along the boundary of the park. This may be backed by a strong periphery network by constant patrolling by wildlife personnel and members of the village defense parties.
- A database of licensed weapons around the park needs to be put in place in co-ordination with the district administration. Besides, extensive search and seizure of unlicensed weapons available in the fringe villages as well as the hills need to be carried out by forming joint parties from Army, para-military, police and wildlife personnel.
- In view of the emerging threat, intelligence gathering may be given maximum emphasis while the Department need to ensure flow of required funds for the purpose.
- IT techniques (analysis of CDR, mobile tracking etc.,) including the usage of location based services need to be put into extensive use by the intelligence cell as mentioned above.
- In view of GoI directive, a default area of 10 kms from the park boundary may be declared as eco-sensitive zone and action as per the GoI notification be taken immediately.

- Construction of resort/hotels without permission of park authorities, change in land use patterns, and encroachment of government land needs to be investigated.
- Government orders regarding parking of trucks, establishment of dhabas, construction without prior permission of KNP authorities, along NH 37 and mining activities in the Karbi Anglong hills adjacent to NH 37 needs to be issued immediately to prevent further urbanization and disturbance to wildlife habitat.
- Distinct boundary pillars need to be installed and GPS mapping ensured at strategic locations of the additional areas which had been taken over from civil administration.
- The illegal settlers in the Deosur chang and other adjacent areas need to be evicted immediately in a time bound manner. Alternatively, efforts may be made to classify the Deosur Chang area as another additional area to the Park.
- 6th additional area: Immediate arrangements need to be made to take over the area from the civil administration and the illegal settlers evicted within a fixed timeframe. If need be, orders from the competent Courts may also be obtained in favour of eviction. As regards the control of fishing in the river, help from the district administration may be obtained for law enforcement at strategic points of the river.
- 2nd, 3rd and 5th Additional areas: Timebound action need to be taken in co-ordination with the civil administration to free these areas of occupation, both legal and illegal by (i) paying compensation to the permanent spattered and (ii) evicting the encroachers to ensure direct control of the park authorities over the land and camps erected at strategic locations.

(5) Impact of the Report

After the Comptroller and Auditor General of India about the dire state of management of Kaziranga National Park, home to one-

horned rhinoceros, the National Green Tribunal has issued notices to 71 hotels, resorts and dhabas which have encroached into the eco-sensitive zone of the Park. NGT has directed Assam to take positive action in respect of the recommendations made in the CAG Report and place before it the action taken report within three weeks.

Source:

http://www.saiindia.gov.in/english/home/Our_Products/Audit_Report/Government_Wise/state_audit/recent_reports/Assam/2014/Report_3/Report_3.html

VII. International Audit Report: Report to the Public Accounts Committee on the establishment of national parks in Denmark (December 2013)

(1) Background and purpose of audit

The Danish national parks are of a more recent date than those of the other participating countries. The existing three Danish national parks were established from 2008 to 2010. Moreover, in other participating countries, status as a national park implies protection of the natural values – corresponding to the IUCN international definition – whereas in Denmark the establishment of a national park does not per se imply any protection of nature. Instead, Danish national parks are subject to the nature regulation already applying under Danish legislation. Finally, unlike most foreign national parks, Danish national parks include residential and industrial areas, e.g., the town of Ebeltoft is located in Mols Bjerge National Park. The Danish National Park Act (national parkloven) was adopted in 2007 and to date the Minister for the Environment has established three national parks in Thy, Mols Bjerge and the Wadden Sea. The National Park Act sets ten equally important objectives for the national parks. On the

other hand the explanatory notes of the Act state that the main objective of the national parks is to strengthen and develop the natural values, including the creation of large connected natural areas. In addition, the national parks must collectively represent the most important natural habitat types in Denmark. The Act is based on the assumption that national parks meet their objectives by voluntary means, for example, by entering into agreements with the land owners affected. The Act does not in itself afford any protection to the natural values in Denmark which are protected by other legislation, for instance the Danish Nature Protection Act and the Danish Forest Act (skovloven). Accordingly, the establishment of national parks should be seen as a supplement to nature protection work. In 2013, the national parks appropriation totalled DKK 22.5 million, ie DKK 7.5 million for each national park. In addition to the government appropriation, the national parks are expected to seek external funding for their activities.

(2) Audit objective, scope and criteria

Because national parks only started operating recently and because the National Park Act is based on voluntary instruments and an uncertain financing basis, the examination focused on how the Ministry of the Environment has helped national parks comply with the National Park Act in the long term. Audit examined this by addressing the following question:

- Has the Ministry of the Environment supported and followed up on the target-setting and performance of the national parks, so that in the long term the national parks can strengthen and develop the natural values, including the creation of large connected natural areas?

Danish nature is protected and regulated by a number of acts which were used as criteria:

The Nature Protection Act (protects particular natural habitat types, ie, lakes, water courses, marshland and meadows of a certain size – the so-called section 3 areas; **Preservation Areas**, the world's oldest nature protection instrument from 1917, and wildlife reserves, established under the Danish Game Act. **EU's habitat and bird protection directives** ensure the protection of a number of endangered species and their habitats. The directives have been implemented in the Nature Protection Act and the Forest Act, which provide the framework for designating the so-called Natura 2000 sites in Denmark.

(3) Key findings and recommendations

The objective of the Danish national parks is not only to strengthen and develop nature; national parks must also meet other objectives, e.g., to promote an understanding of nature, tourism and business development. In addition, national parks depend on the local land owners' willingness to cooperate and their own ability to raise external financing. Accordingly, there is no guarantee that the establishment of national parks will help strengthen and develop nature. The main findings were:

- The Ministry of the Environment's three executive orders on national parks set the framework of how national parks must contribute to strengthening and developing the natural values. Audit found that the executive orders do not include clear or quantifiable targets for the national parks' activities, but rather formulate overall goals, which the boards must subsequently concretise in the national park plans
- The examination showed that the Ministry of the Environment does not systematically collect information about the activities of each national park, but is in the process of developing such a model.

- The objective of the Danish national parks is not only to strengthen and develop nature; national parks must also meet other objectives, e.g. to promote an understanding of nature, tourism and business development. In addition, national parks depend on the local land owners' willingness to cooperate and their own ability to raise external financing. Accordingly, there is no guarantee that the establishment of national parks will help strengthen and develop nature.

The main recommendations were:

- In future the Ministry of the Environment should increase its support to the national parks, so that in the long term they will be better positioned to strengthen and develop nature.
- The Ministry should particularly support the national park boards' formulation of clear, quantifiable targets which the national parks can use as basis for prioritising their activities.
- The Ministry of the Environment should immediately start following up on national park development and performance to obtain a basis for assessing whether the national parks can contribute to fulfilling the objective of the National Park Act to strengthen and develop nature in the long term, including the creation of large connected natural areas.
- Audit recommends that in future the Ministry of the Environment evaluate the National Park Act at regular intervals to obtain a basis for assessing the extent to which the main objectives of the Act have been fulfilled, that is, whether establishing national parks has contributed to strengthening and developing the natural values, including the creation of large connected natural areas, and whether the national parks collectively represent the most important Danish natural values.

Source:

<http://environmental-auditing.org/Portals/0/AuditFiles/6-2013.pdf>