



Green Files

Newsletter on environment audit and sustainable development International Centre for Environment Audit and Sustainable Development

This newsletter has been compiled by iCED Jaipur and is meant for circulation amongst IA&AD. This quarterly newsletter highlights issues on environment and sustainable development which can enable audit offices identify areas of audit concern. The newsletter comprises of recent news regarding environment/ sustainable development, critical appraisal of environmental acts in India, snapshots of news about the environment from across the country. It also features Supreme Court judgements on environment issues which have had an important impact on India's environment management and governance structures as well as recent national and international audit reports pertaining to the environment and sustainable development.

This third issue of Green Files features an article on the outcome of the highly anticipated Rio + 20, United Nations Conference on Sustainable Development held in Rio de Janeiro, Brazil in June 2012; critical appraisal of the National Action Plan on Climate Change; discussion of environmental problems and environment acts/rules in Andhra Pradesh and two recent audit reports, (i) Recent Environment audit report: Audit Report (Civil), Goa For the Year 2010-11--(Protection, Conservation and Development of Forests in Goa) (ii) International audit report on Coordinated Parallel Audit on Protection of Black Sea against Pollution (2011). We have also included an environment case law in India called the Vellore Citizens Welfare Forum v Union of India, which had far reaching implications in the field of environment management as it defined Polluter Pays principle and Precautionary Principle as applied o India.

We look forward to your suggestions on how 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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1) Rio + 20 June 2012

The United Nations Conference on Sustainable Development (UNCSD) took place in Brazil from 20-22 June 2012 to mark the 20th anniversary of the 1992 United Nations Conference on Environment and Development (UNCED), in Rio de Janeiro, and the 10th anniversary of the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg.

The objective of the Rio+20 Conference was to secure renewed political commitment for sustainable development, review progress and remaining implementation gaps and assess new and emerging challenges since the UN Conference on Environment & Development held in Rio de Janeiro in 1992 and the World Summit on Sustainable Development in Johannesburg in 2002. Towards this end, the Conference had two themes viz. (a) Green Economy in the context of Sustainable Development & Poverty Eradication (b) Institutional Framework for Sustainable Development.

Rio+20 was the biggest UN conference ever held, with broad participation of leaders from Government, business and civil society, as well as UN officials, academics, journalists and the general public. Over 100 Governments were represented at the Head of State level; participants included 57 Heads of State, 8 Vice-Presidents, 31 Heads of Government and 9 Deputy Prime Ministers. Additionally, 487 Ministers attended. During their ten days in Rio, government delegations concluded the negotiations on the Rio outcome document, titled **“The Future We Want”**.

The agreement adopted in Rio calls for the UN General Assembly (UNGA), at its next session, to take decisions on, *inter alia*:

- Designating a body to operationalize the 10-year framework of programmes on sustainable consumption and production;
- Determining the modalities for the third international conference on small island developing states, which is to convene in 2014;
- Identifying the format and organizational aspects of the high-level forum, which is to replace the Commission on Sustainable Development;
- Strengthening the UN Environment Programme (UNEP); constituting a working group to develop global sustainable development goals (SDGs) to be agreed by UNGA;
- Establishing an intergovernmental process under UNGA to prepare a report proposing options on an effective sustainable development financing strategy; and
- Considering a set of recommendations from the Secretary-General for a facilitation mechanism that promotes the development, transfer and dissemination of clean and environmentally sound technologies.

In addition, the UNGA was called on to take a decision in two years on the *development of an international instrument under the UN Convention on the Law of the Sea (UNCLOS) regarding marine biodiversity in areas beyond national jurisdiction*. Furthermore, the UN

Statistical Commission was called on to launch a programme of work on broader measures to complement gross domestic product, and to support industry, interested governments and relevant stakeholders in developing models for best practice and facilitate action for the integration of sustainability reporting. The text also includes text on trade-distorting subsidies, fisheries and fossil fuel subsidies.

While many had held out hope that Rio+20 would launch new processes and significantly alter the international framework—from establishing a new High Commissioner for Future Generations, to upgrading the UN Environment Programme to the status of a specialized agency, to identifying significant means of implementation, to establishing concrete targets and a “roadmap” for the green economy—the UNCSD outcome document was much more modest. But while some criticized the document for “kicking the can” down the road and missing an opportunity to boldly redirect sustainable development actions, others focused on the upcoming opportunities within the UNGA and other fora to shape the true Rio+20 legacy.

2. Environment Case law in India: Vellore Citizens Welfare Forum v Union Of India

A public interest petition - under Article 32 of the Constitution of India was filed by Vellore Citizens Welfare Forum in the Supreme Court and was directed against the pollution being caused by enormous discharge of untreated effluent by the tanneries and other industries in the State of Tamil Nadu. The petitioner stated that that the untreated effluent was finally

discharged in river Palar which is the main source of water supply to the residents of the area. According to the petitioner, the entire surface and subsoil water of river Palar was polluted resulting in non-availability of potable water to the residents of the area. According to the preliminary survey made by the Tamil Nadu Agricultural University Research Centre Vellore nearly 35,000 hectares of agricultural land in the Tanneries Belt, became either partially or totally unfit for cultivation. Nearly 35 litres of water is used for processing one kilogram of finished leather, resulting in dangerously enormous quantities of toxic effluents was being let out in the open by the tanning industry which has spoiled the physico-chemical properties of the soil, and has contaminated ground water by percolation. A technical report also confirmed the above findings.

The court stated that affidavits filed on behalf of State of Tamil Nadu and the Board clearly indicated that the tanneries and other polluting industries in the State of Tamil Nadu were being persuaded for the last 10 years to control the pollution generated by them and it was a pity that till date most of the tanneries operating in the State of Tamil Nadu had not taken any step to control the pollution caused by the discharge of effluent.

The court passed the following orders:

- Those tanneries which have started projects to treat effluents were given time till 31st December, 1995 to complete these projects. If not completed by due date, these industries were liable to be closed forthwith and shall also be liable to pollution fine for the past period during which they had been operating.

- Common Effluent Treatment plants which were set up and were not meeting standards as set by the Ministry of Environment and Forests and the Tamil Nadu Pollution Control Board for inland surface water discharge were given 2 months to meet the standards.
- There were a large number of other tanneries operating in the 5 districts which have not set up any satisfactory pollution control devices. These are to be closed immediately.
- The Court directed that the State of Tamil Nadu through the Industry Ministry, the Tamil Nadu Pollution Control Board and all other authorities concerned and also the Government of India through the Ministry of Environment and Forests, not to permit the setting up of further tanneries in the State of Tamil Nadu.

The SC also stated the following:

- The leather industry in India was a major foreign exchange earner and Tamil Nadu was the leading exporter of finished leather. Though the leather industry is of vital importance to the country as it generates foreign exchange and provides employment avenues, it has no right to destroy the ecology, degrade the environment and pose as a health hazard. It cannot be permitted to expand or even to continue with the present production unless it tackles by itself the problem of pollution created by the said industry.
- Traditional concept that development and ecology are opposed to each other is no longer acceptable. **"Sustainable Development"** is the answer. In the International sphere "Sustainable Development" as a concept came to

be known for the first time in the Stockholm Declaration of 1972. Thereafter, in 1987 the concept was given a definite shape by the World Commission on Environment and Development in its report called "Our Common Future". During the two decades from Stockholm to Rio "Sustainable Development" has come to be accepted as a viable concept to eradicate poverty and improve the quality of human life while living within the carrying capacity of the supporting eco-systems. "Sustainable Development" as defined by the Brundtland Report means "development that meets the needs of the present without compromising the ability of the future generations to meet their own needs". We have no hesitation in holding that "Sustainable Development" as a balancing concept between ecology and development has been accepted as a part of the Customary International Law though its salient features have yet to be finalised by the International Law jurists.

- Some of the salient principles of "Sustainable Development", as culled-out from Brundtland Report and other international documents, are Inter-Generational Equity, Use and Conservation of Natural Resources, Environmental Protection, the Precautionary Principle, Polluter Pays principle, Obligation to assist and cooperate, Eradication of Poverty and Financial Assistance to the developing countries.
- **"The Precautionary Principle"** and **"The Polluter Pays"** principle are essential features of "Sustainable Development".

The "Precautionary Principle" - in the context of the municipal law - means: (i) Environmental measures - by the State Government and the statutory authorities - must anticipate, prevent and attack the causes of environmental degradation. (ii) Where there are threats of serious and irreversible damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. (iii) The "Onus of proof is on the actor or the developer/industrialist to show that his action is environmentally benign.

- The "Polluter Pays" principle has been held to be a sound principle by this Court in *Indian Council for Enviro - Legal Action v. Union of India*, J.T. (1996) 2 196. The **"Polluter Pays"** principle as interpreted by this Court means that the absolute liability for harm to the environment extends not only to compensate the victims of pollution but also the cost of restoring the environmental degradation. Remediation of the damaged environment is part of the process of "Sustainable Development" and as such polluter is liable to pay the cost to the individual sufferers as well as the cost of reversing the damaged ecology.
- The precautionary principle and the polluter pays principle have been accepted as part of the law of the land. Article 21 of the Constitution of India guarantees protection of life and personal liberty. Articles 47, 48A and 51A(g) of the Constitutional also emphasize this. Apart from the constitutional mandate to protect and improve the environment there are

plenty of post independence legislations on the subject.

- The Court stated that in view of the constitutional and statutory provisions we have no hesitation in holding that the precautionary principle and the polluter pays principle are part of the environmental law of the country. Even otherwise once these principles are accepted as part of the Customary International Law there would be no difficulty in accepting them as part of the domestic law. The Courts of Law The Constitutional and statutory provisions protect a persons right to fresh air, clean water and pollution free environment, but the source of the right is the inalienable common law right of clean environment. The right of a person to pollution free environment is a part of the basic jurisprudence of the land.

The Court also ordered the Central Government to establish an authority to deal with the situation created by the tanneries and other polluting industries in the State of Tamil Nadu. The Court stated that this authority would implement the precautionary principle, the polluter pays principle, and identify the (1) loss to the ecology/environment; and (2) individuals/families who have suffered because of the pollution, and then determine the compensation to reverse this environmental damage and compensate those who have suffered from the pollution. The Collector/District Magistrates shall collect and disburse this money. If a polluter refuses to pay compensation, his industry will be closed, and the compensation recovered as arrears of land revenue. If an industry sets up the necessary pollution control

devices now, it is still liable to pay for the past pollution it has generated. Each tannery in the listed district was subject to a Rupees 10,000 fine which will be put into an "Environment Protection Fund" to be used to restore the environment and to compensate affected persons. Expert bodies will help frame a scheme to reverse the environmental pollution. All tanneries must set up common effluent treatment plants, or individual pollution control devices, and, if they do not, the Superintendent of Police and the Collector/District Magistrate/Deputy Commissioner in each of the respective districts is authorised to close the plants down. No new industries shall be permitted to be set up within the listed prohibited areas.

Thus, this case has immense relevance for environment governance as the Supreme Court deemed the international norm of the precautionary principle as part of Indian law and considered its application mandatory in the interest of sustainable development. Also, the principle of absolute liability in cases of environmental injury has further found judicial validation in the polluter pays principle, which has become the law of the land through Supreme Court judgments.

Source: *Supreme court Judgement*

3) National Action Plan on Climate change (NAPCC): A critical assessment

Introduction

In 30 June 2008, the Prime Minister released India's **National Action Plan on Climate Change (NAPCC)**. Prepared by the specially constituted Prime Minister's

Council on Climate Change, the document was intended to provide a concrete road map detailing how India plans to move forward in combating climate change. The Plan, while recognising the immense threat posed by climate change, reconciles climate change with development concerns. NAPCC then sets out eight "National Missions" as the way forward in implementing the Government's strategy and achieving the National Action Plan's objective. These missions are discussed below:

Missions under NAPCC

1. National Solar Mission: The stated objective of the mission is to increase the share of solar energy and other renewable and non-fossil based energy sources in the total energy mix of the country and includes nuclear energy as a non-fossil option. NAPCC sets the solar mission a target of delivering 80% coverage for all low temperature (<150° C) applications of solar energy in urban areas, industries and commercial establishments, and a target of 60% coverage for medium temperature (150° C to 250° C) applications. The deadline for achieving this is the duration of the 11th and 12th five-year plans, through to 2017. To operationalise this, The Jawaharlal Nehru National Solar Mission was launched on the 11th January, 2010 by the Prime Minister. The Mission has set the ambitious target of deploying 20,000 MW of grid connected solar power by 2022 and is aimed at reducing the cost of solar power generation in the country through (i) long term policy; (ii) large scale deployment goals; (iii) aggressive R&D; and (iv) domestic production of

critical raw materials, components and products, as a result to achieve grid tariff parity by 2022.

2. National Mission for Enhanced Energy Efficiency: This Mission is targeted at industry, which, according to the NAPCC, accounts for 42 % of the country's total commercial energy use (2004-2005) and 31 % of total CO₂ emissions. The Mission estimates that CO₂ emissions from fuel and electricity use in the industry sector could be reduced by 16 % from business as usual by end of 2031. Savings of 10,000 MW are targeted by projects already in operation at the end of the 11th Plan. The NAPCC also calls for (a) mandating specific energy consumption decreases in large energy consuming industries (b) innovative measures to make energy efficient appliances/products in certain sectors more affordable (c) creation of mechanisms to help finance demand side management programmes by capturing future energy savings and enabling public-private-partnerships in this area (d) developing fiscal measures to promote energy efficiency such as tax incentives for including differential taxation on energy efficient certified appliances.

3. National Mission on Sustainable Habitats: The Mission comprises 3 components: (i) Improvements in energy efficiency of buildings in residential and commercial sector and use of energy efficient options could help achieve 30% electricity savings in new residential buildings and 40% in new commercial buildings. For existing buildings the corresponding savings are 20% and 30% respectively. (ii) Management of

Municipal Solid Waste (MSW) : NAPCC lists some policy reforms such as common regional disposal facilities for smaller towns and villages in a particular region, and integrated system for collection, transport, transfer, treatment and disposal facilities to facilitate better management of MSW in India. (iii) Promote urban public transport: The NAPCC supports mass transit such as buses, railways and mass rapid transit systems and the use of CNG, ethanol blending in gasoline and bio-diesel and use of Hydrogen in the future.

4. National Water Mission: NAPCC states that many states are water stressed and by 2050, India is likely to be water scarce. The problem will be magnified by Climate Change. National Water Mission thus aims at conserving water, minimising wastage and ensuring more equitable distribution through integrated water resource management. It also aims to optimize water use efficiency by 20% by developing a framework of regulatory mechanisms having differential entitlements and pricing. In addition, the Water Mission calls for strategies to tackle variability in rainfall and river flows such as enhancing surface and underground water storage, rainwater harvesting and more efficient irrigation systems like sprinklers or drip irrigation.

5. National Mission for Sustaining the Himalayan Ecosystem: NAPCC recognises the Himalayan ecosystem as vital to preserving the ecological security of the country and calls for empowering local communities especially Panchayats to play a greater role in managing ecological resources. It also reaffirms measures mentioned in the National

Environment Policy, 2006, some of which are: adopting appropriate land-use planning and water-shed management practices for sustainable development of mountain ecosystems, adopting best practices for infrastructure construction in mountain regions to avoid or minimize damage to sensitive ecosystems and despoiling of landscapes, encouraging cultivation of traditional varieties of crops and horticulture by promoting organic farming, enabling farmers to realise a price premium, promoting sustainable tourism based on best practices and multi-stakeholder partnerships to enable local communities to gain better livelihoods, taking measures to regulate tourist inflows into mountain regions to ensure that the carrying capacity of the mountain ecosystem is not breached, Developing protection strategies for certain mountain scapes with unique “incomparable values” etc.

6. National Mission for a Green India:

The Mission aims at responding to climate change through a combination of adaptation and mitigation measures which include enhancing carbon sinks in sustainably managed forests and other ecosystems, adaption of vulnerable species/ecosystems to the changing climate, and adaptation of forest-dependent communities. NAPCC states that the Greening India programme has already been announced and under the programme, 6 million hectares of degraded forest land would be afforested with the help of Joint Management Committees with funds to the extent of ₹ 6000 crore being provided to from the accumulated additional funds for compensatory afforestation under the decision of the Supreme Court

in respect of land diverted for non-forest uses. It also suggests measures like training on silvicultural practices for fast-growing and climate-hardy tree species; reducing fragmentation of forests by provision of corridors for species migration, both fauna and flora; revitalizing and up-scaling community-based initiatives such as Joint Forest Management and Van Panchayat committees for forest management, formulation of forest fire management strategies, in-situ and ex-situ conservation of genetic resources, especially of threatened flora and fauna etc.

7. National Mission for Sustainable Agriculture:

The aim is to make Indian agriculture more resilient to climate change by identifying new varieties of crops, especially thermal resistant ones and alternative cropping patterns. This Mission focuses on rain-fed agricultural zones and suggests development of drought and pest resistant crop varieties; improving methods to conserve soil and water; financial support to enable farmers to invest in and adopt relevant technologies to overcome climatic related stresses etc. In addition, the Mission lists measures for safeguarding farmers against increased risk due to climate change by means of strengthening agricultural and weather insurance; creation of web-enabled, regional language based services for facilitation of weather-based insurance; mapping vulnerable regions and disease hotspots; and developing and implementing region-specific, vulnerability based contingency plans. NAPCC also suggests greater access to information and use of biotechnology applications in agriculture.

8. National Mission on Strategic Knowledge for Climate Change:

This Mission will strive to work with the global community in research and technology development and collaboration through a variety of mechanisms, supported by a network of dedicated climate change related institutions and universities and a Climate Research Fund. The Mission also included measures like research in key substantive domains of climate science to improve understanding of key phenomena and processes, global and regional climate modelling to improve the quality/accuracy of climate change projections for India, private sector initiatives for developing innovative technologies for adaptation and mitigation; strengthening of observational networks and data gathering; creation of essential research infrastructure, such as high performance computing; promoting data access and developing human resources in this area.

Other Initiatives

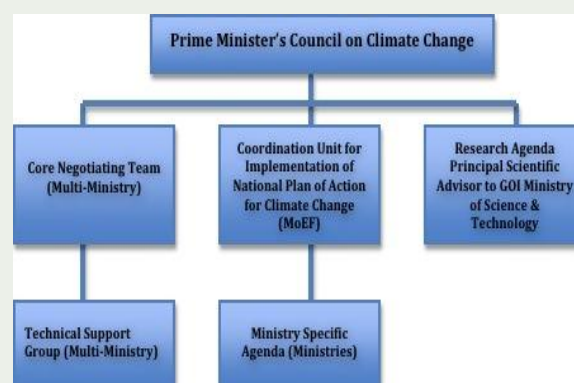
- **GHG mitigation in power generation:** The government is mandating the retirement of inefficient coal-fired power plants and supporting the research and development of Integrated Gasification Combined Cycle and supercritical technologies, natural gas based power plants, closed cycle three stage nuclear power programme, development of hydropower and more efficient transmission and distribution.
- **Other Renewable Energy Technologies Programme:** NAPCC talks about biomass based power generation technologies, small scale hydropower, wind energy and research needed in these areas to make them more viable. Under the

Electricity Act 2003 and the National Tariff Policy 2006, the central and the state electricity regulatory commissions must purchase a certain percentage of grid-based power from renewable sources. NAPCC states that a dynamic minimum renewable purchase standard be set, with escalation every year, till a pre-defined level is reached. NAPCC further suggests that starting 2009-10, the national renewables¹ standard maybe set at 5 % of total grid purchase, to increase by 1 % each year for 10 years.

- **Energy Efficiency:** Under the Energy Conservation Act 2001, large energy-consuming industries are required to undertake energy audits and an energy labelling program for appliances has been introduced.

Implementation

According to the NAPCC, the 8 National Missions are to be institutionalised by “respective ministries” and will be organised through inter-sectoral groups including, in addition to related Ministries, Ministry of Finance and the Planning Commission, experts from industry, academia and civil society. Each Mission has been given the task of evolving



¹ Excluding hydropower with storage capacity in excess of peaking capacity, or based on agriculture based renewable sources that are used for human food

specific objectives for the remaining duration of the 11th Plan and the 12th Plan period (through to 2017). These objectives were to be stated in comprehensive documents along with strategies, plans of action, timelines and monitoring and evaluation criteria, which were to be submitted to the Prime Minister's Council on Climate Change by December 2008. The Council is to periodically review the progress of these Missions and the each Mission is to report its performance publically every year.

Critical appraisal of NAPCC

- NAPCC is not a new policy or a new approach, it just cobbles together existing National Plans for water, agriculture, renewable energy, energy efficiency, etc. and combines them with a few additional ones, rather than formulating a new strategy for putting into place a "low-carbon pathway for India."
- NAPCC does not clearly define targets and timelines. As such, it will be difficult to assess its impact.
- There is also a lack of clarity with regards to roles and responsibilities. It does not define who will fund the programmes nor does it talk about roles in implementation and monitoring.
- NAPCC adopts a sectoral viewpoint whereby ministries are given some role and responsibilities. But more and more, issues cut across sectors/ministries, especially at planning and policy level. NAPCC does not take this into account and as a result, climate change issues may not be mainstreamed into our national development and planning process.
- It relies too much on out of date projections and not the best currently available climate science, thereby leading to a lack of urgency.
- NAPCC talks about afforestation of degraded land but nothing about conservation of existing forests.
- There has been no stakeholder consultation during the framing of the NAPCC. No opinions were taken from a broader community of experts, citizen's groups, civil society, etc.
- Missions like the one on sustainable agriculture have not even got any funding under the current five-year plan and is carrying on its research from existing resources.
- The solar mission has taken off but there are concerns on whether it will be able to deliver on targets because of wrong pricing of solar energy. The solar mission is supported by one of the largest subsidies given to renewable energy ever in India.
- The other mission which is expected to have hard delivery targets is the one on energy efficiency. Under the power ministry, the Bureau of Energy Efficiency is in-charge of starting a market-based mechanism of making key industrial sectors more energy efficient. The bureau is working on reducing energy intensity of appliances and products. But it has been stuck for more than three years now with the automobile industry not willing to allow strict standards for cars and other vehicles.

States like West Bengal, Kerala, Rajasthan, Madhya Pradesh, Andhra Pradesh, Arunachal Pradesh, Haryana, Uttar Pradesh, Punjab, Orissa etc., have

also drafted State level plans for tackling effects of Climate Change.

Sources: MoEF website, LEAD International, PMO's assessment of NAPCC.

4. Snapshots: Environment news

Trends in global CO2 emissions 2012

Global emissions of CO2 increased by 3% last year, reaching an all-time high of 34 billion tonnes in 2011, according to this report released by European Commission. Top emitters contributing to this increase in CO₂ are China, US, EU, India, the Russia & Japan.

Tirupur, Tamil Nadu, knitwear cluster asked to abide by court directives on pollution

Justice P. Sathasivam, Judge of Supreme Court, has asked the industrialists in Tirupur knitwear cluster to always abide by the court directives and take initiatives to provide a clean environment. "Courts cannot remain silent on seeing the pollution caused on rivers and air. The orders of both Supreme Court and High Court on environmental/ pollution issues have always been pronounced for the good of the common public".

Online monitor for cleaner air in Ranchi

To make industries more accountable, cement and power plants of Jharkhand will henceforth have to be a part of a mandatory online ambient air quality monitoring system that will help bosses at pollution control offices in Delhi and Ranchi keep track of local ecological changes. A.K. Singh, the chairman of Jharkhand State Pollution Control Board (JSPCB), which initiated a similar measure among coke plants in phases last year, has said that they would now extend the

online monitoring system to other industries as well.

Green Tribunal raps Minister for clandestine forest nod

The controversy over the granting of forest clearance to Arunachal's 1750 MW Demwe Hydro electric power projects by the Ministry of Environment and Forest (MoEF) has deepened following the National Green Tribunal's (NGT) rap to MoEF for not displayed the grant of forest clearance to the project on its website.

The project had earlier kicked off dust after MoEF had granted forest clearance to the project despite the non-official members of the standing committee of National Board for Wildlife (NBWL) putting down their feet firmly against it.

Government's dilemma: Security of rare bird or of nation

It's a case of national security versus one rare endangered bird. The Indian Coast Guard wants to set up a radar installation and a diesel power generation station on Narcondum — the eastern most island of the Andaman and Nicobar Island group. The island is the only home for the endangered Narcondum Hornbill of which only about 300 remain.

Red list has 132 species of plants, animals from India

The Red list of threatened species, prepared by the International Union for Conservation of Nature (IUCN), has listed 132 species of plants and animals as Critically Endangered, the most threatened category, from India.

Plants seemed to be the most threatened life form with 60 species being listed as Critically Endangered and 141 as

Endangered. The Critically Endangered list included 18 species of amphibians, 14 fishes and 10 mammals.

12 committees to study eco-zones in sanctuaries in Odisha

The State Government has approved constitution of 12 committees which will study eco-sensitive zones (ESZs) for 13 wildlife sanctuaries of Odisha. As per the direction of the Supreme Court and subsequent notification issued by MoEF, the zones need to be notified after due consultation and identification process. MoEF had also come out last year with guidelines for ESZs around the protected areas to prevent ecological damage caused due to developmental activities around national parks and wildlife sanctuaries.

Tourist centres near tiger parks to pay 10% of revenue for conservation

All tourist operations within 5km of all 600-plus tiger reserves, national parks, sanctuaries and wildlife corridors in the country will have to fork out a minimum of 10% of their turnover as a "local conservation fee". The fee will be used not only to protect wildlife areas but also to provide financial assistance to communities and people living around these green patches. MoEF has cleared ecotourism guidelines containing these provisions and submitted them to the Supreme Court in a case.

Floods leave nearly 600 animals dead in Kaziranga

As many as 595 animals, including 17 single-horned rhinos, in the Kaziranga National Park died in the recent floods in the state, the environment ministry said on Monday. National Tiger Conservation

Authority member M Firoz Ahmad, sent by MoEF to make a spot appraisal of Kaziranga in the wake of the floods, reported that 595 animals have died in the park due to inundation. Of these maximum causality has been reported among hog deer (512) followed by wild boar (28) and rhinos (17), he said in his report submitted to the ministry.

Oil slick hits Valsad, Surat beaches again

Pristine beaches of Umargam and Nargol are raising a stink once again. Oil slick, which coagulated as black balls, has once again hit the coast, leaving fisher folk jittery. The beaches affected in the include Nargol, Tadgam, Maroli, Saronda, Umargam and Daman. "The slick has kept us away from the beach. This will be equally hazardous for us and the marine life," said Jitu Tandel, a fisherman of Nargol village. The presence of oil particles has also pushed fish into deep waters.

Coast Guard to commission pollution control vessel in Ahmedabad

Pollution control vessel, a dedicated oil spill recovery vessel, second of its class in Asia-Pacific region, will be commissioned by Indian Coast Guard in Surat on July 20. The 94-metre-long vessel with displacement of 3,300 tonnes is a highly specialized ship fitted with top-of-shelf technologically advance pollution response equipment and is capable of recovering and neutralizing different kinds of oil spills in the sea. The vessel boasts of an integrated platform management system, a perfect example of human machine interface. It interfaces the main machinery, sensors and equipment onboard the ship, which can be operated and monitored from a

remote location. Automation is the keyword for this system.

Ban import of hazardous substances: Supreme Court to government

The Supreme Court today directed the Centre to ban imports of all substances identified and declared to be hazardous or toxic wastes under the Basel Convention and its protocols. A Bench of Justices Altamas Kabir and J Chelameshwar also asked the Central Government to bring the Hazardous Wastes (Management & Handling) Rules, 1989, in line with the Basel Convention and Articles 21 (personal liberty), 47 (improve nutrition) and 48A (environmental protection) of the Constitution.

Washing the dyed fabrics in River Cauvery still remains unchecked in Erode district

The practice of washing the dyed fabrics in River Cauvery still remains unchecked in the district, adding more pollution to the river water that is already too dirty and becoming unfit for human consumption. The units have been carrying out the practice with impunity and the authorities have not initiated any serious efforts to deter them. Many units resort to the practice of washing the toxic dyes and dirt from the fabrics in the river as it is much cheaper and it involves less trouble.

Fish death leaves PCB high and dry

The recurrence of large-scale fish death in the Periyar river has left environmentalists and the Kerala State Pollution Control Board (KSPCB) officials a worried lot. The situation assumes importance in the wake of the ongoing

trawling ban when the demand for freshwater fish is at its peak. According to environmentalists, after May 3, there have been over 18 instances of large-scale fish death in the Periyar. "Fish death has become common in Eloor. Though the phenomenon is usually seen in summer and was expected to stop with the onset of monsoon, it has not.

E-Waste law: New paradigm or business as usual?

The new e-waste rules notified by the government are an important step forward. However, loopholes which allow producers to evade their responsibility and the informal sector to evade environmental and health controls need to be addressed. It is also important to create mass awareness and make it easier for the consumer to dispose e-waste. Policy should encourage cooperation rather than competition between those responsible for disposing e-waste.

Government Plans Water Audit for Industry

The government plans to set up an agency on the lines of the Bureau of Energy Efficiency to encourage conservation of the increasingly scarce resource, official sources said. The water resources ministry has also roped in industrial bodies such as FICCI, Assocham and CII to conduct an audit of water consumption by industries.

Parliamentary panel pitches 2% spending on CSR mandatory

A Parliamentary panel has suggested that 2 %spending by corporates on CSR activities in the new Companies Bill should be made mandatory to prevent

them from escaping the liability by citing one reason or the other.

Velachery Lake in for major facelift, water hyacinths cleared

The Velachery Lake in Chennai is in for a major facelift. Preliminary work began recently on removing the thick layers of water hyacinth that cover the eastern part of the lake. Soon, a proposal to build a walkers' path around the lake's perimeter could take off. This is part of the larger development proposal for the lake, which includes parks and boating services. Officials of the Water Resources Department of the PWD are currently preparing wide development proposals for the Velachery Lake. This is expected to be completed in a week's time, after which officials and elected representatives are expected to decide on the final road map.

HC bars new construction in Gurgaon

Taking a serious view of exploitation of ground water in Gurgaon, Punjab and Haryana High Court today barred issuance of any fresh license for construction activity unless builders give an undertaking that underground water would not be drawn by them. The court asked the Haryana Urban Development Authority (HUDA) to ensure that the undertaking by the builder or individuals should make clear the source of water drawn by them for construction purposes in Gurgaon, Delhi's satellite city which has become base of several MNCs over the years.

Kerala charts out plan to tide over climate change

Introduction of a "climate-tailored agricultural management" system,

preservation of ecologically important biomes, and development of water bodies are some of the strategies proposed by the State to overcome the impact of climate change. The strategies have been listed in the State Action Plan for Climate Change, prepared by the Department of Environment and Climate Change. The strategic plan, with a projected financial outlay of ₹1,000 crore, is being circulated among various stakeholders.

Forest loss makes lemurs world's most endangered primates

The lemurs of Madagascar - known for their haunting cries and reflective eyes - are the most endangered primate group on Earth, because they are losing their forest habitat, the International Union for Conservation of Nature said on Friday. Conservationists meeting in Madagascar's capital Antananarivo this week said 91% of the world's 103 lemur species are now listed as critically endangered, endangered or vulnerable on the global Red List of Threatened Species, a sharp increase from a previous assessment in 2005.

Amazon's doomed species set to pay deforestation's 'extinction debt'

The destruction of great swaths of the Brazilian Amazon has turned scores of rare species into the walking dead, doomed to disappear even if deforestation were halted in the region overnight, according to a new study.

Vulture centre ready for August launch

Jharkhand's maiden vulture breeding centre is ready to start functioning from August after more than four years of delay and flawed construction work that

resulted in a false dawn in 2011. Officials in the forest department claimed that work was almost complete for opening the centre in Muta, around 25km from the state capital.

Source:<http://www.indiaenvironmentportal.org.in/>

5) State in Focus: Andhra Pradesh

(i) Major environment issues: Air pollution

Vehicular and industrial pollution of the air are a major cause of concern as several health problems trace their origin to them. Pollution from man-made sources is more abundant in urban and industrial areas than in the rural areas. The quality of the ambient air in a few urban areas of Andhra Pradesh, like Hyderabad, Visakhapatnam, Vijayawada and some others, has been deteriorating over the past few years due to various factors like emissions from vehicles, thermal plants and industries. Hyderabad, Visakhapatnam, Vijayawada and Tirupati where there is very high automobile pollution, are showing a dangerous trend with the levels of Carbon Monoxide and Suspended Particulate Matter (SPM) increasing perilously. The total vehicular pollution load in the twin cities of Hyderabad and Secunderabad and in other urban areas is increasing with the population. This has resulted in the formation of slums and industrial clusters. As per the Botany Department, Osmania University the mean maximum temperature of Hyderabad city rose by four degrees celsius from 25 C in the 1960's to 29 C in the 1990s. This effect is a direct result of the increase in air pollution, as well as in built-up areas. High densities and shortage of greenery and

open spaces have vastly contributed to this rise in temperature.

(ii) Water availability and quality

75 % of the cropped area in the State depends on low and uncertain rainfall. The State receives an average rainfall of 1138 mm ranging from 569 mm in the eastern part of the State to 4029 mm in the western part of the State. There has been deficit rainfall in most parts of the State since the past three years, emphasizing the need to focus on activities for harnessing rain water and recharge of ground water. 64% of the rural habitations and 47% in the urban areas receive less than the State stipulated water supply norm.

The application of fertilisers in the Godavari basin is more than twice the national average. Maximum BOD load is from industrial sources. In addition to BOD load, industry releases various toxic pollutants in the rivers. The organic pollution load contributed daily by the urban sector. Ground water is highly susceptible to contamination because of human activity. The leaching of surface materials also pollutes the ground water. Due to urbanisation and industrialisation large volumes of solid wastes and sewerage are discharged on the land without any treatment. They seep into ground, leading to pollution. This is indicated mostly by the high concentration of EC, Nitrates, and Chlorides in the ground water. A study conducted by Central Ground Water Board (CGWB) in Hyderabad revealed that the bulk drug producing and chemical industries located in and around L B Nagar, Uppal, Bolaram, Jeedimetla, Sanathnagar and Balanagar

areas are causing adverse effect on ground water quality. The colour and chemical constituents of ground water from the surrounding areas of the chemical industries is generally beyond desirable limits. In a similar study conducted by CGWB in Visakhapatnam it was found that the industrial effluents released on ground have the greatest potential of polluting ground water. The study shows that the effluents travel downward till they reach water table and move laterally. Due to heavy rainfall the matter is further washed down to reach the water table. The area irrigated under the tanks has been declining uniformly in all drought - prone areas. In general this trend is observed throughout Andhra Pradesh but the percentage decline is more in the drought - prone areas as compared to non-drought prone areas. This indicates the deteriorated condition of tanks. Lake Kolleru is identified as the largest fresh water lake system in Asia. The major salt-water lake in A.P. is lake Pulicat located in the Nellore district. The Pollution Control Board is monitoring the quality of water in the Kolleru Lake regularly and their studies found that BOD levels exceed the permissible limits. pH is between 7.0 to 7.5. Nutrients also exceed the permissible limits and hence there is excess weed growth in the lake.

(iii) Major environment issues: Pesticide residue

The constant, unabashed use of chemical fertilizers has left the soil in a totally bad shape. Soil degradation continues as natural way of soil enrichment has been pushed aside in keeping with the times calling for quick

results. The salinity and alkalinity of soils has gone up. In fact the total salt affected is found to be 203 lakh hectares. Saline soils occur in large areas overlying the coastal sands in the coastal districts. Saline-alkali soils occur to an appreciable extent in the coastal districts and Anantapur and Kurnool districts of Rayalaseema and in many parts of Telangana districts. Non Saline - alkali soils occur to a considerable extent in the districts of Nalgonda, Mahaboobnagar, Medak, Kurnool, Anantapur and also in parts of Nellore. In Telangana region, especially in Nalgonda and Mahaboobnagar districts, alkali soils have come to exist due to irrigation with poor quality waters, which are loaded with residual sodium carbonate. Use of pesticides, especially insecticides for the crop of cotton, red gram and vegetables while lower than the national average is still a cause for concern. The pesticides, which are not easily biodegradable enter the aquatic fauna herbivores and human body through food and water and accumulates in the human body over a period of time. This bioaccumulation in the body is a serious health hazard. While specific information on this is still very scanty, yet isolated studies have revealed the presence of pesticides beyond permissible limits especially in vegetables. Fortunately, the ban on DDT and BHC and increased adoption of integrated pest management practices has curtailed the use of some very harmful pesticides. However, the risk of pesticide leachate and its effect on human health remains.

(iv) Major environment issues: Forest and biodiversity

Andhra Pradesh being strategically located in the central region of the Indian subcontinent, has some representatives of the biological wealth of India. Its varied topography from the hilly ranges of the Eastern Ghats, the Nallamalais to the shores of Bay of Bengal, support varied vegetation types enriched by a variety of flora and fauna. Deccan plateau represents about 53%, Central plateau 35%, Eastern Highland 11% and East Coastal Zone 1%. Rare and endemic plant species such as *Cycas beddomei*, *Pterocarpus santalinus*, *Terminalia pallida*, *Syzygium alternifolium*, *Shorea talura*, *S. tumbaggaia*, *Psilotum nudum* etc., are present in the state.

A handy way of describing biodiversity is to describe the fauna and flora. There are communities, populations and species of plants and animals in the state which show a great degree of variation. The range is wide indeed. The hills (Eastern Ghats being prominent), the wetlands (millions of them with wetland systems like Kolleru and Pulicat being very large), and manmade systems like the Nagarjunasagar and Srisaillam Reservoirs), mangroves (*Coringa* being an important one) Deccan and Central plateaus of Telangana and regions of Rayalaseema, rivers (mainly Krishna, Godavari and Pennar), the coasts, estuaries and forests, which are largely dry deciduous with variations from near moist deciduous of Eastern highlands to the scrub of Rayalaseema. There are also smaller groves which are sacred or protected. Many forest areas are encroached for cultivation. Some have been nibbled for non-forest use in projects like irrigation or mining. The chief reservoirs of biomass produce are the forests. With increasing

demands and more advanced modes of exploitation, the state's natural resources are dwindling at an alarming rate. The reasons attributed to this reduction are

- Growing human and livestock population
- Increased extraction rates, chiefly for the urban industrial markets
- A large cattle population dependent on a grossly inadequate pasture land, leading to over grazing and therefore shortage of fresh fodder
- Conversion of forests and pastures into agricultural land.

The growing pressures are leading to degradation of land, water and air and shortages of food, fodder and fuel. It is narrowing the access to the resource base, especially for the rural poor, who are directly dependent on these for their day to day existence.

(v) Primary legislations governing environment management in Andhra Pradesh

- Environment (Protection) Act, 1986,
- The Air (Prevention and Control of Pollution) Act 1981
- The Water (Prevention and Control of Pollution) Act 1974
- The Biological Diversity Act 2003
- The Wildlife Protection Act, 1972
- The Forest Conservation Act, 1980
- Hazardous Wastes Management and Handling Rules, 1989
- Municipal Solid Wastes Management Handling Rules, 2000
- Biomedical Wastes Management and Handling Rules, 1998

- Batteries (Management & Handling) Rules, 2001
- A separate notification for the regulating activities in the coastal areas of the country, the Coastal Regulation Zone Notification, 1991
- Environment (Protection) Act, 1986 and the rules framed thereunder

6) Recent Environment audit report: Audit Report (Civil), Goa For the Year 2010-11--(Protection, Conservation and Development of Forests in Goa)

The State of Goa has forest coverage of 1,224.46 sq km under three categories (Reserve Forest- 251.44 sq km, Protected Forest- 711.44 sq km and Un-classed Forest- 261.58 sq km) apart from private forests of 200 sq km, which together represent 38 %of the geographical area (3,702 sq km) of the State. There is one National Park, six Wildlife Sanctuaries and one Zoo in the State, covering an area of 754.91 sq km. The management of forests in the State is regulated by the Indian Forests Act, 1927, the Wildlife (Protection) Act, 1972, the Goa, Daman and Diu Preservation of Trees Act, 1984 and the Forest (Conservation) Act, 1980.

Despite a lapse of five years from the time the National Forest Commission recommended formulation of the State Forest Policy, the State had not notified its Forest Policy. While the Management Plan for one Wildlife Sanctuary was prepared, the same for the other Wildlife Sanctuaries and one National Park were still to be prepared. The Working Plans in respect of the two territorial divisions were also pending approval of the Government. There were delays in utilisation of funds under the Centrally

sponsored schemes meant for protection of forests, their conservation and development resulting in the department losing funds from the Centre. There was under-utilisation of funds under centrally sponsored schemes like Management Action Plan on Mangroves, Integrated Development of Wildlife Habitats, and Integrated Forest Development Scheme.

There was delay in notifying the forest areas thereby hampering the protection of these areas, and its consequent conservation and development. Mutation in land records was not completed despite High Level Committee directions of May 2007. Conservation of forests suffered due to poor implementation of the Preservation of Trees Act, 1984 and the Forest Conservation Act, 1980. Offence cases registered during 2003-10 under various Acts were pending for want of compliance reports from the Range Forest Offices.

The provisions of the Preservation of Trees Act, 1984 pertaining to replanting of trees for conservation of forest were poorly enforced. Further, compliance of the Forest Conservation Act, 1980 was not ensured during diversion of forest land to non forest purposes. Shortfall in compensatory afforestation further hampered the conservation of forest cover in Goa. There was also non-recovery of penal Compensatory Afforestation charges from mines and non-monitoring of compliance of conditions stipulated by GOI when granting permission for diversion of forest land for mining. The decrease was two and three sq km in moderately dense forests and open forests respectively.

Source:

<http://saiindia.gov.in/english/home/Recent/Recent.html>

7) Coordinated Parallel Audit on Protection of Black Sea against Pollution (2011)

Introduction

The initiative of conducting the Coordinated Parallel Audit on Protection of the Black Sea against Pollution was introduced by the Accounting Chamber of Ukraine during the XII INTOSAI Working Group on Environmental Auditing (hereinafter INTOSAI WGEA) meeting, that was held on January 25-29, 2009 in Doha, State of Qatar. In July 2009 the Accounting Chamber of Ukraine has send invitation letters to the potential participants of the parallel audit, in particular to SAs of Black Sea region countries: Republic of Turkey, Republic of Bulgaria, Romania, Russian Federation and Georgia, as well as to SAs of Danube river basin: Federal Republic of Germany, Republic of Austria, Republic of Hungary and Slovak Republic. The initiative of conducting audit was supported by 10 SAs (Republic of Austria, Republic of Bulgaria, Republic of Hungary, Federal Republic of Germany, Georgia, Russian Federation, Romania, Slovak Republic, Republic of Turkey and Ukraine), 6 of which agreed to participate in it. In terms of this, the draft of the Common Position on Cooperation for the Coordinated Parallel Audit of Protection of the Black Sea against Pollution was introduced during the VII EUROSAs Working Group on Environmental Auditing (hereinafter EUROSAs WGEA) meeting, that was held

on October 5-8, 2009 in Sofia, Republic of Bulgaria.

Audit objectives and scope of audit

The audit objective was **to assess the implementation of commitments resulting from international agreements and collaborative projects on prevention of disasters and catastrophes and pollution of the Black Sea marine environment as well as to monitor and assess the efficiency while utilizing the public funds allocated to this end.**

The scope of the audit:

- Implementation of international agreements regulating pollution of the Black Sea marine environment;
- Organization efficiency of the national system for control, prevention and consequent elimination of marine environment pollution;
- Utilization efficiency of the public funds allocated to protection of the Black Sea basin waters against pollution;
- Implementation of international collaborative projects on protection, monitoring and assessment of the waters quality in the Black Sea catchment area.

Common Audit Questions were to:

- Establish main pollution sources of the waters in the Black Sea catchment area;
- Identify the common legal framework for the cooperating countries that falls within this audit and assess the compliance level;
- Assess and compare the systems for control, prevention and consequences elimination of the marine environment pollution;

- Assess the activities of the authorities regarding the protection of waters in the Black Sea basin;
- Determine and assess the implementation efficiency of international, national and regional programs as within the frames of this audit;
- Determine the dynamics of the qualitative composition of the Black Sea waters.

The participants of the audit included SAIs of: Turkey, Bulgaria, Romania, Ukraine, Russian Federation and Georgia. Audit coordinator was SAI Ukraine.

Joint report was prepared as well as individual country wise reports of all the participating SAIs.

Joint Conclusions

In terms of significance of the Black Sea and its basin for sustainable development of the Black Sea region countries, their governments have taken main necessary measures for implementing provisions of the Bucharest Convention on Protection of the Black Sea Against Pollution in their national legislature. Every country of the Black Sea region has identified the government executive authority, responsible for implementation of provisions of the Bucharest Convention on its territory. In addition, the authorities, responsible for supervision and protection of environment against pollution have been identified, as well. As a result, **state policy of these countries was oriented on decrease and prevention of the Black Sea pollution from land-based sources, as well as on intensification of supervision and responsibility for the caused damage. However, “polluter pays” principle has not been fully implemented**

and the issue of oil pollution from ships remains unsolved.

Despite the efforts at national and regional level, **the eutrophication phenomenon of the sea by compounds of nitrogen and phosphorus (nutrients), largely as a result of pollution from agricultural, domestic and industrial sources, is still the main challenge for the Black Sea Environment.** Although there is a growing trend in investments on the sewage systems and waste water treatment plants in both the river basins and coastal cities, there is yet much more to do since the current situation is still inappropriate. Inputs of untreated sewage and industrial waste water are not adequately controlled, and therefore significant funds are necessary for the implementation of river basin management. The Black Sea region countries managed to establish sufficiently wide Black Sea water monitoring system, which allows receiving reliable and rather complete data on marine ecosystem quality changes. However, **the issues of financing the development and functioning of the existing monitoring systems activities on the national level, as well as financing issues of scientific laboratory researches conduction, create certain risks in well-timed receiving of high quality data concerning marine environment.**

There are **gaps in data availability and data reporting due the insufficient correlation among national standards.** This leads to gaps also in Black Sea Information System (BSIS), and as a result of the lack of a comprehensive common database, data production and reporting

activities become less effective in achieving the anticipated targets.

Insufficient financial support of monitoring is one of the common challenges of the Contracting Parties in carrying out their national monitoring programs. They affect adversely both the quantity and quality of the data as well as sustainability and efficiency of monitoring programs of the coastal countries.

Lack of harmonization and standardization between the national monitoring programs makes it more difficult to develop common strategies for the collaborative struggle against pollution.

Joint Recommendations

- In order to protect the Black Sea Environment against untreated waste water dumping, concrete and continuous measures should be taken by all coastal countries. The number of waste water treatment plants should be increased and the level of treatment at the available treatment plants should be improved. For this purpose, sufficient and adequate funds should be allocated for treatment systems.
- Supervision systems need to be improved especially to deal with illegal dumping into the rivers and the Black Sea. It is necessary to strengthen the capacity building of the national supervisory authorities in order to properly control all polluters and all sources of pollution that affect the Black Sea Environment.
- It is imperative that strategies for the controlling of pollution carried by rivers be adopted by all Black Sea coastal

countries. In this regard, river basin management programs should be prepared and implemented effectively by the above mentioned countries, especially the ones which do not have yet. It is essential that “*the best agricultural practice*” be adopted and implemented by all the Black Sea coastal countries, for the purpose of reducing nutrient inputs from agriculture sources.

- Data quality assurance and quality control procedures should be developed by the BSC (AG IDE) for all the data and information regarding its activities. The Contracting Parties should follow these procedures to ensure the reliability, relevance and completeness of the data and information included in their national reports so that BSIS could be an effective mechanism able to achieve the anticipated targets through the common efforts of countries and the BSC.
- Harmonization of monitoring programs and standardization of sampling and sample analysis techniques among the countries should be achieved in order to ensure the sustainability and efficiency of the monitoring programs in the countries.
- With the purpose of comprehensive and practical risk assessment due to gradual increase of oil shipping in the Black Sea, it is essential to ensure better cooperation, scientific data exchange and implementation of “polluter pays” principle.
- To improve scientific regional cooperation.

- Good environmental protection for the Black Sea not only depends on the strong regional collaboration but also requires international initiatives. Regional and international initiatives to protect the Black Sea should be enhanced especially via developing the operational capacity of the BSC. Within the scope of the BSC activities, efficient strategies are needed to be emphasized in order to obtain the necessary funds from the UN and other international donors.
- To improve the collaboration between the BSC member countries in order to practically provide sustainable development of the Black Sea.

Source: www.environmental-auditing.org