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Challenges in auditing the Natural Resources-Indian Perspective.

"Conservation and Protection of Tigers in Tiger Reserves"

Presentation by

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Environmental Audit-Significance for SAI-India.

- ☺ India-vast country with second largest population in the world(1.1bn).
- ☺ Pressure on natural resources due to the population and economic growth.
- ☺ Environmental issues such as Global Warming, Deforestation, Loss of wildlife, Declining quality of Air, Water, Soil; Lack of adequate safe drinking water, sanitation etc are a concern.
- ☺ SAI-India mandated to audit all governmental programs-regularity and performance audit.

Environmental protection in India

- Protection of environment was incorporated in the Indian constitution.
- India is a signatory to the CBD,1992 ratified in 1994,and CITES ratified in 1976.
- Several environmental legislations enacted for protection of natural resources and prevent loss of biodiversity.

Environmental management in India

- Management of environment is a shared responsibility of the central government and the provinces.
- Protection of wildlife and forests is a joint responsibility of the centre and the provinces.
- Appropriate regulatory bodies and implementing agencies are created at the centre and the provinces to enforce the legislations.

Significance of the audit topic-conservation and protection of tigers

- The rapidly dwindling tiger count is a concern for the environmentalists and the government.
- Tiger is at the apex of the foodchain therefore represents health of the forested ecosystem.
- The "Project Tiger" is being implemented since 1973 to protect the Indian tiger from extinction.
- Inspite of the governmental action to conserve biodiversity, poaching, illegal trading and smuggling of tiger body parts continues till date.

Audit Scope and objectives

- *Scope of Audit*:
- ❖ Audit covered functioning of the nodal ministry, the Project Tiger Directorate, Wildlife divisions, field offices in 24 tiger reserves.
- ❖ Govt's efforts in terms of deployment of human resources, methods adopted, monitoring mechanism etc were examined.

- *Audit objectives* were to assess whether,
- ➢ the govt's initiatives ensured viable population of tigers
- ➢ Planning, resource allocation and utilization were adequate
- ➢ Efforts for reducing biotic pressure were effective

Audit sub-objectives

Audit aimed to examine whether,

- govt's activities such as wildlife management, protection measures, and specific Eco-development initiatives have yielded the desired results.
- the capacity of the Protected Area Management has been improved
- the efforts to conserve bio-diversity had the support of the provincial govts and the local communities in the ecologically vulnerable areas

Audit methodology

- Performance audit principles were followed
- Test check of files, documents, Research reports, maps,
- Entry conference conducted to ensure co-operation of the governmental agencies.
- Simultaneous audit in 17 provinces with common approach.

Audit findings

- **The PTD which is the coordinating agency for the project implementation lacked proper monitoring system. Insufficient manpower for monitoring the project.**
- **Approved Management Plans for development of the tiger reserves were not existing in many reserves.**
- **Financial projections as well as sanction of funds not adequate**
- **No correlation between the area of the reserve, number of tigers and funds released.**
- **Mapping of the forests not completed due to lack of research personnel**
- **Eight new tiger reserves though proposed were not created.**

Audit findings

- Important activities suffered due to diversion of funds.
- Infrastructure created for preventing poaching was not adequate
- Legal formalities not completed in many reserves to notify them as national parks
- Human settlements continued in the reserves due to lack of funds for relocation of the families.
- Lack of seriousness in some provinces for relocation even after funds were provided
- Encroachments lead to biotic pressure.
- Lack of guidelines for regulating and monitoring Eco-tourism added to the biotic pressure.

Audit findings

Tiger reserve management:

- Desilting of water bodies not done satisfactorily
- Shortfall in water holes, ponds, dams etc
- Contamination of water holes due to mining
- Grasslands required for fodder not developed
- Eradication of weeds not taken up
- Prey-Predator ratio not taken up
- Unauthorised felling of trees and saw mills continued
- Progress on creation of wildlife corridors slow
- Targets set for creation of self-help groups, fuel-saving ovens, bio-gas plants, generation of employment for forest dwellers were not achieved.
- Failure to take stringent action against offenders resulted in continuation of poaching
- Inadequate staff, lack of training, poor intelligence network, insufficient arms and ammunition.
- Tiger population declined in some reserves during 1984-2002.

Audit findings

Other points of interest:

- Exit/Entry points in airports, seaports, checkposts were not monitored properly to prevent smuggling of wildlife products.
- No substantial research was carried for habitat improvement
- Effective fire fighting measures were not implemented inspite of frequent fires in the reserves
- Factors of biotic pressure included govt projects such as construction of irrigation projects, Highways, Electricity transmission lines in the forests.
- Many provincial govts failed to constitute the "Tiger Conservation Cell" for monitoring the project implementation.
- Tiger census was not carried out annually in some reserves.
- Counting pugmarks was the main method for tiger census which is not very accurate.

Audit recommendations

- **Tiger reserves should have well-formulated management plans and annual plans with measurable targets.**
- **Detailed mapping of the tiger reserves and notification of boundaries to be completed.**
- **Allocation of funds and utilisation to be streamlined**
- **Relocation of local families out of the reserves with attractive financial package.**
- **Effective mechanism to address the needs of the forest dwellers**
- **Eco-tourism to be regulated**
- **communication and intelligence network to be strengthened to control poaching and smuggling**
- **Patrolling to be augmented with suitable staff.**
- **Effective monitoring by the PTD, the central govt and the provinces and accountability to be enforced.**
- **tiger census to be carried out regularly through scientific methods.**

Impact of Audit

- **The Government enacted the Wildlife (Protection) Amendment Act,2006 in september,2006 which provides for stringent measures for tiger protection.**
- **A "National Tiger Conservation Authority" has been constituted in September,2006 with strong presence of wildlife and forest conservation experts as members.**
- **A "Wildlife Crime Control Bureau" has been constituted.**
- **A new project-The 'Biodiversity Conservation and Rural Livelihood Improvement Project' proposing participatory management of the reserve forests involving local rural communities has been launched with funding from IDA and the GEF.**
- **6482 new Joint Forest Management Committees formed.**

Impact of Audit

- All India Tiger estimation process redefined. A "Tiger habitat evaluation and Monitoring system" using GIS modeling has been initiated.
- Mapping of forest types, Wildlife Sanctuaries and National Parks initiated.
- A 'Tiger Conservation plan' is under preparation which will contain specific provisions for staff development and deployment for proper management of tiger reserves.
- Funding provided to the tiger reserves for capacity building, patrolling, deployment of anti-poaching squads, vehicles, ammunition etc.

Challenges and lessons learned

- The review was a comprehensive study focusing on the tiger conservation efforts in 24 tiger reserves conducted simultaneously involving large no.of audit teams.
- It required development of a common audit approach.
- Lack of adequate data and multiple implementing agencies
- It was learned that in addition to the financial aspects, and creation of infrastructure, a project of this kind requires good understanding of the needs of the forest communities and their involvement is an absolute necessity to realise the objectives of the project.

THANK YOU