Environment and Social Audit for Smart City Planning Perspective in India

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1 ABSTRACT

In view of the fact that development is an ever growing process, its impact is also ever increasing, leading to rapid deterioration in environmental conditions and human health, auditing thus ensures that the potential problems are foreseen and addressed at an early stage in the projects and account the causes of detoriation during execution of as per requirement of smart city planning. Environmental auditing and social auditing are used to predict the consequences of any planning and execution of development phases; as such Auditing provides scientific approach to sustainable development for city plan. The auditing are thus a systematic process of identifying cause and consequences of phase development of planning practice in consultation with the individuals or society.

Environmental Site Assessment (ESA) tools have been applied internationally to ensure that proposed actions are economically viable, socially equitable and environmentally sustainable or not for planning stage. ESA is a process having the ultimate objective of providing decision-makers with an indication of the likely consequences of their actions. Environmental assessment enables us in carrying out environmental cost-benefit analysis of projects at an initial stage. It is thus a pre-cursor to detailed analysis of environmental impacts, which are taken up only if a need for the same is established. It gives a view of the actors involved in the development-environment linkages. This is required in view of the fact that the community at large is always at a loss in terms of deterioration of living environment that accompanies any development. Based on environmental assessment, the regulatory measures can be identified and the roles of concerned agencies defined for achieving more efficient environmental management. Further Environmental safeguard accounting including carbon foot print measuring can assesesmart accounting of any development plan.

Social Assessment (SA) is carried out to ascertain the impacts, which would occur due to implementation of the project. The exercise facilitates identifying types and extent of impacts and also identifying impacts that can be minimized by good planning practices. Efforts are made to mitigate impacts, which cannot be minimized during the planning stage. The assessment is thus a systematic process of identifying and mitigating impacts on individuals or society in consultation with the individuals or society affected. Further social auditing and pay back mechanism can assess the social viability of smart city planning.

The Supreme Audit Institution (SAI) in India is a constitutional authority, headed by the Comptroller and Auditor General (CAG) of India. The CAG of India derives his mandate from articles 148 to 151 of the Indian Constitution, examines various aspects financial, compliance and performance audit. Environmental and social audit by SAI India is conducted within the broad framework of compliance and performance audit.

This paper aims to integrate aspects of environmental audit and social audit for accounting smartness of city. Government of India (GoI) has decided on developing 100 "Smart Cities" in the country. It includes one satellite city of each of the cities with a population of 4 million people or more comprises of 9 cities, most of the cities in the population range of 1 to 4 million people about 35 out of 44 cities, all State/UT Capitals, even if they have a population of less than one million including 17 cities, cities of tourist, religious and economic importance not included 10 cities and cities in the 0.2 to 1.0 million population ranging 25 cities. This paper is framing out the parameter for accounting the environmental audit and social audit for smart city in India.

2 INTRODUCTION

In view of the fact that development is an ever growing process, its impact is also ever increasing, leading to rapid deterioration in environmental conditions and human health. Impact assessment thus ensures that the potential problems are foreseen and addressed at an early stage in the projects planning and design. Environmental audit and social audit are used to conduct the management process in any flow dynamic system. As such audits provide a rational approach to evaluations intended to identify compliance and effectiveness of management systems.

Environmental Auditis, is a general term that can reflect various types of evaluations intended to identify environmental compliance and management system implementation gaps, along with related corrective actions. In this way they perform an analogous function to other audits. There are generally two different types of environmental audits: compliance audits and management systems audits. Environmental compliance audits as their name implies are intended to review the site's/company's legal compliance status in an operational context. Compliance audits generally begin with determining the applicable compliance requirements against which the operations will be assessed. This tends to include federal regulations, state regulations, permits and local ordinances /codes. In some cases, it may also include requirements within legal settlements. Audits are also focused on operational aspects of a company/site, rather than the contamination status of the real property. Assessments, studies, etc. that involve property contamination/remediation are typically not considered for an environmental audit. ISO 14001 or ISO9001 etc are international standard for environmental management systems ("EMS"). ISO 14001:2004 provides the requirements for an EMS and ISO 14004 gives general EMS guidelines. An EMS meeting the requirements of ISO 14001:2004 is a management tool enabling an organization of any size or type to:

- Identify and control the environmental impact of its activities, products or services;

- Improve its environmental performance continually, and

- Implement a systematic approach to setting environmental objectives and targets, to achieving these and to demonstrating that they have been achieved.

Environmental audit can be defined as a basic management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organisations, management systems and equipment are performing. The aim of the audit is to facilitate management control on environmental practices and to enable the company to assess compliance with its policies including meeting regulatory requirements.

A social audit is a process of reviewing official records and determining whether state reported expenditures reflect the actual money spent on the ground. A social audit assists in verifying the social performance claims of the government schemes and revolves around the principles of equity, social responsibility, trust, accountability, transparency, inclusiveness and community benefit. As defined by the Grameen Bharat, a monthly newsletter by Ministry of Rural Development (MoRD) 'Social Audit' is "a public assembly where all the details of the project are scrutinized". It is "a way of measuring, understanding, reporting and ultimately improving an organization's social and ethical performance" as per the National Institute of Rural Development (NIRD). The concept of Corporate Social Responsibility (CSR) followed by corporations around the world lays the foundation of social audits. Social audit serves as an instrument for the measurement of social accountability of an organization. It is an in depth scrutiny and analysis of the working of an entity in which the public is involved vis a vis its social relevance. It provides critical inputs to correctly assess the impact of government activities on the social well being of citizens; determines the social cost and gauges the benefit to the society.

3   COINAGE OF ENVIRONMENT AND SOCIAL AUDIT IN INDIA

Environmental Audit in India: The Supreme Audit Institution (SAI) in India is headed by the Comptroller and Auditor General (CAG) of India who is a constitutional authority. The CAG of India derives his mandate from Articles 148 to 151 of the Indian Constitution. The CAG's (Duties, Powers and Conditions of Service) Act, 1971 prescribes functions, duties and powers of the CAG. While fulfilling his constitutional obligations, the CAG examines various aspects of government expenditure and revenues. The audit conducted by CAG is broadly classified into Financial, Compliance and Performance Audit. Environmental audit by SAI India is conducted within the broad framework of compliance and performance audit.

India is the first country in the world to make environmental audits compulsory. The government of India by its gazette notification [No.GSR 329 (E)] of March 13, 1992, made it mandatory for all industries to provide annual environmental audit reports of their operations, beginning with 1992-93. This required industries to provide details of water, raw materials and energy resources used, and the products and wastes generated by them. These audit reports were to be submitted to the concerned State Pollution Control Boards (SPCBs) or before September 30 every year.

This scheme was expected to promote proper monitoring of industrial activities, adoption of low cost technology and minimisation of resource consumption. But though it has been in force for more than two years it has not made much headway. Out of the lakhs of industries that exist in India, only 2,995 audit reports were filed by December 1993. It has also become obvious that the deadline of September 30 is not adhered to. Due to widespread non-compliance, this deadline has been extended a number of times. Champions of this regulation fee are that the government has adopted a proactive approach to the conservation of natural resources, instead of observing the usual command and control method. Its critics feel that this notification was hurriedly implemented without the prior creation of necessary infrastructure/experts which would enable its appropriate implementation.

This novel concept of environmental audit was distorted, surprisingly, by the government, when on April 22, 1993, by a revised notification [No. GSR.386 (E)] the term Audit Report was replaced by Environmental Statement. This change inevitably toned down the impact of the regulation.The industries were now to fill a form and submit it to the concerned Pollution Control Boards (PCBs). It made it easy for industries to make statements to the effect that they have taken the requisite steps in compliance with existing pollution control regulations. These statements might not be based on actual audit reports. If this becomes a rule, the whole purpose of the environmental audit regulation would be defeated. Industries have a list of grouses against environmental audits. They are opposed to environmental audits. They are opposed to the disclosure of their modus operandi to the public, who they feel are not mature enough to follow the importance of such data. They fear it would lead to legal wrangles and litigation and that the data would be used by PCBs for prosecution. Publishing details of raw materials used and processes might reveal their trade secrets. Even the PCBs have no follow up plans. The reports submitted are not double-checked to find out whether the forms hold the correct data. One report has been examined and acted upon till date. The industries do not get any feedback.

An environment audit programme, if designed and implemented conscientiously, can enhance environmental performance. If a programme sets up its own system in compliance with existing laws, then conducting audits would be a normal and considerably easier procedure. It will expose problems that require action. It improves the material and energy efficiency of production processes, conserves resources, minimises wastes, provides direct economic benefits to the society and stimulates growth as well as the national economy.

Environmental audits are vital not just for a clean environment but also because their use is the best way to correct different problems detected at their source and to minimize wastes and foresee conservation and maintenance measures needed to prevent major pollution, health problems.

Projects in developed countries conduct audits as part of their overall drive for quality assurance to establish a "green edge" over competitors in environmentally sensitive markets. Moreover, green audits are asked for by investment banks before they pour in money. With the Indian economy opening up, industries have no option but to go green if they want to remain in the race.

Social Audit in India: 'Audit' is a Latin word which is translated as 'to hear' in english. Audit is not a recent activity but is a practice that was adopted in the ancient time by emperors to analyse the public sentiment towards their rule and policies. The input of masses was then used to alter the policies. Thus encompassing the whole society in the decision making process of matters of governance.

The term social audits emerged in the United Kingdom and Europe in the mid 1970s. It was used to describe evaluations that focused on the likely impact on jobs, community and the environment. The term social audit was used in such evaluations in order to emphasize that these evaluations had a social angle to them and were not concerned with the economic function of government policies.

In India, the initiative of conducting social audits was taken by Tata Iron and Steel Company Limited (TISCO), Jamshedpur in the year 1979. Social audit gained significance after the 73rd amendment of the constitution relating to Panchayat Raj institutions i.e. bottom up approach in planning. The approach paper to the ninth five year plan (2002-07) emphasized upon social audit for effective functioning of Panchayat Raj institutions that empowered the gram sabhas to conduct Social Audits in addition to its other functions.

In order to eliminate the loopholes in scheme implementation (contractors and middlemen), the Society for Social Audit, Accountability and Transparency, an autonomous body insulated from government interference, was set up first in state Andhra Pradesh (A.P.). The year 2006 marked the starting of social

audits in the state of A.P. From the observations of the surveyors it could be concluded that out of 22 gram panchayats in which social audits were conducted, 17 reported mis-utilization of funds.

Social audits conducted afterwards revealed that after the initial set of audits, the discrepancies in procedures had reduced. A cross section of stakeholders including worksite beneficiaries was aware of the audit and its findings. Interaction with the laborers revealed that after the after the first social audit, wages were being paid on time. The only problem that still troubled the villagers was the weak follow up action in retrieving the swindled sums and poor enforcement of rules.

After the introduction the social audit scenario in A.P changed. Accountability and Transparency (SSAAT) concerns itself with the audits of Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). As per the Act, social audits of MGNREGS have to be carried out every six months.

In the year 2009, social audits were conducted in the Bhilwara region of Rajasthan. The exercise in social audits not only brought to light the loopholes in scheme implementation but also served as a training ground in auditing for the local population. Practices such as not accepting any special food and hospitality from the sarpanch (elected person in village) ensured minimal contact with the sarpanch. Also, the villagers with whom the group ate proved a more balanced source of information.

In response to a public interest litigation (PIL) filed by sarpanches from 16 villages in which social audits were conducted, a division bench of the Rajasthan High Court stayed NREG social audits in sixteen villages. An informal ban was imposed on taking help from the NGOs with respect to social audits in Jhalawar and Bhilwara districts because of this dispute. It is the only state to have passed social audit rules in the year 2008, based on which the GoI issued rules in the year 2011.

Through the letter of the MGNREGA Director, to the Ministry of Rural Development dated 5th July 2012, an appraisal of the MGNREGS in the North Eastern states was presented along with suggestive measures to improve the implementation of the scheme, which are as under: i. selection of master trainers/ resource persons, ii. identification of blocks for pilot social audit, iii. training of master trainers at NIRD, iv. preparation of state specific manuals, v. setting up of social audit units. This hints at efforts being made in the north eastern states to improve social accountability through the means of social audits.

4   WAY TO SMART CITY PLANNING PERSPECTIVE UNDER ENVIRONMENT AND SOCIAL AUDIT

The indiscriminate utilisation of natural resources for meeting development demands, rapid unplanned developments are adversely impacting the environment. Dumping of wastes into our rivers and lakes, clearing forest land for cultivation and increased emission of harmful pollutants into the environment have all contributed to degrading our environment. Trends towards environmental degradation can, however, be slowed and even reversed by active governmental interventions. Over the last decade in India, there has been an increase in efforts in the area of conservation of the environment. Funds allocated for environmental programmes have also been increasing. In this context, first environmental audit report for the year ended 31st March 2009 for government projects (except industry) has been prepared for submission to the president under article 151(1) of the constitution. The environmental audit report is to create awareness and urgency about conservation and protection of the environment which need to be addressed by the government. Environmental audit contains audit findings relating to the themes of afforestation, biodiversity, pollution control and environmental aesthetic. It would serve as an aid to management in better governance of environment. This Audit helps in sensitising policy makers to look at environmental issues with a holistic approach and address the deficiencies in programmes/schemes/policies so that our environment is conserved more effectively. Now the question is how to prepare environmental audit for smart city planning in India. Should it become compliance audit or should it be a management audit.

The overall objective of the environmental audit for the smart city programme in India should be to improve environmental / economical / cultural / historical / heritage and tourism improvement and bring in visible results through implementation of identified environmental improvement projects in these towns and cities. The observation in audit should complt with the outflow of municipal contributions of matching funding. However, works undertaken under this programme remained incomplete in all cities and towns. The cost benefit analysis of a project would be in compliance with the State Pollution Control Board (SPCB) for every year. Further carbon foot print can be advisable to suggest any scheme for further implementation.

The Minstry of Environmental and Forest (MoEF) would become theappellate authority where SPCB would become state level authority to mandate the programme in order to dovetail the environmental concerns with municipal functions and budget to ensure participative and pragmatic planning, as well as to take care of shortcomings in the implementation of the scheme. SPCB / MoEF may play to strengthen the project implementation mechanism and its control/monitoring mechanism before the programme is launched, so that it can effectively achieve the objectives set out for the smart city programme and improve facilities for stakeholders. The main key parameters for auditing are as follows:

Water supply and waste water treatment can be done by using recycled water and water harvesting method:

- Recycling of Waste Water:
- Rain water Harvesting:
    - o energy supply, energy savings and renewable energy development:
    - o waste management,
    - o soil pollution and
    - o air pollution;
    - o cleaner industrial technologies and environmental management:
    - o building construction and urban ecology management:
    - o agriculture and food industries
- For these three hierarchcal set up the following issues are taken into consideration:
- Waste management system – optimal operation of collection, transportation, treatment and final disposal.
- Waste administration, organization and economic instruments.
- Reuse – recycling, energy recovery, etc.
- Environmental communication.
- Sustainable landfills.
- Capacity building – legislative and administrative capacity as to planning, monitoring and control.
- Training and education.
- Food industry and beverages help to susstain smart cities and
- Energy efficient buildings are inograted over this are to take way of sustainble developmennt:

Sky: day lighting and heat sink

Sun: heating, electricity generation and day lighting and solar chimneys

Air: ventilation and heat sink

Water: roof gardens and earth berms, for insulation

Earth: roof ponds, fountains for humidi fication and rain water harvesting

The first stage of smart houses is to incorporate solar passive design interventions and try to reduce the loads on conventional systems. Energy conservation is possible by judicious design of lighting and HVAC (heating, ventilation and air conditioning) systems, controls and operation strategies.

Urban traffic and transportation. Intra sector transportation is needed as well as restrictions of car movement of internal roads; pedestrianisation can be done and cycle patha are beneficiaries.

As to date, in India, there is no blanket statutory mandate for social audits of various organizations / departments / welfare schemes for towns and city planning. The issue is being fervently pursued by the Minister of Rural Welfare, in regard of welfare schemes in year 2014.

Need for social audits, for the push for social audit is the huge disconnect between what people want and what people get. This is mainly because of the game of bribes and swindling of public fund for vested

interest. Programmes are developed by the politicians and implemented under the guidance of the bureaucrats for development of the society. However, the play of margins, cuts, commissions and bribes deflect the public funds from the direction of the intended beneficiaries.

As soon as social audit kicks in, it exercises its control over the policy developers and implementers:

- It measures social benefit,

- Monitors social and ethical impact of an organisation's performance,

- Serves as the basis for framing the management's policies in a socially responsible and accountable manner,

- Boosts accountability,

- Increases transparency and

- Assesses social cost.

At the social audit public hearing forums information is read out publically and people are given an opportunity to question officials, seek and obtain information, verify financial expenditure, examine the provision of entitlements, discuss the priorities reflected in choices made and critically evaluate the quality of work, as well as the functioning of the programme staff.

Thus, the social audit public hearing proves to be a platform for in depth scrutiny of works that has been conducted in an area and gives the people an opportunity to review compliance with the requirements of transparency and accountability.

Here are some of the major parameters for social audits:

- While conducting a social audit, it is required that the purpose is clearly defined.

- The stakeholders should be properly identified.

- A note should be made of whether marginalized social groups, which are normally excluded, have a say on local development issues and activities and have their views on the actual performance of local elected bodies.

- The auditor must obtain information from reliable sources. After the introduction of Right to Information Act in 2005, the task of obtaining statistics and other information from the government departments had become a lot easier than before.

- The performance indicators adopted by the society at large should be taken as standards in order to judge the performance.

- Regular meetings and follow ups must take place in order to ensure the continuity and effectiveness of audits.

- Proper mechanisms must be set up in order to recover the swindled money from the corrupt officials.

- Substantive procedures are required to be devised instead of compliance procedures to gauge the performance.

- Hierarchy needs to be defined for conducting social audits and

- External Parties such as NGOs should be involved in conducting audits

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