

Chapter – 5

Conclusions and Suggestions

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5.1 Introduction

Environment has a special significance for all living things in general, and human beings in particular. Hence, protection of the environment should be given highest priority, because it can adversely impact the whole biosphere or living things. Especially, environmental pollution very badly affects all the living things, particularly human beings, animals, plants etc. Therefore, protection of the environment through control of environmental pollution is essential. A variety of economic activities contribute to the environmental pollution and there by environmental imbalance. An industrial activity is one of the important contributors to the environmental pollution and degradation. Environmental Audit is a tool of environmental protection and management. Hence, environmental auditing is being practiced specifically to control environmental pollution by the Industrial activities. It is against this over all background, the present research study attempt the empirical analysis of environmental audit by the industries in Sangli district, during the latest period of 8 years from 2001 to 2008.

5.2 Major Conclusions

Based on the secondary data collected, processed and interpreted relating to environmental audit of Industries in Sangli district for the period from to 2001 to 2008 the present research study reveals the following major and important conclusions.

1. Sangli district is one of the famous districts on various grounds in general in Maharashtra. Sangli district is a rapidly economically growing district in the state. It grew at the commendable growth rate of 10.05% per annum during the period from 2001 to 2008.

2. Sangli district mainly relies on tertiary sector for its development. At the same time, the contribution of secondary or industry sector in economic development of the Sangli district economy is significant one. Its secondary sector grew at the significant rate of 8.42% p. a. during the period under the study. Likewise, its relative contribution to the district income stood at 18% on an average during the same period.
3. It is a fact that the Industrial development of Sangli district is dominated by the manufacturing sector. The percentage share of manufacturing to industry sector was 65% on an average. However, its growth was slower during the study period. (C G R 4%)
4. The present research study has examined a environmental audit of Rajarambapu Co- Operative Sugar Factory (Sakharale, Walwa) and Vishwasrao Naik Co- Operative Sugar Factory (Chikhali Shirala.) as representatives of large scale industries in Sangli district. It was found that of both the sugar factories Vishwasrao Naik Co-operative Sugar Factory has used water within the prescribed standards of the Maharashtra Pollution Control Board except for cooling purpose. Thus, it is making appropriate use of water resources. However, Rajarambapu Co-operative Sugar Factory has been using water irrationally and extravagantly for all of purposes of water consumption.
5. As far as the raw material consumption is concerned, even though their is absence of norms for its use, Rajarambapu sugar factory has been using raw materials rationally and efficiently specifically like sugarcane, bagaase, lime, ortho P. A., grease and lubricants. Vishwasrao Naik Co-operative Sugar Factory has

attempted the proper use of sugarcane, lime, sulphur only.

6. An important purpose of environmental audit is to control Industrial emissions and their by water pollution. In this background, it was observed that both the sugar factories had greater values than the norms for the pollutants like suspended solids, BOD, COD, oil and grease. T. D. S. sulphate, chloride except the pH before treatment, But after the treatment their values were about equal to the prescribed norms by the Maharashtra Pollution Control Board (MPCB). Industries have been attempting to control water pollution through a tool of environmental audit.
7. The study of efforts made by both these co-operative sugar factories so as to control air pollution or provisions in environmental audit, reveals that they have succeeded in controlling air pollution through the control of emission of Nox and So₂. In the context of SPM, the Rajarambapu Co-operative Sugar Factory has totally failed in controlling the emission of SPM to the extent desirable. The satisfactory thing is that Vishwasrao Naik Co-operative Sugar Factory his been totally succeeded in controlling SPM emissions.
8. With regard to the control of noise pollution, we found that Rajarambapu co-operative sugar factory has succeeded more than Vishwasrao Naik co- operative sugar factory. However, it is a fact that both the sugar factories have a problem of noise pollution. As per provisions in Environmental Audit, it is expected to control the generation of solid waste in general, and hazardous waste in particular. It was found that both the large scale industries have not succeeded in controlling generation

of solid waste as well as hazardous waste during the period under study.

9. The present research study has assessed environmental audit practices of medium scale industries in Sangli district, namely M/s Jolly Board Pvt. Ltd. Kavathemahankal, and M/s Sahyadri Starch Industries Pvt. Ltd., Miraj. With regard to the use of materials consumption, it was found that Jolly Board industries Pvt. Ltd. has been using water excessively. However, Sahyadri Starch has used water within the prescribed norms by the MPCB. At the same time, both these medium scale industries have reduced the use of raw materials as well as energy resources.
10. So far as the attempts to control water pollution by the medium scale industries under our study are concerned both have controlled water pollution significantly through treatment to the waste water.
11. As the part of environmental auditing the medium scale industries under our study have succeeded in controlling air pollution on their campuses. The SPM, SO_2 , emitted by them were far lower than the norms prescribed the MPCB.
12. In respect of the control of noise pollution by the medium scale industries is concerned, we found that to some extent both have controlled the noise pollution. However, more importantly noise pollution problem is found at important places in both the industries. So far as solid waste generation by the medium scale industries under our study is concerned, it is revealed that both the medium scale industries have controlled their solid waste

generation and kept it within the standards given by the MPCB.

13. Our study has examined in all 13 small scale industries environmental auditing practices in Sangli district. So far as water consumption is concerned, it was within the prescribed limits of the MPCB by all the small scale industries under our study. Likewise, they have also significantly reduced the use of raw materials as well as energy. These small scale industries in Sangli district have been properly using resources within the frame work of the MPCB.
14. In the category of small scale industries, only dairy units have data relating to water pollution. Our study reveals that all dairy units have controlled water pollution through controlling various parameters of water pollution within the standards given by the MPCB.
15. The small industries under our study have attempted to generate waste water as per the norms of the MPCB. Within the norms, only they have been generating waste water. However, dairy units are exception for that. They have been generating waste water significantly greater than the prescribed quantity by the MPCB.
16. Our study concludes that small scale industries have been very significantly succeeded in the control of air pollution. When we study the SPM emitted and the norm of the MPCB concerning that, it is adequately proved that the small scale industries under our study have emitted SPM within the prescribed standards.
17. No attempts have been made by the industries under our study concerning safety and health of employees, which is an important component of environmental audit.

5.3 Important Suggestions

Based on the empirical analysis of environmental auditing by the industries in Sangli district, our study gives following important suggestions for proper and effective implementation of environmental auditing and their by control of environment pollution.

1. It is necessary to take due precaution, honest, and rigorous attempts to control water consumption especially by the large and medium scale industries.
2. It is an urgent need or the hour to control air pollution especially by the large and medium scale industries through appropriate measures.
3. The large-scale and medium scale industries should attempt for recycling of solid waste, which will control the problem of solid waste.
4. The systematic and rigorous attempts are necessary to undertake by the large and small scale industries to control noise pollution especially at important places.
5. It is necessary to create the awareness about the environmental auditing among the industrialist, which is significantly lacking.
6. The MPCB should create a sound and update database about the environmental auditing by the industries, and should give wide publicity through publication in various forms.
7. Environmental pollution definitely adversely affects the living things in general, and human beings in particular. Therefore environmental impact assessment studies should be conducted by the MPCB, research institutes as well as universities.

8. Environmental consultants play a significant role in the assessment of environmental audit practices by the industries. They should be more social than professional in promoting control of pollution.
9. The MPCB should use the latest and modern technologies such as Remote Sensing Geographical Information System and others to assess the environmental quality.
10. The state government local governments and the MPCB should rigorously supervise the environmental auditing by the industries.
11. The industries should take due precaution regarding safety and health of their workers, which is very much necessary aspect of environmental audit.

5.4 Testing of Hypothesis

The empirical analysis of environmental auditing practices by industries in Sangli district prevails that no honest and rigors attempts are made by the industries to implement provisions in environmental auditing. Therefore, to the extent necessary the industries under our study have not succeeded in controlling environmental pollution. They undertake environment pollution control activities half heartedly. When there are environmental pollution problems, they definitely adversely affect the living things like human beings and damage the environment. This can be true for area under our study. Therefore, a hypothesis of the present research study was proved. Likewise, industries have not made any attempts for safety and health of the employees.

5.5.1 Concluding Remarks

Environmental audit is an important tool of environment management and there by protection of the environment. Hence, the study of environmental audit is very much important. There is absence of much efforts to study empirically the environmental audit practices by the industries. Therefore, the present study is an innovative attempt in that direction. However, it is very difficult to get adequate data about the environmental auditing practices. Such study should also make use of primary data for in depth and grass root level study. We hope our research study about the environmental auditing will be of greater use for the researchers, policy makers, decision makers, industrialists as well the citizens.