

Report of the  
Comptroller and Auditor General  
of India

on

**ENVIRONMENT MANAGEMENT IN INDIAN RAILWAYS –  
STATIONS, TRAINS AND TRACKS**

for the year ended March 2011

Laid in Lok Sabha/ Rajya Sabha on \_\_\_\_\_

**Union Government (Railways)**  
No.21 of 2012-13  
(Performance Audit)

## CONTENTS

	Paragraph	Pages
PREFACE		iii
Executive summary		v
Major Audit Findings		vii
Gist of recommendations		ix
<b>CHAPTER 1 Introduction</b>		
Need for Environment Management in Indian Railways	1.1	1
Study Report of Central Pollution Control Board	1.2	3
Scope of Audit	1.3	3
Audit Objectives	1.4	4
Audit Criteria	1.5	4
Audit Methodology	1.6	5
Sample Selection	1.7	6
Acknowledgement	1.8	7
<b>CHAPTER 2- Prevention and Control of Pollution</b>		
Policies and Guidelines	2.1	8
Organizational Structure	2.2	9
Air Pollution	2.3	10
Noise pollution	2.4	21
Water Pollution	2.5	23
Conclusion	2.6	28
Recommendations	2.7	29
<b>CHAPTER 3- Management and Conservation of Resources</b>		
Organizational Structure	3.1	30
Conservation of Water	3.2	31
Conservation of Energy	3.3	36
Carbon Credit under Clean Development Mechanism	3.4	43
Energy Audit	3.5	44
Bio-diesel	3.6	46
Conservation of Forests and Wildlife	3.7	48
Setting up of Eco park	3.8	50
Afforestation	3.9	50
Conclusion	3.10	51
Recommendations	3.11	52
<b>CHAPTER 4-Waste Management</b>		
Waste Management on Indian Railways	4.1	53
Organisational Structure	4.2	54
Findings of RITES and CPCB	4.3	54
Previous Audit Report	4.4	55
Garbage Disposal	4.5	57

Toilets in Trains	4.6	60
Conclusion	4.7	64
Recommendations	4.8	65
<b>ANNEXURE</b>		
Sample Selection	Annexure I	66-68