



Volume: 2, Issue: 9, 271-274  
Sep 2015  
www.allsubjectjournal.com  
e-ISSN: 2349-4182  
p-ISSN: 2349-5979  
Impact Factor: 4.342

**Vasundhara Patil**  
Assistant Professor,  
B.Sc. (hons) LL.M, CAIIB,  
Ph.D (law) gold medalist  
NICMAR

## Study of Laws and Regulations on Environment Protection and 3R's of Waste Management

**Vasundhara Patil**

### Abstract

India has published its 'National Policy on environment' in 2006 for protecting and conserving critical ecological systems and resources. The State is not an absolute owner, but a trustee of all natural resources, which are by nature meant for public use and enjoyment, subject to reasonable conditions, necessary to protect the legitimate interest of a large number of people, or for matters of strategic national interest. There are global challenges affecting the global environment: climate change, stratospheric ozone depletion, and biodiversity loss. To combat these environmental challenges, all countries have evolved the 3R's. The 3R's principle are Reduce, Reuse, Recycle. The aim of this paper is to study the laws and regulations of some of the developed countries which follow the 3R's and to know whether the Indian legal framework is at par with the developed countries or if there is scope for further improvement for better environment protection.

**Keywords:** Environment Protection, 3R's, Reduce, Reuse & Recycle, Laws and regulations on Environment Protection, Global environmental challenges, Pollution prevention, Waste Management.

### Introduction

According to the United Nations Economic and Social Commission for Asia and the Pacific, the population in the Asia-Pacific region has crossed 4 billion and that makes more than 60% of the world population (ESCAP 2008). The most populous countries of the world are also in this region as China and India share the first two places with 1.3 and 1.2 billion people respectively and only these two countries are the home of more than 60% of the population of the region. In these two countries, population and economic growth are the major factors for enormous amounts of waste generation and its rapid growth during the last decade. Wastes can also be classified into different types like solid waste and hazardous wastes, non-hazardous industrial waste, construction and demolition, and agricultural waste, plastic waste, E-waste. Hazardous waste covers all these sectors as well as the healthcare sector. The largest contributor for hazardous waste is the industrial sector. These wastes pollute the environment, leading to climate change, stratospheric ozone depletion, and biodiversity loss. Therefore, to combat it, human beings all over the world have realized that we must first reduce the waste production, optimise the scarce resources, reduce, recycle, and reuse the waste products. This is generally known as the principle of 3R's, which is being followed in most of the developed and developing nations. Many laws and regulations are passed by different countries to make the people realise that if implementation of the steps for environment protection is not taken, then they will be penalised as per the applicable laws. It is mankind's solemn duty that we leave behind a greener and cleaner environment for the future generation.

In India, the National Environment Policy 2006<sup>[1]</sup> lays stress on adoption of clean technology, encouraging reuse and recycling, strengthening the informal sector, establishing a system for collection and recycling of materials, environmentally safe disposal.

The Charter on Corporate Responsibility for Environment Protection (CERP) provides for a commitment for partnership and participation of various stakeholders in complying with the regulations and to extend beyond compliance by reducing the pollution in highly polluting sectors.

There is also a Registration scheme for Recyclers/ Re-processors and actual users of hazardous wastes. Rules are framed to prevent illegal import and dumping of hazardous waste in India for recycling of E-waste and rules for controlling import of E-waste received in the country in the name of donations or charity.

### The laws and regulations for protecting the environment in India are:

Water (Prevention and Control of Pollution) Act, 1974

Air (Prevention and Control of Pollution) Act, 1981

**Correspondence**  
**Vasundhara Patil**  
Assistant Professor,  
B.Sc. (hons) LL.M, CAIIB,  
Ph.D (law) gold medalist  
NICMAR

Environment (Protection) Act, 1986  
Hazardous Wastes (Management & Handling) Rules, 1989, 2000, 2003  
Manufacture, Storage, and Import of Hazardous Chemicals, Rules 1989,  
Chemical Accident (Emergency Planning, Preparedness and Response) Rules, 1996  
Bio-medical Wastes (Management & Handling), Rules 1998  
Plastics Manufacture and Usage and Waste Management Rules 1999  
Municipal Solid Wastes (Management & Handling) Rules 2000  
Batteries (M&H) Rules, 2001  
The E-waste (Management and Handling) Rules, 2011, 2012  
The Plastic Waste (Management and Handling) Rules, 2011  
The Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008  
National Green Tribunal Act, 2010.  
The Ozone Depleting Substances (Regulation and Control) Rules, 2000  
Indian waste management rules are founded on the principles of “sustainable development”, “precaution” and “polluter pays” It has been reflected in many decisions given by The Supreme Court Of India.

The Planning Commission has identified twelve Strategy Challenges for the 12th Plan Approach Paper. “Managing the Environment and Ecology “

Important points mentioned are-Mitigation and Adaption Strategy for Climate change:

1. The two key challenges that have to be addressed by various stakeholders in the short term on Climate Change are:
  - a) Ensuring, involvement of various stakeholders, including the State Governments, in implementing the National Action Plan for Climate Change (NAPCC), and
  - b) Achieve a low-emission sustainable development growth model using a voluntary approach.
2. The strategy/ guidelines of NDMA be modified to draw up regional disaster preparedness and mitigation plans, which should also address pre and post disasters migrations.
3. States need to prepare the State Level Action Plan for Climate Change (SAPCC) within a time frame, which can be dovetailed with the NAPCC.

The importance given by India to ‘Climate Change ‘ and its effect on environment can be felt when one sees the change in name of the Central Government ministry from MOEF (Ministry of Environment and Forests) to MOEFCC (Ministry of Environment, Forests and Climate Change).

## **Waste Management and Pollution Abatement**

### **Waste Management**

1. Encourage 3R’s (Recycle, Reuse, Reduce) and also Remanufacture and co-processing of Hazardous Waste for recovery of energy
2. Incentivize public-private partnership for creating the required infrastructure for Setting up of Treatment Storage and Disposal Facilities (TSD) for hazardous waste management across the country.
3. Ensure Segregation of Bio-medical wastes as per existing rules and the infectious and hazardous wastes treated in dedicated facilities. Common facilities be setup.
4. Enhance recycling facilities for E-wastes in the country.
5. Ensure Municipal Solid Waste segregation, collection and setting up of facilities for complete disposal. Where ever

possible recycling and processing has to be ensured during the 12th Plan to protect our people and the environment

6. Green belt for dust and Noise abatement and odour mitigation is considered essential.

### **Water environment**

The key challenges for maintaining acceptable water quality and quantity across the country are:-Water Pollution and overuse; Indiscriminate use of Wetland/lakes, Agricultural run-offs as residual fertilizer, pesticides and feedlot wastes. Following are suggested

1. Improve coverage and efficiency of sewage treatment systems, encourage use of low-cost decentralized measures for treatment of wastewater e.g. use of microbes for sewage treatment in open drains.
2. Clean critical rivers state wise and all polluted rivers in the country by 2020.
3. No Net loss (NNL) of wetlands acres be set as the goal and a system of permits be introduced to provide replacement wetlands.
4. A National Action Plan to remediate contaminated sites be drawn up.
5. Massive Plantation drives, including other methods for recharging ground water levels be propagated

### **International Conventions**

**Some of the international conventions are as under:-**

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

Rotterdam Convention on the prior informed consent procedure for certain Hazardous Chemicals and Pesticides in International Trade.

Stockholm Convention on Persistent Organic Pollutants.

Minamata Convention on Mercury.

Strategic Approach to International Chemicals Management.

United Nations Framework Convention on Climate Change (UNFCCC).

United Nations Environment Programme (UNEP).

South Asian Association for Regional Cooperation (SAARC)

### **Bilateral Cooperation between India and other countries-**

Ministry of Environment, Forests & Climate Change has entered into bilateral cooperation agreements with a number of countries such as Norway, Sweden, France, Finland, Canada, Bangladesh, Egypt, Morocco, Brazil etc.

We have studied the laws of some of the countries to know what steps are taken by these countries to protect the environment, how they manages their waste and how they promote 3 Rs ?

**Laws in China:** Following are the different laws of China

Environmental Protection Law of the PRC (issued in 1989)

Law of the PRC on Prevention of Environment Pollution Caused by Solid Waste (issued in 1995, amended in 2004)

Cleaner Production Promotion Law of the PRC (issued in 2002)

Circular Economy Promotion Law of the PRC (issued in 2008)

Administrative Regulations

Hazardous Waste, Medical Waste, E-Waste

Department Rules

Hazardous Waste, Municipal Waste, Recyclable Waste. Waste Import and Export, Local Regulations

National Hazardous Waste Catalogue:- – 49 categories of hazardous waste & 498 types of waste hazardous chemicals, A distinguishing mark of hazardous waste is required, Generators of hazardous waste shall have hazardous waste management plans, and report periodically

The State practices license control system for the units involved in collection, storage & treatment of hazardous waste. Hazardous waste collecting, storage, recycling & disposal units shall have operation record and periodically report

Municipal Waste Management System in China also follow the principle of 3Rs, i.e. reduce, recycle and environmentally sound treatment. They also follow the 'Polluter pays' principle and 'Charging system of MSW treatment' and 'Bidding and qualification in sweeping, collecting, transporting, and disposing of MSW'

### **Laws in Japan**

In Japan we find following laws are passed:-

The Basic Environment Law 1993

Environmental Impact Assessment Law

Law for the Control of Export, Import and Others of Specified Hazardous Wastes and Other Wastes

Air Pollution Control Law

The Water Pollution Control Law

Law for Enhancing Motivation on Environmental Conservation and Promoting of Environmental Education 2003

Act on Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities (Act on Promoting Green Purchasing)

The Law Concerning the Protection of the Ozone Layer through the control of specified substances and other measures 1988, 1993, 1994

Law for the Promotion of Effective utilisation of Resources 2001

Law for the Promotion of Sorted Collection and Recycling of Containers and Packaging

(Container and Packaging Recycling Law)

Law for the Recycling of Specified Kinds of Home Appliances (Home Appliance Recycling Law)

Construction Material Recycling Law

Law for Promotion of Recycling and Related Activities for the Treatment of Cyclical

Food Resources (Food Waste Recycling Law)

Law for the Recycling of End-of-Life Vehicles (End-of-Life Vehicle Recycling Law)

Waste Management and Public Cleansing Law

Specified Industrial Wastes Special Measures Law

Law concerning Special Measures for Promotion of Proper Treatment of PCB Wastes (PCB Special Measures Law)

Law on Special Measures concerning Removal of Environmental Problems Caused by Specified Industrial Wastes

Act on Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities (Act on Promoting Green Purchasing)

### **US laws**

Following are The Federal Laws

Hazardous Waste Laws

Resource Conservation and Recovery Act (RCRA)

The National Environmental Policy Act (NEPA) 1969

The Clean Air Act (CAA) 1970

The Clean Water Act (CWA) 1972

The Pollution Prevention Act 1990

Resource Conservation and Recovery Act 1976

Food Quality Protection Act

Ocean Dumping Act

### **RCRA State Authorization:**

State authorization is a rulemaking process through which the US environmental Protection agency (EPA) delegates the primary responsibility of implementing the RCRA hazardous waste program to individual states in lieu of the EPA.

For compliance US has policy of Next Generation Compliance which is EPA's integrated strategy

Next Generation Compliance consists of five interconnected components, each designed to improve the effectiveness of our compliance program:

Design regulations and permits, advanced emissions/pollutant detection technology, electronic reporting, transparency, Develop and use innovative enforcement approaches.

### **Laws of European countries**

The European Parliament and council of European Union has framed the Waste framework legislation and time to time given new directions through amendments in the framework which is binding on all its member countries.

According to data published by European commission, 'In 2010, total waste production in the EU amounted to 2.5 billion tons. From this total only a limited (albeit increasing) share (36%) was recycled, with the rest was land filled or burned, of which some 600 million tons could be recycled or reused.' Directives are being issued by the EU commission to increase the optimal use of resources and ensure better waste management.

Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage (ELD) has laid down framework based on the polluter pays principle to prevent and remedy environmental damage. The polluter pays-principle is set out in the Treaty on the Functioning of the European Union (Article 191(2) TFEU).

EU has framed the General Union Environment Action Programme (7th EAP) which is entitled "Living well, within the limits of our planet", to guide environment policy development up to 2020. European countries have 'State Recycling laws'

### **Some International agreements**

**The Kyoto Protocol** is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets. The Kyoto Protocol was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005

### **Basel convention**

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was adopted on 22 March 1989 by the Conference of Plenipotentiaries in Basel, Switzerland,. This strategy was adopted as there public outcry due to the discovery, that in the 1980s tons of toxic waste imported from industrialised countries were deposited in Africa and other parts of the developing world regulations and enforcement mechanisms were lacking. In accordance NIMBY (Not In My Back Yard) syndrome – also due to an heavy disposal costs. It was against this background that the Basel Convention was negotiated in

the late 1980s, and its thrust was to combat the “toxic trade”, as it was termed.

### Conclusion

After comparing the different laws and regulations followed in some of the countries and the different bilateral agreements, International Agreement, we are of the view there still lot of improvement needed in our laws and regulations. Some new laws should also be enacted

### Suggestions for improvement to laws and regulations in India

- 1) Law Commission should recommend to the Government for adoption of the good and suitable provision form laws of other countries like Japan, US or European countries who have well established laws and regulations.
- 2) Further laws should be passed for recycling and also making it compulsory for the producers of the electrical and electronic appliances, vehicles to take back appliances and vehicles after the end of the life of such items. News laws for vehicle/ electronic/electrical appliance use and End of life of vehicle/ electronic /electrical appliances should be passed  
Many of the countries have recycling laws. Under the law many states pay some amount e.g.10 cents for depositing empty beverage bottles. The waste is thus collected and immediate payment is made to the person depositing waste or empty glass bottles, plastic cans etc at the retail shops.  
Recycling can also be promoted by refunding money to persons depositing plastic bottles, cans, glass bottles. New Recycling Laws can be passed making it compulsory to manufactures of the products to collect the waste /empty bottles, cans etc and pay the refund deposit immediately. The system can be made applicable to all retail shops /malls where the products are being sold.
- 3) Incentives should be provide for conduction of research and innovation contributing to pollution free environment and production of reusable, and parts which can be recycled into new products
- 4) Central laws should be enacted for all states to bring uniformity in the definition of offences and fines and penalties clauses
- 5) Local regulations should be enacted for building smart cities with clear national and state level policies on prevention of detrimental effects of construction and production of harmful pollution and all types of waste by future human settlement.
- 6) Use of solar energy for purer and cleaner air should be promoted
- 7) All the State Governments, the Municipal Corporations, Grampanchayats and other local bodies should makes rules and regulations promoting cleanliness drives in the our country of all water bodies like lake, rivers, well seas. And also cleansing land areas by managing all types of wastes to enhance greener and cleaner environment
- 8) Creating awareness and active participation of people is the real challenge to proceed towards goals of achieving greener environment
- 9) Implementation of the laws and regulations should be done in a transparent manner.
- 10) Government should also appreciate the efforts taken by citizens, Non Governmental Organisations, Public or Private enterprises, company by instituting awards,

prizes, certificates who contribute to implement the laws and regulations of green environment.

- 11) Land for waste collection NIMBY (Not in My Back Yard) even at local levels at urban cities or villages level is a very difficult and serious problem faced in India hence research and surveys should conducted to study how other countries who also faced such difficulties and have overcome the same.
- 12) In India implementation of all the law should be done rigorously and punishing the offenders should be ensured to further deter any one from committing any offence.

### References

1. National Environment Policy, 2006
2. Presentation at Asia3 R Conference by Dr.Lakshmi Raghupathy Additional Director, Ministry of Environment & Forests Government of India
3. Waste Management in India: An Overview by Arya Tripathi in PSA issue IV May 2015
4. <http://12thplan.gov.in/index.php>
5. United Nations Economic and Social Commission for Asia And the Pacific –final Draft of the agenda of Regional Implementation Meeting for Asia and the Pacific ahead of the eighteenth session of the Commission on Sustainable Development 30 November – 1 December 2009, Bangkok
6. Website of the Ministry of Environmental Protection of China: <http://www.mep.gov.cn>
7. Website of National Centre of Solid Waste Management of MEP: <http://ncswm.mep.gov.cn>
8. <http://www.raymond.com>
9. Country Analysis Paper –India, in the Fourth Regional 3R Forum in Asia “3Rs in the Context of Rio+20 Outcomes – The Future We Want” Ha Noi, Viet Nam, 18-20 March 2013
10. <http://envfor.nic.in/>
11. Annual Report 2014-15 of Government of India Ministry of Environment forests and Climate Change
12. [http://unfccc.int/kyoto\\_protocol/items/2830.php](http://unfccc.int/kyoto_protocol/items/2830.php)
13. <https://www.env.go.jp/en/press/2003/1128a.html>
14. <http://www.unep.org/environmentalgovernance/>
15. Brief Report of the 13th Workshop on Greenhouse Gas Inventories in Asia (WGIA13) 7<sup>th</sup> August 2015
16. <http://www.epa.gov/wastes/laws-regs/index.htm>
17. Report of the Western Ghats Ecology Expert Panel dated 2011 submitted to MOEF Govt of India  
Also known as Madhav Gadgil report on Western Ghat.
18. <http://eur-lex.europa.eu>