

PLASTIC BAN IN MAHARASHTRA STATE FROM MARCH 2018 : IS IT A WIN-WIN POLICY?

NIKHIL SINGH, CHETAN AGRAWAL, AMIT VORA, ANIL ANDANESH ANGADI
Post Graduate Students of Project Engineering and Management, National Institute of Construction
Management and Research, Pune-45

ABHIJAT ARUN ABHYANKAR
Senior Associate Professor, National Institute of Construction Management and Research, Pune-45

SYNOPSIS

Plastic is used carelessly since decades by not knowing its harm to the health of environment and other living beings. Globally there is a need to reduce the use of plastic materials and to recycle the plastics. India uses plastic in many items like food packaging, carry bags, milk packets and once used its use the plastic waste are left free to fly in the roads. This case is about Mr. Deshmukh (Environment Minister of Maharashtra) who is blamed to be an inefficient minister not taking any actions to keep the state clean and green despite of making strong promises to the people of the state. He kept on ignoring the allegations made against him until he was forced by his family to make some strong amendments in use of plastics. Mr. Deshmukh organized a summit inviting delegates from the ministry of the state, researchers from Indian Institute of Technology (IIT) Mumbai, Indian Institute of Science Education and Research (IISER) Pune and senior professors from Indian Institute of Science (IISc) Bangalore. The bench of ministers were convinced by the presentation given in the summit to put a ban on plastic products.

CASE POSITIONING

This case can be used for teaching at Postgraduate Level, applicable to following courses:

- Solid waste management
- Environment engineering
- Polymer science
- Law courses

LEARNING OBJECTIVES

The students are expected to understand

- How ban of plastic carry bags will help the state to reduce plastic pollution?
- The challenges in waste management and importance of plastic recycling.
- Hazardous effects of plastic waste on marine life.
- Substitute of plastics resulting in less pollution.

DURATION

A class of 90 minutes is required for the discussion, a role-play will help to understand it better.

SUBSTANTIVE QUESTIONS AND ANALYSIS

Based on the study of “Plastic ban in Maharashtra” following questions can be raised during classroom discussion:

- What made the government to put ban on plastics?
 - The government banned plastic due to following reasons:
 - Clogging of drains.
 - Plastic waste deposit in oceans.
 - It harms to marine lives.
 - Rising pollution.
 - Policy initiatives.
 - To encourage use of biodegradable materials like paper, cloth and jute.
- What kind of plastic items can be recycled:
 - Poly Ethylene Terephthalate (PET) bottles.
 - High Density Polyethylene (HDPE)-the rigid plastic which is used to make toys, milk jugs, oil bottles, tables etc.
 - Polystyrene-a lightweight plastic mainly used to make plastic cups, egg cartons, foam packaging, etc.
- What are the other substitutes of plastic and their impact on the price of the products?
 - Few alternatives of plastic are:
 - Canvas bags.
 - Cotton bags.
 - Glass bottles.
 - Paper wraps.
 - The price of the product depends on which alternative we are using. Mostly all the substitutes of plastic are costlier than the plastic items. Our study says that the benefits of recyclable items can outweigh the cost factor.
- Will it stop the illegal production of plastic?
 - Government needs to be very strict against the manufacturers who are working against the rules. Government should implement digital technology to maintain data of manufacturers, retailers, wholesalers, distributors. High amount of fine should be imposed on the organizations which violate the rule. A new department can be formed confirming that the selected officer does not have a bad record. Once corruption enters the department it is very difficult to stop it.
- How will this act help to reduce plastic waste and make the environment clean in future?

On an average plastic accounts for 8-9% of total solid waste. If this act gains a successful implementation, it will help us to reduce the total solid waste. The drains which are designed for a particular level of rainfall will discharge the water deposited in the landmass, avoiding the accumulation of water due to blockage in drains. This will help to provide a healthy environment for

all the living creatures like humans, animals, plants and birds etc. It will also reduce the levels of toxic components (benzene and vinyl hydrochloride) in the air and save the land from deteriorating further as plastic requires more than 400 years to decompose.

- Who will follow this regulation when 31.7 million people of Maharashtra are illiterate and below poverty line?
 - Maharashtra contributes a big market for agriculture industry where most of the people are below poverty line. Many of the rural villages do not know about the plastic ban in the state. Government had just made it on papers but there is no action on ground. Government should campaign about the amendments in every village to create awareness among the rural public. Local TV channels (Marathi channels) should explain the effects of plastic in a broader way so that people will welcome the law very responsibly.

STUDY QUESTIONS

- How can Government of Maharashtra turn this into a win-win situation?

TEACHING PROCESS

- Distribution of case to the students to read through and note the facts.
- Class room discussion.

- Presentation on uses and effects of plastic.
- Role-plays.

DO'S

- Basic knowledge about pollution caused due to plastic and its materials.
- Debate on whether the study can be applicable for all states or is limited to Maharashtra.
- Classroom discussion focuses on:
- Discussion on plastic pollution and plastic waste management.
- Case study of various other cities (Mumbai, Aurangabad) on calamities caused due to plastics.
- Alternative uses of plastic and financial losses to the government due to ban on plastic.

DON'TS

- Do not focus much on the financial aspects related to plastic materials market.
- Do not divert the discussion to the waste management policies of any other country.

AREA OF CASE

This study includes two regions Mumbai and Aurangabad, the cities which were affected badly due to the excessive use of plastic carry bags. Maharashtra government imposed a ban on plastic on March 18, 2018 to protect the state from plastic pollution. The decision is a win-win situation only when the government is ready with the cheap substitutes of plastics and sufficient recycling units in the state. Industries other than plastic should also have limitation on their

manufacturing process because plastic alone cannot help to provide a fully “clean and green environment”. Common man has to suffer a price hike in the market for a short period of time due to rise in price of other items like paper bags and canned bottles. This act should serve a common purpose of saving the environment rather than making it a political agenda. Implementation of the new amendments should be remarked as a social change.

***Background reading: Plastic Waste Management Rules, 2016**

The government has increased the minimum thickness of plastic carry bags from 40 microns to 50 microns. The plastic waste management rules, 2016 aims to expand its jurisdiction to rural areas, because people in rural areas also use huge amount of plastic materials. This rule introduces the collection of plastic management fee from the manufacturers of plastic through pre-registration of the manufacturers. It promotes the use of plastic in road construction as per the Indian Road Congress specifications. The amendments say that the local bodies are also responsible for the co-ordination of waste management system. Plastic has multiple use so a blanket ban on plastic is a not a good idea rather find out ways to use it safely. Due to the indiscriminate disposal of plastic waste in the environment, we are facing its negative consequences, which outweigh its positive benefits. To implement these rules effectively and with an objective of waste minimization the central government reviewed the existing

rules and organized a meeting with the relevant state governments. Based on the recommendation of various groups Maharashtra government made new amendments in existing rule and the Plastic Waste Management Rules, 2016 was implemented.

Appendix: Amendments in Plastic Waste Management Rules, 2016

Plastic waste management rules 2018 mainly aims to reduce the hazards caused due to plastic waste. This rule brings changes in the use of the type of plastic, responsibilities of the manufacturer, and promotes the use of eco-friendly substitute of plastic. Plastic waste management rules, 2018 expands its jurisdiction from municipal areas to rural areas as the government found that the plastic has reached the rural areas and polluting the environment. Minimum thickness of the plastic to be used has been increased from 40 microns to 50 microns to facilitate the service of recycling the plastic waste. The producers of plastic are liable for the quantity for the plastic they are producing and have to pay a fee for the collection of plastic waste and to maintain a clean environment for the local bodies. Bulk generators of plastic waste like industries, commercial establishments, offices etc. are responsible to segregate the plastic waste and hand over to the municipal agencies for further process of plastic waste management. Government is promoting the use of plastics in the construction of bituminous roads according to the guidelines of the Indian Road Congress for beneficial utilization of wastes. The roads with

plastic content proved to be stronger and durable than the normal asphalt roads. The producers have to keep a record of vendors to whom they are supplying raw materials to properly organize the sector and decrease the intermediate loopholes in the sector. The retailers selling goods in plastic carry bags are liable to pay a fine ranging from Rs. 5000 to Rs. 25000 and imprisonment of 3 to 6 months. The state pollution control boards are instructed to develop lands for plastic waste management to organize the storage and recycling of plastic wastes. The ministry of environment,

forest and climate change reviewed the plastic waste rules 2016 and drafted new amendments in the plastic waste management rules 2018 to control the excessive use of plastic materials..

Advantages and disadvantages to the stakeholders of the society due to plastic ban.

The ban on plastic has its own pros and cons for the producers, consumers and the government as they are the main stakeholders of the society. This will help in evaluating that whether the ban is justified or not.

	ADVANTAGES	DISADVANTAGES
PRODUCERS	<ol style="list-style-type: none"> 1. Uptick in Business for reusable bag manufacturers. 2. Environmental advantage. 3. With a ban on plastic bags, there would be improved technology which would boost other businesses. 	<ol style="list-style-type: none"> 1. Plastic bans manufacturers scale back. 2. Huge Loss in Jobs & employment. 3. Loss of machinery & equipment. 4. Hike in price.
CONSUMERS	<ol style="list-style-type: none"> 1. Marine life will improve. 2. Food chain will improve. 3. Advantage over effects of plastic on humans. 4. No more flood due to chocking of drains with plastics. 5. Plastic bag ban will help in keeping our streets clean. 	<ol style="list-style-type: none"> 1. Upfront cost to shoppers. 2. Cloth packaging or other alternatives are more costly. 3. Difficult to carry cloth bags for all purposes (e.g. packaging). 4. To pay extra tax money for plastic bag usage. 5. Hike in price. 6. Problem in shipping, storage & packing.

GOVERNMENT

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| <ol style="list-style-type: none"> 1. New business opportunity for reusable plastic manufacturers. 2. Less litter & less pollution. 3. Drainage infrastructure will run more efficiently. 4. Revenue from fine. 5. Environmental advantage. 6. Through the banning of plastic, cities in various nations can begin to focus on other bigger waste diversion challenges | <ol style="list-style-type: none"> 1. Paper bag production consumes more energy than plastic bags 2. Cost for spreading awareness 3. Saving in Recycling Cost 4. Huge Loss in Jobs/ Employment 5. Government have allocate funds/subsidies for alternative of plastic bag manufacturing industry 6. Allocate funds for research for the alternatives of plastic bags. |
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Is SWOT analysis an indicator that plastic ban is a win-win situation for all the stakeholders of the society?

The SWOT analysis of the ban shows that the ban on plastic was needed to save the environment as well as human beings. It is a move for sustainable

development by the government of Maharashtra. However, the people are highly dependent on plastic in their day to day activities and the government along with people directly related to plastic industry will face huge losses in their revenue.

	HELPFUL	HARMFUL
	STRENGTH	WEAKNESS
INTERNAL	<ol style="list-style-type: none"> 1. Marine life will improve. 2. Uptick in Business for reusable bag manufacturers 3. Less litter & less pollution. 4. Drainage Infrastructure will run more efficiently. 5. Saving in petroleum base. 6. Chances of innovation & revaluation in the industry. 	<ol style="list-style-type: none"> 1. Traders and manufacturers of plastic will face loss in business. 2. Online shopping may get costlier. 3. Upfront cost for the shoppers. 4. Rise in packaging cost of all the commodities. 5. Consumers are forced to pay extra money for paper and cloth bags while shopping.

	OPPORTUNITY	THREAT
EXTERNAL	<ol style="list-style-type: none"> 1. Inviting new packaging innovations into business. 2. Increase the economics of recycling. 3. Reduce health effects to human body. 4. Long term solution to save the environment from pollution. 5. Improved solid waste management system by encouraging use of easily recycled items. 6. Save the oil and energy consumed for manufacturing plastic. 	<ol style="list-style-type: none"> 1. Dependence of people on plastic as there is no good alternative. 2. Poor quality and high cost of alternatives. 3. High cost of alternatives will affect the economy. 4. Loss of livelihood and unemployment of thousands of people due to closure of plastic industry. 5. Loss of business due to ban on plastic which will reduce the GDP of Maharashtra. 6. There is a large possibility that people will still use plastic even after the ban.

****Triple bottom line theory and plastic ban**

Triple bottom line theory was introduced by Freer Spreckley in 1981. Triple bottom line theory provides a framework for measuring the organizations performance. Traditional method of assessing an organization is concerned only with the profit or loss as bottom line. This theory was articulated to measure the organizations performance with respect to stakeholders rather than shareholders. Stakeholders refer to the people who are influenced directly or indirectly by the organizations action. The organizations vision should focus on maximizing stakeholder's value instead of maximizing shareholders profit. Triple bottom line theory framework consists of people, planet and profit.

1. **People (social equity):** This parameter is concerned with the fair business practices

towards labor, community and human capital involved in the business. For example the plastic manufacturing industries should also be involved in plastic waste collection and use a part of it as the raw material. Rest of the recyclable plastic waste will help to generate extra profit to the organization and that money can be further used for the development of its employee. This practice will lead to fair salaries to the labor, maintain a safe environment within the industry and would not exploit any of its labor force. Organization should involve in contributing to the growth and strength of the people by enforcing health welfare and a balanced work life environment.

2. **Planet (environmental):** This refers to the natural capital used

by the organization. This insists the business to benefit the nature as much as possible or at least should not harm the environment in any manner. The organization's manufacturing process should use sustainable ways to creating values to its products and services. Manufacturing waste should render least disposal of toxic waste to the process. This is totally different from the traditional method of accounting profit as it also includes the value created for the society by the action of the firm. The organization environment and if the practice cannot be avoided then it should be carried out in a legal manner without harming the natural resources. Environment sustainability enables high course of profit in long term business plans.

3. **Profit (economic):** This deals with the economic value generated by the organization after paying cost of all inputs involved in the manufacturing should put effort to accomplish the commitment of its corporate social responsibility.

The triple bottom line suggests that decisions are comprised of People, Planet and Profit. Plastic ban in Maharashtra will avoid the use of resources, negative impact on the environment, the profit of manufacturers, jobs of people involved in the plastic industry and lifestyle of the consumers. Also, alternatives of plastics have their own environmental impacts such as promoting the use of papers will give rise to deforestation. If alternatives like papers and cotton

bags are not reused 4 times and 173 times respectively then they may have a more environmental impact than a single use of a plastic bag in terms of energy consumption, the resource used and carbon footprints released. The stakeholders are facing a problem as paper bags are not as durable as compared to plastic bags. The profitability of the organization involved in plastic processing will go down along with their revenue. After the implementation of the ban, the stakeholders are facing a problem which can be solved by applying triple bottom line theory to the plastic industry for sustainable manufacturing of plastic and assessing them on the basis of people, planet and profit. Arbitral norms should be implied on the industries which should be necessarily followed by the industry for its smooth functioning and following the legal law of the land.

*<http://cpcb.nic.in/displaypdf.php?id=cGxhc3RpY3dhc3RlL1BXTV9HYXpldHRlLnBkZg==>
(last accessed on May 13, 2018)

**<https://theconversation.com/in-banning-plastic-bags-we-need-to-make-sure-were-not-creating-new-problems-81253>