

Assessing the Implementation of ‘Ban on Use and Production of Polythene Bags Act, 2002’: A Case Study at Trishal Municipality

Md. Nure Alam¹, Md. Mustafizur Rahman²

Abstract: Polythene bags have a detrimental impact on both human health and the ecological realm. In 2002, the government of Bangladesh enacted the ‘Ban on Use and Production of Polythene Bags Act’ to decrease the prevalence of polythene bags. This study aims to evaluate the implementation of this Act in 2023 within Trishal Municipality. The study used both qualitative and quantitative approaches to gather data from consumers, retailers, and administrative officials. Data from primary sources were collected using both random and purposive sampling techniques. Secondary data was compiled from various sources, including papers, journals, websites, and published books. This research has three primary objectives. This study intends to investigate the implementation of the Polythene Bags Act of 2002, which prohibits the use and production of polythene bags at the retailer level in Trishal Municipality. It also seeks to explore the opinions of consumers regarding the ban on polythene bags as stated in the Act and evaluate the measures taken to enforce the Act at Trishal Municipality. The results demonstrate the level of public awareness regarding this legislation and the extent to which individuals are punished for distributing polythene bags. This research advocates for the implementation of this Act to be carried out diligently through joint endeavors among stakeholders. This analysis predicts that resolving the identified issues will enhance the effectiveness of this Act and guarantee a municipality that is free from polythene.

Keywords: Polythene Bags Act, Consumers, Retailers, Administrative Officials, Mobile Court.

¹ Assistant Professor, Department of Public Administration and Governance Studies, Jatiya Kabi Kazi Nazrul Islam University, Trishal, Mymensingh. E-Mail: mdnurealam93@gmail.com

² Post Graduate Student, Department of Public Administration and Governance Studies, Jatiya Kabi Kazi Nazrul Islam University, Trishal, Mymensingh., E-Mail: mustafizurjk@gmail.com

1. Introduction

Polythene bags are a common and easiest means of carrying different products from shopping malls, markets, industry in Bangladesh. Almost all retailers like to sell and supply polythene bags with their products. Polythene bags are manufactured from high-density polyethylene (HDPE) and aimed to be used once. Uddin et al. (2018) explored that a larger portion (65%) of the retailers used 50-100 plastic bags per week. After being used users generally leave it in the dustbin or throw it to a convenient place in Bangladesh. Polythene can impede the functioning of sewerage and drainage systems, diminish soil fertility, and disturb the ecology. Polythene can have detrimental impacts on the environment and its life cycle.

According to Ahmed and Gotoh (2005), Bangladesh is prone to frequent flooding. As a result of excessive rainfall from the monsoons overflowing the riverbanks, flooding occurs. Dhaka City, the capital of Bangladesh, is not exempt from this situation. Dhaka City has been inundated despite moderate precipitation over the past decade. They found that the discarding of polythene bags here and there is one of the causes of the jamming of the city drainage system.

Haque et al. (2017) state that countries worldwide are grappling with the problem of plastic bags and have implemented various strategies to regulate or prohibit their use. Several countries often impose fees on customers for their usage due to their robust recycling systems, particularly in Japan and the USA. Zimbabwe, Rwanda, Tanzania, Eritrea, Somalia, and Bhutan have implemented a prohibition on using plastic bags. Other countries are discovering innovative methods to recycle plastic bags. As an example, Niger is compacting and shaping recycled plastic bags into solid blocks to be used for constructing its roads (Natasha, 2005). In 2002, The Republic of Ireland implemented the Plas Tax, a charge on plastic bags (Convery et al, 2007). According to Wang et al. (2022), 11 states in the US have implemented laws to prohibit the use of plastic bags.

Wait et al. (2022) explored the limited success of a plastic bag ban owing to a lack of suitable alternatives, limited state capacity to monitor and enforce the ban, thriving black market, and structural and instrumental power of the plastic industry. The plastic industry's lobbying endeavors, financial contributions to state economies, the political and personal incentives of influential state legislators, and the absence of impactful grassroots opposition are significant obstacles to enacting a law banning plastic bags

(Gibens, 2019). According to Kish et al. (2021), engaging the public and gaining consumer support are essential prerequisites before the implementation of legislative intervention for the long-term reduction of plastic bag usage.

Clapp, J, Swanston, L (2009) stated that Bangladesh was one of the first countries to impose a ban on plastic in 2002. They also highlighted that despite the ban the availability and usage of plastic bags remained common among both consumers and retailers. Ahmed et al. (2002) conducted a study on awareness about polythene among dwellers of Khulna City before and found that 82% of respondents who are dwellers of Khulna City are informed about this Act. Shawon et al. (2022) found that more than 3/4 of retailers provide plastic bags to customers and only 4% of retailers provide jute bags.

This article presents findings from an empirical study that demonstrate the effectiveness of the aforementioned law concerning polythene bags. It is critical to determine the awareness, interest, compliance, and problems of those who are marginally involved. Indicates whether the Act in Trishal Municipality is effective or not. This study focused not only on consumers but also on retailers and administrative bodies. This study also measures the knowledge status level of awareness of consumers about this act.

2. Objectives

The principal objective of the study is to evaluate the current state of implementation of the "Ban on Use and Production of Polythene Bags Act, 2002" at the Trishal Municipality.

The specific objectives of the study were.

- a. To assess compliance with the "Ban on Use and Production of Polythene Bags Act, 2002" among retailers in the Trishal Municipality Area.
- b. To investigate the disparity in perception between consumers and retailers on the "Ban on Use and Production of Polythene Bags Act, 2002" in the Trishal Municipality Area.
- c. To evaluate the procedures for implementing the "Ban on Use and Production of Polythene Bags Act, 2002" in the Trishal Municipality Area.

3. Methods and Materials

The study was conducted through a mixed-method approach, combining quantitative and qualitative methods for an in-depth understanding of the

extent implementation procedure, and problems of this law in Bangladesh. Secondary data was collected from different sources like published books, journals, newspapers, etc.

The rationale for choosing a "quantitative approach" is to assess the state of implementation of the polythene ban act of 2002, at Trishal Municipality. By employing a quantitative methodology, data can be collected from a substantial sample of retailers and consumers, thereby offering a more precise assessment of the effectiveness of the aforementioned act. Furthermore, by comparing the perceptions of various groups, this approach facilitates an analysis of the implementation status of the polythene ban act of 2002. The reason for using the qualitative approach above the quantitative approach is to identify the underlying reasons behind consumers' use of polythene in breach of the Act. Qualitative data from relevant administrative bodies was collected using Key Informant Interviews (KII). The qualitative technique was used to collect a range of perspectives and recommendations from retailers, consumers, and administrative officials.

4. Study Area

The study aims to investigate the implementation of the Ban on Use and Production of Polythene Bags Act, 2002, in Trishal Municipality. The study area was chosen to include the traditional *hat*, *bazaar*, and market of this municipality. The Department of Environment, Mymensingh District Office, and Upazila Administration in Trishal have the responsibility of executing this Act within this municipality. The study area encompasses both offices and the officers who are responsible for them.

5. Sampling

For this research there were two types of Sampling were used. These were Random Sampling and Purposive Sampling. Random sampling maintained that each consumer and retailer had an equal probability of being chosen. In addition, Trishal Municipality is not geographically extensive, and respondents were practically homogeneous. So, random sampling was chosen. Random sampling minimized bias and yielded a representative sample, enabling the generalization of findings to all consumers and retailers in Trishal Municipality. This study also employed purposive sampling to carefully choose relevant and representative samples to the greatest extent possible. The study attempted to collect qualitative data and information from relevant administrative bodies using this sampling technique. Key informant interviews (KII) were employed to facilitate this sampling process.

Table 1: Sampling Procedure

Research Approach	Sampling and Tools	Respondent	Study Area	Respondent Criteria		Total
				Male	Female	
Quantitative Approach	Random Sampling and Survey	Retailer	Trishal Municipality, Mymensingh.	98	2	100
	Random Sampling and Survey	Consumer	Trishal Municipality, Mymensingh.	70	30	100
Qualitative Approach	Purposive Sampling	Administrative personnel	Department of Environment, Mymensingh District Office	5	0	5
			Upazila Administration, Trishal	3	0	3
			Trishal Municipality Office	2	0	2
			Total	178	32	210

6. Reasons for Banning Polythene

Polythene was introduced for commercial purposes in the early 1980s, quickly surpassing competition from jute and paper bags due to its affordability and easy availability. Subsequently, polythene bags have become an integral component of the daily routine for the people of Bangladesh. Due to its waterproof nature and convenience for carrying and storing items, people go to the market without any items. They come back home with multiple polythene bags filled with purchased items. The popularity and demand for polythene bags resulted in the establishment of 400 factories dedicated to producing polythene bags. These enterprises manufacture approximately 130 million polythene bags daily. About 10 million of these items are discarded daily as refuse in public areas such as streets, sewers, and bodies of water, resulting in significant environmental risks (Hafiz et al., 2017).

Without a proper waste management system, polythene's indiscriminate use and disposal exacerbated environmental pollution. Polythene poses ecological dangers such as soil and water contamination and the obstruction of drains and sewerage lines in urban areas. The rivers had become

unnavigable, and the water had become poisonous due to the daily deposition of millions of polythene bags. Due to its non-biodegradable nature, polythene persists for an extended period, impeding the soil's breathing ability. Additionally, it poses health risks. Polythene has the potential to induce cancer, skin ailments, and various other health complications. Polythene-wrapped food poses a health risk, mainly when using black or colored polythene shopping bags, as they release toxic compounds. To protect the cities from the relentless invasion of polythene bags, the government of Bangladesh was compelled to enforce a prohibition on the manufacturing, distribution, and sale of polythene shopping bags starting from 1st January 2002 (Ahmed et al, 2002).

Bangladesh is the first country to ban plastic bags. However, Bangladesh is still struggling with the issue of plastic bags and enforcing the ban. In 1990, the Environment and Social Development Organization began a movement to draw public attention to the issue of plastic bags, through writing articles in the newspaper and conducting community awareness campaign. Based on the popular demand, in 1993, the Ministry of Environment and Forest (MoEF) took the initiative to ban the production and trade of polythene bags. The Cabinet agreed with the MoEF proposal. In 1999, following the 1998 flood, the MoEF again started the campaign against polythene through its Sustainable Environment Management Programme (SEMP) which led to the formation of a Task Force by the Government under the Ministry to work towards framing a strategy for phasing out of polythene shopping bags.

The Ministry initiated a robust campaign, spanning from market to market, with the aim of raising awareness and fostering motivation. The announcement stated that starting from January 1, 2002, the production and utilization of polythene shopping bags with a thickness of 20 microns would no longer be permitted in Bangladesh. In 2002, the law of Section 1 of the Bangladesh Environment Conservation Act was modified. Rule 6/A of Clause-5 under Section 9 imposes a prohibition on the manufacturing and commercialization of products that have a detrimental impact on the environment. According to the Department of Environment (DoE) and Bangladesh Management Program (BEMP), if it is proven that any kind of plastic bags or products made of polyethylene or polypropylene are detrimental to the environment then the government could control/ban the use of these products to any selected area or all over the country and there are specific penalty and punishment available for production, import and marketing, sale and exhibition for sale, store, distribution, transportation or

use for commercial purpose. (Haque *et al*, 2017). The Act says the manufacture, import, and marketing of polyethylene articles prescribed by the Government shall be punishable with imprisonment for a term not exceeding 2 (two) years or with a fine not exceeding 2 (two) lakhs or with both. For any consecutive violation, offenders will be subject to imprisonment ranging from a minimum of 2 years to a maximum of 10 years, or a fine of at least 2 lakh taka, up to a maximum of 10 lakh taka, or both.

7. Findings of the study

7.1 Distribution of retailers by gender

The following table represents the Gender status of respondents. According to the field survey, 98% of retailers were male and only 2% were female. Most of the women in Trishal are either garment workers or housewives. Moreover, due to conservatism, women retailers are rarely seen in the marketplaces.

Table 2: Distribution of retailers by gender

Gender	Frequency	Percentage
Male	98	98%
Female	2	2%
Total	100	100%

Source: Field Survey

7.2 Distribution of retailers by age

According to the distribution, based on the survey questionnaire, respondents between the ages of 18 and 35 made up the second highest percentage of respondents with 31%. Based on the opinions of various respondent’s age groups the following table has been created 37% of respondents as the largest age group are between 35 to 45.

Table 3: Distribution of retailers by age

Age	Frequency	percentage
18-25 years	31	31%
25-35 years	15	15%
35-45 years	37	37%
45 years above	17	17%
Total	100	100%

Source: Field Survey

7.3 Distribution of retailers based on types of shop

The following figure represents the types of shops owned by respondents, among them 35% of respondents were Grocery shop owners which is the highest. Among them Restaurant owners were 10%, Vegetable sellers were 22%, Poultry sellers were 12% and Rice sellers were 15%. Fruit Seller were 6% which is the lowest.

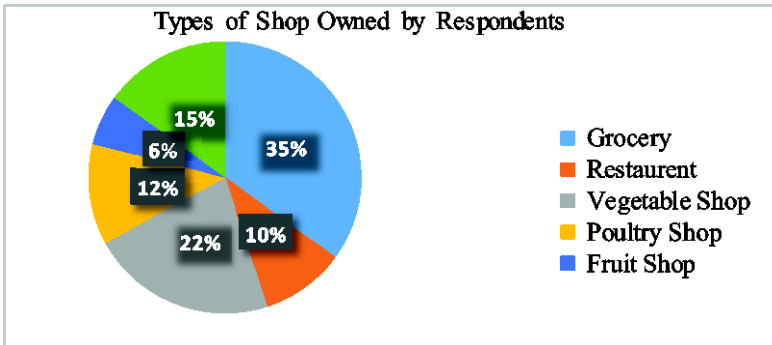


Figure 1: Percentage of retailers’ shop (Source: Field Survey)

8. Awareness Among Retailers about the Act

8.1 The number of retailers know about this act

The study revealed that 65% of respondents, who were Retailers, knew about the polythene ban act. According to the field survey, 35% of respondents did not know about this Act. It was found that most of those who did not know the Act were new retailers. And most of those who knew have been selling goods/ products for a long time at marketplaces.

Table 4: The number of retailers know about this act.

Know about the Polythene Ban Law	Frequency	Percentage
Yes	65	65%
No	35	35%
Total	100	100%

Source: Field Survey

8.2 The way in which retailers become informed of this law

The study found that 61.54% of respondents which is the highest came to know about the act through witnessing mobile court and raid. Earlier, concerned administrative bodies operated mobile Courts frequently. At that time, some retailers were charged or witnessed through frequent raids/ mobile courts. 18.7% of respondents came to know about this act through

media and it is the second largest percentage of respondents. Through *Miking* 12.31% of respondents were able to know this act and 7.7% of respondents knew this act through the polythene ban act-related signboard which percentage is lowest.

Table 5: The way in which retailers become informed of this law.

Medium	Frequency	Percentage (out of 65)
Through Raid, Mobile Court	40	61.54%
Through Media	12	18.7%
Through Signboard	5	7.7%
Through <i>Miking</i>	8	12.31%
Total	65	100%

Source: Field Survey

8.3 The extent of knowledge about the polythene ban law among retailers

The following table presents out, 35 respondents out of 65 only know polythene is prohibited. Its percentage is the highest resulting in 53.85%. 15 respondents out of 65 knew this act has rules about pecuniary punishment. There are 9 respondents out of 65 who know about this act that can provide jail punishment. Only 6% of respondents know that this law has the power to give both pecuniary and jail punishment and its percentage is the lowest resulting in 9.23%. The exemplary punishment that can be made because of using polythene has not been seen recently. Therefore, most of the retailers were not aware of the pecuniary and jail sentence of this Act.

Table 6: The extent of knowledge about this law among retailers.

Knowledge Status of Respondents	Frequency	Percentage
Only know polythene is prohibited	35	53.85%
It has jail punishment	9	13.84%
It has pecuniary punishment	15	23.08%
It has both pecuniary and jail punishment	6	9.23%
Total	65	100%

Source: Field Survey

9. Application of Polythene Ban Law

9.1 The number of retailers using polythene bags frequently

The study found that 98% of retailers use polythene bags. It was seen that almost every retailer uses polythene bags for selling products due to the lack of available alternatives. Shops that sell food and fruits have seen less use of

polythene. Table shows that only 2 respondents didn't use polythene bags for providing goods.

Table 7: The number of retailers using polythene bags frequently.

Use Polythene Bags	Frequency	Percentage
Yes	98	98%
No	2	2%
Total	100	100%

Source: Field Survey

9.2 The Number of retailers who have been raided or fined in mobile courts for using polythene bags

The figure presents how many respondents have faced raids/ mobile courts by concerned administrative bodies. Here, the study shows that 55% of respondents out of 100 have faced a raid or mobile court. Out of 100 respondents, 45% have not faced any raids or mobile courts. Other retailers could easily witness if the mobile court is operated in the market. Then, they escaped from the shop fearing to be punished. That's why not all polythene bag suppliers came under the penalty.

FACING RAID/MOBILE COURT

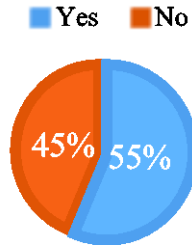


Figure 2: Facing Raids/ Mobile Courts (Source: Field Survey)

9.3 The consistency with which retailers have been compensated through Mobile Court

Previously, the study has seen that only 55 respondents have faced raids or mobile courts. Out of 55 respondents, 32 respondents have been charged one time. The percentage of one-time charges is highest resulting in 58.18%. 20 respondents out of 55 have been charged two times. Out of 55 respondents, only 3 respondents have been charged 3 times, and this is the lowest resulting in 5.45%.

Table 8: The consistency with which retailers have been compensated through Mobile Court

How many times retailers have been charged	Frequency	Percentage
1 Times	32	58.18%
2 Times	20	36.36%
3 Times	3	5.45%
Total	55	100%

Source: Field Survey

9.4 Categorized of the sentences imposed by mobile court

Previously, the study has seen that 55 respondents out of 100 were charged. After conducting a field survey, it was found that 50 respondents were given pecuniary sentences which is higher than jail sentences. The percentage of pecuniary sentences was 91%. Only 5 respondents were given jail punishment which percentage is 9%. Shops that sold polythene excessively got a jail sentence.

Table 9: Categorized of the sentences imposed by mobile court.

Given Sentence through Mobile Courts	Frequency	Percentage
Pecuniary punishment	50	91%
Jail punishment	5	9%
Total	55	100%

Source: Field Survey

9.5 The extent of the pecuniary sentence imposed on retailers

From the above table, the study has observed that 50 respondents were given pecuniary punishment. The following table stated that 27 respondents out of 50 were fined 2000 or more taka. It is the highest percentage regarding pecuniary punishments resulting in 54%. Less than 2000 taka fines were given to 15 respondents and their percentage is 30%. 5 respondents were given 1000 or more taka, and their percentage is 10%. The highest amount of fine was given to only 3 respondents. Its percentage is 6% which is the lowest. The pecuniary sentence for selling or storing polythene bags can be 2 lakhs taka. It was found that most of the retailer's capital money is not sufficient. Therefore, the actual amount of pecuniary sentence was not given as per the Act.

Table 10: The extent of the pecuniary sentence imposed on retailers.

Status of Pecuniary Sentence	Frequency	Percentage (out of 50)
50000 or more Taka	3	6%
1000 or more Taka	5	10%
2000 or more Taka	27	54%
Less than 2000 Taka	15	30%
Total	50	100%

Source: Field Survey

9.6 The extent of the jail sentence imposed on retailers

The following table shows that only 5 respondents out of 55 respondents were given jail punishment. After conducting a field survey, it was found that 3 respondents were given 6 months or more imprisonment and its percentage is 60% which is the highest. Among 5 respondents 2 were given 3 months or more imprisonment and the percentage is 40%. No respondents were found who were given the highest 2 years or 1 year imprisonment. The study revealed that retailer’s families are not wealthy. Their families can suffer greatly if they are sentenced to prison for long days. The Act provides for a maximum imprisonment of 2 years, but much less is given.

Table 11: The extent of the jail sentence imposed on retailers.

Status of Jail Punishment	Frequency	Percentage (out of 5)
2 years or less	0	0%
1 year or less	0	0%
6 months or more	3	60%
3 months or more	2	40%
Total	5	100%

Source: Field Survey

Bribery to Avoid Punishment

From this table, the study found that 55 respondents out of 100 were punished. After conducting a field survey, it was found that only 5 respondents were given bribes to avoid punishment. The percentage of giving bribes is 9.09%. It is a good sign for enforcing the act properly.

The study found that 50 respondents got pecuniary punishment. 54% of them got 2000 taka or more pecuniary sentences. As the amount of the fine is small there was little scope for offering bribe.

Bribery to Avoid Punishment

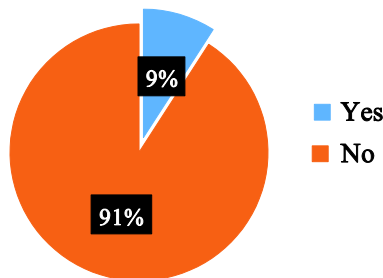


Figure 03: Bribery to Avoid Punishment Source: Field Survey

9.7 According to the retailers, the reason for their non-compliance with the polythene ban law

Firstly, many retailers said that they were unaware of this polythene ban law. So, they have asked for massive publicity of this law so that everyone becomes aware of this law.

Secondly, retailers said that the government could not provide suitable alternatives to polythene. So, they are forced to use polythene bags due to a lack of suitable alternatives. They also said that those who are producing polythene should be brought under the law first without blaming us. If the retailers cannot collect polythene bags from the manufacturer, the use of polythene will gradually stop. Some retailers have said that the sale of loose items like chili powder, turmeric powder, etc should be stopped. Because the use of polythene bags is increasing to sell these loose items.

Thirdly, retailers said they provide polythene bags to customers free of cost. If they provide eco-friendly bags, the price of the product increases. Shopkeepers complain that customers are not willing to bear this increased additional price. They said the generosity of buyers could lead to the implementation of the polythene ban law.

9.8 Distribution of Consumers by Gender

The following table represents the gender status of respondents. According to the field survey, 70% of respondents were male and only 30% were female. In Trishal, people usually buy goods or products from *bazaars* and marketplaces. So, they are seen more often in the market.

Table 12: Gender Status of Consumers

Gender	Frequency	Percentage (out of 100)
Male	70	70%
Female	30	30%
Total	100	100%

Source: Field Survey

9.9 Distribution of Consumers by Age

According to the distribution based on the survey questionnaire, respondents between the ages of 25 and 35 years made up the highest percentage of respondents at 56%. So, it can be said young mature consumers were much in the marketplaces. Based on the opinions of various respondent age groups, the following figure has been created 24% of respondents as the

second largest group aged between 18 and 25 years. Respondents who are above 45 years old are the smallest group resulting in 8%.

Table 13: Distribution of Consumers by Age

Age	Frequency	percentage
18-25 years	24	24%
25-35 years	56	56%
35-45 years	12	12%
Above 45 Years	8	8%
Total	100	100%

Source: Field Survey

9.10 Occupation of Consumers

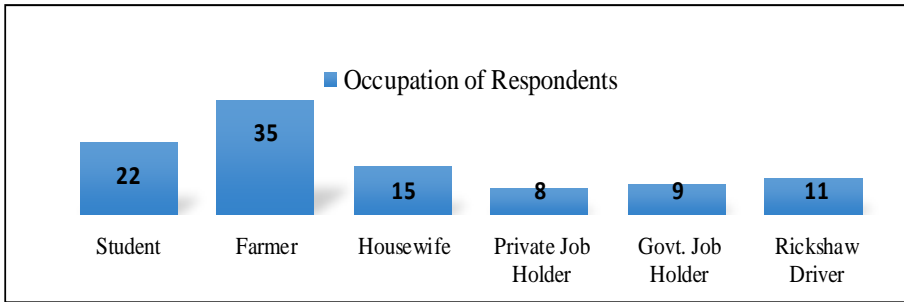


Figure 4: Represents the occupation of consumers. (Source: Field Survey)

It is found that Students were 22%, Farmers were 35%, Housewives were 15%, Private Job holders were 4%, Govt. Job holders were 9 and rickshaw drivers were 11%. Therefore, it has been found from the field survey that most respondents who took part in this study were housewives and the least respondents were private job holders. Trishal is an agrarian area where the production of fish and rice is high. So, the number of farmers was seen more in the marketplaces at Trishal Municipality.

10. Consumers Perception Regarding Polythene Ban Act

10.1 The number of consumers using polythene bags frequently

The study found that 100 respondents out of 100 respondents use polythene. Not a single respondent was found who did not use polythene. Polythene bags are so cheap that it does not require any money. Anyone can get one or two polythene bags without money. Again, due to its availability consumers use it enormously.

Table 14: The number of consumers using polythene bags frequently

Polythene User	Frequency	Percentage
Yes	100	100%
No	0	0%
Total	100	100%

Source: Field Survey

10.2 The extent of knowledge about the polythene ban law among consumers

The table shows that only 27% of respondents know about the polythene ban law. It was found that 73% of respondents don't know about this law. Consumers don't face any legal action which face retailers. Consumers may not know about this act because they are outside the scope of the act.

Table 15: The extent of knowledge about the polythene ban law among consumers.

Do You Know about Polythene Ban Law	Frequency	Percentage
Yes	27	27%
No	73	73%
Total	100	100%

Source: Field Survey

10.3 The way in which consumers become informed of this law

The study found that 13 respondents came to know about the law, through awareness making Signboard/ Posturing. 5 respondents knew this law through witnessing mobile Courts/ raids, 7 respondents knew this through media, 3 respondents knew this law through television and 2 respondents came to know this law through *miking*. The Department of Environment installed some signboards at Trishal Municipality. So, it played a significant role in creating awareness. The table shows that signboard/ poster has cut highest percentage and *miking* has cut lowest percentage as medium to know polythene ban law.

Table 16: The way in which consumers become informed of this law.

Medium	Frequency	Percentage
Signboard/ Poster	13	48.15%
Witnessing Mobile Court/ Raid	5	18.52%
Media	7	24.30%
<i>Miking</i>	2	9.03%
Total	27	100%

Source: Field Survey

10.4 The number of consumers have informed retailers about this law

The table shows that only 5% of respondents informed retailers about the polythene ban law. 95% of respondents never informed retailers about the polythene ban act. It shows the great apathy of consumers for implementing this act. If they informed the retailers about this act that could create more awareness.

Table 17: The number of consumers have informed retailers about this law.

Consumers Informed Retailers about this Act	Frequency	Percentage
Yes	5	5%
No	95	95%
Total	100	100%

Source: Field Survey

10.5 The number of consumers have noticed various initiatives that have been implemented to address this issue

The study found that 35 respondents out of 100 respondents noticed the initiative to implement the polythene ban law. 65 respondents did not notice any initiative for implementing this law. This investigation reveals that concerned administrative bodies have taken inadequate steps to implement this act.

Table 18: The number of consumers who have noticed various initiatives.

Noticed any initiative	Frequency	Percentage
Yes	35	35%
No	65	65%
Total	100	100%

Source: Field Survey

10.6 Consumers have seen various initiatives to implement this law

One of the initiatives taken by the administration is operating mobile courts/raids by consumers for implementing the polythene ban act. They think that apart from enforcing the law through mobile courts, awareness is also being created among the retailers. Some consumers have seen signboards about the polythene ban act in the marketplace. These signboards have been installed by the Department of Environment. Besides, they have

come to know that the use of polythene is a punishable offense through advertisements in newspapers and television. Some consumers have come to know about the polythene ban act through the miking promoted by the administration.

11. Consumer suggestion for enhancing the application of this law

Firstly, most of the respondents are not aware of this act. So, they want initiatives through which consumers can learn about the law. Social media is a strong medium in the present day. So, they said about regular social media campaigns to spread the act among all. Some talk about making awareness through miking in the marketplace. Some people have asked to write the words "Use of Polythene is a Punishable offense " on the products. They feel that this can create a strong awareness. Many respondents do not know which bodies are involved in implementing the polythene ban act. They think that the reason consumers did not know about the concerns of administrative bodies is the inaction of the bodies. So, they asked the bodies to be more proactive. Most of the respondents are not aware of how to report to concerned bodies after witnessing the violation of the act. Therefore, the process of reporting violations should be simplified and spread among all.

Secondly, the respondents feel that lawbreakers should be punished for implementing this act. They said that not only the retailers should be brought under punishment but also the factories which are manufacturing polythene should be given strict punishment. A small number of consumers feel that consumers should also be penalized for using polythene. They spoke of conducting mobile courts and raids frequently in the marketplaces.

12. Discussion of the study

The study shows that 99% of consumers and retailers jointly were polythene users. 54% of consumers and retailers jointly didn't know the Polythene Ban Act. 61.54% of retailers knew about this Act by witnessing mobile courts/raids. It is proved that other means of dissemination of this Act were unutilized. And creating awareness programs for consumers became irregular. 48.15% of consumers knew about this act by noticing the Signboard/ poster. The study found that social media is now a vital way of creating awareness. But this meaning was ignored by concerned agencies. Again, 55% of retailers faced raid/ mobile court. However, it was found that 98% of retailers were polythene bag users. It is proved that 43% of shops were out of mobile court/ raid. The survey showed 50 respondents out of 55 accused respondents were given pecuniary sentences and 5 were given jail

sentences. 2000 or more Taka fine was the highest given sentence where according Act highest fine is not more than 200000 Taka. Again 6-month or more jail sentences were the highest given jail sentences whereas according Act highest jail sentence is not more than 2 years imprisonment.

Department of Environment, Mymensingh district office mainly campaigns on the polythene ban act. They have installed signboards to raise awareness in Trishal Bazar. They publish major cases in newspapers and television so that polythene users become aware. Trishal Municipal Administration and Upazila Administration are working jointly to create awareness about the polythene ban act in various *hat*, *bazaar*, and marketplaces.

Department of Environment, Mymensingh Office, Upazila Administration, Assistant Commissioner (Land) Office, and Municipality Administration of trishal are involved in the implementation of the polythene ban act in Trishal Municipality. The district office conducts at least one mobile court every two months. They sometimes do awareness activities operating mobile courts in Trishal Municipality. The mobile court at Trishal Municipality is managed by the Office of the Assistant Commissioner (Land) Office. They operate mobile courts at Trishal Municipal Market every two months. They fined each of the shops where they got the polythene. However, those who hoard excessive amounts of polythene material are given jail sentences.

Some complaints are informed to the Department of Environment against people involved in polythene. Sometimes, based on complaints, suspicious places are visited, and the complaints are found to be false. When the Upazila administration started raiding the market, this news spread quickly. As a result, others close shop and flee away. In this way, the real culprits are not found.

13. Recommendation

Based on these findings, the study planned to make some recommendations. The suggested recommendations are:

At the Upazila level, there is no office or person affiliated with the Department of Environment. Given the problematic issue of polythene consumption, it is imperative for the government to establish an office at the Upazila level. Additionally, by appointing an executive magistrate, the Department of Environment would be able to carry out mobile court proceedings. Occasionally, there is a delay in coordinating with the office of the deputy commissioner. The government should revise the current

legislation and allow limited judicial authority to personnel of the relevant department to operate mobile courts.

There is currently no toll-free number specifically designated for lodging concerns regarding polythene bags. Witnesses experienced difficulty in promptly contacting relevant administrative authorities following their observation of the utilization and manufacture of polythene. The establishment of a hotline by the appropriate authorities will enhance the level of awareness among the stakeholders regarding violations of the Act.

Penalties would be imposed on both consumers and retailers that use polythene bags. This will deter them from utilizing polythene bags. If consumers abstain from using polythene, retailers would be compelled to provide alternative options.

14. Conclusion

Upon thorough data analysis, it is evident that despite the legislation prohibiting the use of polythene, 98% of the shops were nonetheless utilizing this material. The people responsible for executing the Act were unable to completely eradicate its usage despite their efforts to conduct mobile courts and campaigns. Just 35% of consumers were aware of this legislation, while a staggering 95% of them had not yet notified retailers about its existence. All consumers use polythene. This indicates that retailers and consumers are both using polythene. Many retailers stated that they were unable to comply with the law in the absence of polythene alternatives. They also claimed that consumers provide indirect support for the use of polythene because they obtained it without cost.

The Mymensingh district office of the Department of Environment has identified certain shortcomings. There is an inadequate number of magistrates. Therefore, they were unable to exercise unconstrained control over the operation of mobile courts. The Department of Environment needs to have magisterial powers, thereby preventing them from imposing punishments at their discretion. Adequate transportation is necessary for missions that need to be completed quickly. However, they need more automobile amenities. An upazila-level Department of Environment office does not exist. The Department of Environment, therefore, requested that the concerned upazila's administration operate the mobile court. However, the upazila administration frequently cited a lack of personnel and time as the cause for this.

A significant number of consumers have requested the administration to carry out periodic mobile courts for the enforcement of the law. Multiple initiatives have been undertaken to decrease the utilization of polythene bags. Legislative intervention in the implementation process is needed due to the apparent failure of consumers to adhere to the ban on polythene bags in Bangladesh. Administration officials have also mentioned many constraints. They think that the ubiquity of polythene is such that its eradication cannot be achieved just through the enactment of laws. Consumer and retailer awareness is necessary for this. Currently, only consciousness can guarantee the correct execution of the law. In addition to promoting awareness, they also requested the development of substitutes for polythene that are equally lightweight and cost-effective.

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