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The Usage of Plastic bags and people perception about the Environment in District Jhang, Pakistan

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Abstract:- Numerous plastic manufacturers produce tons of plastic bags that people often use for shopping because of their simplicity, low cost, and convenience. Yet, these bags' hazardous environmental impacts seldom get attention; much alone is publicly addressed more severely. Pakistan's predicament has become worse due to the country's economic disadvantage. Because of public concern about the severe detrimental effect on the environment and agriculture, several nations have prohibited plastic bags, particularly agricultural countries like Pakistan, Bangladesh, India, Yemen, and South Africa. We conducted a field survey in District Jhang and documented the locations of the collected plastic bags as part of this study.

We looked at how many plastic bag-producing companies there are, what causes them, and what can be done about them. We also looked at several ways to help keep the environment clean for present and future generations. The microbial strains were isolated and studied for cultural morphology and biochemistry to determine their identity.

I. INTRODUCTION

Countries worldwide have been using plastic for a long time as an unintentional innovation in hydrocarbons. In the 1970s, plastic bags were first produced, and their use has grown exponentially since then (Mahmood et al., 2020). Numerous products made from plastic were developed in the final quarter of the 20th century (Sugii, 2008). It appeared to be a valuable resource for making everything from electric appliance bodies to single sheet plastic bags cheaply and efficiently for a short time. For the most part, these bags are disposed of as waste after being used only once (Moharam & Maqtari, 2014). First introduced and encouraged the production of plastic bags in Western Europe by the petrochemical industries of the United States (Clapp & Swanston, 2009). As a comfortable and affordable material, it appeared users were unaware of its adverse effects at first (Adane & Muleta, 2011). Manufacturing companies that use plastic know that it hurts the environment; however, as with other technological innovations (Mulder, 2013), no one warned about the dangers of this innovation until environmentalists, and the general public started noticing the effects in earnest (Imran & Abbas, 2020). It is a challenge for people, so providing alternate options has become necessary (Abbas, 2020a).

Plethora and short-lived plastic bags damage the global environment tremendously (Moharam & Maqtari, 2014). The fact that these goods have a limited shelf life necessitates their disposal, which may take millennia. Increasing numbers of nations are turning to these goods with little regard for their environmental effect (Kumar, 2018), preferring to focus on the now rather than the future.

While there are many advantages to using plastic, the current method has become notorious for causing severe environmental problems. The production and consumption patterns of the subject matter have received little attention so far (Nielsen et al., 2019).

Daily trash from plastic bags is a significant source of pollution in the environment. Disposal of food containers lined with plastic, plastic bottles, and similar things pollutes groundwater and harms wildlife. Eighty-five percent of plastic shopping bags end up in open landfills due to carelessness (Kumar, 2018). Polythene goods have been banned in certain nations, while the policy is still being developed in others. Regarding banning the usage of plastic bags, as per the United Nations (UN) 2018 report, approximately 127 nations have done so. Numerous papers and studies have been written on the adverse effects of plastic bags in various areas by researchers, academics, investigators, and well-known national and international organizations across the globe. Still, regrettably, study on the subject is scarce in Pakistan.

Recently, the Pakistani government has come to grips with the gravity of the issues caused by the unrestrained use of plastics. Several Pakistani towns have banned the use of plastic straws and straw hats. Even though shops that violated the regulation were subject to harsh fines (Baloch, 2019), it could not curtail the widespread use of plastic bags due to the inaction and inability of the relevant government authorities to do anything about it. State and local environmental protection agencies aren't doing enough to keep pollutants under control and the environment safe for people and wildlife.

The research was done to determine whether the increased use of plastic bags causes any issues for the general population. Public opinion on the subject is required to address the issues of protecting current animal and plant species and their future generations for the sustainability and continuation of the life cycle. In this day and age, it's critical to assess the scope of the issue, pinpoint the underlying causes, and come up with creative solutions to plastic bags' potentially disastrous environmental consequences. Because

of the frequent use of these bags, there is an unrecoverable loss of fertile land, pure water, and fresh air, all of which are necessary for the survival of all living creatures.

Individuals of all genders, educational levels, religious backgrounds, ethnicities, and occupations have been asked to participate in the study.

II. LITERATURE REVIEW

Because of its many advantages, plastic has emerged as a go-to material for various applications, including health care and other fields. Plastic bag manufacturing grew dramatically from 0.5 million tons in 1950 to 260 million tons in 2008 due to these benefits. Plastics from old cars, electrical equipment, and packaging are significant sources of trash in the home and workplace (Thompson et al., 2009). Plastic bags, for example, are often discarded as trash after just one use. Plastics are said to withstand exposure to sunshine, germs, or bacteria for up to 1000 years before decomposing. Environmental degradation and direct or indirect danger to human and animal life are two of the most frequent issues connected with these bags (Abbas, 2019). By burying the bags, they limit water percolation and air access to the soil, which reduces the land's total production as a consequence (Habib et al., 2019). Plastics are also frequently used to package and transport food in low- and middle-income nations. Because of temperature variations, this technique may lead to various health problems, including the production of cancer-causing components during chemical reactions in polymers and food.

Because they are not biodegradable, plastics persist in the environment for a very long period. Their primary components are petroleum and natural gas. They are produced from finite resources. Materials like polythene, which comes in various densities, are frequently used in the manufacturing of plastics. To achieve the desired thickness, shine, and smoothness, linear low-density polythene (LLDPE) is frequently used in retail and superstores to manufacture shopping bags (Abbas, Muzaffar, Shoaib, et al., 2014). Plastic bags' disposal has a hazardous effect on land and water due to poisonous chemical compounds. As a result of littering and a flawed waste management system in Mumbai, India, plastic trash has become a significant issue for municipal authorities. Because plastic bags are often disposed of as household trash, many never make it to recycling (Chaudhuri, 2016). Plastic wastes in huge quantities are challenging to eliminate globally. Still, by raising awareness of the problem and putting out the effort to reduce trash, we may begin to make progress. Among the many factors contributing to environmental deterioration is the widespread usage of plastics.

Plastic is the primary pollutant in rivers and land, harming aquatic and terrestrial animals alike (Abbas & Sagsan, 2019). Societies that rely on fishing may see their economies suffer and their food supply become insufficient as a consequence. Plastic, which big animals consume for food, may harm little creatures like plankton. Large animals will absorb chemicals if minor species are poisoned by swallowing plastic. If this increasing trend continues, there is a good possibility these contaminants will wind up in the seafood people eat. The groundwater supplies are also being polluted as a result of this pollution of the seas.

Plastic pollution is wreaking havoc in many parts of the world, but the planet's water supplies are in particular danger. When plastic trash is dumped or littered, it may seep into the groundwater supply, contaminating the water people drink daily. Natural beauty is deteriorating on the land. Moreover, wind may transport plastic trash or litter throughout the atmosphere (Kumar, 2018)

Plastic manufacturing involves the creation of a wide range of environmentally hazardous products. These substances lead to acid rain, severe danger to natural and artificial environments, particularly in coal-dependent areas such as Eastern Europe and the Soviet Union. Smog, on the other hand, is to blame for several health problems that affect people.

Additionally, the production of two plastic shopping bags generates 0.1kg of watery trash, which can disturb nearby environments like waterways and the species that reside there. When it is discovered that the majority of plastic shopping bags are produced in countries like China that have minimal environmental laws, the issue of pollution in the air and water is exacerbated (Ellis et al., 2005). Not only are these bags polluting the air and water, but they have also harmed agricultural land. Plastic trash pollutes agricultural land and combines with other decomposable materials since many people do not recycle it. Plastics do not decompose. Therefore they stay in the soil and prevent the delivery of nutrients and water to agricultural land, essential for plant growth and development. Despite their thinness, plastic bags serve as a barrier to plant roots, preventing them from moving throughout the soil, searching for nourishment. As a result, plastic bags are to blame for the enormous damage done to agricultural land and the development of agricultural plants and fields.

Disposable plastic bags clog up the sewage system in densely populated regions and small towns everywhere. The result is foul odors and a breeding ground for germs that may lead to a rise in the number of illnesses that people become sick from (Adane & Muleta, 2011). On the other hand, plastic bags have a significant negative impact on the environment, especially in metropolitan regions with little wildlife. Runoff water gathers and transports used plastic bags into storm sewers, where they are eventually disposed of. Upon entering these sewers, garbage bags frequently stick together and impede the flow of water (Abbas, 2020b).

As a result, water cannot correctly drain, causing problems for people living or working nearby. Routes may flood when storm sewers get clogged, necessitating the closure of such roads until the water has been removed. The extra water may cause damage to roads, structures, and other assets. Besides that, it gathers pollution and disperses it across the environment, doing more harm than good. Having clogged storm sewers has the additional effect of reducing

the amount of water that can flow through a given watershed. Obstruction of gutter pipes may result in water shortages, which can cause massive die-offs and even the complete demise of aquatic life. Ideal Staff for a Greener Environment, 2018)

These issues arise due to people's carelessness when it comes to throwing away trash, including plastics and other materials, in public areas. Some individuals set fire to plastic bags on public highways or fields, creating toxic fumes that are hazardous to human health and raise the temperature of the surrounding environment. According to reports, temperatures in Malaysia are steadily rising, which may cause the water level to increase and cause flash floods. Malaysia banned plastics usage to prevent such a disastrous scenario from arising (Abbas & Sagsan, 2019). Singapore, Malaysia's next-door neighbor, has already prohibited plastic bag usage (Md. A. Jalil et al., 2013). According to research, the consequences of less use of plastic bags at significant marketplaces were investigated in this respect (Ohtomo & Ohnuma, 2014). The researchers using a dual incentive model examined how individuals' natural behavior is affected by environmentally friendly behavior (Abbas et al., 2015; Abbas, Muzaffar, Mahmood, et al., 2014). During the first week, the store owner often provided customers with complimentary plastic bags. Customers were polled again in the study's interim week, this time to see whether they preferred plastic bags or not. 78 percent of consumers agreed to get plastic bags during the pre-intervention week (first week), whereas 22 percent objected. 73% of consumers rejected plastic bags in the second week after the intervention, with just 27% agreeing to take plastic bags. Before and after the intervention, there was a substantial change in the acceptability of plastic bags. It demonstrates that the shopkeeper's inquiry contributed to a decrease in the usage of plastic bags. As a result, it shows that deliberate human efforts are usually helpful in achieving goals. This campaign's goal was to cut down on plastic bags due to their negative environmental impact.

Hypothesis

H1: The most often used items are plastic bags.
H2: Using plastic bags has become so popular because of their unique properties.
H3: Disposing of plastic bags is not an environmentally favorable choice.
H4: The use of plastic bags hurts the environment.
H5: Creating awareness about the dangers of plastic bags is a significant responsibility for the media.
H6: Plastic bags are being used more and more often.
H7: Alternatives to plastic bags are available.

III. RESEARCH METHODOLOGY

Target Population

The data has been collected from district Jhang. The Faisalabad division includes the district of Jhang in Pakistan's Punjab province. It became a distinct district in 2009 when the Chiniot Tehsil split off. Jhang District has chilly weather similar to the rest of Punjab, with crisp mornings and cool days. When it rains, it usually does so towards the end of December and in January and February.

Data Collection, And Analysis

A total of 170 people participated in the survey, with 130 men and 40 women answering the questions. Non-probability convenience sampling was used to choose the study participants. The respondents were drawn from a pool of university students, business centers, and families living in various parts of the twin-city metropolitan area. Regardless of age, educational level or gender, a single member of each household who was willing to participate in the study was chosen at random for the study. Males outnumbered females due to a greater desire to meet and participate in the provided surveys. When we asked the ladies to fill out the forms, the majority of them balked.

Residents in the targeted area were given survey questionnaires and Google forms as a way to collect data. The questionnaire's format and questions were both in English and Urdu for the benefit of its respondents. The study paper served as the inspiration for the questionnaire. The research paper by Adane and Muleta provided the measuring equipment needed to perform the investigation (2011). The research and data gathering format resemble that of the last case study. The study's aim was clarified with the participants before answers were collected. Respondents who wanted to but could not complete the surveys independently received assistance from the article's researchers. To ensure that they could fill out the form correctly and with due regard for society, it was ensured that each item was explained to them in detail. Respondents were divided into groups to sort the collected data.

Table 1 Demographic representation of data

Variables	Categories	Frequency	Percentage
GENDER	MALE	130	75.8
	FEMALE	40	24.3
AGE	20 YEARS	45	26.6
	21-30	98	57
	31-40	20	12
	41	8	4.1
EDUCATION	ILLITERATE	5	2.4
	PRIMARY	10	5.3
	GRADUATION	54	30.7
	MASTERS	101	60.9
OCCUPATION	STUDENT	113	66.4
	GOVERNEMNT EMPLOYEE	11	6.4
	PRIVATE JOB	32	18.9
	OTHER	14	8.2

In the data collection, the high number of students was their willingness to fill out forms since they understand what we are doing and how to fill out the form, and the significance of the data. 81.5 percent were students. Private businesses were in second place (19.07%), followed by government employees (6.93%). Because most respondents

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were students (mentioned in the preceding paragraph), most respondents were between the ages of 21 and 30 (57 %). Those aged 20 to 29 accounted for 26.58 % of all respondents, those aged 31-40 accounted for 12%, and those aged 41 and beyond accounted for the remaining respondents (4.1 %). Finally, we will talk about the level of education of those who took the survey. Most of our respondents (60.9%) were masters. In comparison, graduation students came in second (30.7%), followed by those with very primary education (5.3%), and the illiterate (2.4%), who never went to school in their lives, and came in last (See Table-1).

Table 2 Plastic Products

Variables	Plastic Bottles		Plastic bags		Buckets and barrels of plastic		Plastic shoes		others	
	F	%	F	%	F	%	F	%	F	%
Male	25	19.2%	74	56.9%	21	16.1%	7	5.38%	1	0.76
Female	9	22.5%	18	45%	11	27.5%	3	7.5%	0	0
ILLITERATE	0	0	1	25	3	75	0	0	0	0
PRIMARY	2	22	1	11	5	55	1	11	0	0
GRADUATION	9	16	25	48	14	26	5	9	0	0
MASTERS	3	21	65	60.8	13	12	4	3	1	0.78
20 YEARS	8	17	27	58.6	8	17	3	6.5	0	0
21-30	22	22	56	56.6	18	18	2	2	1	1.02
31-40	19	7	4	6	28.7	33	3	14.1	1	3.76
41	0	0	3	42.5	2	2	2	29.0	0	0
STUDENT	25	22	66	56.9	20	17.5	2	1.75	1	0.9
GOVERNEMNT EMPLOYEE	4	33.4	3	25	4	33.4	1	8.4	0	0
PRIVATE JOB	3	10.0	14	42.5	9	27.3	7	21.3	0	0
OTHER	2	14.3	9	64.3	2	14.3	0	0	1	7.0

Out of 170 respondents, most of the population uses plastic bags in significant numbers compared to other plastic products. The research shows that men's use of plastic bags is 56.9 percent, plastic bottles 19.2 percent, plastic buckets, barrels and baskets 16.1 percent, and plastic shoes 5.38 percent. On the other hand, females' use of plastic bags is 45 percent, plastic bottles 22.5 percent, plastic buckets, barrels and baskets 27.5 percent, and plastic shoes 7.5 percent. This data shows that most of the respondents in all the provided groups use plastic bags in their everyday lives. This research shows that plastic bags are utilized significantly among the inhabitants of District Jhang. The locals claim that they have been witnessing excessive usage of plastic bags over time. All these findings show that plastic bags are likewise extensively utilized product in Jhang.

Table 3 Factors responsible for the widespread use of plastic shopping bags

Variables	Price is Low		Light weight		Easily Available		NO Alternatives		others	
	F	%	F	%	F	%	F	%	F	%
Male	25	19%	35	26.9%	40	29.8%	32	25.38%	0	0%
Female	4	9.5%	9	24%	18	43.5%	8	20.5%	0	0%
ILLITERATE	4	99%	0	0%	0	0%	0	0%	0	0%
PRIMARY	2	22.3%	2	22.3%	3	33.4%	2	22.2%	0	0%
GRADUATION	9	16%	17	33%	19	36%	9	16.9%	0	0%
MASTERS	16	14.2%	25	23.8%	37	33.5%	32	29%	0	0%
20 YEARS	11	23.9%	13	28.6%	34	17%	8	16.5%	0	0%
21-30	12	12.3%	27	27.6%	33	18%	26	26.7%	0	0%
31-40	3	14.3%	3	15%	10	33%	5	23.1%	0	0%
41	3	45.4%	1	15.5%	2	1%	2	29.0%	0	0%
STUDENT	10	17.6%	30	26.3%	32	27.5%	32	29.75%	0	0%
GOVERNEMNT EMPLOYEE	0	0%	6	49%	4	33.4%	2	16.4%	0	0%
PRIVATE JOB	9	27.6%	5	15.5%	16	47.3%	3	9.03%	0	0%
OTHER	1	7.15%	3	21.3%	6	42.9%	4	28.6%	0	0%

Based on this data, individuals in District Jhang of all genders and educational levels are using plastic bags extensively in their daily lives. Due to their cheap cost (16.76%), lightweight (25.43%), ease of availability (33.52%), and lack of alternative materials, these products were widely used (24.28%). According to other studies, plastic bags' lightweight, low cost, fantastic qualification for use, and asset efficiency are the primary reasons for their

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widespread use. When consumers purchase anything from any of the shops we looked at, they get a free plastic bag from the retailer that provides it. It shows that merchants' shop owners' ease of use and free dispersion of these materials is the primary cause of plastic bags' widespread use. According to our study, customers at marketplaces and superstores in District Jhang utilize complimentary plastic bags. Furthermore, it has been shown that educated individuals prefer plastic bags to other waste disposal methods.

Table 4 Plastic Bag waste disposal

Variables	Open Dumping		Burying		Burning		others	
	F	%	F	%	F	%	F	%
Male	60	45.9%	18	13.9%	43	34.8%	10	7.72%
Female	21	50%	9	21.5%	10	23.9%	2	5.0%
ILLITERATE	2	55%	2	50%	0	0%	0	0%
PRIMARY	5	55.6%	0	0%	3	33.4%	1	11.12%
GRADUATION	21	39.9%	10	18.9%	21	40%	1	1.9%
MASTERS	53	50%	15	14.8%	29	27.5%	10	9.88%
20 YEARS	19	41.4%	4	8.6%	17	36.9%	6	13.4%
21-30	48	48.5%	18	18.9%	27	27.8%	6	6.0%
31-40	9	42.9%	4	19.5%	8	38.1%	0	0%
41	5	71.7%	1	14.2%	1	14.2%	0	0%
STUDENT	50	43.87%	18	15.8%	37	32.5%	9	7.9%
GOVERNEMNT EMPLOYEE	6	50%	2	16.7%	4	33.4%	0	0%
PRIVATE JOB	17	52.4%	5	15.6%	9	27.4%	2	6.0%
OTHER	8	58%	2	14.3%	3	21.5%	1	7.13%

Practices for removing plastic bag waste and their impact on the environment

Plastic bags must be disposed of away after just one usage. As a result, more information on respondents' practices for disposing of plastic bag trash was gleaned. The most common methods of disposing of plastic bag trash are dumping it in open places (45.9%) or burning it (34.8%). Most individuals openly dump their waste in the neighborhood. It shows that individuals in the district Jhang have a habit of "dumping" in public areas. Only 27 (15.60 %) of the 170 people who took part in the survey said they buried trash, while 12 (16.13 %) said they disposed of it in another way. Open dumping was used by most of these people (81 out of 200, or 46.82 %). According to our survey questionnaires and Google forms observations, plastic bag wastes accounted for the most significant proportion of plastic trash in the District Jhang and surrounding regions. In addition to the other methods we have discussed, burning is another popular choice. Plastic bag trash burners outnumbered those who dump their garbage into the environment by a margin of two to one (21% to 10 %). Educated people should be more concerned about the environment, but our poll findings indicate that they are less concerned about the environment than anticipated. As a result, everyone in society must contribute to the fight to rid the planet of plastic bags. Our ecosystem is quickly degrading as a result of these bag wastes.

Table 5 Associated problems with Plastic bags

Variables	Death of Animals		Problems in human health		Sewage blockage		Deterioration of Natural Beauty		others	
	F	%	F	%	F	%	F	%	F	%
Male	16	16.9%	24	25.3%	33	34.8%	18	18.96%	4	4.3%
Female	4	13.32%	5	16.7%	12	40%	7	23.4%	2	6.7%
ILLITERATE	1	99%	0	0%	0	0%	0	0%	0	0%
PRIMARY	0	0%	0	0%	3	99%	0	0%	0	0%
GRADUATION	6	20.7%	7	25%	11	38%	4	14.9%	1	3.5%
MASTERS	13	14.4%	22	23.8%	31	33.5%	21	23%	5	5.5%
20 YEARS	3	9.8%	8	25.6%	15	49%	3	9.7%	2	6.5%
21-30	14	17.3%	19	23.6%	26	31%	19	24%	4	4.9%
31-40	2	29.3%	2	27%	2	29%	1	24.1%	0	0%
41	1	20%	0	0%	2	40%	2	40%	0	0%
STUDENT	15	15.6%	24	25.3%	31	32.5%	19	20.75%	5	5.4%
GOVERNEMNT EMPLOYEE	2	33.4%	1	16%	2	33.4%	1	16.4%	0	0%
PRIVATE JOB	2	14.6%	3	21.5%	5	35.3%	4	28.6%	0	0%
OTHER	1	9.15%	1	9.15%	7	62.9%	1	9.15%	1	9.15%

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Plastic bag waste is a problem in district Jhang, according to our research. Using this information, we can see that animal death (20, 11.56%) were the most concerning, followed by sewage choking frameworks (45, 26.01 percent), environmental degradation due to trash (25, 14.45 %), and health concerns for humans (29, 16.76%). Plastic bag wastes are a concern for most respondents, regardless of their social or economic background. Given these facts and the findings of this study, it is clear that action must be taken immediately to raise awareness about the dangers of plastic bag waste to the health of all living creatures, including humans and animals. Parks (15, 9.25%), trash disposal sites (18, 10.40%), market places (18, 10.40%), and busy residential areas (23, 13.29%) are among the locations with the highest accumulation of plastic bag waste. These locations are not included in the chart. Roadsides (2, 1.15%), open spaces in the city (4, 2.30%), and sewage lines were among the least contaminated regions compared to the previous sectors (7, 4.05%). Plastic bag trash pollution is a significant issue in the District Jhang, as shown by these findings. Plastic bags, as previously said, do not disintegrate and stay in the soil for hundreds of years if they remain in large quantities. It prevents air and water dispersion, which reduces agricultural production. The district administration dumped strong plastic trash near residential areas in the city during our field trips, showing how careless the management was.

Table 6 Plastic bags wastes information

Variables	Radio/TV		School		Professionals		Publications		others	
	F	%	F	%	F	%	F	%	F	%
Male	43	48.8%	7	7.93%	17	19.31%	18	19.96%	3	3.42%
Female	10	35.7%	5	17.7%	3	10.6%	8	28.6%	2	7.4%
ILLITERATE	2	99%	0	0%	0	0%	0	0%	0	0%
PRIMARY	1	50%	0	0%	1	50%	0	0%	0	0%
GRADUATION	14	49.2%	5	17.25%	4	13.8%	6	20.9%	0	0%
MASTERS	36	43.34%	7	8.8%	15	18.5%	20	25%	5	6.5%
20 YEARS	13	43.34%	4	13.32%	3	10%	9	31%	1	3.5%
21-30	35	45.6%	7	9.09%	15	19.5%	17	22%	1	3.9%
31-40	3	42.9%	1	14.3%	2	28.6%	0	0%	1	14.3%
41	2	100%	0	0%	0	0%	0	0%	0	0%
STUDENT	39	44.9%	7	8.3%	14	16.5%	23	26.75%	4	4.4%
GOVERNEMNT EMPLOYEE	1	16.7%	3	50%	2	33.4%	0	0%	0	0%
PRIVATE JOB	4	33.4%	2	16.8%	4	33.4%	2	16.8%	0	0%
OTHER	9	81.3%	0	0%	0	0%	1	9.15%	1	9.15%

What role do the media play in bringing attention to this issue?

The majority of those polled (53 out of 30.63 %) said that TV and radio played essential roles in spreading information about the negative consequences of plastic bag waste. Health experts (20, 11.56%) and schools (12, 6.93%) are other sources of data that were gathered (26, 15.02 %). According to the findings in the table, it is feasible to use this medium to educate the public about the problems created by the improper disposal of plastic bags. People have access to media, even if it is not scientifically proven or even analyzed. As a result, educating the public about the dangers of plastic bags is made simple via the media. Social media is another factor that has a significant effect on influencing public opinion and raising awareness. According to the results of our research, some individuals obtained their information through social media. As can be seen by looking at the results table, (44, 19.13 %) of those surveyed receive their information from newspapers and magazines. A possible explanation for this is that these items were not included in the waste. Despite this, the authors' opinion of certain well-known periodicals and journals in the district Jhang remained constant. There was no information on the environmental impact of plastic bags.

Table 7 Factors of access to plastic bags

Variables	Low In Cost		Easy to Access	
	F	%	F	%
Male	23	35.9%	15	23.9%
Female	8	39%	9	38.5%
ILLITERATE	2	66.7%	0	0%
PRIMARY	1	24%	1	25%
GRADUATION	7	36%	3	15.9%
MASTERS	21	36.3%	19	11.8%
20 YEARS	15	57.7%	3	40%
21-30	10	22.3%	18	18.9%
31-40	4	33.4%	2	16.8%
41	2	100%	0	0%

STUDENT	19	33.4%	15	26.4%
GOVERNEMNT EMPLOYEE	2	40%	1	20%
PRIVATE JOB	10	62.4%	3	18.6%
OTHER	0	0%	4	57.14%

As a result of these findings, it is clear that the next generation has to be taught environmental protection beginning in the early grades. Similarly, companies must cultivate a corporate culture of environmental stewardship. If plastic bags were used less often in schools and organizations, it would positively affect the environment. To reduce the use of plastic bags, education is needed to raise public awareness. The government officials have a responsibility to serve as role models for the rest of the country.

Overwhelmingly, respondents in each group are well-informed on the subject of plastic bag waste problems. It suggests that educating the people of the district Jhang about the dangers of plastic bag disposal and use would take some time and effort. However, changing people's habits about using plastic bags would take a long time.

Table 8 Factors Responsible for decreasing trends

Variables	Awareness in Community	
	F	%
Male	35	50.9%
Female	8	39%
ILLITERATE	0	0%
PRIMARY	1	20%
GRADUATION	15	48.4%
MASTERS	27	56.3%
20 YEARS	5	27.7%
21-30	30	56.3%
31-40	6	66.8%
41	2	40%
STUDENT	30	53.8%
GOVERNEMNT EMPLOYEE	2	28.6%
PRIVATE JOB	8	50%
OTHER	3	50%

Reasons for an accelerating or reversing trend

To find out if plastic bag use is growing or decreasing, we asked our respondents, and the outcome was 50 percent, with half of our respondents claiming they observed an increase in the use of plastic bags and the other half stating they saw a decrease. As a result, we are also debating the causes of plastic bag consumption's upward or downward trend.

We found that most people believe the use of plastic bags is on the rise because they are inexpensive and simple to get their hands on (31, 27.62 % of respondents stated this) (23, 13.29%). Surprisingly, just 15% of those polled cited "lack of knowledge" as a significant factor in the rising popularity of plastic bag use.

According to the study results, inexpensive plastic bags are increasing use, which may be curbed by enforcing tight regulations and police in the manufacturing sector.

However, in the declining trend section, respondents said that they had seen a decrease in plastic bags, with community knowledge of the negative environmental impacts of plastic bags and the many ways in which they have impacted the eco-system playing a significant role. People also stated that the declining trend in plastic bags was due to the ease they could now get alternate bags to plastic bags. They cited government restrictions as a key reason, claiming that shop owners in the District Jhang who provided plastic bags were subjected to harsh punishment.

Table 9 Making of Plastic bags

Variables	Bags made by cloths	
	F	%
Male	68	51.9%
Female	19	45.6%
ILLITERATE	2	50%
PRIMARY	3	33.4%
GRADUATION	24	45.4%
MASTERS	58	54.3%
20 YEARS	27	57.7%
21-30	49	49.5%
31-40	8	38.8%
41	3	43%
STUDENT	63	55.8%
GOVERNEMNT EMPLOYEE	3	25.6%
PRIVATE JOB	13	39.4%
OTHER	8	57.5%

Bags that are not made of plastic

The last time we polled the public on a plastic bag substitute, (87, and 50.28 %) said that cloth bags were the best choice since they could be used again. Respondents believe that all stores, merchants, and malls must offer cloth bags to their consumers instead of plastic bags so that they do not use them in their everyday lives. According to the survey participants, they picked up the habit of using plastic bags from these establishments since they received a free plastic bag starting with their first purchase. Paper bags were cited as the second most common response by those who took the poll. As an alternative to plastic bags, they say, this is a good choice. It is also less expensive than plastic bags, but it is also an option. Though the paper bags were criticized for being of poor quality and often cracking, they remained an attractive alternative to plastic bags for many people. Fiber bags are the third most preferred plastic bag substitute, according to our survey participants. In order to make the paper more flexible and less likely to rip or expand, eco-friendly fiber bags are lined with cotton

threads. These unique and fashionable bags are made from 100 percent renewable resources. Some of the people who answered our poll suggested using fiber bags in their everyday lives. They believe that these alternatives are the most popular and should be available on the market to stop using plastic bags. As a result of our research, we have concluded that drastic measures are required to rid our environment of plastic bags.

IV. LIMITATIONS OF THE STUDY

The research was carried out in an area with a small population, with the vast majority of participants being male. Data from the whole population must be collected to be complete and accurate. However, this was not the case in the previous research. Suppose data is gathered from a tiny population. In that case, the categories of correspondents from whom the data is collected should be chosen depending on how common they are in that particular area of the world. Additionally, in the effort to get impartial data, women's reluctance to participate stemmed from societal norms.

V. CONCLUSION

Even though the majority of those polled saw plastic bags as a significant issue, they also saw solutions in the shape of cloth, paper, and fiber-based alternatives. The majority of participants agreed that raising awareness about the issue would be the best way to stop it. As for the government, this may be accomplished by encouraging shopkeepers/retailers who use plastic bags to encourage their customers not to take plastic bags home with them. Shopkeepers may persuade customers to quit buying plastic bags if they promise not to use or take them. Provide low-cost alternatives to manufacturers and increase tariffs on raw materials used to manufacture plastic bags may help manufacturers. A fresh approach to banning plastic bag use and manufacturing in the district Jhang is needed by the administration. Although most people in district Jhang have some level of education, they seem unconcerned about the dangers of plastic bags. A major awareness campaign is needed to prevent using plastic bags, and municipal officials should keep an eye on the sale and manufacture of plastic bags. A role model in this respect should be set by educational institutions like universities and schools, and hospitals.

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