

The Impact of Plastic Bags on the Environment: A Field Survey of the City of Rajsamand

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1. Introduction

Thousands of plastic factories are producing tons of plastic bags which are very popularly used by the people for shopping purpose because of its ease, cheapness and convenience of use but their very hazardous negative impact is never highlighted or, at the very least, openly discussed in a more serious tone. The situation is worsened in India as economically disadvantaged country, Many countries have banned plastic bags due to the public. Concern over the serious negative impact on the environment and agriculture, especially in agricultural countries, such as India, Bangladesh, Yemen, Pakistan, South Africa, etc. In this research paper, we surveyed the field for the city of Rajsamand and recorded about those plastic bags accumulated.

The number of factories producing plastic bags and discuss the causes and effects and reviewed a range of solutions for a clean environment for us and our future generations. The isolated microbial strains were identified based on their culture morphological and biochemical study.

They are available in huge numbers and varieties across the world. It is estimated that around 500 billion plastic bags are used every year worldwide. This widespread utilization to their cheapness and convenience to use. The vast majority of these bags are discarded as wastes usually after a single use. It is also believed that after their entry into the environment, plastic bags can persist up to 1000 years to degrade and hence pose a disposal challenge without being decomposed by sunlight and/or microorganisms. Accumulation of plastic bag waste causes environmental pollution that can be manifested in a number of ways. One of the problems is the deterioration of the natural beauty of an environment. Another common problems associated with these wastes is death of domestic and wild animals. This necessitates for proactive measures in order to safeguard animal species against extinction. Blockage of sewerage systems is becoming a common problem in cities and instruments such as levies and taxes to restrict the use and production of plastic bags. Through, they are not such effective, voluntary initiatives have also been attempted in some countries to reduce plastic bag use and/or plastic bag problems in environment.

Different reports showed that plastic bags are still causing severe environmental pollution and human and animal health damages in urban and rural areas of the country. Some of the basic reasons could be poor waste management and perhaps lack of awareness about the negative impacts of plastic bags.

The plastic bags were the most used plastic materials in India. They are used to bag solids and liquids. They are used heavily to wrap goods and almost everything. Previously, paper and cotton bags and local baskets were used to bring different merchandise from the marketplace. Ceramic pots and glass bottles were used for liquids. These bagging utilities disappeared almost completely because they could not compete with plastic bags especially in price. Currently, the plastic bags are doing the same jobs in a cheaper and more efficient manner. They are versatile, beautiful and practical materials, brought about polluting and environmental damage are numerous and especially bags of them even mentioned some researchers, because of the proliferation of plastic bags in India has become the scene of environmental ridicule, there are those who call on the plastic bags volatiles in the air and other describe the intensity of its deployment in the streets of cities and markets and different places too cheap to be collected, Hence, these plastic bags are the most dangerous environmental pollutants in India. They are not only give an ugly shape of beautiful India environment but also pollute aeration, kill plants and animals, They are seen all around at sight-seeing sea shores and killed sea life fish and coral reefs.

We will present this research in order to provide a vision to address the effects on our environment, we have surveyed the field for the city of Rajsamand to confine the whereabouts of plastic bags and the quantity of production and daily consumption of these bags and microbes accumulated therein.

2. Study Area

The study was conducted in Rajsamand City, State of Rajasthan. The area of the province (4768 km.). This gives it a ranking of 405th in India (out of a total of 640). The district has a population density of 302 inhabitants per square kilometer (780/sq mi). Rajsamand District is a district of the state of Rajasthan in western India. The town of Kankroli & Rajnagar is the district headquarters. The district was constituted on 10 April 1991 from Udaipur district by carving out 7 entire tehsils - Bhim, Deogarh, Amet, Kumbhalgarh, Rajsamand, Nathdwara, and Railmagra. The district has an area of 4,768 km. The Aravalli Range forms the northwestern boundary of the district, across which lies Pali District. Ajmer District lies to the north, Bhilwara District to the northeast and east, Chittorgarh District to the southeast, and Udaipur District to the south. The district lies in the watershed of the Banas River and its tributaries. Some other rivers are: Ari, Gomati, Chandra and Bhaga. An official Census 2011

detail of Rajsamand, a district of Rajasthan has been released by Directorate of Census Operations in Rajasthan. Enumeration of key persons was also done by census officials in Rajsamand District of Rajasthan. In 2011, Rajsamand had population of 1,156,597 of which male and female were 581,339 and 575,258 respectively. In the 2001 census, Rajsamand had a population of 987,024 of which males were 493,459 and remaining 493,565 were females. Rajsamand District population constituted 1.69 percent of total Maharashtra population. In the 2001 census, this figure for Rajsamand District was at 1.75 percent of Maharashtra population. There was change of 17.18 percent in the population compared to population as per 2001. In the previous census of India 2001, Rajsamand District recorded increase of 29.38 percent to its population

compared to 1991.

Agriculture, Marble is the main activity of the inhabitants of the province of Rajsamand, and the cultivated land in many of the most important agricultural crops of fruits and vegetables.

The plastic pages sample were collected from local field visits to survey and find out to isolate bacterial species in places of accumulation of plastic bags (Qat market , Gardens) for isolation and identification of bacteria present in a sample collected.





3. Methodology

To quantify the global research effort on the topic of plastic pollution in the Rajsamand city environment, We Searched the Scopus literature database for publications related to plastic pollution in the Rajsamand city using combination or search terms. We Repeated the search adding terms to allow quantification of research effort on air breathing Rajsamand city. From the literature output on Rajsamand city compiled a list of many authors with paper on plastic pollution published between- 2007 to 2019.

The methods used in the identification and characterization of isolated bacteria including Gram stain followed by microscopic examination, motility test and biochemical tests. The isolates were identified by Bergey's manual of determinative bacteriology.

4. Results & Discussion

The world population is living, working, vacationing, increasingly conglomerating along the coasts, and standing on the front row of the greatest, most unprecedented, plastic waste tide over faced. The amount of plastic manufactured in the first ten years of this century will approach the total produced in the entire last century. The plastic pollution involves the accumulation of plastic products in the environment that adversely affects wildlife habitat, or human. We absorb many types of from of plastic pollution exist. The plastic pollution can adversely affect wildlife habitat, or humans.

Types of plastic pollution

Plastic pollution occurs in many forms, including but not limited to littering, marine debris (man-made waste that has been realized in a lack, sea, ocean or waterway). Plastic

particle water pollution, plastic netting and friendly floatees. A large percentage of plastic produced each year is used to make single-use, disposable packing items or products which will get permanently thrown out within one year. Often, consumers of the various types of plastics mainly use them for one purpose and then discard or recycle them.

Effects on the environment as follows:

Land: Chlorinated plastics can release harmful chemicals into the surrounding soil. Which can ten seep into groundwater of other surrounding water sources. This can cause serious harm to the species that drink water. Landfill areas are constantly piled high with many different types of plastics, In these landfills, there are many microorganisms which speed up the biodegradation of plastics.

Ocean: Nurdles are Plastic pellets that are shipped in this form, often in cargo ships, to be used for the creation of plastic products. A significant amount of nurdles are spilled into the ocean, and it has been estimated that globally, around 10% of beach litter is nurdles.

Human: Plastic contain many different types of chemicals, depending on the type of plastic. The additional of chemicals is the main reason why these plastics have become so multipurpose, however this has problems associated with it. Some of the chemicals used in plastic production have the potential to be absorbed by human beings through skin absorption.

Reduction efforts: Efforts to reduce the use of plastics and to promote plastic recycling have occurred. Some supermarkets charge their customers for plastic bags, ad in some places more efficient reusable or biodegradable materials are being used in place of plastics.

Collection: The two common forms of waste collection include curbside collection and the use of drop-off recycling centers. About 87% of the pollution in the U.S.A. (272 million people) have access to curbside and drop-off recycling centers.

The size of the horrible pollution of plastic bags can be illustrated by simple calculations using the information from them. The survey results indicated that, majority of the city residents widely used plastic bags in their daily life activities. Some of the main reasons attributed to the widespread usage were low price, easy availability and light weight. These findings are consistent with other reports describing that light-weight, cheap price, excellent fitness for use and resource efficiency as the main reasons for widespread utilization of plastic bags by billions of customers throughout the world. We like that confirm that we Rajsamand city more human beings destructive to our environment due to the excessive use of plastic bags and even the most consumed, where in addition to their use in shopping. We use it heavily in keeping qat. Every one of us consumes per day, including at least three sacks and throws away the plastic bags without any guilt and here the shows the amount of plastic bags used for the sale. Located the plastic bags in the city of Rajsamand, in the main lines of the ways leading to the city or Udaipur, Where there are dumps and incinerators the entrances and exits of the regions of the city or Rajsamand especially in markets of vegetables and in public gardens and in the lacks.

5. Conclusion

The plastic pollution can adversely affects lands, waterways and oceans. The prominence of plastic pollution is correlated with plastics being inexpensive and durable, which lends to high levels of plastics used humans. Animals can be significantly harmed or killed by plastic pollution. Animals can be significantly harmed or killed by plastic pollution. The environment tools of plastics, i.e. cell phones and computers to bicycle helmets and hospital IV bags, plastic has molded society in many ways that make life both easier and safer. A large percentage of plastic produced each year is used to make single-use, disposable packaging items or products which will get permanently thrown out within one year. A significant amount of nurdles are spilled into oceans and it has been estimated that globally, around 10% of beach litter is nurdles. Some of the chemicals used in plastic production have the potential to be absorbed by human beings through skin absorption. Efforts to reduce the use of plastics and to promote plastic recycling have occurred.

Through field survey of plastic bags, which we have done in the city of Rajsamand that the containing a very large amount of plastic bags where there are in the streets, road, the power cords, most markets in qat and vegetables, where the prevalence of the plastic bags in this way leads to contamination and distortion environment and reduces the aesthetic view of the city of Rajsamand, which refers to the environmental disaster in the city of Rajsamand only let alone the rest of the cities. Plastic pages waste materials cause serious environmental problems, so the waste materials removed by using the microorganism that associated with plastic pages. This method was cheap and

effective, so that it can be used widely for the treatment of plastic pages.

6. Recommend/ Solutions

The economically and technical workers are essential in replacing the plastic bags with other materials, the low price and ease of manufacturing gives it a big advantage on other materials, and other alternatives are proposed.

- Replaced the plastic bags, paper bags or cloth.
- The production of plastic bags and more durability largest thickening.
- Replace the plastic current materials biodegradable where there are kinds of innovating plastic decomposed by ultraviolet which is added to the composition of starch and thus becomes a biodegradable and do not last in the environment for a long time is that these species did not prove their efficiency in Western countries since the lifespan of her difficult to define as it relates to the conditions of transport and storage and marketing.

There are ways reflected the development of a proposed special containers for each type of waste like glass, metal, plastic and paper and so instead of throwing them in the streets by people defined environmental dangers, raise the level of environmental awareness at the citizen.

We have had many of the states to adopt policies that encourage people not to trading the plastic bags, and replacing them with bags of paper of cloth. As decided by some governments prohibit the use of this type of bags in the future, to prevent environmental problems caused by the increasing volume of plastic garbage, as sought again to impose fine to use these. But some experts find it that the decision of the individuals in this area, a great role in reducing the problem of environmental pollution caused by the consumption of plastic materials, where it can be to him, and by doing some things, mitigation of damage resulting from it, for example; longer pick up the plastic bags, which won the individual from the process of shopping precedent, to carry their belongings and purchases of new, and without having to request bags additional shopkeepers, the exercise will reduce the quantities that arise per year.

The solutions that we see is that do

- The implementation of a comprehensive campaign equivalent of immunization campaigns in terms of the media handling of the material including the negative effects of plastic bags and the harm done and continue awareness media campaign through several periods of what would limit the spread of.
- Provide appropriate alternative and parallel in terms of cost for users of the plastic bags.
- As he can send a message by mobile warns of the damage plastic bags and sacks, especially the black.

This issue should be placed with media programs in various ways visible and legible must be spread the truth and should not be tolerated on the results of studies and

recommendations and research, about these plastic materials and harm, we still see every day plastic bags are used in restaurants to transport food hot and refills new encircling the necks our foods.

The question remains when the day will come that we do not see the plastic materials harmful to humans, animals and the environment, especially the plastic bags after we knew what harms and risks.

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