



Nepal

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Abstract

Plastic has become one of the most used substances in everyday life. From each and every grocery store to every other household, plastic is habitual. Abundant use of plastic is contributing to direct and indirect adverse effects on the environment, biodiversity, as well as on human health. Each year, approximately one hundred tonnes of plastic is dumped in landfill sites by the Nepal government. This has aggravated the loss of nutrients in water and soil. The Nepal government banned single-use plastic with less than 40 microns in 2015, but lack of monitoring and stringent laws without an effective operation strategy deterred it from being successful from the very beginning. At present, primarily urban cities are vastly affected by plastic pollution.

This research is specifically focused on single-use plastic, mainly polythene bags and PET bottles. Present research has been conducted in a short span of time, therefore the interviews mentioned in the report are limited to the plastic collectors and municipality of Kathmandu Metropolitan city.

Introduction

Nepal was first introduced to plastic bags in the early 1990s, replacing traditional paper and jute bags.¹ According to the report published by Government of Nepal in Environment Statistics of Nepal 2019, there are currently 237 rubber and plastic Industries operating in Nepal.² The history of plastic bag bans in Nepal goes back to 1998, even before UNEP declared 2018's theme as "Beat Plastic

Pollution". It was Hetauda Municipality that, in 1998, first declared a ban on the use of plastic bags.

Nevertheless, since 2010, other municipalities in Nepal have also started banning use of plastic bags. These decisions were backed by two laws: the first being the Local Self Governance Act 1999 and Regulation 2000 by which local bodies were granted the right to ban goods and activities that would damage the environment, and the second being the Plastic Bag Regulation and Control Directive 2011,³ which prohibits production, import, sale, distribution and use of plastic bags that are less than 20 micron in thickness.⁴ In support of these two laws, Kathmandu Metropolitan City declared a ban on use of plastic bags. But a writ application filed by the Plastic Material Production Association in the Supreme Court (SC) resulted in a stay order. Nonetheless, after few years, the SC gave verdict in favor of the Kathmandu Metropolitan City Office, but by then the plastic ban momentum was ineffective and unimplemented. To continue with the initiative of banning the use of plastic bags, in April 2015, Environment Committee of the lower house of the Parliament gave direction instructing the government to impose the ban on plastic.⁵

There have been many attempts to control and ban single-use plastic in the past, not limited to government and its agencies. The theme of World Environment Day 2018 was "Beat Plastic Pollution". Nepal has recognized the need to keep the environment clean. There is indeed unprecedented momentum to tackle plastic pollution. This is demonstrated by the increasing number of initiatives from government to private parties and NGOs. The

government itself in April 2015 declared Kathmandu a polythene bag free zone. Several other districts of Nepal followed suit and declared themselves plastic-free zones, including Parbat, Myagdi, Damak and Ilam.⁶ The declaration gathered momentum in making many private and public schools and government offices plastic-free zones. The ban was particularly for polythene bags of less than 40 microns.

Rapid and uncontrolled urbanization, lack of public awareness and poor management by municipalities has intensified plastic pollution per se in Kathmandu and city areas, despite the declaration by the Government. There are very few industries in Nepal and plastic producing industries are negligible. In spite of that, according to ICIMOD, Kathmandu alone uses around 4,700,000 to 4,800,000 plastic bags on a daily basis. All these plastic bags are produced domestically by those plastic making industries. In Nepal, 16% of urban waste is comprised of plastic, which is 2.7 tonnes of daily plastic garbage production in Kathmandu itself.⁷

Furthermore, the major problem with plastics is their degradation process, as they take different times to degrade. Plastic pollution arises at all stages of its life cycle, from leakage to production and manufacturing to poor waste handling such as haphazard dumping. When such plastic is buried in soil, it decreases the fertility of the soil. If burned, it releases poisonous gases in the atmosphere. If thrown in the water or land, it kills aquatic as well as terrestrial animals by entangling and suffocating them, as animals consume plastic in search for food. One plastic bottle takes an average of 450 years to degrade, whereas a plastic bag takes 1,000 years, according to ICIMOD.

Plastic Waste Management in Nepal

The Trade and Export Promotion Centre under Ministry of Industry, Commerce and Supplies of the Government of Nepal has listed prohibited items, but has not yet mentioned the plastic items that are prohibited from import from other countries. Apart from five items, the ministry has not prohibited the import of plastic's raw materials. But a notice published in Nepal Gazette gives a different perspective. The Government of Nepal imposed a full or partial ban on listed goods for export and import. Goods that are completely banned for import are plastic bags or sheets of less than 30 microns in diameter, incandescent light bulbs, straw collector, scrap plastic, recycled granules and second-hand goods. Imposition of ban was undertaken by exercising the power conferred by the Export and Import (Control) Act, 1957.⁸

In April 2015, the Government of Nepal declared a partial import ban on plastic bags, allowing bags only up to '20 x 35 inches' of size and plastic bags up to '40 microns' thickness to be imported and used within the Kathmandu valley. Yet again in 2017, the Government of Nepal announced the ban on use of plastic bags, but the decision could not be prolific. Cities like Pokhara, Biratnagar and Dharan also tried to impose a ban on the use of plastic bags, but to no avail.

Agencies Responsible for Waste Management

Nepal has, few years ago, politically transformed as a Democratic Republic Federal State. Under this, the government has three tiers of administrative setup. Following are the government and other private agencies that are responsible for waste management.

Government Sector

When it comes to management of plastic, the government should play a very responsible role. In Nepal, the Ministry of Environment is responsible for the implementation of ban on goods that affect or irreversibly damage the environment, whereas the Ministry of Industry, Commerce and Supplies is responsible to give license to plastic industries and is responsible to control and regulate plastic industries and plastic trade chain. Hence, these divisions of power create conflict of interest between Ministries making it difficult to work.

Implementation of Local Body Management Act 2017 has conferred the responsibility, duty and power to maintain clean environment, solid waste management, regulation and monitoring of pollutant and poisonous substance to the Village Development Committee and Municipalities. Not only limiting these duties to VDCs or Municipalities, this Act has further extended identical duties and responsibilities to Wards (small unit of Village Development committee) as well for effective solid waste management in their locality.

In an effort to tackle Kathmandu Valley's waste problems, the Government of Nepal is creating an Integrated Solid Waste Management Project. Investment Board of Nepal, a federal government agency, is working with two private companies: Nepwaste Pvt. Ltd. and Clean Valley Company to implement the said project. Kathmandu Municipality is having a discussion with Nepwaste, which is expected to take charge of waste production of Kathmandu. A major benefit of Nepwaste is that it will recycle waste that ends up in landfill and convert ninety percent of plastic and paper waste into diesel.

NGOs and Private agencies

Along with government, many NGOs are also involved in creating awareness against single-use plastic and managing plastic pollution. Partnership in Sustainable Development (PSD), Sagarmatha Pollution Control Committee, Himalayan Climate Initiative and Blue Waste to Value are among the NGOs that are working in waste management.

Not only limiting to NGOs, multiple private agencies are also taking a positive step towards management of plastic and solid waste through the help of internet applications such as, DOKO Recycler, Clean Up Nepal, Khaalिसि, Kawadi Nepal and many more.

Not limiting themselves to being profit-oriented, with Corporate Social Responsibility, private organizations such as Coca-Cola and Tara Airlines are directly contributing to plastic management. Clean Up Nepal, Khaalिसि, Kawadi Nepal and many more.

Data on Incoming and Outgoing Plastic in Nepal

The Trade and Export Promotion Centre under the Ministry of Industry, Commerce and Supplies, publishes, annually and monthly, a statistical report on foreign trade. The current annual report on Foreign Trade Statistics of Fiscal Year 2075/76 (2018/19) has shown 11.6% increase in import of polythene granules from the previous year.

The import duty on the polymers of ethylene from The South Asian Association for Regional Cooperation (SAARC) countries is 6% and 13% VAT.⁹ Part 6 of the report has listed out import duty on different types of polymers of ethylene.¹⁰

According to data from Trade and Export Promotion Centre, the total quantity of import of plastic and polymer of ethylene in 2019 is 13,259.¹¹ This data shows that the import of Plastics has been increased from 2015.¹²

Along with granules, there is an increase in the import of plastic bags and a decrease in export. In the case of PET bottles, import has decreased, whereas there is an increase in export. Since the introduction of the plastic ban in 2015, many plastic factories were shut down, which may have resulted in an increase in the import of polythene bags.

Legal Provisions for Regulating Plastic Waste Trade and Single-use Plastics

In 2015 the Nepal government banned polythene bags thinner than 40 microns. The effectiveness of the ban lasted for only a few months. Due to weak enforcement and monitoring mechanisms, the effect of ban was negligible.

Nepal is a party to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. In 2019 the Convention was amended to incorporate plastic waste. The Treaty Act of Nepal, in section 9 and section 10, requires the government to comply with prevailing provisions of the Convention.¹³ The ratification of the Convention has led the government of Nepal to enact several laws and policies related to waste management. Below we will discuss these legal provisions.

Legal provisions to control plastic pollution

Nepal promulgated the current Constitution of Nepal in 2015.¹⁴ The Constitution of Nepal has guaranteed the right to a clean and healthy environment in Article 30. It has further stipulated in Article 30(2) compensation for the victims of pollution. According to this provision, pollution includes any type of pollution that has an adverse impact upon the health of people. Hence, it can be said that plastic pollution could come under this provision.

Article 16 of the Constitution of Nepal 2015 has stipulated the right to life. Likewise, Article 35 (4) has guaranteed the right to access clean drinking water and sanitation. Article 18 has elaborated the right to equality of every citizen. Further, Article 25 (4) stipulates that the State can make land reforms, management and regulation in accordance with law for the purposes of enhancement of products and

Productivity of lands, modernization and commercialization of agriculture, environmental protection and planned housing and urban development.

Similarly, in part 4 of Directive Principles of State in Article 51 (2)(3), it has directed the government to enforce provisions of Conventions and treaties Nepal is a party to. Also, Article 51 (6)(8) has explicitly endorsed the 'polluter pays' principle, precautionary principle and prior informed consent and environmentally sustainable development for the polluter to take responsibility.

The Solid Waste Management Act of 2011,¹⁵ Chapter 2, section 3 stipulates the responsibilities of the local body to manage solid waste and to segregate and discharge it in landfill. It has provisioned that the local body will be responsible to manage solid waste by taking the necessary steps to encourage the reduction, reuse and recycling of solid waste, and by issuing necessary directives for its effective implementation. Further the Act has stipulated that the local body coordinate with the concerned industry to encourage the reduction of quantity of solid waste by making reuse of the material used for packing industrial products. Also the Act has stipulated that the Centre shall extend necessary technical co-operation to the local body for the purpose of management of solid waste in a pollution-free manner.

Currently the Nepal Government has criminalised crimes against the environment under the Muluki Criminal Code 2017 of Nepal. Strict provisions stipulate that anybody who harms and adversely affects the environment shall be imprisoned and/or fined. It not only criminalises the person who carries out the activity but also the abettor.

In the Local Body Management Act 2017, it is stipulated that the local body can coordinate, cooperate and partner with private companies or NGOs in relation to solid waste collection and disposal.

Policies of reducing plastic wastes

There have been many attempts to ban single-use plastics and polythene bags by Local and Central Government of Nepal. The historic plastic ban was started by Hetauda Municipality in 1998. In 2000, Mahendranagar Municipality decided to completely ban the import and use of plastic in the area. This decision was made based on the problems such as environment pollution and impact on animals.¹⁷

Following this ban, Ilam Municipality implemented a complete ban on plastic bags in 2010 and was followed by other municipalities.⁸ Ilam Municipality has made provisions to fine both buyer and seller, which has resulted in a drastic reduction in the use of plastic and incremental increase in the use of cloth bags. The Ilam Municipality police fines the person carrying the plastic bag Rs. 200 and fines the seller Rs. 500 as per the information given by the buyer. Instead, degradable bags have been brought into use by the Municipality. Kathmandu Metropolitan City declared ban on plastic bags in April 2013.

In 2000, the Government published a notice in the Nepal Gazette regarding production of plastic for domestic use. According to the notice, only plastics thicker than 20 microns can be produced, with weight specification labels compulsory for the products. The Government has been publishing such notices time and again.

Further, with the vision to make Kathmandu Valley clean and pollution free, the Department of Environment under the Ministry of Environment Science and Technology banned the import, storage, sale, distribution and use of plastic bags up to 20x35 inches in size, and plastic bags up to 40 microns thickness. This decision was taken by using Section 7 of sub-section (3) of the Environment Protection Act 2053 and was published in Nepal Gazette on April 1, 2015.¹⁹

The Government took a step forward by banning plastic products in the budget of 2016-17 of Nepal.²⁰ But the budgets after that year only focused on reuse, recycle and renewal of such plastic products rather than completely banning them.²¹

In order to enforce the order of the Supreme Court to ban the use of plastic, the Government of Nepal implemented the Plastic Bag Reduction and Regulation Directive 2011. This directive tried to limit the production, import, sale, distribution and use of plastic bags which are less than 20 microns thick. This directive also mentioned the provision of it being compulsory to provide name, address, recycling logo, pictorial depiction, thickness of plastic and other basic information of the company producing plastic above 30 microns. In order to enforce this directive, it has a provision to establish Central as well as District Monitoring Committees.

The Nepal Government's Ministry of Forest and Environment developed an action plan to address the problem of environmental pollution. Nepal Clean Environment Campaign 2018 was launched by Prime Minister K.P. Sharma Oli. The main agenda of this campaign is to facilitate cooperation between the community and government to ensure proper disposal of waste products. The Government's main expectation from this campaign is to reduce the use of plastic and increase the use of cloth or paper bags. Kathmandu Municipality has also developed a program to distribute cloth bags in order to decrease the use of plastic bags, under the authority of its Environment Department. The Municipality has also allocated budget for the study of solid waste in Kathmandu.²²

One of the main problems with the policies in effectively controlling the use of plastic is the tourist areas. Nepal is a country gifted by nature and the numbers of tourists are increasing every year. Due to lack of government monitoring and proper incentive packages for communities to tackle the plastic pollution, the management of solid waste as well as plastic products is uncontrolled. With an aim to reduce plastic waste, Nepalese authorities are shifting their priorities to tourist destinations. Nepalese authorities are planning to ban plastic soft drink bottles and single-use plastics under 30 microns thick (0.0012 inches, or 0.03 millimeter) in the

Khumbu region, which is home to Everest. The ban will prevent hikers from bringing plastic goods in and stop shops from selling them. In May 2019, a 14-member team of volunteers recovered more than three metric tonnes (6,613 pounds) of trash from the mountain, including empty cans, bottles, plastic and discarded climbing gear.

A similar ban has also been implemented in Chitwan National Park. On the first day of 2019, the government announced its landmark decision to implement Chitwan National Park as the country's first plastic-free protected area. With effect from that day, plastic bags are banned in Chitwan National Park while every item of single-use plastics including water bottles and food wrappers that are taken inside the national park from any of its eight entry points will need to be brought under the radar of ban. This initiative was led by the Ministry of Forests and Environment with the support of Nepal Army, WWF Nepal, Himalayan Climate Initiative, Coca-Cola Nepal, National Trust for Nature Conservation, local buffer zone communities and tourism entrepreneurs. Collection bins have been placed in numerous locations outside Chitwan National Park for visitors to dispose of any plastic items brought out from the national park. The collected single-use plastics, primarily water bottles, will in turn be taken back to collection sites and waste management plants in Chitwan for recycling.

The Nepal Army also took a step forward by prohibiting any kind of plastic products in Nepal Army Headquarters.

Case law regarding plastic waste/ongoing lawsuits

In a legal case in 2000 of Nepal Plastic Production Federation and Others v. Mahendranagar Municipality,²⁴ the Supreme Court of Nepal extensively elaborated on the issue of plastic. In the decision it was said that "plastic is a byproduct of petroleum and it costs a lot to produce single-use plastic bags which are misused....plastic bags are not bio-degradable and do not compost in the earth. When plastic products are thrown in the soil or water, it degrades the soil and pollutes the water and harms not only aquatic animals but also terrestrial animals and puts human health at risk. Also, these plastic bags are made of polythene and when food is put in the bag then it becomes toxic and possibly causes skin diseases. Furthermore, if these plastic products are burnt then it causes pollution and it is a duty of the municipality to protect the environment also." Hence the Supreme Court highlighted the production of plastic and its negative impact on humans and the environment.

In another legal case filed by Advocate Santosh Kumar Mahato²⁵ it was mentioned that any municipality has authority to declare its area as a plastic free zone. Further to this, all decisions should be based on significant research.

Bharat Kumar Basnet from The Explorer Nepal Pvt. Ltd filed a case against the Ministry of Forest and Environment, Department of Environment and Solid Waste Management Technical Support Center.²⁶ This case is regarding plastic microns. The government has banned the



Photo: Plastic waste in Nepal

use of plastic less than 40 microns but the Nepal Clean Environment Campaign 2018 adopted by Department of Environment has only planned to ban the use of plastic less than 30 microns. Thus, the decision of the campaign conflicted with the decision of government and hence a Public Interest Litigation was filed to change the decision of the campaign, and to create pressure in order to increase the thickness of plastic to 50 microns. The Supreme Court has ordered to limit the plastic microns to 40 for the campaign. This case is still ongoing in the Supreme Court of Nepal regarding plastic waste management and possible increase of the micron level of plastic. NGO Pro Public has also joined and represented the case on behalf of the plaintiff.

Success Stories

There are few private agencies who have taken initiative in collecting and recycling single-use plastic products. Following are the details of those organizations.

Partnership in Sustainable Development (PSD) has a mission to recycle PET plastic bottles from National Parks and promoting creative up-cycling. PSD is partnering with hotels and people of mountain regions of Nepal. It is cultivating circular economies for waste and plastic solutions, with an incentive scheme of providing 1 rupees for every PET bottle in order to discourage throwing such plastic bottles in the river. This collected plastic waste is then recycled at Himalayan Plastic and creatively up-cycled for educational purposes, promoting environmental and cultural heritage.²⁷

PSD is working in Langtang National Park and Chitwan National Park.

Sagarmatha Pollution Control Committee (SPCC) works to keep Khumbu clean through the development of waste

management infrastructure, adopting an integrated sustainable waste management approach. SPCC are establishing systems for waste separation, strengthening community participation in waste management, formulating policies for proper waste management in coordination with the government, educating the public and finding opportunities for waste reduction, reuse and recycling. SPCC has set up a system for segregating combustible and noncombustible waste for sustainable management in the Everest region and have provided more than 70 garbage bins at various resting points along the major trekking trails of the Everest region. The Nepal Army is also helping SPCC in their project to keep these tourist trails clean.²⁸

BlueWaste to Value is another organization working in the field of waste management, not only limited to solid waste management. They are working in Kirtipur, Shankharapur and are also associated with many 5 star hotels such as Yak and Yeti, Hyatt Regency and more. They segregate dry and wet waste and end up selling dry waste such as plastic and paper to interested parties. They have been providing training to their staff as well as to the members of community and hotel staff on the proper disposal and reuse of plastic products.²⁹

Himalayan Climate Initiative (HCI) is a youth-driven Nepali non-profit organization committed to social inclusion and climate resilience. It advocates for a sustainable and zero carbon growth trajectory to be adopted by the private sector and the government of Nepal. It is one of the most successful youth campaigns of Nepal that over roughly two years' period convinced all stakeholders to agree to get plastic bags banned in Kathmandu and then all of Nepal. In order to create awareness, they have a campaign called "No Thanks! I'll carry my own bag" to stop all kinds of overconsumption in society. HCI shall continue much beyond the plastic bag ban.³⁰

Conclusions and Policy Recommendation

Nepal is one of few first countries that fought against this global problem. It started making policies to control pollution that was created by plastic. Government offices (such as Courts, Singh Durbar) and schools have banned the use of plastic bags in their premises. Government implemented the ban on single-use plastic which forced many superstores to use reusable cloth bags. Government introduced a separate provision in an annual bill to tackle this problem, and also a committee was formed for the inspection. Another positive aspect in the fight against plastic is that Nepal does not have any deals with developed countries to buy their used plastic products in exchange for monetary benefit.

Even after introducing many plans to tackle this problem, to date plastic has not been effectively banned. Though the use plastic bags in most government offices is banned, plastic is still used in different forms such as PET bottles or milk bags. Plastic bags are sold per kilo and it costs only NRs 250-300 for a kilo of plastic bags. Retail stores do not charge consumers for such plastic bags. Hence, plastic bags are still easily accessible and are cheap for both the retail shop and the consumers.

In Nepal, it is difficult to completely ban such single-use plastic. Because of the source of revenue it provides, and the lobbying by industries, a blanket ban is not realistic. Also, instead of putting a ban on the use of any kind of plastic product, our government is only increasing the limit on the thickness (microns) of plastic such as from 20 microns to 40 microns. Also, when the ban was announced, no alternative options were provided, hence creating more problems in the effectiveness of the ban.

Household products and household waste are collected in plastic bags. The government seems worried about this but has no plans for control and proper segregation. In an interview with Hari Kumar Shrestha, head of Environment Department at Kathmandu Metropolitan City, it was found that there was no segregation mechanism at the dumping site as well as waste product arriving there without being segregated. Although dry and wet waste is collected on separate days, these waste forms end up being disposed and covered together to prevent the spreading of smell.

As a public agency, Kathmandu Municipality seems to be way behind many other non-profit agencies in terms of recycling of such waste. The Municipality is currently working with recycling companies to recycle the plastic waste whereas many NGOs' are already recycling these plastics. Also, while making plans and banning some plastic products, the government seems to neglect other types of plastic such as milk packages, junk food packets, water bottles and Styrofoam. Also, the huge volume of waste plastic products, such as plastic cups and plastic plates, that are produced during different types of religious or social functions.

Apart from 2017, there is no other budget mentioning plastic use and governmental policies to tackle it. In conclusion, Nepal has taken some steps to fight against

this global problem, but there are some underwhelming aspects that still need to be worked on to fight against the problem.

Recommendations

If we are to successfully implement the restrictions and penalties in Kathmandu, we will save more than Rs 500 million in plastic bag waste. But more than this, we will be saving the future generations of Nepal from dealing with our waste. Hence, here are a few recommendations:

1. Government has to clearly define plastic in Solid Waste Act. If there exists ambiguity in terminology, there can exist gaps for abuse.
2. Central Market Monitoring Committee is established in order to control and to observe the market, but such committee is only active during the first few periods of its formation. Therefore, the government and the committee need to focus on their duties.
3. All single-use plastic needs to be banned in the country or the manufacturer needs to be heavily taxed. Once a tax is high then the consumer will switch to other alternatives.
4. If government fines plastic whole seller and retail seller and the consumer, then use of plastic will definitely be reduced.
5. Not only polythene bags, but plastic plates and cups etc. need to be banned.
6. Government needs to regulate the production of plastic inside the country and also the import of such products.
7. The plastic has proved be useful in construction of roads, producing diesels and even clothes. Hence, the government needs to invest more in developing such technology.

Mass media and NGOs can also play an important role in order to create awareness.

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