

MED LIFE SERVICES RECYCLING PLAN

Submitted to:

EPA (Environmental Protection Agency)
Pakistan

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Recycling Team

Team is headed by Syed Mubashir Iqbal Naqvi, CEO of Med Life Services and Syed Mohsin Raza, Sales and Marketing manager. Our recycling team consists of employees at both collection point and recycling unit managing transportation, production, expenditures, administrative functions, warehouse maintenance and recycling of used polythene bags. At every level our employees/ workers are specialized in their task, our work force is performing their tasks on daily basis for smooth running of the program. Our team establish a training, monitoring, tracking, and reporting framework that ensures an effective recycling program.

Recyclables

Recycling is the process of collecting and processing materials that would otherwise be thrown away as trash and turning them into new products. Recycling can benefit your community and the environment. Med Life Services focuses on recycling the plastic bags manufactured and recycled by them for hospital and municipal waste. We at Med life services, are focusing on the recycling of polythene bags (50%-50% and 30%-70%), polyethylene bags, flat bags, garbage bags etc.

Definitions

A PLASTIC BAG, POLYBAG, IS A CONTAINER MADE OF THIN, FLEXIBLE, PLASTIC FILM, NONWOVEN FABRIC, OR PLASTIC TEXTILE.

PLASTIC BAGS ARE VERY STRONG – WHICH IS WHY THEY ARE USEFUL – BUT THEY TAKE A LONG TIME TO BIODEGRADE IF THROWN AWAY

Goals

Med Life Services have embraced recycling as a means of incorporating renewable content without performance compromises, coupled with recycling methods. We

should **recycle** as it Saves energy; Conserves resources; Reduces pollution; Cuts waste disposal costs; Saves valuable raw materials and Reduces trash in landfills. We aim at supporting Pak-EPA's motive to ban single-use plastic bags in Islamabad and its surrounding areas under "Polythene Bags Regulations 2019". This approach helps to conserve resources and diverts plastics from landfills or unintended destinations such as oceans. The company will also help other interested entities in achieving their recycling targets.

Recycling Process

Recycling is a detailed process which includes collection of plastic bags, sorting and separating them to the final product (recycled plastic bags). Which are again distributed among consumers. These bags are made with different proportions and are used for hospital and municipal wastes.

Collection Points:

Med Life Services have two different locations for collection and recycling of plastic bags, address is attached here;

- ❖ Med Life Services, N-5, Beside Islamabad Bus Terminal, Chungi No.26, Peshawar Road, Islamabad (Collection Point)

Step 1: Collection

The first step in the mechanical recycling process is the collection of post-consumer materials from our clients. We will provide empty bags to those parks, institutions, and hospitals that import polythene bags from us so that they can collect used bags

over the month and do not dispose them in waste. We will collect bags twice a month from respective locations via our van or through our team specialized for collection of all kind of recyclable produced by Med Life Services in Islamabad Capital Territory. When collected material is reached our collection point it is weighted with the weighing machine. Our approximate collection material is around 10 to 15 kg waste per day.



Figure 1: Collection Point



Figure 2: Weighing Scale

Step 2: Sorting

Recyclable polythene bags are then transferred to the recycling unit. In the second step polythene bags are sorted in accordingly. A huge area is allotted for storing and sorting the Polythene bags. As shown in the pictures below.



Figure 3: Sorting Point

Step 3: Washing

Already sorted bags are then washed at washing station. Washing takes place at a specific area where elongated canals filled with water, flowing at a very fast speed. This ensures proper washing and cleaning of the polythene bags from any dirt and waste particles. Washing is a crucial step in the plastic recycling process since it removes some of the impurities that can impede the operation, or completely ruin a batch of recycled plastic. The impurities targeted in this step commonly include things such as product labels and adhesives as well as dirt and food residue and insure that plastic bags are are as free from impurities as possible before proceeding with other steps.



Figure 4: Washing Site

Step 4: Drying

For the purpose of drying the polythene bags , pressor is used to compress the polythene bags and absorb water that is present in the washed bags. This step is important because without this step the polythene bags can be crushed and recycled properly.



Figure 5: Pressor used for drying

Step 5: Crushing and Shredding

Once the polythene bags are properly dried out, The plastic is then fed into shredders, which break it down into much smaller pieces. It takes converts the plastic bags into a powder like form which can easily processed further to form pellets.



Figure 6: Crusher



Figure 7 : Crushed Polythene Bag

Step 6: Extruding + compounding

In this step of recycling process, the particles of shredded plastic are transformed into a usable product for manufactures. The shredded plastic is melted to form a tube\wire of the plastic, the tubes\wires after that are pulled into a cooling tank were they are normally water-cooled then is crushed together to form pellets. Production

of Recycled pallets is around 1200kg to 1300kg per day and 15 to 20 tons monthly production.



Figure 8: Extruding Machine & Pallets

Step 7: Recycling

These plastic pellets (shown in picture above) are raw material, which are mixed with virgin plastic pellets, and are melted together to manufacture polythene bags in our factory. The Contents of the recycled bags are 30%:70% recycled content in yellow bags and 50%:50% recycled content in blue bags



Figure 9: Recycled Bags

Awareness and Advertisement

For the purpose of awareness following activities will be carried out by Med Life Services to raise public awareness throughout the year:

- We will publish pamphlets (200-300 approx.) with the aim to raise awareness in public to minimize use of plastic bags and its increased recycling activity.
- Educational activities and seminars will be conducted in collaboration with Pak-EPA regarding usage and recycling of plastic.
- Through social media (e.g. Facebook) we will be promoting this initiative of EPA to make Islamabad Plastic free and minimize use of plastic bags.