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# A drive to overpower plastics: Star Polymers

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## Introduction

The venture, "Star Polymers" is actively involved in raising the awareness of rational use and treatment of non-biodegradable waste. The journey to overpower plastics by star polymers begins from an existing plastic moulding facility owned by the owner's (Mr. CK Babu) father; which during the course of time expanded to a socially committed organisation making good profits through plastic recycling. Taking the idea of recycling household plastics from a government workshop, coupling with his social commitment, the entrepreneur started the venture. At present, the polymer company perform moulding of the waste plastic, collected from the six nearby villages into products like electrical fittings and small household accessories. Such recycled material may be used for anything other than for storing food. The metal coated plastic, often found used as sachets for snacks and other food stuffs are unfit for recycling so that it is used for road asphaltting, which gives the roads better durability. At present, the organisation is able to process 15 tonnes of waste plastics a month.

## Description of solid waste

Non-biodegradable materials, especially plastics are handled. The firm star polymers were using conventional PP (polypropylene) granules as their primary raw material. When the price of the raw material increased, he started thinking for the conventional raw materials. Thus the polymer company started to use plastic wastes, collected from the six nearby villages. At present, the company collects 15 tonnes of waste plastic every month.

## Mode of collection/transportation/processing

The venture is collecting the plastic waste with the support of female self-help groups known as Kudumbashree employed by the Government of Kerala. They will go to all houses in the village to collect the plastic waste, along with their other committed works. Apart from this, Mr. Babu created awareness among the people in 6 villages about the

hazards of plastic if it is carelessly thrown outside. The society who was already well aware about the facts was ready to cooperate. He motivated the household to keep the plastic instead of throwing them so that the collection agents can pick the waste once in a week. They provided separate bins for houses to keep their plastic waste. This not only helped in ease of picking up of plastic but also keeping the plastic free from other impurities which was the major hurdle in plastic recycling. The collected plastics are discarded from the impurities such as dirt, soil particles and left over products for which the plastic was used for packaging. Then these are used as raw materials for more than 100 varieties of products. The major products are electrical fittings (such as pipes for carrying wires, joints and connectors), Gardening accessories (plastic pots, pipes, fences etc.) and small household items. The products were initially sold in the nearby villages itself, but as the production increased they started selling it to wholesalers who takes it to cities.

## Impact

The venture motivated the households of the six nearby villages to keep the plastic instead of throwing them. Currently the organisation is able to process 15 tonnes of waste plastics a month.

The village was able to win more than 20 different awards on account of cleanliness and waste disposal which provides motivation for similar projects. The products from the recycled plastics are reported as highly competitive on price which helps them to gain market easily.

## Adoption of this method by others

Two similar plants have been setup in Kannur district which will operate in the same model. As a member of Technical advisory committee of Kerala Total Sanitation and Health Mission (KTSHM), Mr. Babu is also helping the Kannur district Panchayath to recycle plastic. The effort, along with KTSHM, has propelled many Panchayaths in the district to undertake similar schemes under the Susthira Shuchitwa project.

The state government has decided to setup similar projects in 15 other locations across the state which will be able to handle larger quantities of plastic. Many local self-governing bodies also have come forward for the project by deputing members form self-help groups to collect and sort plastic waste.

## Economic aspects

The initiative is finding value in the by-products which leads to the conversion of a negative externality to a positive one. The products were initially sold in the nearby villages itself, but as the production increased they started selling it to wholesalers who takes it to cities. The products are highly competitive on price which helps them to gain market easily.

## Conclusion

The project is a perfect example of a profitable social initiative. The initiatives are finding value in the by-products which leads to the conversion of a negative externality to a positive one. The venture of recycling the household plastic was not a start-up project by C K Babu, it was the transformation of an existing plastic moulding firm into a socially committed organisation. Later on, local government and the Panchayath offered help in the setting up a plant as it will also reduce the waste production in the area. As more plants are being set up they are thinking of other uses of recycled plastic.