Title: Portable Plastic recycler Machine

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**Abstract**

This study considers a sustainable supply chain including the collector,cleaner,students, every responsible citizen and recycler for recycling PET plastic bottles and reusing them in textile industry. Also our project “Plastic Recycler’’ aims to solve the problem related to single used plastics used in laboratory, schools, colleges and universities which are not reached to recycling industries. So these single used plastics are deformed and compacted into raw materials which will give any shape and size for further used as household items.

Besides having plastic recycling industries and “Swachh Bharat Abhiyan Mission” since not much impact has been seen especially in northeast. In northeast there are very few plastic industries which are in working condition but if we talk about our state, in Meghalaya or in Ri-bhoi district there are no plastic industries as such. Moreover the available plastic recycling industries are not enough to meet the amount of one time used plastic waste generated, the ratio of plastic industries are very less compared to the induced plastic wastes. So there is very much need of such product which can help at least to some extent and focus on reducing the problems faced using plastics.

Our Moto is **“GO GREEN, BREATH FRESH”.**

**KEYWORDS :** Sustainability, Sustainablesupplychain, Recycling, RecyclingofPETplasticbottles, Northeast, Greenproduction, Compacted form.