

Waste management in rural India

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INTRODUCTION

The project takes place in the village Joygopalpur in West Bengal in India. Today there is no waste management system present to deal with the continuous increase of plastic that comes into the village every day and therefore no means to handle the waste. By making a collection system it becomes possible to give the plastic value. By melting it into building blocks in a sun grill using solar power, the plastic is recycled. This concept solves the waste problem in the village, creates local jobs and gives the inhabitants houses that are able to withstand the monsoon.

THE PROBLEM

Today they are disposing of the plastic by burning it in their stoves or in their gardens or simply handling it as organic waste and thereby throwing it in the nature. This has caused an increase in the cases of lung diseases in the area. When throwing it in the nature it also causes problems by clogging the pipes that are made to prevent flooding in the area. Furthermore, the area is a river delta and with the tide coming in everyday the plastic lying around is brought directly into the sea.

METHOD

In order to get a thorough understanding a participatory approach was used. It is important to make sure, when working within a different culture, that the users' needs and values are taken into account. Workshops, interviews and personas have been used to obtain this. An Awareness Film was made to increase the inhabitants' understanding of the importance of waste management.

THE PRODUCT

A prototype of The Block has been made from recycled plastic. This gives an idea of how the block can be used in real life. The Block's force is being measured in a lab at DTU, to make it can be used for building houses. The block will be used as a kind of fundament for the houses, which will be covered with clay, in order to maintain the look they have today. By using these blocks after the monsoon the house will still be there with the roof on and they will no longer need to build it up from scratch as they do today. Today in Nairobi in Kenya, they are doing something similar, but with machines and therefore on a much larger scale. This is not possible in the rural areas of India, because as soon as you have to transport the soft plastic it loses its value. The unique idea here is to make it in a micro perspective in the villages by using solar power.

CONCLUSION

This project can help a lot of people and have an impact on the environment and it is already in motion. It will have a positive effect on the waste lying around, create more local jobs and help the inhabitants so they can build houses that do not dissolve in the monsoon. This project is new and innovative because it sees the problems within the big picture, but solves it in micro perspective. This is seen as a pilot project, but the idea is that it shall be expanded to the rest of the rural India.