

Trash Plastic Solutions: Accelerating the process of turning waste plastic into sustainable biotecture and infrastructure

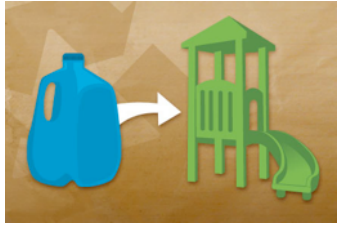
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The Problem



- Trash plastic is drowning the planet
- Waste plastic continues to outstrip recycling
- Recycling exists, but is insufficient
- Need to make recycling more cost-effective, and to enable more uses of plastics
- **Accelerate the process of reusing and recycling**

The concept: Building on Success



- Identify the most effective uses of recycled / reused plastics in biotecture and bio-infrastructure
- Identify the types of plastics needed and used
- Identify sources of the plastics (trash plastic processing & mining)



Fast-tracking Sustainability



- Develop kits / design packages that include the materials and instructions
- Create instructions for use
- Organize workshops and conferences for sharing use cases, experiences, design ideas, entrepreneurial business cases

Create an App for Quick Use

- Create a rapid-deployment app to allow individuals to post their recycled plastic raw material for sale (under different categories)
- Create “match-making” app based on supply, location, type of construction (road, building, etc.)

Trash Plastic Harvesting



- Recycling centers
- Landfills
- Beaches
- Processing centers
- Robotics enabled

Making recycling worth it: at this point, there are problems with supply and also with finding cost-effective uses. Recycling tends to be more expensive than creating more, except in cases where there is significant value-add, and a local use (reducing transportation costs. There are similarities between produced water disposal / re-use challenges.

Recycling, Reusing: Plastic Bottles



<https://www.theatlantic.com/technology/archive/2015/12/what-actually-happens-to-a-recycled-plastic-bottle/418326/>

Finding supplies of plastic

- Recycling / Plastic processing
- Paying per pound of plastic or teaching how to process them for use in building

Matching Supply with Uses: Infrastructure



Recycled Plastic Bike Paths and Roadways:

India

Netherlands

Roadway Panels



Lego-style Homes



Conceptos Plásticos

Earthship Homes



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- Experience in motivation, social behaviors, environmental sustainability
- Research question: How one's feelings of mortality affect one's behaviors with respect to the environment