Plastic Waste: Turning a problem into a resource

In many metropolitan cities in developing countries the amount of plastic waste takes up to 20% of the total amount of the household waste. Together with the increased complexity of many plastics, plastic waste is becoming a major headache for waste management officials. Choked drainage systems cause floods in urban areas after rainfalls, causing health problems such as malaria and other water borne diseases. Cities, littered with plastic waste, suffer of serious visual nuisance, a reason for tourists to avoid these places.

On top of this, low plastic waste recovery rates on land aggravate the problem of plastic marine pollution. According to the European Commission as much as 10 million tonnes of litter, mostly plastic, end up in the world’s seas and oceans. When these plastics break into microplastic, an enormous ‘plastic soup’ is formed. China, Vietnam, the Philippines and Indonesia are top sources of plastic garbage reaching oceans. In these countries and in many more developing countries, the plastic recycling sector is unable to cope with the increased consumption pattern of plastic packaging.

Innovative solutions

To prevent countries from choking on plastic waste and to prevent further pollution of the oceans, innovative solutions are needed. Recycling of plastic is the answer. Plastic recycling conserves natural resources, saves energy, and contributes to the green economy providing many jobs. By recycling plastics living environments get cleaner and waterways will be less polluted. In addition, local governments benefit from the recycling activities as less waste needs to be collected and disposed of at landfills.

What we do: turning plastic into a resource

In developing countries, plastics are already being collected and recycled but not from an environmental viewpoint as it is the case in Western countries. One of the main drivers to recycle plastic waste is making a living, informal small enterprises or individuals collect, sort and recycle plastic waste to earn an income. This informal sector can be the basis for improving the plastic waste recycling sector.

WASTE has many years of experience in working with the informal sector to improve local waste management systems. To enhance the plastic waste value chain, we have developed methods to analyse the local situation, develop bankable business plans together with the private sector and connect them to financial institutions. Main focus in our work is on giving value to waste materials to stimulate collection and processing of plastic waste materials, while creating jobs in the sustainable economy at the same time.
Recycling used bags from banana plantations in Peru

The Dutch company AgroFair imports fairtrade and organic certified bananas to supply supermarkets in Europe. Main origins of AgroFair imports are Ecuador, Peru, Panama, Costa Rica and the Dominican Republic.

Large quantities of plastic are used for banana production. Every young banana bunch is covered with a plastic bag to protect the young fruit from insects and mechanical damage. The bag also enhances fruit development. When the bananas are harvested, the bags are disposed. This plastic waste often ends up on a garbage dump with no recycling possibilities.

To change this undesirable situation Agrofair asked WASTE to analyze the existing situation, identify recycling options, and to develop a business plan to collect and recycle the plastic waste for banana producers in Peru. This project was also supported by MVO Nederland.

Based on a visit to Peru and Ecuador, WASTE developed a business plan together with the local manufacturer of the bags to establish a recycling plant. Together we succeeded in finding finance to set up the plant. This factory will need sufficient supply of plastic waste and is willing to pay a certain amount for every kilo of plastic. By giving a value to the plastic waste, the 3000 banana producers of AgroFair will be interested in collecting, storing and selling the waste.

Improving working conditions of PET bottle waste pickers in Indonesia

Aidenvironment and WASTE were asked by the development finance institutions DEG from Germany, FMO from the Netherlands and the Indonesian company PT Namasindo PLAS Indonesia to design and implement a Supply Chain and CSR programme for the PET recycling branch of this business.

Namasindo is a leading supplier of gallons, bottle preforms, and caps to the bottled water industry in Indonesia. The company sources its raw material PET from large established suppliers, while the recycling arm of the business is exposed to an informally organized used plastic bottles supply chain. This value chain consists of a number of middlemen and about 15,000 individual waste pickers.

The Supply Chain and CSR programme aims to improve the working conditions and livelihoods of the workers in the collection centres and the waste pickers in the supply chain of Namasindo.

To design the CSR programme, we have done a extensive situation analysis. The 2-year implementation phase of the programme will be done in close collaboration with local stakeholders in the field of Indonesian waste management.

Our plastic waste management services:

- Market assessment of different types of plastic
- Feasibility studies
- Business plan development of plastic processing businesses (e.g. sorting, washing or recycling plant)
- Matchmaking with funds or investors
- Support in the creation of new business models in plastic reuse and recycling
- Networking
- Tailor made training programmes

Do you want to know more about our work in plastic waste management, contact: Sophie van den Berg, svdberg@waste.nl

WASTE is an international NGO specialised in turning waste into prosperity. We put our 30+ years of experience in innovative waste management into practice in our programmes in over 20 countries around the world. Find out more about us on www.waste.nl