

Giant Pollution Mass at Sea

When an oceanic garbage patch the size of Texas dumps some of its treasures along the West Coast this summer, By Marsha Walton -- CNN



YOU SAY NO TO PLASTIC

45,000 students from the city have joined the campaign against plastic organised by Hotel Orchid, reports SHWETA SHIWARK

Following its tradition of being an environmentally friendly hotel, the Orchid organized a competition among school children to rid Mumbai of plastic bags. Planning an anti-plastic drive is nothing new for the Orchid. As its only five-star resort hotel. "Since its inception, Orchid has been regularly involved in environmental issues. We also try to find new ways of keeping the Orchid eco-friendly. This has always been our priority," remarks Harishchandra Desai, Environment Officer, The Orchid.

ECODRIVE

The Orchid introduced an element of competition to make the entire effort interesting. Mumbai was divided into four zones and the school leavers were to collect maximum bags with a limited and green prices. The response to the drive from the school kids has been excellent.

already collected 20 kgs of plastic bags. Sandeep, a student from Anandhal Postar School had managed to gather 1256 plastic bags from his friends and relatives. Rekha, from the same school had collected 1600 bags from her maid and immediate neighbourhood.

Brenda Fernandes, a housewife from Don Bosco School at Matunga, who gathered a sack full of plastic bags, says, "I collected the bags from my hostel and surrounding buildings. These activities are very helpful in teaching all to respect the environment and our surroundings."

At a time when most are cynical about saving the environment, campaigns such as these help reinforce the hope that it's possible to create a plastic-free environment.

As Abhijit Unnikrishnan, Director of the National Environmental Institute, Mumbai, notes, "It's not just the government that's responsible for creating a plastic-free environment, it's the citizens who have to lead by example."



NORTH PACIFIC GYRE

Environment

'World Environment Week' began on a positive note

BY A STAFF REPORTER

'World Environment Week' started on a positive note yesterday with an energetic and energetic display of low quality air, quality water and quality earth, which collectively make up life on Earth's planet as a whole. With the cooperation of the West (developing countries) in sharing up their immediate environments, big time pollution of the world's water bodies.

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Calling environment-conscious corporates

BY A STAFF REPORTER



Plastic Litter and Waste Cleanup Costs Approach a Billion Dollars ...

TRASHED !!!!
Across the Pacific Ocean, Plastics, Everywhere
Texas sized trash mass floating in the North Pacific Ocean. An "eyes-on" report... Charles Moore/ Natural History v.112, n.9, Nov. 2003

men corporat

has reached 1...
in giving a high profile offering we take for granted. The next target is the city. It's not just the city, it's for citizens to be aware of the issues and do something perhaps then the child

Environment Day" can help to reduce meat people and contribute to the growing consciousness about how a ballooning population and modern civilization is damaging even the toughest ecosystems of a plastic earth.

tracks to think about where it's headed in the future. In the very near future, there is every likelihood of life becoming more of a hell than a heaven for the people of this earth.

The “White Pollution”



Environmental Impact of Plastics

- Most of the petroleum based plastics are not biodegradable and persists in landfill for many decades.
- Plastics are not only to polluting the environment but actually harm many living organisms.
- Plastics are cheap to produce but very expensive to clean the environment.
- In South Africa, 90% of the waste generated is still disposed of to landfill (dumpsites) including plastics.



www.epa.com 2013

DST 2014. SA RDI waste road map
<http://www.wasteroadmap.co.za/>

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CURRENT SITUATION IN SOUTH AFRICA

Plastics | SA

Tonnages recycled and diverted from landfill in SA - all plastics (2011 - 2015)



- SA is leading countries in the world with mechanical recycling.
- SA currently only uses mechanical recycling and no other energy from waste plant yet operational.
- Approximately 55% of all polymer goes into packaging.
- 20% all plastics manufactured were recycled in 2015
- SA Plastics Industry announced **Zero Plastics to Landfill by 2030**.

**Mechanical recycling refers to recover plastics waste via mechanical processes (grinding, washing, separating, drying, re-granulating and compounding), and converted into new plastics products, often substituting virgin plastics*

Plastic Bag Recycling Contamination



Glance of the article:

The carrier bags from the municipal plastic waste stream and the contamination levels normally exceed the weight of the plastic bag because of the level of filler (CaCO_3) added to the bags (25-30%) to reduce the manufacturing cost.

Sunday Times, April 9, 2017

CERTIFICATION OF BIOBASED/BIODEGRADABLE PLASTICS PRODUCTS

An example

Approaching biobased markets



Environmental Label

Product
CSIR 100% biodegradable plastic bag

Company
CSIR-SA

- 100% of renewable raw materials (ASTM D6866)
- Recyclable (EN 13430)1
- Recoverable as energy (EN13431)
- Biodegradable (2-4) in soil (ASTM D5988), marine water (and compostable (ASTM D5338)

Facultative claim

- **Intended use : carrier bags**

This label will be prepared by CSIR lab services facility (ISO 17025) in accordance with international standard Environmental label Rules

1

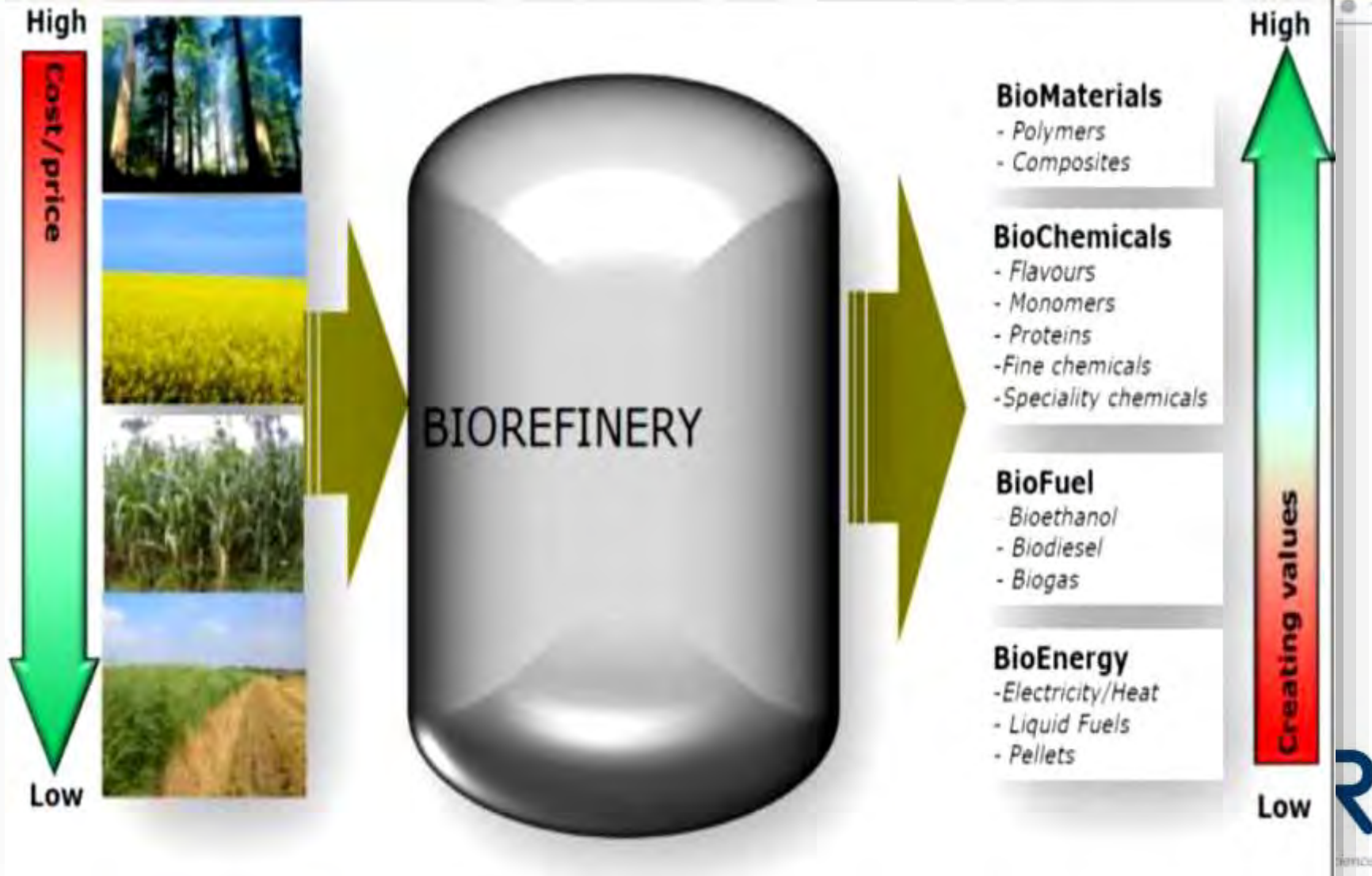
2

3

4



How to reduce production cost and scaling up? Opportunities and potential economic benefits in SA





Thank you

Contact Us:
Dr Sudhakar Muniyasamy; e-mail: smuniyasamy@csir.co.za

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