



**TOGETHER**  
*for a sustainable future*

## OCCASION

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## RECP Experiences at Primech Enterprises

### Achievements at a Glance

Primech Enterprises was involved in a Resource Efficient and Cleaner Production (RECP) project named ACIDLOOP, funded by the European Union under the switch-asia program. RECP implementation in the Primech Enterprises led to annual savings of USD 1,467, by investing USD 492 and improved product quality.

Primech Enterprises has demonstrated that taking care of materials, energy, water and waste makes good business sense. RECP covers the application of preventive management strategies that increase the productive use of natural resources, minimize generation of waste and emissions.

### Overview

Primech Enterprises is a small scale industry located in Chennai, Tamil Nadu, India that does Blackening Job works for leading vehicle manufacturing OEMs and their tier one suppliers. The company has 12 workers and generates a yearly turnover of around USD 100,000.

### Benefits

The RECP programme was mainly focused on minimizing the waste by cutting down the material use without affecting the quality and quantity of the production. By undergoing this programme Primech Enterprises was able to understand the specific requirement of material, fuel, water and other resources necessary for production.



Before Set temperature reduction



After set temperature reduction



Level Float for switching  
- off the pump

Level Float for switching  
- on the pump



Before Implementation



After Implementation



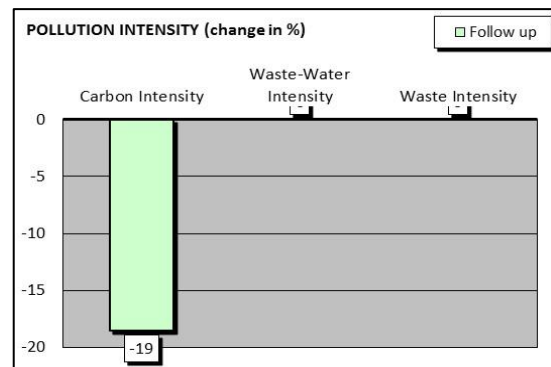
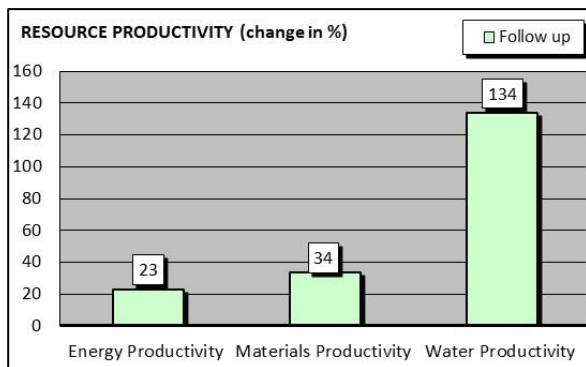
Oil Filtration system for degreasing bath

**Table 1: Results at a glance**

Absolute Indicator	Change (%)	Relative Indicator	Change (%)
<b>Resource Use</b>		<b>Resource Productivity</b>	
Energy Use	8	Energy Productivity	23
Materials Use	-1	Materials Productivity	34
Water Use	-43	Water Productivity	134
<b>Pollution generated</b>		<b>Pollution Intensity</b>	
Air Emissions (global warming, CO2 eq.)	8	Carbon Intensity	-19
Waste-Water	0	Waste-Water Intensity	0
Waste	0	Waste Intensity	0
<b>Product Output</b>	32		

**Note:** The *absolute indicators* provide a measurement of how much resource use has changed in absolute terms e.g. units of energy used or tons of waste generated. A negative percentage indicates a decrease and a positive percentage indicates an increase. The *relative indicators* provide a measurement of changes in resource use in relation to a specific process.

## RECP PROFILE



**Note:** The RECP profile provides a visual overview of resource productivity and pollution intensity shown as change in % compared to the baseline values. Environmental performance is improved when resource productivity increases and when pollution intensity decreases.

## Success Areas

The results were achieved through the implementation of the following measures:

- Decreased the set temperature in degreasing bath
- Reducing the percentage of water in the initial washing and in the rinse process.
- Auto cut off float valve installed for pump
- Controlled water flow in process tanks
- Improving production processes with the purpose of reducing losses.
- Installation of filter system for degreasing bath to extend the life of the bath solution
- Decreasing the percentage of salt use.
- Regular monitoring and maintaining of jigs to improve the productivity
- Timing the processes by measuring water feeding.

## Resource Efficient and Cleaner Production (RECP)

**Resource Efficient and Cleaner Production (RECP)** entails the continuous application of preventive environmental strategies to processes, products and services to increase efficiency and reduce risks to humans and the environment.

RECP addresses three sustainability dimensions individually and synergistically:

- *Production efficiency*
  - > Through improved productive use of natural resources by enterprises
- *Environmental management*
  - > Through minimization of the impact on nature by enterprises
- *Human development*
  - > Through reduction of risks to people and communities from enterprises and supporting their development



**Table 2: Options implemented**

Principal Options Implemented	Benefits			
	Economic		Resource Use	Pollution generated
	Investment [USD]	Cost Saving [USD/yr]	Reductions in energy use, water use and/or materials use (per annum)	Reductions in waste water, air emissions and/or waste generation (per annum)
Set temperature reduction in degreasing bath	Nil	665	Electricity consumption reduced by 5,700 kWh	4.76 tons of CO2
Auto cut off system for Pump	75	180	Water consumption reduced by 30,000 Ltrs	7.83 kg of CO2
Filter system for degreasing bath solution	417	622	Chemical consumption reduced by 377 kg	-
Regular monitoring and maintenance of jigs	Negligible	-	Productivity increased by 60 %	-
Controlling of water flow in bath tubs	Nil	-	Overall water consumption reduced by 50 %	-

### Approach taken

A complete process study was conducted by the project team for deriving the key indicators for the process. Subsequently these indicators were used to calculate the specific material, fuel, water and other necessary resource required for production. The specific indicators showed us the critical areas where the resource use can be minimized without affecting the quality and quantity of production and thereby increasing the profitability of the company.

### Business case

Although the RECP programme was mainly focused on reduction of resource use, but also decreases pollution to the environment, which benefits the surrounding community and builds the credibility of the industry.

## Testimony Box

### Asia Society for Social Improvement and Sustainable Transformation (ASSIST)

Asia Society for Social Improvement and Sustainable Transformation (ASSIST) is an international non-profit capacity building organization. It seeks to promote sustainable practices to address social problems in the developing world, with focus on Asia and Africa.

ASSIST takes pride in its process-oriented approach to capacity building to achieve social improvement and sustainable transformation. Its goal is to empower its target groups and make them resilient to the social, economic and environmental challenges. Our services include training and facilitation, learning content development, studies, assessment and evaluation, and project management and event management. Over the past decade, we have carried out over 100 developmental projects funded by International donors including European Union, UNDP, UNEP, USAID, ADB, GIZ, DEG, and IFC. We have our presence in over 13 countries in South East Asia, South Asia, China and Africa.

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### English Abstract (where applicable)