Resource Efficiency in Agri-food Production and Processing

Sustainable Consumption and Production (SCP) - What already has been done!

REAP project team
Uzbekistan: Tashkent, Bukhara, Ferghana

Tajikistan: Dushanbe, Sughd, Khatlon, Grono-Badakhshan
Simple maintenance step helps a sugar manufacturing enterprise from Dushanbe, Tajikistan to save energy cost

Before
Air filters of compressor were clogged with dirt and not of the appropriate size, leading to higher energy consumption for air inlet

After
The compressor air filters are replaced with ones that meet the specifications of the air compressor – this eases air inlet and reduces the energy consumption of the air compressor

Benefits & Payback
Cost: TJS 120
Payback: 1 month

Annual Savings: TJS 1,567 (USD 137)
Resource Saving: 2,338 kWh electricity
Attractive energy savings achieved by a milk processing enterprise in Fergana, Uzbekistan

**Before**
- Two incandescent bulbs (150 W) were installed in the cold storage for lighting
- This led to higher energy consumptions not only by bulbs but also by chillers due to high cooling load because of additional heat generation by these bulbs

**After**
- Incandescent bulbs are replaced with 15 W LED lights
- Energy consumption reduced due to efficient bulbs as well as reduction in the cooling load

**Benefits & Payback**
- **Cost:** UZS 80,000
- **Payback:** 0.4 month
- **Annual Savings:** UZS 2,721,600 (USD 253)
- **Resource Saving:** 6048 kWh electricity per yr.
Easy savings in an milk ice cream factory in Fergana, Uzbekistan

**Before**
- Milk ice cream syrup was leaking from pipeline
- Waste of processed milk syrup which was ready for making ice cream
- Spillage on the floor and loss of ice cream

**After**
- Fixed leakages in the pipeline
- Immediate recovery of milk syrup for ice cream production and reduced waste of processed raw material
- Improved housekeeping due to reduced spillages

**Benefits & Payback**

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<thead>
<tr>
<th>Cost</th>
<th>Annual Savings: UZS 20,592,000 (USD 1,920)</th>
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</thead>
<tbody>
<tr>
<td>Payback</td>
<td>Milk syrup saving: 4100 litres per year</td>
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Recognising “waste” is also a resource helps a canning enterprise in Khatlon, Tajikistan save money

**Before**
Anzur onion peels were thrown away after peeling process

**After**
- Onion peels are composted instead of waste
- Organic fertiliser improving growth of grape plants –
- Avoiding purchase of 100 kg of mineral fertiliser (per year)

**Benefits & Payback**
- **Cost:** Negligible
- **Payback:** Immediate

**Annual Savings:** TJS 600 (USD 53)

**Resources Saving:** 100 kg fertilizer saved
Achievements of SCP / RECP project: ACIDLOOP

https://www.switch-asia.eu/project/acidloop/

Indian metal finishing SMEs
(electroplating, powder coating, steel rerolling)

664 SMEs briefed
385 SMEs trained initially
106 SMEs selected

<table>
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<tr>
<th>Reduction per kg product in</th>
<th>material consumption</th>
<th>energy consumption</th>
<th>water consumption</th>
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<tbody>
<tr>
<td></td>
<td>27%</td>
<td>23%</td>
<td>33%</td>
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Achievements of SCP / RECP project: METABUILD

https://www.switch-asia.eu/project/metabuild/

- **28,295,090** energy saved per annum (in kWh)
- **42,268,600** water saved per annum (in litres)
- **2,373,490** material saved per annum (in kilograms)
- **538,230** waste minimised per annum (in kilograms)
- **9,680** CO₂ emissions reduced per annum (in tonnes)
- **2,671,570** monetary savings per annum (€)

403 SMEs from three countries
Thank You

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REAP - more produce with less resources