Adoption of voluntary environmental practices: Evidence from the textile and apparel industry in Sri Lanka

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Sri Lanka
Textile and Apparel Industry in Sri Lanka

What is the industry?

58% of Export income earnings

52% of employment generation (direct)

Significant level of environmental degradation
Recognitions

- Green factories
- Lean production processes
- Market share is guaranteed without GSP+ benefit
- Followers of carbon footprint
- Higher price for Sri Lankan apparel
Studying Voluntary Environmental Management Practices (EMPs)

- What voluntary EMPS exist?
- Why are they adopted in some factories?
- Policy lessons?

- 10 Case studies
- 55/329 of BOI registered factories surveyed
- Detailed interviews
- Descriptive and statistical analysis
What are voluntary EMPs?
Based on survey findings

- **ISO 14001** – 27%
- **Material reuse** – 89%
- **Water recycling** – 42%
- **Environmental Audits** – 67%

![Bar Chart]

- **Water recycling**
- **Material re-use**
- **Environmental audits**
- **ISO 14001-certification**
Reasons for adoption of EMPs

- Legislative pressure?
- Market pressure?
- Factory characteristics?

<table>
<thead>
<tr>
<th>Variables</th>
<th>Significance</th>
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<tbody>
<tr>
<td>Foreign export</td>
<td>+++</td>
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<tr>
<td>No of factories</td>
<td>+++</td>
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<tr>
<td>Dyeing factories</td>
<td>+++</td>
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<tr>
<td>Washing factories</td>
<td>-+++</td>
</tr>
<tr>
<td>Apparel manufacturing</td>
<td>++</td>
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<tr>
<td>Availability of ISO 9001</td>
<td>+++</td>
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<tr>
<td>Located in BOI Zone</td>
<td>++</td>
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Policy Possibilities

- Fines
- Inspections
- Zonal Facilities and Staff
- Local Consumer Awareness
- Producer Awareness on Returns from EMPS
Benefits of adoption of EMPs

- 25% of water bill
  [Recycle water]

- > 10% electricity bill
  [Layout planning, painting, sky lighting, LED bulbs, use of alternative energy sources such as saw dust, coconut, solar, use of improved machines such as solar panels, rice cookers, boilers, A/C, hybrid vehicles]

- 100% municipal solid waste
  [Food waste is used for animal feeding and composting]

- Reuse of cones, fabric cuts, bulbs, paper
K.H. Muthukudaarachchi
Deputy Director General
Environmental Pollution Control Division
Central Environmental Authority

Pollution Control in Sri Lanka
Central Environmental Authority

- Apex body in Sri Lanka to control Environmental Pollution by
  - setting standards, norms and criteria
  - for the protection of beneficial uses and
  - maintaining the quality of the environment

- Established under the provision of the National Environmental Act (NEA) No.47 of 1980.
Central Environmental Authority

**MAJOR TOOLS**
- Environment Protection License
- Environmental Impact Assessment
- Site Recommendation procedures
- Fines and penalties
- Environmental Standards & Guidelines

**STANDARDS**
- Water Quality Standards
- Air Quality Regulations
- Noise Regulations
- Solid waste management
- Vehicle Emission Regulations
- Guidelines on Vibration and Air Blast Over Pressure
**Strengths and Weaknesses**

**Strengths**
- Qualified staff
- Frequent training
- Sound act

**Weaknesses**
- Inadequate staff
- Not enough inspections
- Inadequate laboratory facilities
- Not enough penalties
This study explains different methods of EMPs

- 3 R concept
- Energy efficiency mechanisms

Benefits of EMPs

- Reduce cost
- Reduce waste
- Attractive business strategy

Reasons for such adoption

- Customer awareness
- Firms’ strength and targets
Responses from the CEA

- Appointment of staff (100 for inspection)
- Initial steps take to establish laboratory facilities at the provincial level
- Discussions are going on with the Attorney General (amount of fines)
THANK YOU