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**Research Note 02/19:**
SCP in apparel industries
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# Environmental management in Myanmar apparel industry

The journey towards sustainable consumption & production (SCP) in the Myanmar apparel industry has only just begun, and the road ahead will be long.

As of mid-2019, at least six garment factories in Myanmar have installed solar photovoltaic systems for combined peak generation capacity of approx. 500 kW. Five other garment factories are known to have implemented rainwater harvesting systems. A handful of factories have installed biomass boilers.

One of the facilities taking some of these measures – Amava Apparel – is on track to become the first LEED Platinum manufacturing facility in Myanmar. These positive & best practice actions give hope, but actions taken by only the most progressive 1% of manufacturers are not enough.

The most negative & proximate impacts garment factories in Myanmar have on the environment are:

- **Air pollution from boilers**
- **Water over-extraction**
- **Water pollution**
- **Solid & hazardous waste disposal issues**
- **Contribution to deforestation due to wood fuel use in boilers**

**Above: A new coal fired boiler at a garment factory facility in Yangon. Due to weakly enforced emissions regulations and almost no restrictions on fuel sources, manufacturers in Myanmar often use coal and wood fuel for boilers, contributing to deforestation, worsening local air quality and boosting greenhouse gas emissions.**

| Recommended priorities for improvement |
|---|
| • **Boiler & steam system efficiency** |
| • **Wastewater treatment** |
| • **Adoption of renewable energy sources** |
| • **Water use reduction** |
| • **Compressed air system efficiency** |
| • **Use of skylights and LEDs** |
| • **Energy efficient sewing machine motors** |
| • **Efficient & effective cooling systems** |
| • **Rainwater harvesting** |
| • **Plastics reduction programs** |
| • **More sustainable product inputs** |
| • **Efficient transportation of workers to/from factory facility** |
| • **Resource efficient management of chemicals** |
| • **Campus greening program** |
| • **Noise pollution reduction** |
| • **Recycling and composting programs** |
| • **Hazardous waste disposal protocols** |
| • **"No coal, no wood" commitment** |
| • **Certified organic product lines** |
| • **Conformance with Zero Discharge of Hazardous Chemicals protocol** |
| • **Compliance with "globally harmonized system" (GHS) standards for chemical use** |

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## What can factories do better?

There are many technical areas to evaluate and consider, but the simplest and most immediate course of action needed for most factories is…

1) **Measure and monitor impacts**
2) **Hire a dedicated "environmental management officer" for this task.**
3) **Empower this member of staff to guide the company towards improvements.**

The first action is necessary in order for practically any other action to be fully effective. The regimen described above will, in most factories, quickly pay for itself. Typical garment factories in Myanmar unnecessarily waste millions of kyats each month out of ignorance with regards to their wasteful practices. Examples include: compressed air leaks, steam leaks, boiler fuel mismanagement, inadequate machine maintenance, inefficient cooling systems, water leakages, and many others. The list of areas where money + energy, water and waste can be saved is long and often easily accessible. Suggested priority focus areas are listed on the front page. Once consumption key performance indicators (KPIs) are adequately known, understood and monitored and a knowledgeable staff member is trained and dedicated to the task of saving these resources, reductions can most effectively be achieved.

In addition to the direct, and often immediate, money saving benefits, over 200 apparel and footwear factories in Myanmar already supply to brands & retailers using the Higg Index or BEPI standards. Brands using these instruments often reward suppliers who demonstrate good environmental performance with larger product orders and/or longer term sourcing contracts.

To learn more about SMART Myanmar visit:
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**An engineer from SMART Myanmar inspects the solar panels on the first factory in Myanmar to implement rooftop solar, a garment manufacturer in Yangon. Since this factory's 80 kW system was installed another five garment factories have also implemented solar PV. The largest of these systems has a rated peak generation capacity of 250 kW.**