



Introducing SUSTENT Group to CVSCL

1 IA 11A																	18 VIIIA 8A						
1 H Hydrogen 1.008	2 He Helium 4.003																						
3 Li Lithium 6.941	4 Be Beryllium 9.012																	5 B Boron 10.811	6 C Carbon 12.011	7 N Nitrogen 14.007	8 O Oxygen 15.999	9 F Fluorine 18.998	10 Ne Neon 20.180
11 Na Sodium 22.990	12 Mg Magnesium 24.305	3 III B 3B	4 IV B 4B	5 V B 5B	6 VI B 6B	7 VII B 7B	8 VIII 8	9 VIII 8	10 VIII 8	11 IB 1B	12 IIB 2B	13 Al Aluminum 26.982	14 Si Silicon 28.086	15 P Phosphorus 30.974	16 S Sulfur 32.066	17 Cl Chlorine 35.453	18 Ar Argon 39.948						
19 K Potassium 39.098	20 Ca Calcium 40.078	21 Sc Scandium 44.956	22 Ti Titanium 47.88	23 V Vanadium 50.942	24 Cr Chromium 51.996	25 Mn Manganese 54.938	26 Fe Iron 55.933	27 Co Cobalt 58.933	28 Ni Nickel 58.693	29 Cu Copper 63.546	30 Zn Zinc 65.39	31 Ga Gallium 69.723	32 Ge Germanium 72.61	33 As Arsenic 74.922	34 Se Selenium 78.09	35 Br Bromine 79.904	36 Kr Krypton 84.90						
37 Rb Rubidium 84.468	38 Sr Strontium 87.62	39 Y Yttrium 88.906	40 Zr Zirconium 91.224	41 Nb Niobium 92.906	42 Mo Molybdenum 95.94	43 Tc Technetium 98.907	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.905	46 Pd Palladium 106.42	47 Ag Silver 107.868	48 Cd Cadmium 112.411	49 In Indium 114.818	50 Sn Tin 118.71	51 Sb Antimony 121.760	52 Te Tellurium 127.6	53 I Iodine 126.904	54 Xe Xenon 131.29						
55 Cs Cesium 132.905	56 Ba Barium 137.327	57-71 Lanthanide Series	72 Hf Hafnium 178.49	73 Ta Tantalum 180.948	74 W Tungsten 183.85	75 Re Rhenium 186.207	76 Os Osmium 190.23	77 Ir Iridium 192.22	78 Pt Platinum 195.08	79 Au Gold 196.967	80 Hg Mercury 200.59	81 Tl Thallium 204.383	82 Pb Lead 207.2	83 Bi Bismuth 208.980	84 Po Polonium [208.982]	85 At Astatine 209.987	86 Rn Radon 222.018						
87 Fr Francium 223.020	88 Ra Radium 226.025	89-103 Actinide Series	104 Rf Rutherfordium [261]	105 Db Dubnium [262]	106 Sg Seaborgium [263]	107 Bh Bohrium [264]	108 Hs Hassium [265]	109 Mt Meitnerium [266]	110 Ds Darmstadtium [267]	111 Rg Roentgenium [272]	112 Cn Copernicium [277]	113 Uut Ununtrium [283]	114 Fl Flerovium [289]	115 Uup Ununpentium [288]	116 Lv Livermorium [293]	117 Uus Ununseptium [288]	118 Uuo Ununoctium [289]						
57 La Lanthanum 138.905	58 Ce Cerium 140.115	59 Pr Praseodymium 140.908	60 Nd Neodymium 144.24	61 Pm Promethium 144.913	62 Sm Samarium 150.36	63 Eu Europium 151.966	64 Gd Gadolinium 157.25	65 Tb Terbium 158.925	66 Dy Dysprosium 162.50	67 Ho Holmium 164.930	68 Er Erbium 167.26	69 Tm Thulium 168.934	70 Yb Ytterbium 173.04	71 Lu Lutetium 174.967									
89 Ac Actinium 227.028	90 Th Thorium 232.038	91 Pa Protactinium 231.036	92 U Uranium 238.029	93 Np Neptunium [237]	94 Pu Plutonium [244]	95 Am Americium [243]	96 Cm Curium [247]	97 Bk Berkelium [247.0]	98 Cf Californium [251.080]	99 Es Einsteinium [254]	100 Fm Fermium [257.095]	101 Md Mendelevium [258.1]	102 No Nobelium [259.101]	103 Lr Lawrencium [262]									

19 Nov 2020



SUSTENT Group helps clients with

1 Integrating Sustainability
In Corporate Strategy

2 Improving Operational
Performance

3 Environmental Sustainability
Performance Management Of
Supply Chains

4 Transitioning To A Circular
Economy



5 Technical Services
For Green Finance

6 Training And Capacity
Building For A Green
Economy

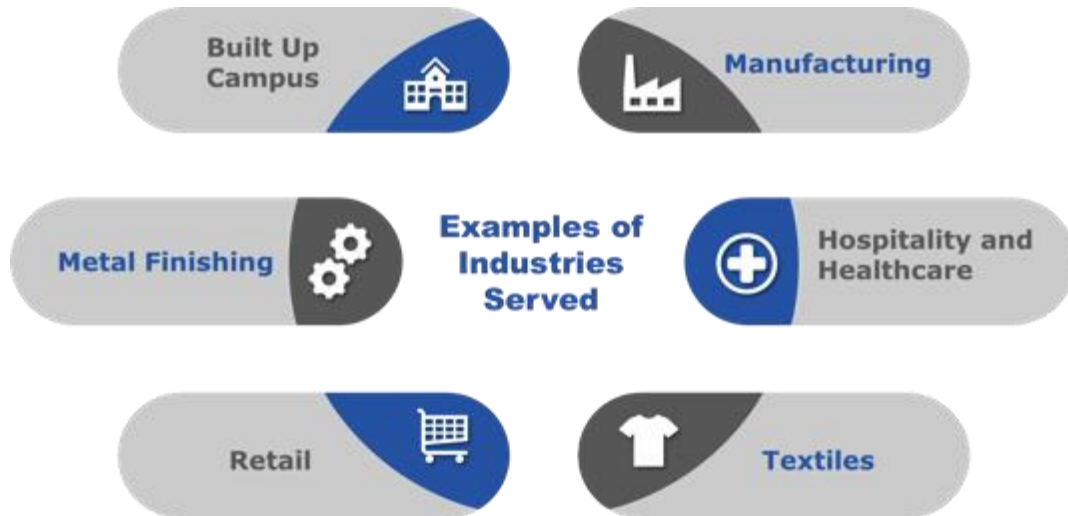
7 CSR Projects On
Environment Related
Themes

8 Managed Services

We work across all Industry Sectors and deliver both Holistic and Specialized Sustainability Solutions

Some of our Core Services

Materiality Analysis	Capacity Building	Implementation of Sustainability Management Systems
Resource Efficiency Solutions	Energy Management Water Management Zero Discharge Of Hazardous Chemicals Carbon Footprint Assessment And Reduction	



We are long term Trusted Advisor and Implementation Partner for our clients and deliver significant Value and Benefits over time

We engage with enterprises to plan and implement appropriate sustainability solutions and to provide strategic guidance, coaching and change management facilitation at all levels in the enterprise. This generates both short term and long term value for the enterprise.

We facilitate the change in the mindset of company leadership, management and staff to understand, appreciate, adopt and embed the relevant concepts and practices of sustainability and to see the big picture of how this fits in with the overall strategy and goals of the organization.

Some of the Benefits we deliver with our consulting solutions



Reduced cost of resources



Reduced pollution and risk



Reduced cost of operations



Increased transparency and visibility of sustainability outcomes

These four values are core to our organization DNA and reflect in our work

Integrity

Fairness

Team Work

Client Orientation

Our mission or core purpose is to help the world meet its needs sustainably from the finite resources on the planet



Our mission is closely aligned with the United Nations **Sustainable Development Goal 12** (known as SDG 12 in its short form) which is to ensure **sustainable consumption and production patterns**

So far, we have helped



Our vision is to help at least 10,000 organizations to adopt a "sustainability" mind-set with emphasis on resource efficiency and a linkage with a circular economy



A sustainability journey that began in 2007

- 2007** STENUM Asia setup as a not-for-profit entity with help from an Austrian consulting group
- 2012** First International project
- 2018** SUSTENT Consulting setup as a private limited company by Indian and Austrian founders
- 2019** Prof. Walter Stahel, the globally renowned Circular Economy expert joins STENUM Asia advisory board
- 2020** Collaboration with GRI South Asia to accelerate adoption of sustainable business practises and reporting by small and medium enterprises in South Asia

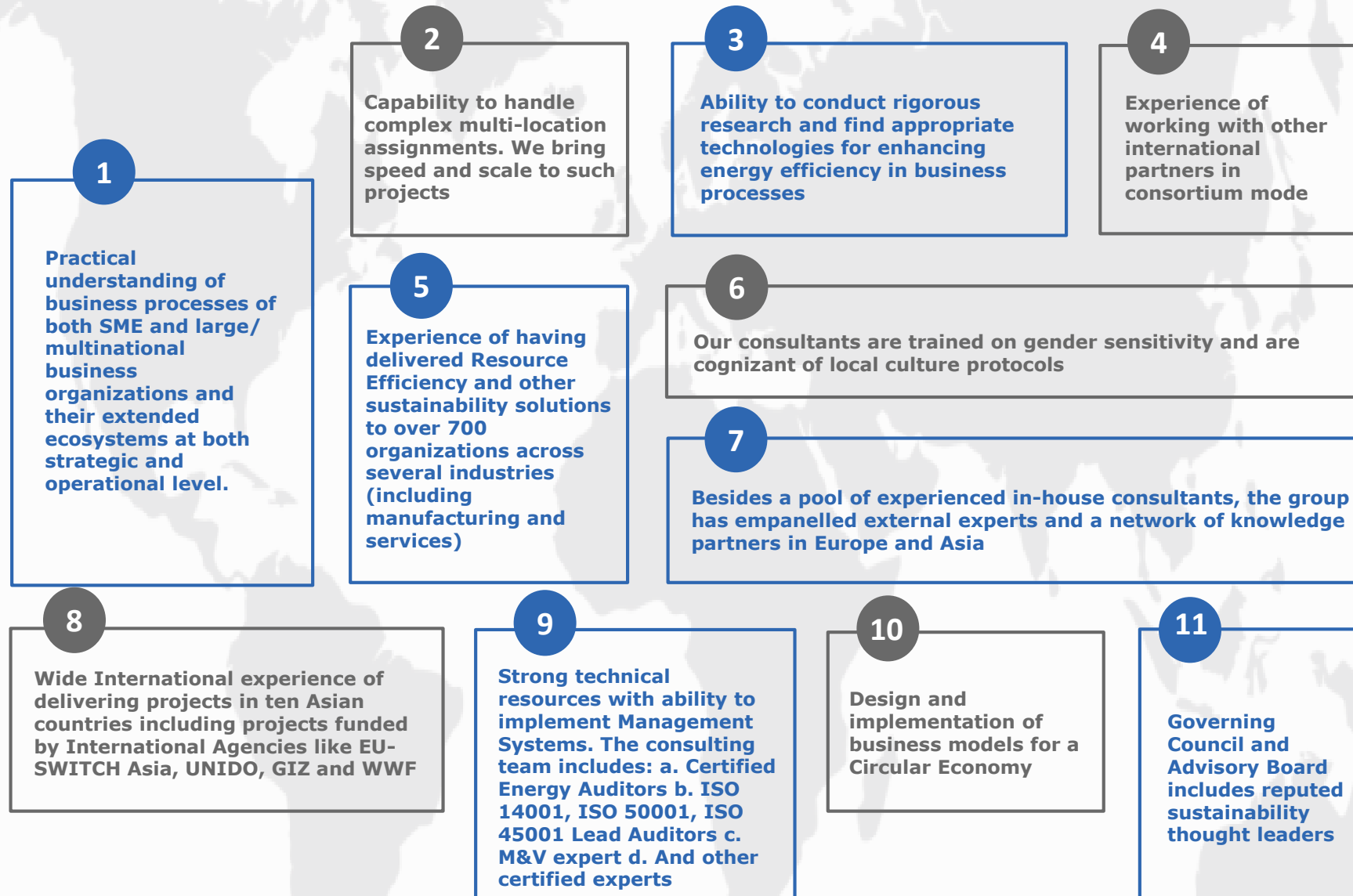
An Internationally recognized and trusted sustainability consulting group

Empanelled with Bureau of Energy Efficiency (BEE), India as an Energy Service Company (ESCO)

Active member of Alliance for Energy Efficient Economy (AEEE)

On ground presence in Europe, India and Bangladesh

Our team has capability to deliver significant Positive outcomes



An example of our work and positive outcomes

Recently completed a 4 year assignment (called **METABUILD Project**) funded by European Union - Switch Asia Programme

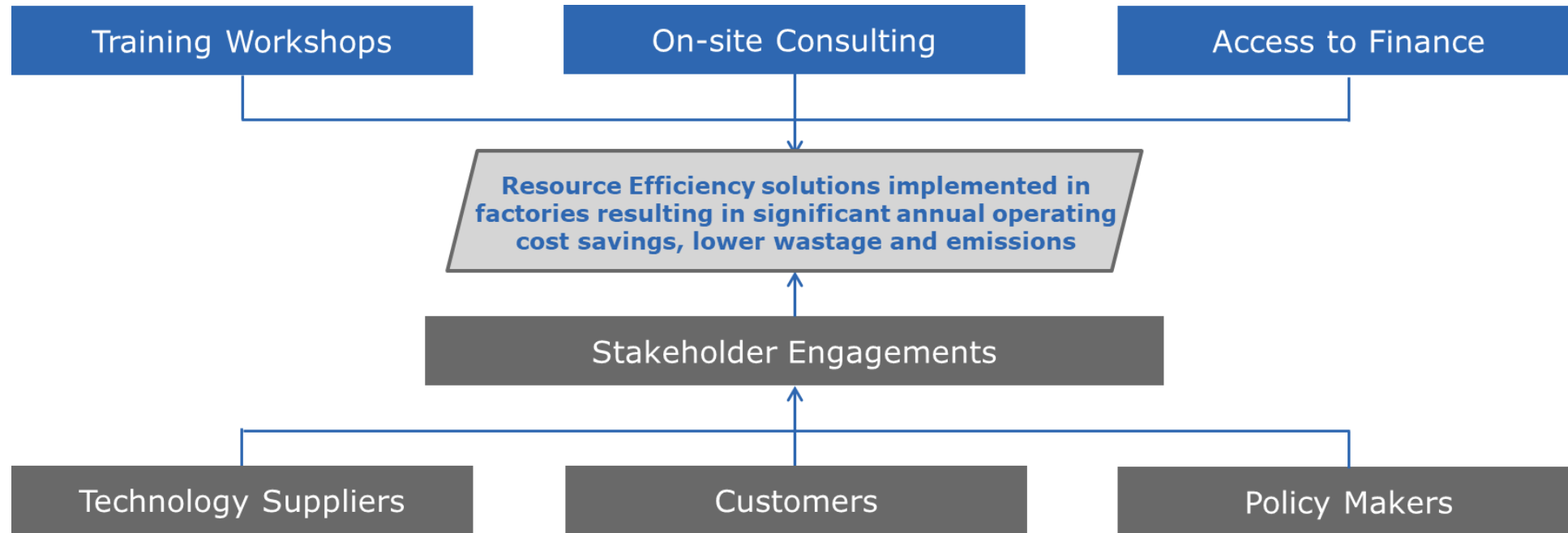
Implemented Resource Efficient Cleaner Production (RECP) solutions in 403 factories in Bangladesh, Nepal and Sri Lanka



Target Enterprises

Small and Medium enterprises in metal product supply chain for building and construction sector - **rolling mills, sheet metal, metal pipes and cables, non-ferrous products (taps, valves etc.), fabrication (frames, grills), aluminium extrusion, metal finishing**

Several different but interlinked components delivered in this project



"Our company has got economical and environmental benefits through implementing the appropriate and effective suggestions provided by METABUILD team. We already saved a good amount of money in terms of electricity and gas savings and also were able to improve indoor environment through reduction of indoor air pollution. We believe that, other improvement opportunities will also be induced if this project continues through long time. I would like to thank METABUILD project and all the team members for their holistic and effective support for our industry as well as their contribution for country"

Md. Faruque Hossain
Manager, Appollo Power Electric and Electronic

Examples of Resource Efficiency interventions in industries in Bangladesh



Our energy expert checking combustion conditions for a furnace at Chittagong



Improved daylight at steel re rolling mill at Dhaka with use of transparent roofing sheets

In addition to on-site consulting and hand holding at Factories there were other interventions



Technology fair organised to connect Clean-Tech solution vendors with factories



Training given to factories on accessing finance to deploy Clean-Tech solutions



Training and capacity building on Resource Efficiency for local consultants



On-site training and capacity building of factory workers on Resource Efficiency and Housekeeping

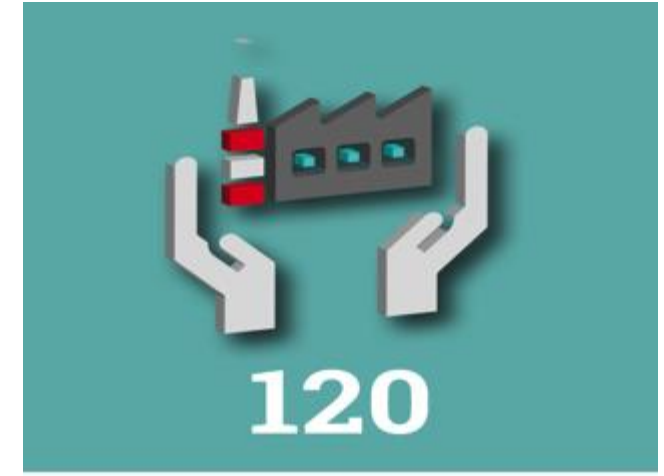
Key project metrics of cumulative work done in all three countries



SMEs INVOLVED IN THE PROJECT



NUMBER OF RECP MEASURES IMPLEMENTED



SMEs SUPPORTED IN ACCESS TO FINANCE (A2F)



TECHNOLOGY SUPPLIERS ENGAGED



INDUSTRY PERSONNEL SENSITISED ON RECP



NUMBER OF LOCAL CONSULTANTS TRAINED

Key Results and Outcomes across 403 factories



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)



9,680

CO₂ EMISSIONS REDUCED
PER ANNUM (IN TONNES)



538,230

WASTE MINIMISED PER
ANNUM (IN KILOGRAMS)



2,671,570

MONETARY SAVINGS PER
ANNUM (€)

We have assisted several enterprises in the Pharma and FMCG industry

Project	No. of companies assessed	Types of industries	Focus on	Type of Key interventions	Illustrative impacts / savings achieved
Environmental Improvements in Industry (Sustainable and Environment friendly Industrial development Programme - SEIP) India funded by GIZ	12	Tablet, syrup, API, Condoms, Talc, capsules, ointments, soaps, lotions	Air compressors, boilers, burners, pumps, motors, refrigeration systems, water treatment plants, storage areas, lighting system, conveyors, process, waste, Renewable energy, Packaging	Energy savings, Material savings, waste minimization and water savings	<ol style="list-style-type: none"> 1. Chiller usage optimization reduced chiller energy use by 5%. 2. Reduced steam leaks, improved boiler pipeline insulation, introduced process controls leading to 30% fuel saving for boiler, while also reducing water consumption 3. Introduced humidity and temperature control system that reduced AHU usage thus saving energy used for HVAC 4. Improving temperature control on Cooling Tower resulted in 5% reduction in energy use 5. Achieved reduced evaporation losses of water in Cooling Towers through improved maintenance and fan control 6. Plastic waste generation reduced at staff canteens
Resource Efficiency practices amongst industries in Hyderabad India financed by the industries themselves	3	API, API research labs	Air compressors, boilers, burners, pumps, motors, refrigeration systems, water treatment plants, lighting system	Energy savings and water savings	<ol style="list-style-type: none"> 1. Installed VFD at partially loaded (forced draft) blowers which reduced energy consumption by 25% 2. Reduced clinker formation in coal fired boiler led to 1% reduction in coal consumption

We have assisted several enterprises in the food industry

Project	No. of companies assessed	Types of industries	Focus on	Type of Key interventions	Illustrative impacts / savings achieved
Green Retail India —funded by European Union Switch Asia grants programme	8	Chips processing , Milk and milk products processing, Wafers, Snacks	Air compressors, boilers, burners, pumps, motors, refrigeration systems (compression),water treatment plants, storage areas, lighting system, conveyors, process, waste, Renewable energy	Energy savings, water savings, Material savings, waste minimization and safety improvements	<ol style="list-style-type: none"> 1. Reduced set pressure at air compressor led to savings of 8,200 kWh at no cost. 2. Heat recovery from the fryer burner exhaust led to savings of 30,000 kWh with payback period of 2 years. 3. Repair of refractories of burners led to saving 6,600 kWh with 4 months payback 4. Segregation of lighting switches helped optimise light usage at no investment resulting in saving of 648 kWh electricity. 5. Reuse of ETP treated water for cleaning and other house keeping purposes reduced fresh water consumption by 20%.
Catalyzing Sustainable Water and Energy Management in Food and Beverage Industries in the Ayeyarwady River Basin of Mayanmar funded by European Union Switch Asia grants programme	12	Dairy, fish processing, bakery, snacks,	Boiler, cooling tower, compressor, motors, chillers, lighting	Training of Trainers, Energy Savings	<ol style="list-style-type: none"> 1. Fourteen (14) Local consultants capacitated to carry out Energy Audit 2. Installation of solar dryer in place of electrical oven saved electricity 3. Optimising fuel to air ratio led to reduced fuel consumption 4. Cleaning chiller tubes, setting return temperatures and improved insulation reduced energy consumption of chiller system
Rice mill cluster in northern India	2	Rice mills	Air compressor, boiler, steam pipeline, lighting system, motor belts	Energy saving, Material saving, Power Factor improvement	<ol style="list-style-type: none"> 1. Steam pipeline insulation and leakage repair led to rice husk (fuel) saving 2. Energy savings achieved in compressor by VFD installation 3. Power factor improvement reduced power demand 4. Optimum air flow reduced fuel consumption in boiler
Sustainable and efficient Industrial Production (SEID) - Nepal and Bhutan funded by European Union Switch Asia grants programme	53	Tea, coffee, Bakery, flour mill, noodles industry, Agro based products, Dairy products, Distillery, wine and liquor	Boilers, burners, pumps, motors, refrigeration systems (compression),water treatment plants, storage areas, lighting system, conveyors, process, waste, Renewable energy etc.	Energy savings, Material savings, waste minimization, water savings and safety improvement	<ol style="list-style-type: none"> 1. By Switching bakery trays with less thermal mass and reduced baking time to optimum saved 11,000 kWh energy annually with payback period of 3 months 2. Conserving Water by installing tap to regulate free flowing water to within 40 l/min saved water. 3. Installation of solar PV reduced use of diesel generator - saved 963 litres of diesel per year

We have assisted several enterprises in the textile industry

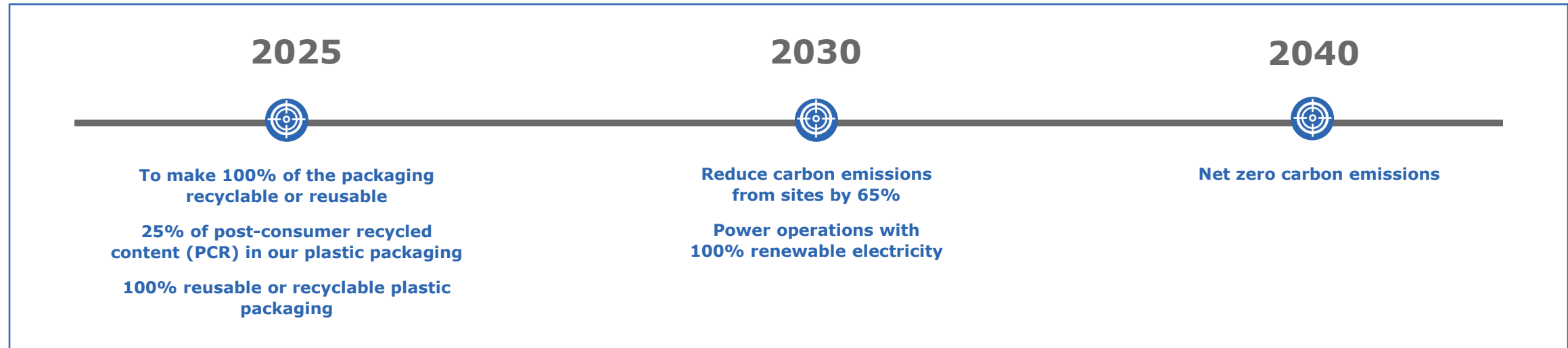
Project Name	No. of companies assessed	Types of industries	Focus on	Type of Key interventions	Illustrative impacts / savings achieved
Energy Audit at Dyeing units	4	Dyeing	Air compressors, boilers, burners, pumps, motors, refrigeration systems (compression), water treatment plants, storage areas, lighting system, conveyor	Detail energy Audits	<ol style="list-style-type: none"> 1. Condensate recovery recommended from the process after use to re use in the boiler which led to saving of 48.9 MT of coke can be saved. 2. The oxygen percentage in flue gas is on higher side i.e. 12% which can be minimized and lead to saving of 68 MT of coke. 3. Monitoring of energy consumption as per national benchmarks for similar type of industries, company started tracking the energy consumption at each step process for both electrical and thermal.
SMART Textile & Garments funded by the European Union	12	Ready-made garments	Air compressors, boilers, burners, pumps, motors, , lighting system, Solar, Rain water harvesting	ToT, Energy Savings	Trained 4 people (local consultants) on Energy Audit, renewable energy system and rainwater harvesting
Energy Audit at Sri Lanka	3	Ready-made garments, Dyeing	Air compressors, boilers, burners, pumps, motors, refrigeration systems (compression), water treatment plants, storage areas, lighting system, conveyors	Walk through Energy Audits	<ol style="list-style-type: none"> 1. Load shifting from peak hours to nonpeak hours saves around 4000 kWh annually 2. Optimizing the chiller usage and to minimize the chill water supply where not needed.

We understand corporates are setting long term sustainability goals

Nestlé Sustainability Goals and Targets for the Planet



Reckitt Benckiser Sustainability Goals and Targets



We can help with these key areas in Supply Chain to meet long term goals

Effective Sustainability Performance Management Systems within Supply Chains

Improving Resource Efficiency in operations and moving towards Net Zero in GHG emissions

Transitioning to a Circular Economy

Results that we will deliver

Enhanced transparent and meaningful sustainability communication from suppliers – that feeds into the **tier-1 supplier** GRI report

Established “living” and effective management systems such as ISO 14001, ISO 45001, ISO 50001 with clear objective of actually adding real value to the suppliers and not just compliance

Improved supplier sustainability may positively feed into **brands** score and the underlying performance related to Dow Jones Sustainability Index

Reduced GHG emissions through decreased energy consumption and transition to renewable energy. Implementation of technical solutions for reduced water consumption and waste minimization. Clear demonstration of benefits leading to improved engagement and performance particularly in supply chain against **brands** sustainability goals

Higher awareness and active engagement throughout the value chain regarding EcoDesign, Re-design of packaging, selection of packaging materials for reducing environmental impact and avoiding single-use, recycling systems and solutions, re-manufacturing systems and solutions. Leading to piloting of more circular businesses.

Tools that we will use

Supplier evaluation and rating on sustainability performance, SUSTENT’s proprietary Environment Management System (EMS) deployment tool using ecomapping™

Customised approach for SMEs towards GRI reporting (developed jointly with GRI South Asia)

Resource Controlling tools, carbon foot-printing, Training and Capacity building (using participative approaches like Fun Factory) Clean-Tech solutions database, Self-assessment tools for utilities and equipment, benchmarking of Key Performance Indicators

EcoDesign tool, Life Cycle Thinking, EcoInnovation, Business Servitisation models

Thank you!

Please Reach Out to Us



www.sustent.in

<https://linkedin.com/company/sustent-consulting>
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Call **Rajat Batra** on +91 9811051918



rajat.batra@sustent.in

**We help the world meet
its needs sustainably
from the finite
resources on the planet**