
SINET Sustainability - Framework

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Overview

- Industrial Sustainability Models
- Relevance of these models to Indian SMEs
- Proposed SINET Framework for Evaluating Sustainability



- Overview of Sustainability Assessment Models

Environmental Sustainability Assessment:

- Regulatory Compliance
- Awareness of environmental sustainability
- Reporting on environmental sustainability
- Community engagement
- Corporate commitment to continuous improvement
- Beyond compliance

■ *Total Environmental Center, Australia,*

Environmental Sustainability Assessment:

- Simple model – easy to adopt
- Primary focus is on environment
- Social & Economic aspects not adequately addressed
- Probably is a good starting model

Corporate Sustainability Assessment - DJSI

■ Economic	■ % wt.
■ Code of conduct / compliance /corruption	■ 3
■ Corporate governance	■ 5.4
■ Customer relationship management	■ 3
■ Financial robustness	■ 3.6
■ Investor relationship	■ 2.4
■ Risk and crisis management	■ 3.6
■ Scorecards / measurement system	■ 4.2
■ Strategic planning	■ 5.4
■ Other Industry specific criteria	■

Corporate Sustainability Assessment - DJSI

	Wt. %
■ Environmental	
■ Environmental policy / management	■ 3
■ Environmental performance	■ 4.2
■ Environmental reporting	■ 1.8
■ Industry specific criteria	■ ...
■ Social	
■ Corporate Citizenship /philanthropy	■ 2.4
■ Stakeholder engagement	■ 4.2
■ Labor practices	■ 3
■ Human capital dev.	■ 1.8
■ Knowledge management /organizational learning	■ 3
■ Social reporting	■ 1.8
■ Talent attraction and retention	■ 2.4
■ Standards for suppliers	■ 1.8
■ Industry specific criteria	■ ..

Corporate Sustainability Assessment - DJSI

- Various company documents are analyzed, including:
 - sustainability reports;
 - environmental reports;
 - health and safety reports;
 - social reports;
 - annual financial reports;
 - special reports (e.g. on intellectual capital management, corporate governance, R&D, employee relations);
 - all other sources of company information; e.g. internal documentation, brochures and website.
- Analysts also review media, press releases, articles, and stakeholder commentary written about a company over the past year.

Corporate Sustainability Assessment - DJSI

- It covers all three aspects – Environment Economic and Social
- Provides weights on each of the aspects
- Differentiates between the generic and industry sector specific indicators
- Sustainability Index – helps asset managers with reliable and objective benchmarks to manage sustainability
- Applicability to large Corporate and MNCs

Product Sustainability Assessment

- System Analysis
- Sustainability reference and indicators selection
 - Region and utilization specific
 - Allows benchmarking and correlation with other products
 - Basic statement on minimum sustainability criteria
- Application of indicators
 - Whether it meets basic sustainability criteria
 - Contribution to SD in regional context
 - Impact of use are +ve / - ve as regards sustainability
 - Comparison with competing products
 - Satisfaction of needs Vs. Env. Advantage over competitors' product
- Identifying impact factors
- Transforming to course of action

Product Sustainability Assessment

- Provides a framework to develop a sustainability assessment of a product
 - No dos / don'ts
 - No Indicators
- Focused on product evaluation
- Includes local regional SD aspects
- Provides flexibility to integrate product specific criteria

Shell SD principles	Description
<i>Economic aspects</i>	
1. Generate robust profitability	Successful financial performance is essential to our sustainable future and contributes to the prosperity of society
2. Deliver value to customers	Customers are the lifeblood of our business. We seek constantly to strengthen existing customer relationships and develop new ones
<i>Environmental aspects</i>	
3. Protect the environment	The natural environment supports all human activity. We continually look for new ways to reduce the environmental impact of our operations, products and services throughout their life.
4. Manage resources	Efficient use of natural resources, for example, energy, land and water, reduces our costs and respects the needs of future generations. We constantly look for ways to minimise their use.
<i>Social aspects</i>	
5. Respects and safeguard people	We aim to treat everyone with respect. We strive to protect people from harm from our products and operations
6. Benefit communities	Wherever we work we are part of a local community. We will constantly look for appropriate ways to contribute to the general well-being of the community and the broader societies who grant our license to operate
7. Work with stakeholders	We affect, and we are affected by, many different groups of people, our stakeholders. We aim to recognise their interest in our business and to listen and respond to them.
Overall SD evaluation	

Shell's Sustainability Principles

Score	Significance
Very positive (++)	Acceptable – benefits clearly outweigh risks
Positive (+)	Acceptable – benefits outweigh risks
Neutral	Acceptable
Negative (-)	Requires further investigation, and/or risk mitigation
Very negative (--)	Unacceptable unless adequate risk mitigation can be demonstrated

Relevance to SMEs

- Review of these models proved a great deal of insight into sustainability assessment
- These assessment models are designed and developed for different users / target groups
 - Industry
 - Buyer
 - Investor
 - Project management
 - Governments etc.
- The range of issues addressed in some SA models vary depending upon the user profile and size of industry

Relevance to SMEs

- Most SMEs have local operations and local impacts
- Global indicators might be difficult in correlating with required changes for SMEs
- SA evaluation indicators to take following into consideration (and accordingly adjust indicators to reflect respective impacts)
 - Local companies to focus on local Sustainability
 - Regional Companies to evaluate SA at regional level and
 - Global companies to evaluate their SA at Global level

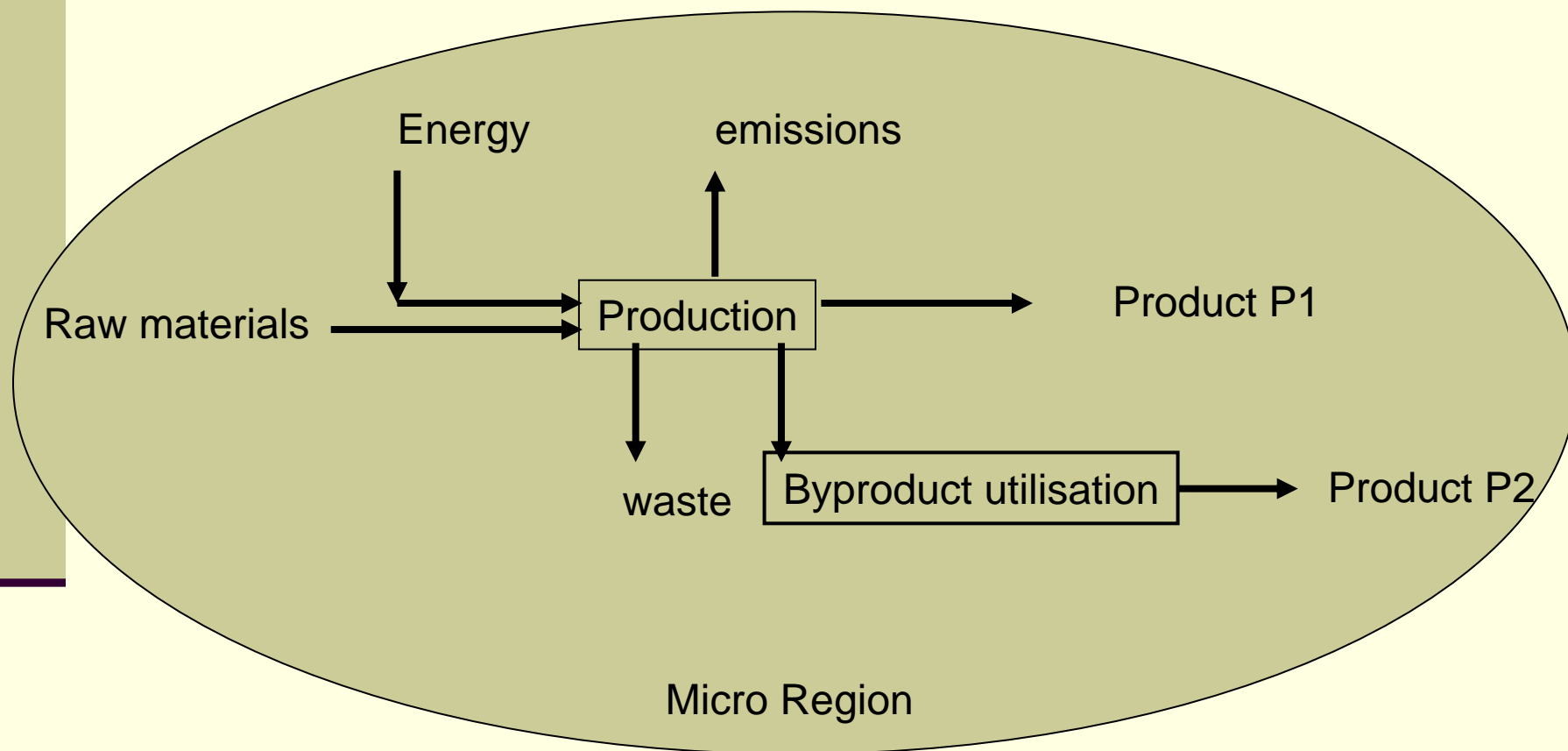
Relevance to SMEs

- SME focused SA model is aimed at supporting industry
 - to evaluate sustainability of its operation
 - to provide decision support to improve its sustainability profile
 - to provide a mechanism to identify un-sustainability and trigger innovation to address such un-sustainability

Sinet Introduction

- What's a micro region
- What's a key economic activity

SINET Framework



Principal elements of Sustainable Industrial Network

- Interaction between Industrial, Natural, Economic and Social systems in the micro region
- Balancing industrial inputs and outputs to
 - Enhanced process efficiency / Optimize costs
 - Maximize societal benefits
 - Minimize environmental footprint of the industrial activity within the micro-region

Principal elements of Sustainable Industrial Network

- Dematerializations of Industrial outputs
 - Via Enhanced byproduct / waste utilization
 - Economics:
 - Cost - Transportation of waste / byproduct
 - Investment – Capacity / Technology for utilization
 - Savings - Reduced waste management and treatment costs
 - Revenue – Sale of waste / byproduct
 - Environmental
 - Reduced resource requirement – to produce P2
 - Reduced waste and emissions

Principal elements of Sustainable Industrial Network

- Minimize dependency on Fossil energy
 - Economics
 - Energy recovery from waste / byproduct
 - Energy conservation / efficiency
 - Optimize transport requirements,
 - Environmental
 - Reduced resource dependency - Enhanced utilization of renewable energy sources for Industrial production
 - Reduced GHG emissions
- Promote supportive policies instruments to accelerate uptake of these principle elements by the industry

Evaluating Sustainability

- Sustainable of the Inputs - Raw material
 - Local Availability
 - Impact on regions natural resources – water, soil, air, forest, biodiversity
 - Impacts of extracting (producing/growing) such resource on env.
 - Employment in raw material extraction/ transportation
 - Implications on long term availability of the raw material

Evaluating Sustainability

- Sustainability of the Production System
 - Appropriateness of the technology to local conditions – water requirements / availability
 - Efficiency
 - Pollution / waste generation
 - Use of toxic chemicals
 - Production of toxic / hazardous waste
 - Impact on Local employment
 - Impact on (pollution related) health

Evaluating Sustainability

- Sustainability of Outputs
- Product
 - Market demand
 - Profitability
 - Product quality
 - Product performance – desired functionality
 - Rejects
 - Impact of product use – environment
 - Impact of product use – Health
 - Secondary employment created – packaging, transport, traders etc

Evaluating Sustainability

- Sustainability of Output
- Byproduct
 - Extent of byproduct utilization – offsite / onsite
 - Impact of byproduct utilization – Environment / natural system
 - Market value (in comparison to main product)
 - Impact on main product yield
 - Sustainability aspect of byproduct (same as previous slide)
 - Distance of processing unit – transport requirements

Evaluating Sustainability

- Sustainability of Outputs
- Waste / emissions
 - Regulatory compliance
 - Treatment cost
 - Disposal practice
 - Energy recovery potential
 - Transportation requirements
 - Accidents
 - Employment supported

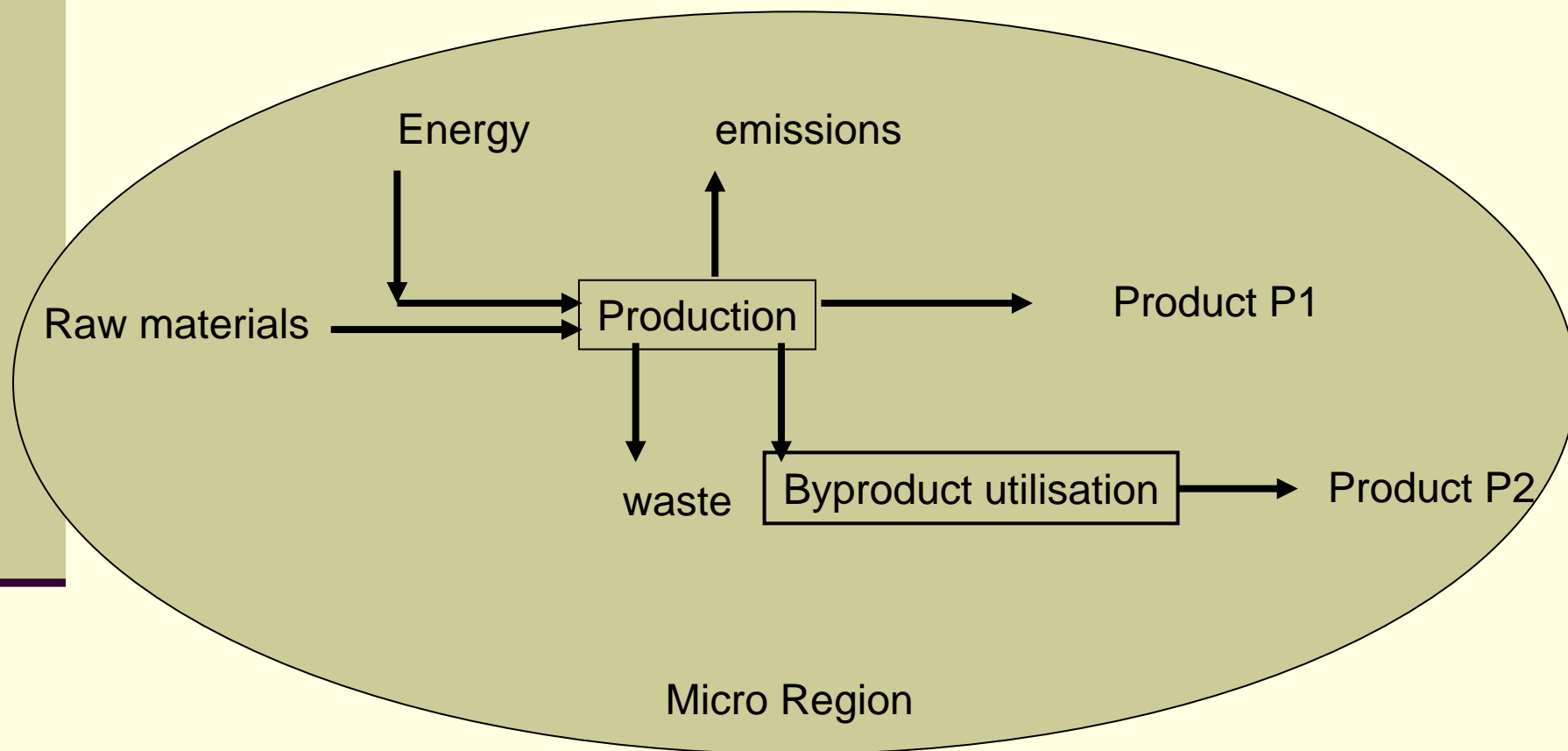
Evaluating Sustainability

- Sustainability of Product Design
 - Product's useful life-span
 - Repairability / Upgradeability
 - Recyclability of the product
 - Viability of product recycling
 - Demand for recycled product
 - Use of sustainable materials
 - Comparison with competing products

Evaluating Sustainability

- Creating Social Capital:
- Interaction with local community
- Corporate citizenship / Philanthropy
 - Support to create local capacities – social infrastructure
 - Contribution to physical infrastructure development

SINET Framework



What Activities are Planned?

- Discuss the application of the model in general
- Use this approach to assess sustainability of four Industry sectors – as case study
- SINET Web page
- Discuss the application of model with specific reference to each of these four industry sectors – in a series of 4 expert group seminars (3 in March 2007)
- Collate inputs and suggestions,
- Update model
- Identify enabling and hindering policies for uptake of such model
- Policy Dialogue – International Conference (Nov. 2007)