Sustainable project life cycle management: Incorporating social criteria in decision making

Table of Content

9.	App	endix A: Driving Forces for Business Sustainability	219
9.1	Inter	national Standards and Guidelines	219
9.1	1.1	United Nations' Global Compact	219
9.1	1.2	Global Sullivan Principles	221
9.1	1.3	OECD Guidelines for Multinational Companies	223
9.1	1.4	Caux Round Table Principles for Business	224
9.1	1.5	Social Accountability 8000	225
9.1	1.6	AA 1000 framework	226
9.1	1.7	Investors in People	228
9.1	1.8	Ethical Trading Initiative	229
9.1	1.9	The Natural Step Framework	230
9.1	1.10	International Environmental Management Standards	230
9.1	1.11	ISO Family of Standards	232
9.1	1.12	Quality & Excellence Models	235
9.1	1.13	Conclusion & Comparison	240
9.2	Fran	neworks to assess or measure Sustainable Development	242
9.2	2.1	United Nation's Commission on Sustainable Development's Indicators of Sust	ainable
De	evelop	ment	243
9.2	2.2	Global Reporting Initiative	244
9.2	2.3	Azapagic & Perdan's Indicator Framework	246
9.2	2.4	IChem ^E Sustainability Metrics for the Process Industries	247
9.2	2.5	Wuppertal Institute's Indicators of Sustainable Development	248
9.2	2.6	European Union's Conceptual Framework of Social Indicators	249
9.2	2.7	General comments on the frameworks	250
9.3	Corp	orate Social Responsibility: Indicators, Measurements, Standards and Models.	251
9.3	3.1	Ethos Corporate Social Responsibility Indicators	251
9.3	3.2	Standards of Corporate Social Responsibility of the Social Venture Network	252
9.3	3.3	The Danish Ministry of Social Affairs' Social Index	253
9.3	3.4	Corporate Social Performance Model	255
9.4	Soci	ally Responsible Investment	257
9.4	4.1	Dow Jones Sustainability Indexes	258
9.4	4.2	FTSE4Good Index	260
9.4	4.3	JSE SRI Index	261
9.4	1.4	Domini 400 Social Index SM	264
9.5	Inter	national Financing Corporations	265
9.5	5.1	The Equator Principles	265
9.5	5.2	World Bank	267
9.6	Refe	rences	269

Sustainable project life cycle management: Incorporating social criteria in decision making

10.	Appendix B: Universe as a Tripartite World	276
10.1	The Universe as a Tripartite World	276
10.2	Business and its surrounding Environments	278
10.3	References	280
11.	Appendix C: Corporate Response to Changing Expectations	282
11.1	Corporate Social Responsibility to Corporate Responsibility	282
11.	1.1 From Corporate Responsibility to Corporate Sustainability	286
11.2	Corporate or Business Sustainability	287
11.	2.1 Sustainable Development as a concept	287
11.	2.2 Business Sustainability	289
11.3	References	290
12.	Appendix D: Analysis of Sustainable Development Reporting	293
12.1	Status of Sustainable Development Reporting	293
12.2	Analysis of Sustainable Development Reports	295
12.3	Reference	297
13.	Appendix E: Minimum Wages	299
14.	Appendix F: Case Study Protocol for the verification of the sustainability	assessment
	framework	300
14.1	Overview of the first set of case studies	300
14.2	Framework Verification Part 1: Construction Phase	300
14.	2.1 Field Procedures	300
14.	2.2 Case Study Questions	301
14.3	Framework Verification Part 2: Operational Phase	301
14.	3.1 Field Procedures	302
14.	3.2 Case Study Questions	302
14.4	Framework Verification Part 3: Decommissioning Phase	304
14.	4.1 Field Procedures	304
14.	4.2 Case Study Questions	304
14.5	Summary	305
14.6	References	305
15.	Appendix G: Survey Questionnaire	306
15.1	Survey Design	306
15.2	Example of Survey Questionnaire	307
15.	2.1 Information Page	307
15.	2.2 General Questions	308
15.	2.3 Main criteria	309
15.	2.4 Social Criteria	312
16.	Appendix H: Additional Survey Results	314
16.1	Participants perception of Sustainable Development	314

Sustainable project life cycle management: Incorporating social criteria in decision making

16.2	95% Confidence Intervals of true proportions	315
17.	Appendix I: Indicators per criteria for each asset life cycle phase	319
17.1	References	371
18.	Appendix J: Social Aspects in asset life cycle	374
18.1	Internal Human Resources criteria through the asset life cycle phases	374
18.2	External Population criteria through the asset life cycle phases	379
18.3	Macro Social Performance criteria through the asset life cycle phases	384
18.4	Stakeholder Participation criteria through the asset life cycle phases	386
19.	Appendix K: Delphi Technique's Questionnaire	389
19.1	Questionnaire Round 1:	389
19.2	Questionnaire Round 2:	393
20.	Appendix L: Ways to address social criteria in projects	397
21.	Appendix M: Causal Relationships	407
22.	Appendix N: Delphi Technique Questionnaires	411
22.1	Questionnaire Round 1:	411
22.2	Questionnaire Round 2	413
23.	Appendix O: Information Availability	415
24.	Appendix P: Acrylic Fibre Plant - Information	425
24.1	Project Information	425
24.2	Social Footprint Information:	428
24.3	References	430
25.	Appendix Q: Social Questionnaires and Checklists for use in the project life cycle	431
25.1	Kick-Off Phase	431
25.	1.1 Social Questionnaire	431
25.	1.2 Social Checklist (for use at the end of the phase)	431
25.2	Pre-Feasibility Phase	432
25.	2.1 Social Questionnaire	432
25.	2.2 Social Checklist (for use at the end of the phase)	433
25.3	Feasibility Phase	433
25.	3.1 Social Questionnaire	433
25.	3.2 Social Checklist (for use at the end of the phase)	435
25.	3.3 DEAT Method that needs to be applied in Feasibility Phase	436
25.4	Development Phase	437
25.	4.1 Social Questionnaire	437
25.	4.2 Social Checklist (for use at the end of the phase)	439
25.5	Execution & Testing Phase	439
25.	5.1 Social Questionnaire	439
25.	5.2 Social Checklist (for use at the end of the phase)	440
25.6	Launch Phase	441

Sustainable project life cycle management: Incorporating social criteria in decision making

25	.6.1	Social Questionnaire	441
25	.6.2	Social Checklist (for use at the end of the phase)	441
26.	Appe	endix R: Social Sustainability Tool for Projects (Internet Version)	442
26.1	Wel	osite Layout	442
26.2	Scre	een Captures of Website	442
26	.2.1	Project Life Cycle Phases: Examples	443
26	.2.2	Library Section	444
26	.2.3	Evaluation Tool Section	446
27.	Appe	endix S: Examples of Existing Gate Questions	447
28.	Appe	endix T: Questionnaire	449

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

9. Appendix A: Driving Forces for Business Sustainability

9.1 International Standards and Guidelines

9.1.1 United Nations' Global Compact

Kofi Annan, Secretary-General of the United Nations, first proposed the United Nations' Global Compact at the World Economic Forum in Davos in 1999. The reasoning being that business should work in a spirit of enlightened self-interest, to make globalisation more inclusive to the world's poor populations by embracing and acting upon nine universal principles [A1]. These nine principles of the Global Compact (see Table 9-1) deal with three areas of concern, namely human rights, environmental protection and labour practices. The principles have been derived from:

- The Universal Declaration of Human Rights
- The International Labour Organisation's Declaration on Fundamental Principles and Rights at Work; and
- The Rio Declaration on Environment and Development (Outcome of the 1992 Earth Summit held in Rio) [A2].

Table 9-1: Nine Principles of the UN Global Compact [A2]

Human Rights:

<u>Principle 1</u>: Businesses should support and respect the protection of international human rights within their sphere of influence; and

Principle 2: make sure their own corporations are not complicit in human rights abuses.

Labour:

<u>Principle 3:</u> Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining,

Principle 4: the elimination of all forms of forced and compulsory labour;

Principle 5: the effective abolition of child labour; and

<u>Principle 6:</u> the elimination of discrimination in respect of employment and occupation.

Environment:

Principle 7: Businesses should support a precautionary approach to environmental challenges;

Principle 8: undertake initiatives to promote greater environmental responsibility; and

Principle 9: encourage the development and diffusion of environmental friendly technologies.

The mission of the Global Compact is "to contribute to more sustainable and inclusive global markets by embedding them in shared values" [A1] and all relevant actors are involved namely: governments, companies, labour forces, civil-society organisations (NGO's) as well as the United Nations. The Global Compact aims to foster a network-based approach at local, national, regional and local level. In order to do so the Global Compact makes use of four engagement mechanisms, namely:

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

- leadership initiating change through the commitment of CEO's (and preferably the whole board of directors) to the principles;
- dialogue creating a platform where all actors can engage to identify problems and find solutions in order to influence policy-making and stakeholder behaviour;
- learning reinforcing dialogue through examples of good corporate practices that works; and
- outreach and networks- providing frameworks for action at national, regional or local level [A3].

The operational phase was launched in July 2000 [A2] and the heart of the network is the Global Compact Office in New York together with five core United Nations agencies, namely: Office of the High Commissioner for Human Rights, International Labour Organisation, United Nations Environmental Programme, United Nations Development Programme and United Nations Industrial Development Organisation [A1].

It is believed that there is no one way to incorporate the Global Compact principles into business activities [A2] but companies, signing up to the Global Compact, make the following commitments:

- The company will issue a clear statement of support for the Global Compact and its principles and will engage in public advocacy for the Compact.
- Once a year a concrete example of progress made or lessons learned in implementing the principles will be posted on the Global Compact website.
- The company will engage in partnerships with UN organisations by either undertake activities to promote the implementation of the principles or to enter strategic partnerships in support of wider UN goals [A4].
- The company must publish in its annual report or a similar corporate report a description of the ways in which the company supports the Global Compact and its nine principles [A2].

The Global Compact is a purely voluntary initiative and in December 2003 1884 participants have signed the Global Compact, of which 7 are based in South Africa [A2]. A key strength of the Global Compact is its emphasis on partnership and stakeholder engagement [A4]. The Global Compact is however not a performance or assessment tool nor does it provide a seal of approval. Nevertheless, in March 2004 the United Nations undertook an in-depth study to determine whether the initiative is having any measurable impact on businesses, i.e. whether the Compact is adding value to the sustainability debate that has been characterised more by anecdotal evidence than hard fact [A5]. However, a study by McKinsey & Co in 2004 concluded that the Global Compact has "primarily accelerated policy change in companies, while catalyzing a proliferation of 'partnership projects', development-oriented activities that companies undertake with UN agencies and other partners" [A6]. The Global Compact thus has had a noticeable, incremental impact on society and overall it has been a noteworthy force of positive change.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

9.1.2 Global Sullivan Principles

Reverend Leon H. Sullivan developed the *Sullivan Principles* in 1977 as a code of conduct concerned with human rights and equal opportunity for companies operating in South Africa. This effort of Reverend Sullivan is acknowledged to have been one of the most effective attempts to end discrimination in the workplace in the pre 1994 South Africa [A7]. In 1997 together with a few multinational companies Reverend Sullivan revised the principles and in 1999 the Global Sullivan Principles of Social Responsibility was released [A8]. The principles are shown in Table 9-2. It consist of eight broad directives focusing on labour, business ethics and environmental practices. The concept of sustainable development is specifically mentioned in directive number five [A9].

Table 9-2: Global Sullivan Principles [A9]

As a company, which endorses the Global Sullivan Principles, we will respect the law, and as a responsible member of society we will apply these Principles with integrity consistent with the legitimate role of business. We will develop and implement company policies, procedures, training and internal reporting structures to ensure commitment to these Principles throughout our organization. We believe the application of these Principles will achieve greater tolerance and better understanding among peoples, and advance the culture of peace.

Accordingly, we will:

- 1. Express our support for universal human rights and, particularly, those of our employees, the communities within which we operate, and parties with whom we do business.
- 2. Promote equal opportunity for our employees at all levels of the company with respect to issues such as color, race, gender, age, ethnicity or religious beliefs, and operate without unacceptable worker treatment such as the exploitation of children, physical punishment, female abuse, involuntary servitude, or other forms of abuse.
- 3. Respect our employees' voluntary freedom of association.
- 4. Compensate our employees to enable them to meet at least their basic needs and provide the opportunity to improve their skill and capability in order to raise their social and economic opportunities.
- 5. Provide a safe and healthy workplace; protect human health and the environment; and promote sustainable development.
- 6. Promote fair competition including respect for intellectual and other property rights, and not offer, pay or accept bribes.
- 7. Work with governments and communities in which we do business to improve the quality of life in those communities-- their educational, cultural, economic and social well being--and seek to provide training and opportunities for workers from disadvantaged backgrounds.
- 8. Promote the application of these Principles by those with whom we do business.

We will be transparent in our implementation of these Principles and provide information which demonstrates publicly our commitment to them.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

The Global Sullivan Principles have the following objectives:

- to support economic, social and political justice by companies in the societies in which they
 operate;
- to support human rights;
- to encourage equal opportunities at all levels of employment including gender and racial diversity on board and decision-making mechanisms in the company;
- to train and advance disadvantaged workers for technical, supervisory and managerial positions; and
- to assist with greater tolerance and understanding among people [A10].

These objectives help to achieve the principles' ultimate goal, which is to improve the quality of life for all with dignity and equality [A10]. The principles provide a framework to align social responsible companies and any company can endorse the principles by publicly committing to incorporate the principles into procedures, operations and internal policies and to implement training and reporting structures [A11]. However, any organisation or association can also endorse the principles, but endorsing companies and organisations must participate in an annual reporting process. All reports are reviewed to measure the efforts and to highlight efforts of note and to ensure the sharing of best practices [A11]. On the 9th of October 2002 293 organisations have endorsed the Global Sullivan Principles [A12], the nature of these organisations are shown in Figure 9-1.

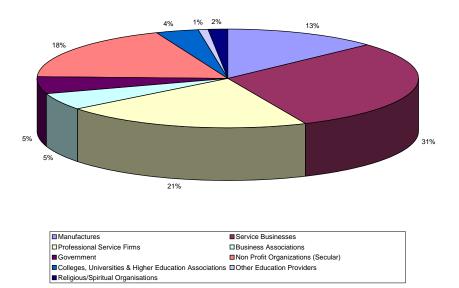


Figure 9-1: Distribution of the 293 endorsing organisations of the Global Sullivan Principles

The Global Sullivan Principles can be seen as a code of conduct for any organisation, although there is a level of reporting on progress and performance with implementation, the principles do not list

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

specific indicators to measure the performance with regards to the principles, i.e. performance with regards to labour, business ethics and environmental practices [A4].

9.1.3 OECD Guidelines for Multinational Companies

The Organisation for Economic Co-Operation and Development (OECD) published their revised guidelines for multinational companies in June 2000. These guidelines are recommendations of business conduct, which are addressed to multinational companies by participating governments. It offers voluntary principles and standards for responsible business conduct consistent with the applicable country's laws. The aims of these guidelines are to:

- ensure that the operations of a business are in harmony with government policies;
- strengthen the basis of mutual confidence between the business and the societies in which it operates;
- improve the foreign investment climate in a country; and
- enhance the contribution to sustainable development made by the multinational company [A13].

Although many multinational companies have developed their own codes of conduct, the OECD guidelines remains the only multilaterally endorsed and comprehensive code that governments are committed to promote [A13]. Businesses' adherence to the guidelines is purely voluntary, but governments who want to participate in implementing the guidelines sign a binding decision to promote their observance to companies operating in or from their country [A8]. In December 2003 38 governments have endorsed the OECD Guidelines for Multinational companies [A14]. The common aim of the governments adhering to the Guidelines is to encourage the positive contributions that multinational companies can make to sustainable development progress (i.e. economic, environmental and social progress) as well as minimising the negative impacts the business operations may have.

The OECD Guidelines cover nine areas of business conduct, namely:

- General Policies
- Disclosure
- Employment and Industrial Relations
- Environment
- Combating Bribery
- Consumer Interests
- Science and Technology
- Competition
- Taxation

For each of the nine areas standards and principles of good practice are listed. The guidelines further provide implementation guidelines for governments, but not specific processes for companies to follow. The guidelines can be seen as a mere general code of conduct, which businesses can use to

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

guide them in their conduct or in developing a company specific code of conduct [A4]. Although the national contact point, which each adhering government should establish, must annually report to the OECD on the progress made with implementation efforts, businesses do not formally report to the OECD on performance relative to the principles. Businesses are nevertheless encouraged to engage in triple bottom line reporting (Business Conduct area 2: Disclosure).

9.1.4 Caux Round Table Principles for Business

In 1986 Frederik Philips, former president of Philips Electronics and Olivier Giscard d'Estaing, Vice-Chairman of INSEAD founded the Caux Round Table (CRT). The aim of the organisation was to reduce escalating trade tensions and to promote the role of business and industry as a vital force for innovative global change. Members include business leaders of Europe, Japan and the United States [A15]. Since 1986 the CRT has grown into an international network of principled business leaders all working to promote moral capitalism [A16].

In 1994 through an extensive and collaborative process the CRT published an inspirational set of recommendations or principles for corporate business behaviour known as the CRT Principles for Business. The CRT regards the principles as a vision for ethical and responsible corporate behaviour that can serve as a foundation for action for business leaders worldwide [A17]. The principles are rooted in two ethical ideals namely:

- human dignity meaning the sacredness or value of each person as an end and not as a mean to an end; and
- kyosei a Japanese concept meaning "living and working together for the common good, enabling cooperation and mutual prosperity to coexist with healthy and fair competition" [A15].

The principles consist of three sections namely a preamble, general principles and stakeholder principles. The preamble describes the current globalisation trend and its problems and motivates business's role as a powerful agent of positive social change. The general principle section aims to clarify the spirit of the two ethical ideals and lists seven general principles with discussions of each. The seven general principles are:

- The Responsibilities of Business: Beyond Shareholders towards Stakeholders
- The Economic and Social Impact of Business: Toward Innovation, Justice and World Community
- Business Behaviour: Beyond the Letter of the Law toward a Spirit of Trust
- Respect for Rules
- Support for Multilateral Trade
- Respect for the Environment
- Avoidance of Illicit Operations

Section three is concerned with the practical application of these seven principles with regards to stakeholders. The section is structured around various stakeholders and states the responsibility of

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

business towards each of these stakeholders. The stakeholders mentioned are: Customers, Employees, Owners/Investors, Suppliers, Competitors and Communities [A15].

The CRT Principles for Business nevertheless remains a set of principles, and the real value of any set of principles lies in its use and implementation in everyday business activities. There are, however, no formal mechanism for corporate commitment to these principles [A8] and neither a set of indicators or method to measure performance with regards to the principles.

9.1.5 Social Accountability 8000

Social Accountability International (SAI), previously known as the Council of Economic Priorities Accreditation Agency (CEPAA), is a United States of America based non-profit organisation. In 1996 SAI convened an international multi-stakeholder advisory board to develop Social Accountability 8000 (SA 8000), an international standard, which aims to improve working conditions globally. The SA 8000 standard was issued in 1998 and reviewed once since then [A18].

The SA 8000 standard is a voluntary monitoring and certification standard for assessing labour conditions [A8]. It is based on the principles of eleven Conventions of the International Labour Organisation (ILO), the United Nations Convention on the Rights of the Child, and the Universal Declaration of Human Rights [A19]. The standard is modelled after the environmental and quality auditing processes developed by the International Standards Organisation (ISO 9000 and ISO 14000 standards) [A8]. The goal of the standard is to define requirements, which will enable a company to:

- develop, maintain and enforce policies and procedures in order to manage issues with regards to
 employment practices and working conditions which it can control or influence; and
- demonstrate to interested parties that policies, procedures and practices are in conformity with the standard [A4].

The standard cover nine areas of concern namely:

- Child labour
- Forced labour
- Health and safety
- Freedom of association and collective bargaining
- Discrimination
- Disciplinary practices
- Working hours
- Compensation
- Management systems [A20].

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

For each area of concern SAI lists the SA8000 requirements, the intent of SA8000, a sample checklist and examples of objective evidence that can be used to determine if the requirements are met [A19]. The standard encourages companies to work with their suppliers to implement a social accountability policy that can improve workplace conditions through technical assistance and increased awareness. The standard is thus concerned with two stakeholder groups, namely employees and suppliers. Companies can implement SA8000 in two ways, namely:

- Certification to SA8000: Operating facilities' performance are audited against SA8000 criteria and facilities are certified as SA8000 compliant or not; and
- SA8000 Corporate Involvement Program: Companies first evaluate SA8000 as an ethical sourcing tool and then implement it over time in some or all of the supply chain, while regularly reporting publicly on the implementation progress [A20]. Organisations can also be granted accreditation by SAI, which enables them to perform SA8000 certification audits on their supply chain for example.

On the 31st of October 2003, 310 facilities have been certified as SA8000 compliant, which represented 36 industries and 38 countries worldwide. However, in South Africa only one facility has been certified as SA8000 compliant, namely Fairview Estate, a wine production estate in the Paarl [A21].

9.1.6 AA 1000 framework

AccountAbility, the Institute of social and ethical accountability launched the AccountAbility 1000 (AA1000) framework in November 1999. AA1000 is an accountability standard, which is focused on "securing the quality of social and ethical accounting, auditing and reporting" [A22]. It has been designed to improve accountability and performance with the focus on learning through stakeholder engagement. Furthermore, it addresses the need to incorporate stakeholder engagement practices into daily business activities [A23]. The AA1000 framework (see Figure 9-2) consists of principles and a set of process standards covering five stages [A24].

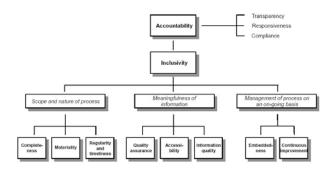


Figure 9-2: Principles of the AA1000 framework [A24].

The AA1000 process standards are focused around the organisation's engagement with stakeholders, the fifth stage, and thus the process model only covers four stages as shown in Table 9-3.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

Stage		Processes
Planning		P1: Establish commitment and governance procedures.
		P2: Identify Stakeholders.
		P3 : Define and review objectives, values and policies.
Accounting		P4: Identify issues upon which performance is assessed.
		P5 : Determine scope of process.
		P6: Identify indicators of performance.
		P7: Collect information.
		P8 : Analyse information, set targets and develop improvement plan.
Auditing	&	P9 : Prepare report(s)
Reporting		P10: Audit report(s).
		P11: Communicate results and obtain feedback
Embedding		P12: Establish and embed systems for continuous improvement

Table 9-3: Process Model of the AA1000 framework [A22].

The framework covers all main stakeholders of a company and can be used in a variety of ways. Some of these uses are:

- Measurement tool
- Quality management tool
- Tool for recruitment and retention of employees
- Tool for external stakeholder engagement
- In partnerships with other organisations
- Risk management tool
- Assist in governance
- Tool for training [A4].

The AA1000 framework is also in the early stages of development and is currently trying to define the relationship between the standard and other standards, e.g. SA 8000, ISO 14000, ETI, etc. To the knowledge of AccountAbility, 77 organisations worldwide have used the AA1000 framework in one-way or another [A25].

On the 25th of March 2003 AccountAbility launched the AA1000 Assurance standard. The standard covers:

- the principles that define a robust and credible assurance process;
- the essential elements of a public assurance statement; and
- the independence, impartiality and competency requirements for assurance providers [A26].

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

9.1.7 Investors in People

Investors in People is a national quality standard of the United Kingdom, which establishes a level of good practice for improving any organisation's performance through its people. The specific focus of the standard is thus the training and development of staff in line with management and organisational objectives [A4] and it provides a national framework to improve business performance by following a planned approach to set and communicate organisational objectives. The standard was developed in 1990 by the United Kingdom's National Training Task force in partnership with leading businesses, personnel and employment organisation. Initially it was administrated by the Department of Education and Employment, but in 1993 a non-departmental public body, Investors in People UK was formed to take national ownership of the standard [A27]. The four principles and indicators of the standard are shown in Table 9-4.

Principles	Indicators
Commitment	1 The organisation is committed to supporting the development of its
An Investor in People is fully	people
committed to developing its people in	2 People are encouraged to improve their own and other people's
order to achieve its aims and	performance
objectives	3 People believe their contribution to the organisation is recognised
	4 The organisation is committed to ensuring equality of opportunity in
	the development of its people
Planning	5 The organisation has a plan with clear aims and objectives which are
An Investor in People is clear about	understood by everyone
its aims and its objectives and what	6 The development of people is in line with the organisation's aims and
its people need to do to achieve them	objectives
	7 People understand how they contribute to achieving the
	organisation's aims and objectives
Action	8 Managers are effective in supporting the development of people
An Investor in People develops its	
people effectively in order to improve	9 People learn and develop effectively
its performance	
Evaluation	10 The development of people improves the performance of the
An Investor in People understands the	organisation, teams and individuals
impact of its investment in people on	11 People understand the impact of the development of people on the
its performance	performance of the organisation, teams and individuals
	12 The organisation gets better at developing its people

 Table 9-4: Principles and Indicators of Investment in People Standard [A28]

The Standard also list activities, which can be evidence of good performance or ways to measure the indicators. Organisations who want to become Investors in People apply for the standard and are then assessed by an external assessor who judges performance against the standard and subsequently awards

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

(or not) Investors in People. An Investor in People is subjected to regular reviews, which will at most be three years apart. The standard can be implemented in a wide range of companies and currently more than 32000 organisations are recognised as Investors in People [A27]

However, the indicators can be interpreted as prescriptive and, if this is the only form of consultation involving staff, the standard might be counter-productive if the staff sees no results, i.e. change in management practices [A4].

9.1.8 Ethical Trading Initiative

The Ethical Trading Initiative (ETI) is an alliance of companies, NGO's and trade union organisations committed to cooperate to identify and promote ethical trade. Ethical trade is defined as "good practice in the implementation of a code of conduct for good labour standards, including the monitoring and independent verification of the observance of ethics code provisions as standards for ethical sourcing" [A29]. The ETI developed a base code, which all members are expected to sign up to. The code concerns two stakeholders, namely: employees and suppliers and has nine elements with sub-elements. The nine elements are:

- Employment is freely chosen
- Freedom of association and the right to collective bargaining are respected
- Working conditions are safe and hygienic
- Child labour shall not be used
- Living wages are paid
- Working hours are not excessive
- No discrimination is practised
- Regular employment is provided
- No harsh or inhumane treatment is allowed [A4].

One of the key strengths of the ETI base code is that, similar to SA8000, it is based on widely acknowledged ILO and UN standards. Although companies, NGO's and trade unions pay annual membership fees, it is not easy to become part of the ETI. An organisation, which wants to be considered for membership must do the following:

- indicate acceptance of the ETI's principles and purposes as well as commit to monitoring and independent verification; and
- indicate the willingness to participate in pilot projects and other ETI activities [A29].

In December 2003 ETI consisted of 55 organisations of which 34 were companies, 4 trade unions and 17 NGO's [A29]. This multi-constituency gives the initiative considerable credibility. However, the initiative is still in the early stages of existence and it is very involved in processes for development and improvement [A4].

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

9.1.9 The Natural Step Framework

Dr. Karl-Henrik Robèrt founded the Natural Step organisation in Sweden in 1989. Since then it has grown into an international organisation with a vision of the socially and ecologically sustainable society [A30]. The organisation has offices in 10 countries worldwide including South Africa [A31]. The organisation promotes a framework known as *The Natural Step Framework*, which can be used to orient public and corporate decision-making towards socio-ecological sustainability [A32]. The framework is based on four core principles also referred to as the four systems conditions for sustainability (See Table 9-5), which have been developed by an international network of scientists.

Table 9-5: Core Principles of the Natural Step Framework [A30].

"In a susta	unable society, nature is not subject to systematically increasing
1.	concentrations of substances extracted from the Earth's crust;
2.	concentration of substances produced by society;.
З.	degradation of physical means;
	and that in that society
4.	human needs are met worldwide."

Some view the Natural Step Framework as a non-certified global standard that has no specific stakeholder focus [A4], while others see is as a methodology for all environmental planning [A30]. The framework has nevertheless been applied for strategic planning purposes in 60 Swedish corporations and municipal authorities [A32]. Nevertheless, the Natural Step framework is not prescriptive and it does not judge [A4]. With regards to social sustainability issues the Natural Step have started to work on the dimension and it is in a development phase [A33].

9.1.10 International Environmental Management Standards

The development of extensive environmental regulations, the constant growth in environmental awareness together with the increase in the cost of environmental protection as well as legal liabilities caused industry to rethink the role of environmental management in business practices. Engineers and technical people no longer possessed all the competencies needed to manage environmental issues and a more pro-active approach was needed. This resulted in the specialised field of environmental management. An integrated Environmental Management System (EMS) can assist a company to manage, measure and improve the environmental aspects of its operations [A34]. Various standards were and are being developed in an effort to standardize procedures in environmental management. The three major standards are ISO 14000, BS 7750 and the European Union's EMAS. Table 9-6 compares the three standards [A35, A36, A37].

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

		BS 7750	EMAS	ISO 14000
Focus Area		Whole organization, can be applied to any sector or activity	Specific sites an/or industrial activities	Whole organization, covers all activities, products and services
Frequency Audits	of	Not specified	Maximum audit frequency at three years	Not specified can be negotiated
Focus Environmenta Performance	on al	Audit is not concerned with environmental performance	Auditing is concerned only with environmental performance and compliance with relevant environmental legislation.	It is a process standard; this implies that the standards does not tell companies what environmental performance they must achieve but it offers building blocks for an environmental management system that will assist companies in achieving their own performance goals
Information that must publicly available	be	Environmental policy programme and management system	Environmental Policy	Environmental Policy
Countries		UK and a few other	European Union	Internationally
Application		Open to non-industrial activities ¹	Non-Industrial Activities included on experimental basis	Applicable to non-industrial activities
Date Acceptance Standard	of of	1992	1993	1996
Criticized Aspects standard	of	 Standard can be obtained by <i>promising</i> to improve. Small companies find cost a problem. 	 Auditing Criteria are too vague. It costs too much. It badly disrupts activities of organizations. It may generate hostility from the public and workforce. 	 Standard does not require sufficient public disclosure of company's environmental impacts. Standard does not guarantee environmental performance or compliance with applicable national environmental legislation.

Table 9-6: Comparison between EMAS, BS 7750 and ISO 14000 [A35, A36, A37]

In South Africa ISO 14000 is the standard most often used for environmental management (see section 9.1.11 for a detail discussion), while BS 7750 has mostly been replaced by EMAS in the United Kingdom. The focus of these standards is nevertheless on the environmental dimension of sustainable development and social aspects are not generally included.

¹ Non-Industrial activities are activities like transport, local government, etc.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

9.1.11 ISO Family of Standards

In 1946, delegates from 25 countries gathered in London and created a new international organisation to facilitate the international coordination and unification of industrial standards, the International Organisation for Standardisation (ISO). Currently, ISO is a network of national standards institutions of 148 countries (one member institution per country) with a Central Secretariat that coordinates the system based in Geneva, Switzerland [A38]. ISO has published more than 14000 international standards, the vast majority of these standards are highly specific standards focused on a particular product, process or material. Industries communicate the need for standards to ISO's national members and if ISO decides to develop the particular standard, the task to develop the standard is assigned to an ISO technical committee [A38].

The two most well known ISO standards are the ISO 9000- and ISO 14000 standards. ISO estimates that 610 000 organisations in 160 countries worldwide have implemented either one or both of these standards [A39]. These two standards are generic management system standards and not product standards. ISO 9000 was issued in 1987 and is primarily concerned with quality management and the focus is on what an organisation does to:

- fulfil customers' quality requirements;
- fulfil applicable regulatory requirements;
- enhance customer satisfaction; and
- achieve continuous improvement with regards to the pursuit of the three objectives [A40].

The ISO 9000 family of standards are shown in Table 9-7 [A41]

Standard & Guidelines	Purpose
ISO 9000:2000, Quality management systems -	Establishes a starting point for understanding the
Fundamentals and vocabulary	standards and defines the fundamental terms and
	definitions used in the ISO 9000 family which you
	need to avoid misunderstandings in their use.
ISO 9001:2000, Quality management systems -	This is the requirement standard you use to
Requirements	assess your ability to meet customer and
	applicable regulatory requirements and thereby
	address customer satisfaction. It is now the only
	standard in the ISO 9000 family against which
	third-party certification can be carried.

Table 9-7: ISO 9000 Family of standards [A41]

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

Table 9-7: ISO 9000 Family of standards [A41] (continues)
ISO 9004:2000, Quality management systems -	This guideline standard provides guidance for
Guidelines for performance improvements	continual improvement of your quality
	management system to benefit all parties through
	sustained customer satisfaction.
ISO 19011, Guidelines on Quality and/or	Provides you with guidelines for verifying the
Environmental Management Systems Auditing	system's ability to achieve defined quality
(currently under development)	objectives. You can use this standard internally or
	for auditing your suppliers.
ISO 10005:1995, Quality management -	Provides guidelines to assist in the preparation,
Guidelines for quality plans	review, acceptance and revision of quality plans.
ISO 10006:1997, Quality management -	Guidelines to help you ensure the quality of both
<i>Guidelines to quality in project management</i>	the project processes and the project products.
ISO 10007:1995, Quality management -	Gives you guidelines to ensure that a complex
Guidelines for configuration management	product continues to function when components
	are changed individually
ISO/DIS 10012, Quality assurance requirements	Give you guidelines on the main features of a
for measuring equipment - Part 1: Metrological	calibration system to ensure that measurements
confirmation system for measuring equipment	are made with the intended accuracy
ISO 10012-2:1997, Quality assurance for	Provides supplementary guidance on the
measuring equipment - Part 2: Guidelines for	application of statistical process control when this
control of measurement of processes	is appropriate for achieving the objectives of Part
	<i>1.</i>
ISO 10013:1995, Guidelines for developing	Provides guidelines for the development, and
quality manuals	maintenance of quality manuals, tailored to your
1	specific needs.
ISO/TR 10014:1998, Guidelines for managing the	Provides guidance on how to achieve economic
economics of quality	benefits from the application of quality
	management.
ISO 10015:1999, Quality management -	Provides guidance on the development,
Guidelines for training	implementation, maintenance and improvement of
	strategies and systems for training that affects the
	quality of products.
ISO/TS 16949:1999, Quality systems - Automotive	Sector specific guidance to the application of ISO
suppliers - Particular requirements for the	9001 in the automotive industry.
application of ISO 9001:1994	5001 in the automotive maastry.
<i>uppication of 150 9001.1994</i>	

Table 9-7: ISO 9000 Family of standards [A41] (continues)

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

ISO 14000 was first issued in 1996 [A42], and focuses on environmental management and more specifically what an organisation does to:

- minimise harmful environmental effects caused by its activities; and
- achieve continual improvement with regards to its environmental performance

The ISO 14000 family of standards (see Figure 9-3) clearly distinguish between environmental management systems and environmental management tools. The standards take the view that the implementation of an EMS is of central importance in determining an environmental policy, objectives and targets for a company. The recommended environmental tools can assist a company in realizing these targets and objectives [A43].

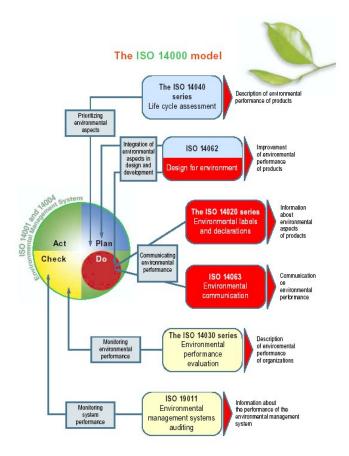


Figure 9-3: ISO 14000 family of standards

The ISO 9000 quality standard addresses one stakeholder group namely the customer, while ISO 14000 focuses on the environmental dimension of sustainability and thus on the environment as a stakeholder. Nevertheless, the focus of ISO 9000 and ISO 14000 is on the way in which an organisation do certain things and not on the results of the activities [A44].

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

9.1.12 Quality & Excellence Models

The Sigma Project regards the European Foundation Quality Model – Excellence Model as a standard or guideline relevant to sustainable development. In light of this the model together with two other Quality or Excellence Models have been chosen to analyse in more detail. The other two models are the Malcolm Baldrige National Quality Model and the South African Excellence Model.

9.1.12.1 European Foundation for Quality Management – Excellence Model

In 1988 14 Presidents of major European companies founded the European Foundation for Quality Management (EFQM). The European Commission endorsed the effort. The organisation was founded in order to develop a European framework for quality improvement along the lines of the Malcolm Baldrige Model in the USA. At the beginning of 1992 the European Model for Business Excellence, also known as the EFQM – Excellence Model, was published [A45]. The model can be used as a tool to develop a management system, which enables an organisation to be successful [A4]. The model is shown in Figure 9-4.

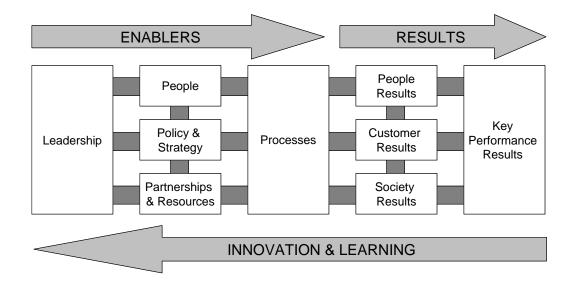


Figure 9-4: European Model for Business Excellence

The model consists of nine criteria of which five are enabler criteria and the other four results criteria. Enabler criteria cover the activities of the organisation i.e. what it does, while the results criteria cover what the organisation achieves. As can be seen in Figure 9-4 the enablers cause the results, while feedback from the results will help the organisation to learn, innovate and improve the enablers. The model is based on the premise that:

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

"Excellent results with respect to Performance, Customers, People and Society are achieved through Leadership driving Policy and Strategy, that is delivered through People Partnerships and Resources, and processes" [A46].

Although the model is a general model for managing performance it addresses the following stakeholder groups:

- employees People Enabler Criteria & People Results Criteria;
- customers Customer Results Criteria;
- society Society Results Criteria; and
- suppliers Partnerships and Resources Enabler Criteria.

The EFQM model recognizes that there are many approaches to achieve sustainable excellence and thus it offers a non-prescriptive framework with some fundamental concepts. The fundamental concepts are summarised in Table 9-8.

Table 9-8: Fundamental Concepts of EFQM Excellence Model [A46]

Results Orientation

Excellence is achieving results that delight all the organisation's stakeholders.

Customer Focus

Excellence is creating sustainable customer value.

Leadership & Constancy of Purpose

Excellence is visionary and inspirational leadership, coupled with constancy of purpose.

Management by Processes & Facts

Excellence is managing the organisation through a set of interdependent and interrelated systems, processes and facts.

People Development & Involvement

Excellence is maximising the contribution of employees through their development and involvement.

Continuous Learning, Innovation & Improvement

Excellence is challenging the status quo and effecting change by using learning to create innovation and improvement opportunities.

Partnership Development

Excellence is developing and maintaining value-adding partnerships.

Corporate Social Responsibility

Excellence is exceeding the minimum regulatory framework in which the organisation operates and to strive to understand and respond to the expectations of their stakeholders in society.

The Excellence Model is also the basis for judging entrants to the European Quality award, which has been awarded annually since 1992 [A45].

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

9.1.12.2 Malcolm Baldrige National Quality Program

On the 20th of August 1987 the United States Congress signed into law Public Law 100-107, which created the Malcolm Baldrige National Quality Award and Program. The goal of this was to enhance the competitiveness of the United States of America. Since 1988 the Malcolm Baldrige National Quality Award has been awarded annually [A47]. Currently, there are eight categories of awards namely: Manufacturing, Service, Small Business, Education: Not-for-profit, Education: For-profit with more than 500 faculty or staff members, Education: For-profit with less than 500 faculty or staff members, Healthcare with more than 500 staff members and Healthcare with less than 500 staff members.

Companies submit award applications to the Program. Up till 2003, there have been 939 applicants for the Malcolm Baldrige National Quality Award. Each applicant has received vigorous evaluations by the Board of Examiners using the Criteria for Performance Excellence developed by the Malcolm Baldrige National Quality Program. The criteria are divided into seven categories and can be viewed from a systems perspective (see Figure 9-5) [A48].

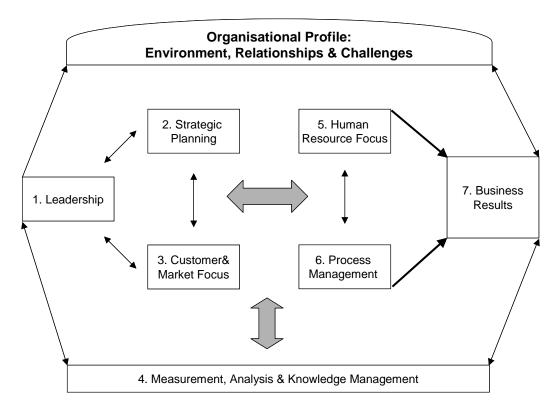


Figure 9-5: Malcolm Baldrige Criteria for Performance Excellence: A systems perspective [A48]

Each category consists of various items (19 in total), which, in turn, each consists of areas to address. Organisations must address their responses to the requirements of each area of concern, which are listed in the Baldrige documentation. The criteria assessment adds to 1000 points (see Table 9-9)[A48].

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

Any organisation can use the Baldrige framework of criteria to improve its overall performance since the framework can also be used for self-assessment (scoring guidelines are provided), which is highly recommended by the program. The Baldrige criteria address four types of performance, namely:

- customer-focused performance;
- product and service performance;
- financial and marketplace performance; and
- operational performance

The criteria is also build on a set of core concepts, these are: Visionary leadership, Customer-driven excellence, Organizational and personal learning, Valuing employees and partners, Agility, Focus on the future, Managing for innovation, Management by fact, Social responsibility, Focus on results and creating value and a Systems perspective.

Criteria	Points
1. Leadership	120
1.1 Organisational Leadership	70
1.2 Social Responsibility	50
2. Strategic Planning	85
2.1 Strategy Development	40
2.2 Strategy Deployment	45
3. Customer & Market Focus	85
3.1 Customer & Market Knowledge	40
3.2 Customer Relationships & Satisfaction	45
4. Measurement, Analysis & Knowledge Management	90
4.1 Measurement and Analysis of Organizational Performance	45
4.2 Information & Knowledge Management	45
5. Human Resource Focus	85
5.1 Work Systems	35
5.2 Employee Learning & Motivation	25
5.3 Employee Well-being & Satisfaction	25
6. Process Management	85
6.1 Value Creation Processes	50
6.2 Support Processes	35

Table 9-9: Baldrige Criteria Categories & Items [A48]

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

7. Business Results	450	
7.1 Customer-Focused Results	75	
7.2 Product and Service Results	75	
7.3 Financial and Market Results	75	
7.4 Human Resource Results	75	
7.5 Organizational Effectiveness Results	75	
7.6 Governance and Social Responsibility Results	75	
TOTAL	1000	

The Baldrige Framework of criteria addresses the same stakeholder groups as the EFQM Excellence Model. The Baldrige Framework and the EFQM Excellence model differ in their approach to excellence and quality, but the content of the two models is very similar [A49]

9.1.12.3 South African Excellence Model

In August 1997 the South African Excellence Foundation was established. The foundation's main purpose is to "manage and promote continuous improvement through the use of the South African Excellence Model (SAEM)" [A50]. The SAEM combines the best of the Baldrige National Quality Program in the USA and the EFQM Excellence Model [A50]. The process also relies on self-assessment to enable organisations to determine their level of performance excellence. An Awards programme offers recognition to companies. The Model consists of enabler and result criteria (see Figure 9-6) and the self-assessment again adds up to 1000 points [A51].

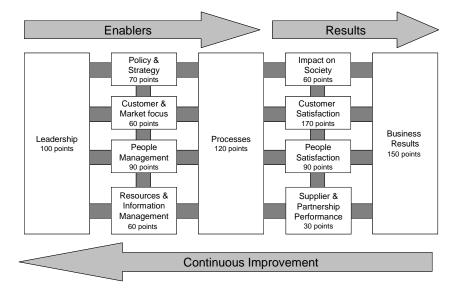


Figure 9-6: South African Excellence Model [A51]

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

In December 2003 the South African Excellence Foundation had 95 registered members [A52]. The foundation is also a member of the Global Network of Excellence Award Administrators and is recognised by the South African Department of Trade and Industry. Furthermore, the SADC Council of Ministers has in principle approved the use of the SAEM as a basis for the SADC Quality Award, which will be awarded in the near future [A50].

Criterion 7, namely impact on society, is very relevant to social business sustainability. The criteria looks at what the organisation is achieving in satisfying the needs and expectations of the local, national and international community at large. It consists of two sub-criteria namely:

- society's perception of the organisation 15 points (25% of the total points); and
- additional measurements of the organisation's impact on society 45 points (75% of the total points).

9.1.13 Conclusion & Comparison

The popularity and percentage of use of the various standards and guidelines differ dramatically, also between regions. The World Bank Group's CSR Practice conducted a series of in-depth interviews with executives of 107 multinational enterprises (average annual revenues of US\$ 15.5 billion) in the extractive, agribusiness, and manufacturing sectors between December 2002 and March 2003 [A53]. One of the aspects discussed has been the influence of different standards or guidelines on the businesses. Figure 9-7 shows those standards identified by the most respondents as influencing their business (this excludes any industry specific standards).



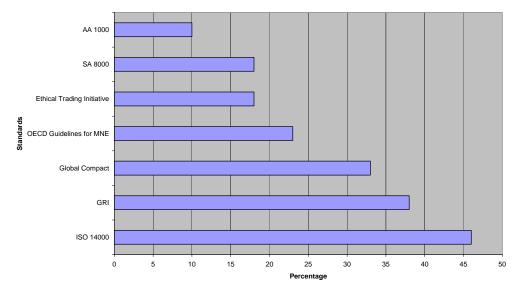
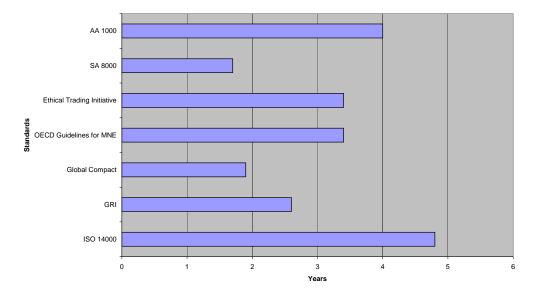


Figure 9-7: Influence of International Standards or Guidelines on Businesses [A53]

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

However, the study also looked at the number of years that a specific standard has influenced the business (see Figure 9-8). It is evident from this study that the influence of standards has increased in recent years, especially over the last 5 years. In addition it is interesting to note that environmental standards (e.g. ISO 14000) have influenced companies for far longer than more traditional social standards (e.g. SA 8000). Furthermore integrated sustainable development standards or guidelines (e.g. GRI) have only started to influence companies in the last 3 years.



Mean years standard/forum reported to be influencing respondent

Figure 9-8: Mean years standard reported to be influencing respondent

It is concluded that the international guidelines and standards are definitely supporting the drive to force business to align their activities with the principles of sustainable development. Furthermore these guidelines and standards offer valuable information and processes to help businesses achieving the goal. However, no single guideline or standard are specifically aimed at projects. Furthermore although some provide criteria and in some instances indicators to measure progress none contains a clear framework that addresses all aspects of sustainable development. There is thus a distinct difference between sustainable development frameworks, and international guidelines or standards that may be directly or indirectly focused on sustainable development.

In addition, although most of the guidelines and standards included specific aspects of the social dimension of sustainable development, the primary focus of these aspects is mostly on the internal social dimension (i.e. workforce) and on stakeholder engagement. The impact of the business on the external society is thus not really addressed by these guidelines and standards. Therefore it is concluded that although the international guidelines and standards are definitely drivers of business sustainability, it does not address all aspects of the social dimension of sustainable development.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

9.2 Frameworks to assess or measure Sustainable Development

Frameworks to assess Sustainable Development can be viewed as a support driver for business sustainability. The origin of these frameworks can be traced back to the outcomes of the 1992 Earth Summit since chapter 40 of Agenda 21 calls on governments (at national level) and non-governmental organizations to develop indicators of sustainable development that can provide a solid basis for decision-making at all levels [A54]. Agenda 21 goes one step further to specifically call for the harmonization of indicator development efforts at the regional, national and global levels. The incorporation of these indicators into widely accessible reports and databases is also suggested.

Numerous efforts to develop sustainable development indicator frameworks have thus been undertaken. Most of these attempts have a strong community, regional or national focus [A55]. A few frameworks with a specific industry focus have also been proposed, although not all dimensions of sustainable development is addressed by these initiatives. Table 9-10 provides an overview of the initiatives to measure sustainability or aspects thereof.

	Economic	Environmental	Social	Integrated
	Performance	Performance	Performance	sustainability
Number of initiatives	Accounting standards	Many	Few	Handful
Developmental stages	Mature	Moving towards standardisation	Infancy	Embryonic
Business penetration	Mainstream	Moving towards mainstream	Limited (niche)	Very limited
Public reporting	Mandatory	Mandatory and voluntary	Mostly voluntary	Voluntary
Linkages to other sustainability dimensions	None	Eco-efficiency	None	Multiple
Utility of information outside companies	Universal	Multiple	Narrow	Potentially large
Current focus	Company	Company, facility, product	Company, project	Company, product

 Table 9-10: Overview of current practice in sustainable development measurement [A56]

These indicator frameworks are acting as support drivers to help businesses to align their practices with the principles of sustainable development. Five proposed frameworks are chosen as a representation of frameworks available for business and are reviewed in more detail.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

The five frameworks are:

- United Nation's Commission on Sustainable Development's Indicator Framework
- Global Reporting Initiative (GRI)
- Sustainability Metrics of the Institution of Chemical Engineers
- Wuppertal Sustainability Indicators
- Azapagic & Perdan's Sustainable Development Indicators for Industry

9.2.1 United Nation's Commission on Sustainable Development's Indicators of Sustainable Development

The United Nation's Commission on Sustainable Development (CSD) started with a Work Programme on Indicators of Sustainable Development in 1995 [A57]. In 2000 a final report was published that describes the approach as well as the main themes and sub-themes together with suggested indicators. The indicators suggested by the commission have been tested in 22 countries covering all regions of the world.

The final framework has been derived from a driving force-state-response and all the indicators are organized under the four primary dimensions of sustainable development as defined by Agenda 21: social, environmental, economic and institutional. These four dimensions are dealt with by means of 15 themes and 38 sub-themes. Core indicators are suggested for the sub-themes and a methodology sheet for each indicator has been developed that provides the unit of measurement, policy relevance, methodological description, guidelines on assessment of data as well as the names of agencies involved with the development of the indicator. The main themes are shown in Figure 9-9.

The theme framework addresses the following considerations: future risks, correlation between themes, sustainability goals and basic societal needs. It is believed that the framework can be a proactive tool to assist decision-making [A58]. The framework has been used as a basis by numerous nations [A59]. The aspects addressed by the framework are not all relevant to the business community, and definitely not on an operational and project level. However, the framework provides insight into what sustainability entails on a national level, and clearly shows in which areas business can consider making a contribution.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

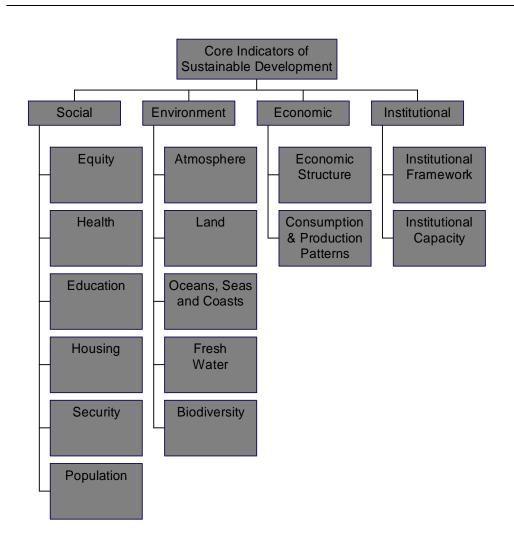


Figure 9-9: The United Nations CSD theme indicator framework

9.2.2 Global Reporting Initiative

In 1997 the Coalition for Environmentally Responsible Economies (CERES) (a United States of America NGO) and the United Nations Environment Programme launched the Global Reporting Initiative (GRI) with the goal of enhancing the quality, rigor and utility of sustainability reporting. The goal of the GRI is to develop a set of reporting guidelines with the aim of achieving worldwide consensus. These reporting guidelines consist of reporting principles, a generic content of a sustainability report and performance indicators. The performance indicators are structured according to a hierarchy of category, aspect and indicators and address the social, environmental and economic performance of a company (see Table 9.11). There are six categories in total, one for economic aspects, one for environmental aspects and four for social aspects. The GRI proposes both qualitative and quantitative indicators [A60].

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

	Category	Aspect	
	Direct Economic Impacts	Customers	
Economic		Suppliers	
		Employees	
		Providers of Capital	
		Public Sector	
	Environmental	Materials	
		Energy	
		Water	
ıtal		Biodiversity	
mer		Emissions, effluents, and waste	
Environmental		Suppliers	
Env		Products and services	
I		Compliance	
		Transport	
		Overall	
	Labour Practices and Decent Work	Employment	
		Labour/Management relations	
		Health & Safety	
		Training & Education	
		Diversity & Opportunity	
	Human Rights	Strategy & Management	
		Non-discrimination	
		Freedom of association & collective bargaining	
		Child Labour	
		Forced & Compulsary labour	
		Disciplinary Practices	
		Security Practices	
		Indigenous Rights	
	Society	Community	
		Bribery & Corruption	
		Political Contributions	
		Competition & Pricing	
	Product Responsibility	Customer Health& Safety	
	- To care responsioner	Products & Services	
		Advertising	
		Respect for Privacy	

Table 9-11: The Structure of the Global Reporting Initiative (GRI) Indicator Framework [A60]

The guideline contains more than 100 indicators. However, not all the indicators are easy to evaluate and no guidance is given on how to choose between the indicators or how to calculate some of the suggested indicators [A61]. Other disadvantages of the framework are:

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

- Since no clear and operative definition of sustainability is provided, it lacks a direction in which business should be moving [A62].
- The guidelines are extremely time-consuming since it requires extensive descriptive information.
- The focus of the GRI guidelines has been multinational companies and therefore the needs and capabilities of small and medium-sized companies and companies in developing countries are excluded [A61].
- The strong focus on reporting can steer companies away from the real issue of performance [A4]
- The weakness on social indicators [A4], since most are qualitative or descriptive information required and are thus not measuring performance.

The guideline does, however, indicate what should be considered at a lower level, i.e. operational or project level within the company, especially if the company reports on sustainability using the GRI principles. Furthermore, the GRI guidelines provides a common framework for companies to report their sustainability performance and thus makes it easier to compare sustainability reports as well as performance and enables external benchmarking [A61]. The GRI initiative held a series of roundtable across the globe during 2004 to discuss the guidelines and the future development thereof. Currently 366 companies in 32 countries worldwide use the GRI for sustainability reporting [A63]. In South Africa there are 19 companies that follow the GRI guidelines of which four are in the mining industry, six in the financial service industry and three in the process industry. Other companies are in food and beverage, energy supply, construction or water supply industries, or conglomerates [A64].

9.2.3 Azapagic & Perdan's Indicator Framework

Azapagic and Perdan [A65] proposed a general sustainable development framework for industry (see Table 9-12). The framework has a specific business focus and is based on sustainable development being defined as "*satisfying social, environmental and economic goals*" [A65]. It thus does not acknowledge the fourth dimension of sustainable development (i.e. institutional dimension) as defined by the United Nations CSD. The criteria that are proposed are very general and not all the indicators will be appropriate to all companies. Furthermore, specific indicators for different sectors or different business operations (e.g. projects) will have to be defined separately. The indicator framework does however provide definitions for all the proposed indicators and guidelines how to determine the indicator values.

The indicator framework has been used as a basis for the indicator framework developed by the IChem^E (see section 9.2.4) [A66].

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

ENVIRONMENTAL	ECONOMIC	SOCIAL INDICATORS Ethics Indicators	
INDICATORS	INDICATORS		
Environmental Impacts	Financial Indicators		
 Environmental Impacts Resource Use Global Warming Ozone Depletion Acidification Eutrophication Photochemical smog Human Toxicity Ecotoxicity Solid Waste Environmental Efficiency Material and energy intensity Material Recyclability Product Durability Service Intensity Voluntary Actions Environmental improvements above the compliance levels Assessment of suppliers 	 Financial Indicators Value Added Contribution to GDP Expenditure on environmental protection Environmental Liabilities Ethical Investments Human-capital indicators Employment contribution Staff turnover Expenditure on health and safety Investment in staff development 	 Ethics Indicators Preservation of cultural values Stakeholder inclusion Involvement in Community Projects International standards of conduct Business dealings Child labour Fair prices Collaboration with corrupt regimes Intergenerational equity Welfare Indicators Income distribution Work Satisfaction Satisfaction of social needs 	

Table 9-12: Indicators of Sustainable Development for Industry: a general framework [A65]

9.2.4 IChem^E Sustainability Metrics for the Process Industries

The Sustainable Development Workgroup of the Institution of Chemical Engineers (IChem^E) has developed sustainability metrics that can be used by the process industry to measure the sustainability performance of an operating unit. The triple bottom line approach is followed and it is recommended that companies use the metrics to set targets in order to monitor annual progress and to develop internal benchmarking standards [A67]. Sub-themes with indicators are proposed for economic, environmental as well as social impacts (see Figure 9-10). Standard evaluation forms and conversion tables are provided. The framework does not address the institutional dimension of sustainable development.

Interestingly, the economic indicators that address the internal economic stability and health of the company have a strong internal focus. This framework is less complex and impact oriented. However, the framework strongly favours environmental aspects, as well as quantifiable indicators that may not be practical in all operational practices, e.g. in the early phases of a project's life cycle. Statistics on the use of the framework is not available.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

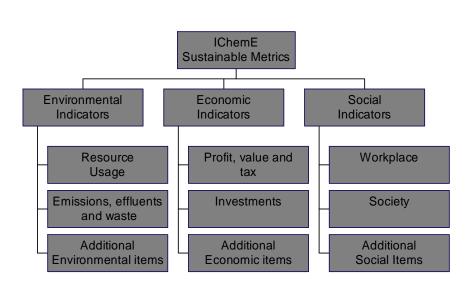


Figure 9-10: IChem^E sustainability metrics

9.2.5 Wuppertal Institute's Indicators of Sustainable Development

In 1998 the Wuppertal Institute published a working paper in which it discusses an approach to sustainable development indicators [A68]. The Wuppertal approach acknowledges the four dimensions of sustainable development as defined by the United Nations CSD. The approach also recognizes the importance of the interlinkages between these four dimensions and states that focusing exclusively on the four dimensions would carry the risk of loosing the coherence of the approach [A68]. The goal of the Wuppertal approach is not to compromise between the different goals of the four dimensions of sustainable development but rather to search for integrated approaches and 'win-win' situations. The Wuppertal approach is graphically illustrated in Figure 9-11.

The indicator framework proposed is applicable both on a macro (national) and micro (business) level. The approach used for business social sustainability deserved more discussion. The United Nations Development Programme (UNDP) Human Development Index (HDI) has been adapted to form a Corporate Human Development Index (CHDI) that can be used to measure or assess social sustainable development aspects. The Corporate Human Development Index consists of three main components:

- Quality of Industrial Relations and Labour Conditions;
- Education: Input and Maintenance of Human Capital; and
- Income Level and Distribution.

It is proposed that, similar to the HDI, the CHDI can have various adjusted versions, amendments and refinements, e.g. a gender-adjusted CHDI [A69].

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

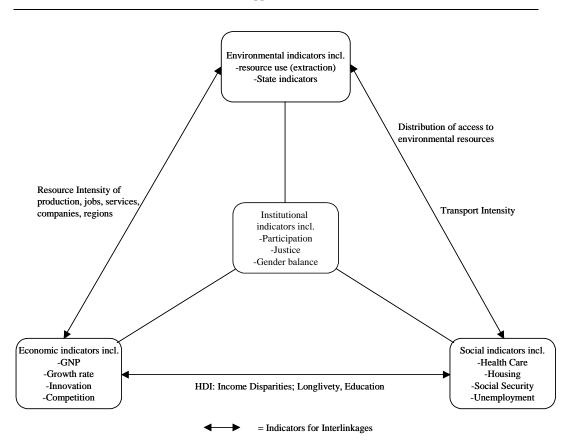


Figure 9-11: Sectoral and Interlinkage indicators as proposed by the Wuppertal Institute [A68]

At the time of the analysis the indicator framework has not been implemented in a business environment yet, although the European Aluminium Industry took parts of it for a CSR reporting scheme, which is under development [A70].

9.2.6 European Union's Conceptual Framework of Social Indicators

The new priority given to social reporting activities forced the European Union to look at the standards of social reporting within its boundaries. The Union realised in order to enhance European integration and cohesion to create a "Social Europe", appropriate knowledge and systematic information on the social conditions within and across European societies will be of crucial importance. It set out to develop a conceptual framework of social indicators. The approach to develop the framework focuses on:

- identify and specify the goal dimensions of the welfare development in Europe;
- based on the goal dimensions define measurement dimensions; and
- develop indicators for each measurement dimension [A71].

Six goal dimensions have been structured around three welfare concepts, namely:

• Quality of Life;

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

- Social Cohesion; and
- Sustainability [A71].

The six goal dimensions are:

- Improvement of Objective Living Conditions;
- Enhancement of Subjective Well-Being;
- Reduction of Disparities Equal Opportunities Social Exclusion;
- Strengthening Social Connections and Ties Social Capital;
- Enhancement/Preservation of Human Capital; and
- Enhancement/Preservation of Natural Capital [A71].

Measurement dimensions have been defined around fourteen life domains. For each life domains the relevant goal dimensions have been listed and possible measurements to assess the goal dimension in the specific life domain are suggested. The fourteen life domains are:

- Population;
- Households and Families;
- Housing;
- Transport;
- Leisure, Media and Culture;
- Social and Political Participation and Integration;
- Education and Vocational Training;
- Labour Market and Working Conditions;
- Income, Standard of Living and Consumption Patterns;
- Health;
- Environment;
- Social Security;
- Public Safety and Crime; and
- Total Life Situation [A71].

Twenty European countries are participating and the results will be combined into results for the European Union which will be compared with indicators of highly industrial countries such as the United States of America and Japan [A71].

9.2.7 General comments on the frameworks

Although a framework to organise the indicators is essential, it must be realised that a framework by itself is not able to express the complexities and interrelationships encompassed by sustainable development. Furthermore, the needs and priorities of the users will to a large degree influence the choice of a framework and core set of indicators [A58]. It is evident that although the five frameworks

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

that have been discussed provide a basis to work from, not one of the frameworks can directly be applied to projects. In addition the four frameworks applicable to industry clearly support the view that far less work has been done on the social dimension of business sustainability [A33].

9.3 Corporate Social Responsibility: Indicators, Measurements, Standards and Models.

9.3.1 Ethos Corporate Social Responsibility Indicators

The Ethos Institute for Business and Social Responsibility launched the first edition of the Ethos Corporate Social Responsibility Indicators in 2000 (the second edition of the indicators was launched in June 2001). The indicators can be used as a tool to support the monitoring and management of social responsibility practices of a company. The institute views social responsibility as more than only social actions developed by the company in a community, and states that stakeholder dialogue and stakeholder interaction are core elements of corporate social responsibility. [A72].

The Ethos Indicators are divided into 7 themes, namely: Values & Transparency, Workplace, Environment, Suppliers, Consumers or Customers, Community and Government and society. Each theme is divided into sub-themes (see Figure 9-12) and questions are asked to determine the performance or progress made with the specific aspect. The questionnaire methods that are used to determine indicator values for each sub-theme are: binary responses (yes/no); Numerical responses (percentage values, etc.) and evaluation scales. Companies can voluntarily complete the indicator questionnaire and send it back to the institute, which will then send personalized reports of the analysis of the results. In April 2001, 71 companies have completed the questionnaire of which most have more than 500 employees and are trading in Brasilia [A72].

The framework addresses two dimensions of sustainability, namely the social and environmental dimension from a business perspective. It thus view business environmental sustainable performance as a corporate responsibility. Furthermore the framework acknowledges that the social dimension has an internal (workplace) as well as external (broader society) focus. The idea of taking responsibility further into the supply chain is promoted by having suppliers as a main theme. Nevertheless, due to the specific use thereof, the framework cannot be classified as an international framework yet.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

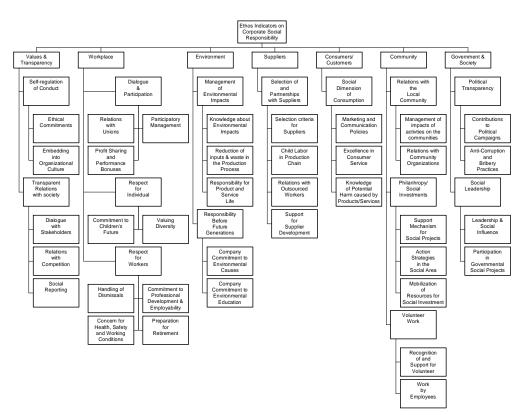


Figure 9-12: Ethos Corporate Social Responsibility Indicator Framework

9.3.2 Standards of Corporate Social Responsibility of the Social Venture Network

In 1987 a group of business and social entrepreneurs created *Social Venture Networks*, since they shared the belief that business can be a potent force for solving social problems. Social Venture Networks has become a forum where members debate, demonstrate and evaluate the practices, rationales and consequences of corporate social responsibility. The group started working on a set of standards for corporate social responsibility in 1995 since it is believed that social responsibility is a dynamic process concerned with good behaviour, which is the result of making decisions balancing the interests of all affected people. Furthermore, it is stated that there is not a generic prescription to be socially responsible since there is no such thing as a generic company [A73]. In 1999 a set of nine standards were published, the nine standards are:

- Ethics
- Accountability
- Governance
- Financial Returns
- Employment Practices
- Business Relationships
- Products and Services

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

- Community Involvement
- Environmental Protection

For each standard the following information is provided:

- Principle a brief value statement.
- Practices examples of how a company can improve performance relative to the standard.
- Measures examples of qualitative, quantitative and monetary indicators that can be use to measure performance relative to the standard.
- Resources a list of potential sources of additional information, tools, techniques or organisations that can assist a company in improving performance relative to the standard [A73].

The standards acknowledge six stakeholder groups, namely: investors, employees, business partners, customers, community and the environment. It thus addresses three dimensions of sustainable development, i.e. economic, social and environmental. Furthermore, it supports concepts such as product stewardship and greening the supply chain, while emphasising the importance of stakeholder dialogue. The standards act as a guideline document which companies can use to measure and improve their corporate social responsibility.

9.3.3 The Danish Ministry of Social Affairs' Social Index

In 2000 the Danish Ministry of Social Affairs published the *Social Index*, a tool, which can be used to determine the degree to which a company lives up to its social responsibilities. The tool was developed in collaboration with KPMG and the Socialforskningsinstituttet and it has been tested by a large group of public and private companies. The Social Index has four applications:

- Management tool assist in formulating and evaluating social objectives and measures.
- Communication tool inform stakeholders of social actions.
- Training tool creating social awareness in the workforce by using the tool.
- Comparison tool can compare results to previous results or use tool to benchmark company against other companies [A74].

The outcome of the tool is a social index value between 0 and 100 and the value can be interpreted on a scale provided. The social index is determined by evaluating the worksheets, which the company must complete. The worksheets consist of three sections, which each consist out of a set of statements, twenty-four statements in total. Each statement is evaluated by listing actions, which must be evaluated against a scale ranging from "*not at all*" to "*nearly always*" and then determining an average score for the statement. The statements have weights assigned to them and a weighted score is determined for each section. The sections also have weights assigned to them, which is then used to determine the social index [A74]. The sections and statements together with their weights are listed in Table 9-13.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

Table 9-13: Social Index dimensions and statements [A74]

Description	Weighting
What we want	0.20
1. Top Management is committed to the company assuming social responsibility	0.30
2. Top Management sets aside resources for implementing social responsibility	0.30
3. The company is committed to demonstrating its social responsibility to the outside	0.20
world	
4. The company has an overview of the possibilities for assuming social responsibility	0.20
both internally and externally	
What we do	0.50
5. The company assumes social responsibility when recruiting	0.10
6. The company takes social account of the family and leisure interests of its	0.10
workforce	
7. The company takes social aspects into account in changes and fluctuations in	0.05
demand	
8. The company takes social consideration into account in dismissals	0.05
9. The company holds on to workers at risk of exclusion from the labour market	0.10
10. The company takes social considerations into account when workers are sick	0.10
11. The company takes social considerations into account when workers retire from	0.05
the labour market	
12. The company prevents work-related injuries, poor health and resulting subsequent	0.10
social exclusion from the labour market	
13. The company trains and develops its workers to prevent later social exclusion from	0.10
the labour market	
14. The company participates in local social partnerships	0.05
15. The company is open to society	0.05
16. The company is open to society (B)	0.05
17. The company requires its subsidiaries, suppliers and clients to assume social	0.10
responsibility	
What we get	0.30
18. Quantitative indicators show that the company's efforts yield desired results	0.20
19. Qualitative indicators show that the company's efforts yield desired results	0.20
20. Social responsibility is integrated throughout the company	0.20
21. Workers are satisfied with the company's handling of social responsibility	0.10
22. The local community is satisfied with the company's handling of social	0.10
responsibility	
23. Customers and suppliers are satisfied with the company's handling of social	0.10
responsibility	
24. In general, the company handle its social responsibility well	0.10

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

9.3.4 Corporate Social Performance Model

Corporate Social Performance is concerned with a company's performance with regards to its responsibility towards society. Wood [A75] defined corporate social performance as "*a business organisation's configuration of principles of social responsibility, processes of social responsiveness, and policies, programmes and observable outcomes as they relate to the firm's societal relationships*". Wartick and Cochran first proposed a model for Corporate Social Performance in 1985 [A76]. The model was adapted by Wood in 1991 [A75] and refined by Wood and Wartick in 1998 [A77]. The refined model is shown in Figure 9-13. The model consists three elements namely:

- Principles of Corporate Social Responsibility
- Processes of Corporate Social Responsiveness
- Outcomes of Corporate Behaviour

The principles state the basic values that motivate companies to respond to social pressures, i.e. why should a company be socially responsive? The processes show what companies are to do in order to be socially responsive, while the outcomes show the result of the actions of social responsiveness. The model thus shows companies why they should take action with regards to corporate social responsibility, what they should do, and what the outcomes of their actions must be.

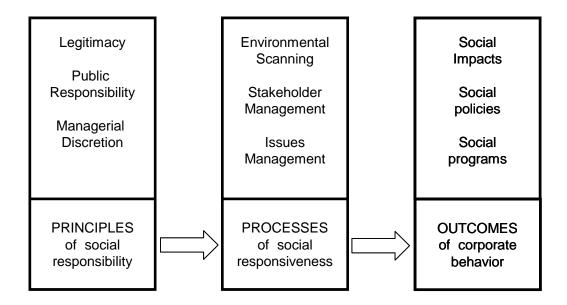


Figure 9-13: Corporate Social Performance (CSP) Model [A77]

The CSP Model mainly addresses the social dimension of sustainability, although the environmental dimension is mentioned in the process block. The model does not include any indicators or measurements to measure progress with regards to social performance, but merely aims to improve the understanding of corporate social performance by stating what the necessary processes and outcomes for it is. Hopkins [A78] identified this shortcoming of the model and defined indicators and ways to

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

measure the indicators for all aspects of each element. In order to so, the outcomes have been refined as internal stakeholder effects and external stakeholder effects (see Table 9-14).

Table 9-14: Indicators and Measures for the CSP Model [A78]

Elements of CSP Model	Indicator			
Level 1: Principles of Social Responsibility				
Legitimacy	- Code of Ethics Published			
	- Code of Ethics distributed to employees			
Public Responsibility	- Litigation involving corp	orate lawbreaking		
	- Fines resulting from illeg	al activities		
	- Contribution to innovation	'n		
	- Job creation			
Managerial Discretion	- Training in Code of Ethic	es to managers and employees		
	- Managers convicted or il	legal activities		
Level 2: Processes of Social Re	esponsiveness			
Environmental Scanning	- Mechanism to review soo	cial issues relevant to firm		
Stakeholder Management	- Existence of an analytica	l body for social issues as integral part of policy		
	making			
	- Existence of Social audit	s		
	- Existence of Ethical acco	unting statements		
Issue Management	- Policies made on basis of	analysis of social issues		
Level 3: Outcomes of Corpora	ate Behaviour			
	Stakeholder Groups	Indicator		
Internal Stakeholder Effects	Owners	- Profitability/value		
		- Corporate irresponsibility or illegal activity		
		- Community welfare		
		- Corporate philanthropy		
		- Code of Ethics		
	Managers	- Code of Ethics		
	Employees	- Union/staff relations		
		- Safety Issues		
		- Pay, Pensions and benefits		
		- Layoffs		
		- Employee ownership		
		- Women and minority policies		
External Stakeholder Effects	Customers/Consumers	- Product Recalls		
		- Litigation		
		- Public product or service controversy		
		- I ublic product of service controversy		

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

Natural Environment	- Toxic Waste
	- Recycling and use of recycled products
	- Use of eco-label on products
Community	- Corporate giving to community programmes
	- Direct involvement in community
	programmes
	- Community controversy or litigation
Suppliers	- Firm's code of ethics
	- Supplier's code of ethics
	- Litigation/fines
	- Public controversy

Table 9-14: Indicators and Measures for the CSP Model [A78] (continues)

9.4 Socially Responsible Investment

Socially Responsible Investment (SRI) started as a fringe interest for small investors with strong views on the environment and human rights [A79]. However, SRI has come a long way in the past 20 years and has especially grown in popularity in the last decade, specifically in countries in Europe, Australia and South Africa, while the uptake in the United States has been considerably less [A80]. For example, in the United Kingdom SRI already accounts for 5% of all funds invested [A81]. Nevertheless, an exact definition of Socially Responsible Investment, recently also referred to as "sustainable investment", does not exist [A79]. The main difference between SRI and normal investment is that in SRI companies must meet specific social and environmental criteria prior to investment. These criteria differ between investors and investment firms. For example, some investors want to avoid companies manufacturing weapons, tobacco or alcohol, while others want to avoid companies that excessively damage the environment. The more radical approach is to search for companies that are breaking new ground in social and environmental performance and to invest in those [A79]. Social investors (i.e. investors that support SRI) use three basic tools to assist them, namely: social and environmental screening, shareholder advocacy and community investing [A82].

A European survey carried out at the end of 2001 revealed a high degree of confidence in SRI. The survey covered nine European states and involved 197 fund managers and 195 financial analysts. The respondents were asked what the issues are that are taken into account when recommending or selecting investments for a social investor or socially responsible fund [A83]. The top seven criteria are shown in Figure 9-14.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

Criteria	Percentage of respondents who
	consider criteria
Respect for Human Rights	86%
Good corporate governance	85%
Communications and transparency on social practices	85%
Environmental Policy	85%
Quality of consumer relations	76%
Work conditions and atmosphere	73%
Trading policy/policy for employees' employability	68%

Figure 9-14: Criteria considered by SRI fund managers and analysts [A83]

There are currently three indexes in the world that measures only SRI companies, these are:

- Dow Jones Sustainability Index
- FTSE4Good Index
- JSE SRI Index [A84].

The requirements of these three indexes together with the requirements of the the *Domini 400 Social Index*SM are discussed in more detail.

9.4.1 Dow Jones Sustainability Indexes

The Dow Jones Indexes and SAM Sustainability group launched the Dow Jones Sustainability Group Index (DJSGI) in September 1999. This was the first global sustainability equity index. The DJSGI consists of the top 10% of companies with regards to sustainability performance in each of the 64 industry groups in the Dow Jones Global Index. The DJSGI has grown into a family of regional and specialized indexes. The regional indexes are: DJSGI World Index, DJSGI Europe index, DJSGI North America index, DJSGI Asia Pacific Index, DJSGI USA Index. The specialized indexes are: DJSGI excluding Alcohol indexes, DJSGI excluding gambling indexes, DJSGI excluding Tobacco indexes, DJSGI world Index, while the specialized indexes are derived from the relevant regional index and are thus subsets of the regional indexes [A85].

The sustainability performances of companies are determined by using the Corporate Sustainability Assessment methodology of SAM research, which is based on the application of general - and industry specific criteria to assess opportunities and risks deriving from economic, environmental and social dimensions. The criteria quantify the sustainability performance of a company by assigning a corporate sustainability score to the performance. The criteria and the relevant weights of each are shown in Table 9-15 [A86].

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

Dimension	Criteria	Weighting (%)
Economic		30.6
	Codes of Conduct / Compliance / Corruption & Bribery	3
	Corporate Governance	5.4
	Customer Relationship Management	3
	Financial Robustness *	3.6
	Investor Relations	2.4
	Risk & Crisis Management	3.6
	Scorecards / Measurement Systems	4.2
	Strategic Planning	5.4
	Industry Specific Criteria	Depends on industry
Environment		9
	Environmental Policy / Management	3
	Environmental Performance	4.2
	Environmental Reporting *	1.8
	Industry Specific Criteria	Depends on industry
Social		20.4
	Corporate Citizenship / Philanthropy	2.4
	Stakeholder Engagement	4.2
	Labour Practice Indicators	3
	Human Capital Development	1.8
	Knowledge Management / Organisational Learning	3
	Social Reporting *	1.8
	Talent Attraction & Retention	2.4
	Standards for Suppliers	1.8
	Industry Specific Criteria	Depends on industry
Industry Specific	· Criteria	40

Table 9-15: SAM Corporate Sustainability Assessment Criteria [A86]

* Criteria assessed based on publicly available information only

The following sources of information are used to determine criteria values:

- Questionnaires completed by the company;
- Company Documents;
- Internet/ Other publicly available information;
- Media and Stakeholder analysis; and
- Personal contact with the companies [A86].

The questionnaire changes regularly and consists of three dimensions: Environmental, Economic and Social. The 2003 general questionnaire consisted of 73 questions of which 28 addressed the economic

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

dimension, 18 the environmental dimension and 27 the social dimension. The social dimension has been further analysed (see Table 9-16) [A87].

Section	Number of Questions
1. Labour Practice Indicators	3
2. Human Capital Development	5
3. Talent Attraction & Retention	10
4. Knowledge Management/ Organisational Learning	3
5. Standards for Suppliers	1
6. Stakeholder Engagement	2
7. Corporate Citizenship / Philanthropy	3

Table 9-16: Analys	sis of Social Dimer	nsion of 2003 SA	AM Questionnaire	[A87]

The credibility of the assessment method has been criticised due to the fact that mostly qualitative information provided by the companies are used for rating purposes [A88]. Furthermore the assessment criteria do not make use of quantitative data on the generation of emissions or consumption of resources and lacks a life cycle perspective [A89]. Although it has been claimed that the DJSGI has outperformed the DJGI, research has found evidence that suggests that there are other factors, unrelated to sustainability, that could have caused this superior market performance [A88]. Nevertheless, the DJSGI remains an important tool to illuminate world-wide sustainability driven processes.

9.4.2 FTSE4Good Index

The FTSE4Good Index was officially launched in July 2001 with the following three key objectives:

- to provide a tool for socially responsible investors to identify and invest in companies that meet globally recognised corporate responsibility standards;
- to provide asset managers with a socially responsible investment benchmark and a tool for socially responsible investment products; and
- to contribute to the development of responsible business practices around the world [A90].

There are currently four FTSE4Good Indexes namely: FTSE4Good Global, FTSE4Good UK, FTSE4Good Europe and FTSE4Good US. In order for a company to qualify for a FTSE4Good Index it must first of all be in either the FTSE-All Share Index (UK) or the FTSE All-World Developed Index (Global). The company must further meet criteria requirements with regards to the following three areas: Environmental Sustainability, Social Sustainability and Stakeholder Relationships and lastly Human Rights (See Figure 9-15 for more detail on the sub criteria).

The evaluation of the environmental criteria distinguishes between three types of industry sectors: high impact, medium impact and low impact sectors. Companies are assigned a weighting based on their

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

industry sector. There are also currently three sets of Human Rights criteria, the first for the global resource sector, the second for companies operating in countries of concern and the third for all other companies. The list of countries of concern is updated regularly. FTSE is planning to add a fourth criterion, namely labour standards in the supply chain, and are refining the human rights criteria and indicators [A90].

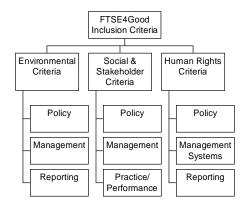


Figure 9-15: Criteria and Sub-Criteria of the FTSE4Good Evaluation Process

Companies with business interests in the following industries are excluded from the FTSE4Good Index:

- Tobacco Producers
- Companies manufacturing either parts or whole nuclear weapon systems
- Companies manufacturing whole weapon systems
- Owners or operators of nuclear power stations
- Companies involved in the extraction or processing or uranium [A90].

9.4.3 JSE SRI Index

The JSE will be launching its SRI Index in early 2004. The JSE together with FTSE have formed a FTSE/JSE SRI Advisory Committee with the task of developing a SRI Index for South Africa [A91]. The JSE SRI Index will comprise of companies listed on the FTSE/JSE All Share Index that choose to participate and that meet the selection criteria as set out in the final SRI Index Philosophy and Criteria documentation [A92].

The main intentions with the SRI Index are to:

- identify best practice in CSR;
- highlight companies with good CSR;
- measure these companies' share performance; and
- assist in meeting the complex needs of SRI [A91].

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

The criteria document is based primarily upon the FTSE4Good Criteria but has been updated to reflect the complex social problems facing South Africa. A draft version of the document was published in October 2003 followed by extensive stakeholder consultation [A93]. The criteria are based on three core principles, namely:

- Environmental Sustainability;
- Positive relationships with stakeholders; and
- Upholding and supporting universal human rights [A91].

Specific indicators have been developed for four main aspects namely: Corporate Governance, Environment, Economy and Society. The environmental criteria also distinguish between high impact, medium impact and low impact industries, similar to the FTSE4Good Criteria [A94]. For the first round of the SRI index, companies, that want to be considered, will have to complete questionnaires, which will then be analysed. The questionnaires will address the three pillars of sustainability namely: environmental, social and economic sustainability. Companies that meet the minimum score for each pillar will be considered and listed companies will be reviewed annually [A92]. The questionnaire is analysed in Table 9-17 [A95].

Section	Number of Questions
Economic Questions	37
1 Policies	6
2 Governance & Management	3
3 Ownership of the Company	3
4. Salaries and Remuneration	2
5. Knowledge Management	1
6. Human Resources	1
7. Contractors	1
8. Reporting, Auditing and Accounting	9
9. Insurance and Contingency Plans	2
10. Customers and Products	5
11. Compliance	4

Table 9-17: Analysis of JSE SRI Questionnaire [A95]

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

Environmental Questions	65
1. Policy	5
2.Management & Governance	3
3. Impact Assessments	2
4. Environmental Management Systems	9
5. Biodiversity, Natural Resources & GMOs	10
6. Emissions and Discharges	3
7. Energy	3
8. Waste	4
9. Water	7
10. Accidents and Incidents	1
11. Auditing, Accounting and Reporting	6
12. Human Resources	2
13. Contractors	3
14. Compliance	4
15. Standards and Certification	2
16. Awards	1
Social Questions	59
1. Policies	6
2. Management & Governance	3
3. Human Resources	14
4. Black Economic Empowerment	4
5. Health & Safety	6
6. HIV/AIDS and other chronic occupational	
diseases	3
7. Human Rights	3
8. Contractors	3
9. Auditing, Accounting and Reporting	7
10. Community Relations	4
11. Corporate Social Investment	5
12. Awards	1

Table 9-17: Analysis of JSE SRI Questionnaire [A95] (continues)

The main difference between the JSE SRI and the FTSE4Good and other SRI indexes or funds is that it does not automatically exclude companies in industries that some investors consider as unethical (e.g. tobacco or gambling) [A84].

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

9.4.4 Domini 400 Social Index SM

In 1989 Amy Domini, Peter Kinder and Steve Lydenberg started to develop the *Domini 400 Social Index* SM, which is an index of 400 primarily large-capitalisation United States corporations selected based on a wide range of social and environmental criteria. The index was officially launched in 1990, the first index of its kind and in 1991 the *Domini Social Equity Fund* SM was launched to provide a fund which can tracks the index. After 10 years this fund has proven that screening firms based on environmental and social criteria do not limit investment performance, to the contrary it may lead to higher returns on investment [A82]. The *Domini 400 Social Index* SM has been created to for the following four reasons

- to answer the question whether social screening carries an inherent financial "cost";
- to provide a socially screened equity benchmark;
- to communicate the standards of mainstream social investors to corporations and the general public in a viable form; and
- to provide the basis for a screened, indexed investment vehicle for investors.

The Index excludes any company that meets any of the following requirements:

- derives two percent or more of its profit of the sales from military weapons systems;
- derives any revenue from the manufacture of alcoholic or tobacco products;
- derives any revenue from the providing of gambling products or services; and/or
- owns interests in nuclear power plants or derives electricity from nuclear power plants in which it has an interest.

Until November 1993 any company that held equity interests in South Africa was also excluded by the index [A96]. Companies are evaluated according to performance in a set of areas of concern. These areas and important aspects in each area (criteria and sub criteria) are shown in Figure 9-16 [A97]. Once a company is included in the index it can be removed if it is involved in a controversy in one of the areas of concern and it is evident that it is a long-term concern or of major proportions. Historically no more than two companies have been removed for social reasons per year. The policy is not to add the company back to the index for at least two years. The Index is maintained at 400 companies at all times, and a company only gets added if another company is removed [A96].

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

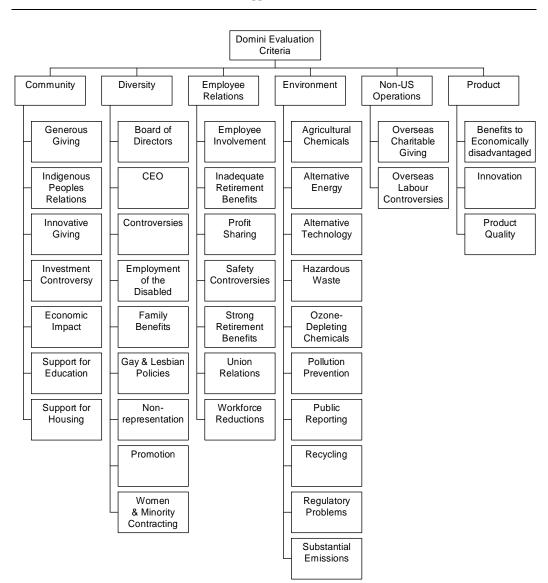


Figure 9-16: Criteria and Sub-Criteria of the Domini Index Screening Process

9.5 International Financing Corporations

The Equator Principles and Guidelines of the World Bank are discussed.

9.5.1 The Equator Principles

The International Finance Corporation (IFC), which is the private sector arm of the World Bank Group, convened a meeting of banks in London in October 2002 to discuss environmental and social issues in project finance [A98]. At this meeting the banks realised the significant opportunities their role as financiers offered them to promote responsible environmental stewardship and socially responsible development. It was decided to develop a banking industry framework that could address all environmental and social risks in project financing, this led to the Equator Principles.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

The Equator Principles consist of five parts, namely: a preamble, statement of principles, Exhibit I: Environmental and Social Screening Process, Exhibit II: Safeguard Policies and Exhibit III: World Bank and IFC Specific Guidelines [A99]. The principles only apply to projects that cost US\$50 million or more and banks can adopt these principles, which means that an individual bank declares that its internal policies and processes are consistent with the Equator Principles. In 2002 there were 20 banks that have adopted the principles. These banks represent 74% of the 2002 project loan market and operate in over 100 countries [A100]. In 2005 the number of banks have increased to 28 [A101]. This means that these banks will use common terminology in categorizing projects into high, medium and low environmental and social risks. It is believed that the Equator Principles together with all the policies and guidelines (Exhibit II and III) will provide safeguards for investors and communities and that it will protect the project sponsors (any bank or international financing company) as well as the IFC from unnecessary financial and reputational risks [A102]. Adopting the Equator Principles has certain advantages for banks as well as for their customers, these are summarised in Table 9-18.

Advantages for Banks
• Using common terminology in assessing
environmental and social issues
• Using a common framework for
implementation and documentation
• Increasing productivity through reduced
transaction time (getting it right the first
time)
• Having more certainty in closing project
financings
• Having a safer project loan
Gaining reputational advantage

Table 9-18: Advantages of Adopting the Equator Principle	les [A100]
--	------------

In 2003 the IFC published a framework that can be used for the analysis of environmental, social and corporate governance performance of individual projects sponsored. The framework consists of 8 factors, categorised into three broad areas. These are:

- Management Commitment and Governance
 - Factor 1: Environmental Management, social development commitment and capacity
 - o Factor 2: Corporate Governance
 - Factor 3: Accountability and transparency
- Environment
 - Factor 4: Eco-efficiency and environmental footprint
 - Factor 5: Environmental performance of products and services

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

- Socioeconomic Development
 - Factor 6: Local economic growth and partnerships
 - Factor 7: Community Development
 - Factor 8: Health, safety and welfare of the labour force [A102].

The framework measures performance not by binary yes or no answers but by using an evaluation scale that consists of four performance levels, these are:

- Level 1: Compliance with IFC's required standards where they exist
- Level 2: Indication of the creation of local or global environmental, social or corporate governance value
- Level 3: Signifies that a project's positive impact influences the behaviour of other companies and thus creates a farther-reaching demonstration impact
- Level 4: Describes a leadership position in which a project or company has a wide influence in driving best practices in industry and even beyond [A102].

Thus in order to get financing for projects or new developments, companies will be forced by the financing agents to adhere to a minimum set of sustainable development standards. In addition the IFC has also published guidelines to assist with public consultation [A103], community development [A104], resettlement [A105] and other sustainable development related issues.

9.5.2 World Bank

The World Bank has been institutionalizing some type of social analysis in its investment operations since 1984. Currently about 50% of bank operations undergo one or other form of social analysis [A106]. For investment projects two types of social analyses are performed namely:

- Project Social Analysis: The bank undertakes this sociological appraisal study to determine opportunities, constraints and likely impacts of the proposed project in order to examine whether the project's likely social development outcomes have been clearly identified and to ensure that the project is socially sustainable. It is thus a study to determine whether the support of the World Bank is justified. This can consist of an upstream social analysis and a sociological appraisal as part of the project process.
- Social Assessment: The borrower undertakes this study in order to
 - o Identify the social dimensions of the project and possible social investment projects;
 - o Provide spaces to incorporate stakeholders' views into project design; and
 - o Establish a participatory process for implementation, monitoring and evaluation [A106].

More details on these two approaches together with information on the Bank's project supervision role is shown in Table 9-19.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

The World Bank uses a common framework for social analysis based on five entry points:

- Social Diversity and gender;
- Institutions, rules and behaviour;
- Stakeholders;
- Participation; and
- Social Risk [A107]

These entry points are dimensions of inquiry to structure work and it helps project planners to understand how the pieces of the social puzzle fit together.

Instrument	Description	Context	Uses	Role
Upstream social	Country-wide,	Either as stand-	Input into CAS,	Bank
analysis	sector-wide or	alone ESW or	PRSP, or sector-	
	issue-based	integrated PA,	wide programs.	
	analytical work.	CEA, COA or		
		sectoral ESW		
Sociological	Appraisal of	Draws on	To examine	Bank. If
appraisal as part	social dimensions	information	opportunities,	information from
of the project	of projects.	available from	constraints and	prior studies is
appraisal process		upstream social	likely impacts to	insufficient or if
		analysis and	determine	the project is
		related ESW,	whether the	contentious, the
		prior project	project is socially	Bank may be
		documentation,	sustainable so as	recommend that
		external data and	to justify Bank	the Borrower
		studies and social	support for the	undertake a social
		assessments	project.	assessment.
		undertaken for the		
		project.		
Project	Supervision of	Supervision	Feedback and	Bank
Supervision	social aspects of	missions, review	adaptation during	
	the project.	of project reports	implementation.	
		and ongoing		
		stakeholder		
		consultations.		

Table 9-19: Approaches to Social Analysis in World Bank Operations [107]

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

Social	A method that	As participatory	To take account	Borrower. The	
Assessment	uses a mix of	research during	of the views and	Bank clears the	
	qualitative and	project	preferences of	terms of reference	
	quantitative tools	preparation, and	affected people	and reviews the	
	to determine the	as an on-going	and other	findings of any	
	likely social	process to enable	stakeholders so as	social assessment	
	impacts of a	involvement of	to improve design	carried out during	
	project on	beneficiaries and	of a project, and	preparation.	
	stakeholders –	affected persons	to establish a		
	and the likely	during	participatory		
	effect of	implementation.	process for project		
	stakeholders on		implementation		
	the project.		and monitoring.		

Table 9-19: Approaches to Social Analysis in World Bank Operations [107] (continues)

9.6 References

[A1] Kell, G., *The global compact: origins, operations, progress and challenges*, The Journal of Corporate Citizenship, Autumn 2003, pp. 35-49.

[A2] Global Compact. *The Global Compact Homepage*, <u>http://www.unglobalcompact.org</u> visited on 26 December 2003.

[A3] Global Compact Office, *How the Global Compact Works*, United Nations Global Compact Office, New York, 2003. Available from: <u>http://www.unglobalcompact.org</u> visited on 26 December 2003.

[A4] Henriques, A., & Raynard, P., *Social Sustainability Research Theme: Part 2 – Appendices*, The Sigma Project Publication, 2001. Available from:

http://www.projectsigma.com/RnDStreams/4_social.asp visited on 1 January 2004.

[A5] Turner, M., *UN group to measure companies' social virtues*, Financial Times, 3 March 2004, pp. 10.

[A6] McKinsey & Company, Assessing the Global Compact's Impact, McKinsey & Company Report, 11 May 2004.

[A7] Global Sullivan Principles, Leon Sullivan,

http://www.globalsullivanprincinples.org/new_page_4.htm visited on 27 December 2003.

[A8] Gordon, K., The OECD Guidelines and Other Corporate Responsibility Instruments: A

Comparison, OECD Working Papers on International Investment Number 2001/5, December 2001.

[A9] Global Sullivan Principles, The Principles,

http://www.globalsullivanprinciples.org/principles.htm visited on 27 December 2003.

[A10] Global Sullivan Principles, The Global Sullivan Principles of Social Responsibility,

http://www.globalsullivanprinciples.org visited on 27 December 2003.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

[A11] Global Sullivan Principles, Implementation,

http://www.globalsullivanprinciples.org/implementation.htm visited on 27 December 2003.

[A12] Global Sullivan Principles, Endorses List,

http://www.globalsullivanprinciples.org/Endorser_list_Oct9.PDF visited on 27 December 2003.

[A13] Organisation for Economic Co-Operation and Development, The OECD Guidelines for

Multinational Enterprises 2000 Revision, OECD Publication, Paris, 2000.

[A14] Organisation for Economic Co-Operation and Development, OECD Homepage,

http://www.oecd.org visited on 27 December 2003.

[A15] Caux Round Table, *Caux Round Table Principles for Business, English Translation*, http://www.cauxroundtable.org/ENGLISH.htm visited on 20 January 2003.

[A16] Caux Round Table, *Caux Round Table Homepage*, <u>http://www.cauxroundtable.org</u> visited on 27 December 2003.

[A17] Caux Round Table, Introduction to Principles for Business,

http://www.cauxroundtable.org/principles.html visited on 27 December 2003.

[A18] Social Accountability International, About Social Accountability International,

http://www.cepaa.org/AboutSAI/AboutSAI.htm visited on 29 December 2003.

[A19] Social Accountability Institute, GUIDANCE 1999: Guidance Document for Social

Accountability 8000 (SA8000®, Version 1999-I, SAI, New York, March 1999.

[A20] Social Accountability International, Overview of SA8000,

http://www.cepaa.org/SA8000/SA8000.htm visited on 4 March 2003.

[A21] Social Accountability International, Certified Facilities,

http://www.cepaa.org/Accreditation/CertifiedFacilities.xls visited on 29 December 2003.

[A22] AccountAbility, *Overview of the AA1000 framework*, AccountAbility Publication, London, 1999. Available from:

http://www.accountability.org.uk/uploadstore/cms/docs/AA1000%20Overview.pdf visited on 29 December 2003.

[A23] AccountAbility, *AA1000*, <u>http://www.accountability.org.uk/aa1000/default.asp</u> visited on 29 December 2003.

[A24] AccountAbility, AccountAbility 1000 (AA1000) framework: Standards, guidelines and

professional qualification, Exposure draft – November 1999, AccountAbility Publication, London, 1999. Available from:

http://www.accountability.org.uk/uploadstore/cms/docs/AA1000%20Framework%201999.pdf visited on 29 December 2003.

[A25] AccountAbility, AA1000 Series Uses and Users, Available from:

http://www.accountability.org.uk/aa1000/default.asp?pageid=122 visited on 29 December 2003.

[A26] AccountAbility, AA1000: Assurance Standard, Available from:

http://www.accountability.org.uk/aa1000/default.asp?pageid=52 visited on 29 December 2003.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

http://iipuk.	co.uk/IIP/Internet/InvestorsinPeople/FrequentlyAskedQuestions/default.htm visited on 29
December 2	2003.
[A28] Inves	stors in People UK, The Standard, Available from:
http://iipuk.	co.uk/IIP/Internet/InvestorsinPeople/TheStandard/default.htm visited on 29 December
2003.	
[A29] Ethic	al Trading Initiative, Ethical Trading Initiative Homepage, Available from:
http://www	.ethicaltrade.org visited on 29 December 2003.
[A30] The 1	Natural Step UK, The Natural Step: Background, Available from:
http://www	.naturalstep.org.uk/uk homepage.html visited on 29 December 2003.
[A31] The]	Natural Step, Det Naturliga Steget, Available from:
http://www	.detnaturligasteget.se/DnsSwe/Start/Index.html visited on 29 December 2003.
[A32] Upha	am, P., An Assessment of The Natural Step theory of sustainability, Journal of Cleaner
Production,	Vol. 8, No. 6, 2000, pp 445-454.
[A33] Visse	er, W., & Sunter, C., Beyond Reasonable Greed: Why Sustainable Business is a Much Better
<i>Idea!</i> , Hum	an & Rousseau, & Tafelberg, Cape Town, 2002
[A34] Tibo	r, T., ISO 14000: A guide to the New Environmental Management Standards, IRWIN
Professiona	l Publishing, Chicago, 1996.
[A35] Grac	e, N.O., Grace, D.M., Perez, A.L.& Maywah, N.A. ISO 14001: A Road Map to Continuous
Utility Syste	em Improvement, Florida Water Resources Journal, October, 1999, pp. 24 –26, 28.
[A36] Barro	ow, C.J., Environmental and Social Impact Assessment: An Introduction, Edward Arnold,
London, 19	97.
[A37] Urba	n Environmental Management, EMAS and Local Governments in Europe, Available from:
http://www	.gdrc.org/uem/iso14001/info-3.html visited on 29 December 2003.
[A38] ISO,	ISO Homepage, Available from: <u>http://www.iso.ch</u> visited on 30 December 2003.
[A39] ISO,	ISO 9000 & ISO 140000, Available from: http://www.iso.ch/iso/en/iso9000-
14000/basic	cs/general/basics 1.html visited on 30 December 2003.
[A40] ISO,	ISO 9000 - the basics, Available from: http://www.iso.ch/iso/en/iso9000-
<u>14000/basic</u>	cs/basics9000/basics9000 1.html visited on 30 December 2003.
[A41] ISO,	ISO 9000 Family of Standards, Available from: http://www.iso.ch/iso/en/iso9000-
<u>14000/iso90</u>	000/selection_use/iso9000family.html visited on 30 December 2003.
[A42] Napp	o, J., E-STREAMS Vol. 6, No. 1 - January 2003, Available from: http://www.e-
streams.com	n/es0601/es0601_2252.htm visited on 20 April 2004.
[A43] ISO,	ISO 14000 - the basics, Available from: http://www.iso.ch/iso/en/iso9000-
14000/basic	es/basics14000/basics14000 1.html visited on 30 December 2003.
[A44] ISO,	ISO 9000 & 14000 in plain language, Available from: http://www.iso.ch/iso/en/iso9000-
	cs/general/basics_4.html visited on 30 December 2003.

on 30 December 2003.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

[A46] EFQM, EFQM Excellence Model, Available from:

http://www.efqm.org/model_awards/model/excellence_model.htm visited on 30 December 2003.

[A47] Malcolm Baldrige National Quality Program, *Malcolm Baldrige National Quality Program Homepage*, Available from: http://www.baldrige.nist.gov visited on 30 December 2003.

[A48] Baldrige National Quality Program, *Criteria for Performance Excellence*, National Institute of Standards and Technology, Gaithersburg, 2004.

[A49] Labuschagne, C., Personal Communication with South African Excellence Foundation, January 2004.

[A50] South African Excellence Foundation, *About the South African Excellence Foundation*, Available from: http://www.saef.co.za/asp/about visited on 30 December 2003.

[A51] South African Excellence Foundation, *The South African Excellence Model & Self-Assessment*, Available from: http://www.saef.co.za/asp/assessment/default.asp visited on 30 December 2003.

[A52] South African Excellence Foundation, Members, Available from:

http://www.saef.co.za/asp/membership visited on 30 December 2003.

[A53] Berman, J.E., & Webb, J., Race To The Top: Attracting And Enabling Global Sustainable Business: Business Survey Report, World Bank and International Finance Corporation, Washington, October 2003.

[A54] United Nations Conference on Environment And Development, *Agenda 21*, United Nations Publication, 1992. Available from:

http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21toc.htm visited on 20 April 2004. [A55] Tyteca, D., Sustainability Indicators at the Firm Level: Pollution and Resource Efficiency as a Necessary Condition towards Sustainability, Journal of Industrial Ecology, Vol. 2, No. 4, 1999, pp. 61-77.

[A56] Ranganathan, J., *Signs of Sustainability: Measuring Corporate Environmental and Social Performance*, In: Bennett, M. & James, P., (eds), *Sustainable Measures*, Greenleaf Publishing, Sheffield, 1999, pp 475-495.

[A57] United Nations Commission on Sustainable Development, *Indicators of sustainable development: guidelines and methodologies*, United Nations, 2001. Available from http://www.un.org/esa/sustdev/natlinfo/indicators/indisd/indisd-mg2001.pdf, visited on 19 November 2003.

[A58] United Nations Department of Economic and Social Affairs UN CSD Theme Framework and Indicators of Sustainability . Final Draft, PriceWaterhouseCoopers for Division for Sustainable Development, November 18, 1999.

 [A59] Hass, J.L., Brunvoll, F, & Hoie, H., Overview of Sustainable Development Indicators used by National and International Agencies, OECD Statistics Working Paper 2002/1, Paris, 2002.
 [A60] Global Reporting Initiative, *Sustainability Reporting Guidelines 2002*, Global Reporting

Initiative, Boston, 2002.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

[A61] Veleva, V., & Ellenbecker, M., A Proposal for Measuring Business Sustainability – Addressing shortcomings of Existing Frameworks, Greener Management International, Vol. 31, Autumn, 2000, pp. 101-120.

[A62] Hawken, P., & Wackernagel, M., *Satisfying Lives for All within the Means of Nature: How a Honed GRI could advance true sustainability*, Available from::

http://www.globalreporting.org/guidelines/archives/March99/commissioned/hawkenandwackernagel.p df visited on 23 December 2003.

[A63] Global Reporting Initiative, *Global Reporting Initiative Homepage*, Available from: http://www.globalreporting.org visited on 23 December 2003.

[A64] Global Reporting Initiative, GRI Reporting per Country, Available from:

http://www.globalreporting.org/guidelines/rep.country.asp visited on 23 December 2003.

[A65] Azapagic, A., & Perdan, S., *Indicators for Sustainable Development for Industry: A General Framework*, Trans IChemE, Vol. 78, Part B, July 2000, pp. 243-261.

[A66] Labuschagne, C., Personal Communication with Dr. Adisa Azapagic, 25 March 2004.

[A67] Institution of Chemical Engineers, The Sustainability Metrics: Sustainable Development

Progress Metrics recommend for use in the Process Industries, Institution of Chemical Engineers. Rugby, 2002.

[A68] Spangenberg, J.H., & Bonniot, O., *Sustainability Indicators – A Compass on the Road Towards Sustainability*, Wuppertal Paper No. 81, February 1998.

[A69] Spangenberg, J.H., Sustainability Management Indicators and the Corporate Human

Development Index CHDI, Seri Working Paper Series, Sustainable Europe Research Institute, Cologne, May 2000.

[A70] Labuschagne, C., Personal Communication with Joachim Spangenberg, 21 January 2004.

[A71] Centre for Survey Research and Methodology (ZUMA), Conceptual Framework and Structure

of a European System of Social Indicators, EuReporting Working Paper no 9, Mannheim, 2000.

[A72] Ethos Institute for Business and Social Responsibility, ETHOS Corporate Social Responsibility

INDICATORS, Instituto Ethos de Empresas e Responsabillidade Social, São Paulo, 2001.

[A73] Goodell, E. (editor), *Social Venture Networks: Standards of Corporate Social Responsibility*, Social Venture Networks, San Fransisco, 1999.

[A74] Danish Ministry of Social Affairs, KPMG, & Socialforskningsinstituttet, Social Index:

Measuring a Company's social responsibility, Danish Ministry of Social Affairs, Copenhagen, 2000.

[A75] Wood, D.J., *Corporate Social Performance Revisited*, Academy of Management Review, Vol. 16, No.4, 1991, pp.691-718.

[A76] Wood, D.J., *Social Issues in Management: Theory and Research in Corporate Social Performance*, Journal of Management, Vol. 17, No. 2, 1991, pp. 383-406.

[A77] Wartick, S.L., & Wood, D.J., International Business and Society, Blackwell, Malden, MA, 1998

[A78] Hopkins, M., *Defining Indicators to Access Socially Responsible Enterprises*, Futures, Vol. 29, No.7, 1997, pp. 581-603.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

[A79] Business and Sustainable Development, *Sustainable Investment*, Available from:

http://www.bsdglobal.com/banking/sus_investment.asp visited on 20 January 2004.

[A80] EC Newsdesk, US not interested in CR and SRI says new report, EC Newsdesk, 30 March 2004.

Available from: <u>http://www.wbcsd.org/plugins/DocSearch/details.asp?type=DocDet&DocId=4837</u> visited on 2 April 2004

[A81] European Commission, *Promoting a European framework for corporate social responsibility* – *Green Paper*, Office for Official Publications of the European Communities, Luxembourg, 2001.

[A82] Domini Social Investments, *The Domini Story*, Available from: <u>http://www.domini.com/about-</u> domini/The-Domini-Story/Index.htm visited on 31 December 2003.

[A83] Business and Sustainable Development, European Survey, Available from:

http://www.bsdglobal.com/banking/sus_survey.asp visited on 20 January 2004.

[A84] Reed, J., *Johannesburg Stock Exchange: Appealing to socially responsible niche investors*, Financial Times, 6 October 2003.

[A85] Knoepfel, I., *Dow Jones Sustainability Group Index: A Global Benchmark for Corporate Sustainability*, Corporate Environmental Strategy, Vol. 8, No. 1, 2001, pp. 6-15

[A86] SAM Indexes, *Dow Jones Sustainability World Indexes Guide, Version 5.0*, SAM Indexes GmbH, Zollikon-Zurich, September 2003.

[A87] SAM Research Inc., *Corporate Sustainability Assessment Questionnaire 2003: General Part*, SAM Research Inc, Zollikon-Zurich, 9 April 2003.

[A88] Cerin, P., & Dobers, P., *Who is Rating the Raters?*, Corporate Environmental Strategy, Vol. 8, No. 2, 2001, pp. 95-97.

[A89] Cerin, P., & Dobers, P., What does the Performance of the Dow Jones Sustainability Group Index tell us?, Eco-Management and Auditing, Vol. 8, 2001, pp. 123-133.

[A90] FTSE, *FTSE4Good Index Series: Inclusion Criteria*, FTSE The Independent Global Index Company, London, 2003.

[A91] Newton-King, N., & Le Roux, C., *Socially Responsible investment index to be launched in South Africa*, Sustainable Development International, No.8, 2003, pp. 59-60.

[A92] Haase, C., *Socially Responsible Investment Index to become a critical financial indicator*, Engineering News, Vol. 23, No. 42, 2003, pp. 78-79.

[A93] FTSE & JSE, *Launch of Draft FTSE/JSE SRI Index Philosophy and Criteria*, FTSE/JSE Press Release, 2 October 2003. Available from: <u>http://ftse.jse.co.za/announcements/docs/sri 20021001.doc</u> visited on 9 January 2004.

[A94] JSE, JSE SRI INDEX: Background and Selection Criteria, Available from:

http://www.jse.co.za/sri/docs/Background%20and%20Criteria.final.06%2010%2003.pdf visited on 9 January 2004.

[A95] JSE Sustainability Research Intelligence, *JSE SRI INDEX: Questionnaire 17 October 2003*, Available from: <u>http://www.jse.co.za/sri/docs/Questionnaire.final.17%2010%2003.doc</u> visited on 9 January 2004.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix A

[A96] Domini Social Investments, The Domini 400 Social Index SM , Available from:			
http://www.domini.com/Social-screening/creation_maintenance.doc_cvt.htm visited on 31 December			
2003.			

[A97] Domini Social Investments, Choosing our Investments, Available from:

http://www.domini.com/Social-screening/index.htm visited on 31 December 2003.

[A98] The Equator Principles, Frequently Asked Questions about the Equator Principles, Available

from: http://www.equator-principles.com/faq.shtml visited on 14 April 2004.

[A99] Equator Principles, *The Equator Principles*, Available from: <u>http://www.equator-</u>

principles.com/principles.shtml visited on 14 April 2004.

[A100] Equator Principles, *Becoming an Adopting Bank*, Available from: <u>http://www.equator-principles.com/join.shtml</u> visited on 14 April 2004.

[A101] Scott, M., *Project finance sparks change*, Financial Times, 21 March 2005. Available from: http://www.wbcsd.org/plugins/DocSearch/details.asp?type=DocDet&ObjectId=13761 visited on 30 March 2005.

[A102] International Finance Corporation, *Measuring Sustainability: A Framework for Private Sector Investments*, IFC, Washington, 2003.

[A103] IFC Environmental Division, *Doing Better Business Through Effective Public Consultation and Disclosure: A Good Practice Manual*, IFC.

[A104] IFC Environmental Division, *Investing in People: Sustaining Communities through Improved Business Practice: A Community Development Resource Guide for Companies*, IFC.

[A105]IFC, Handbook for preparing a resettlement action plan, IFC, 2001.

[A106] World Bank, *Social Analysis at the Project Level*, Available from: <u>http://lnweb18.worldbank.org/ESSD/sdvext.nsf/61ByDocName/SocialAnalysis</u> visited on 14 April 2005.

[A107] Social Analysis and Policy Team, *Social Analysis Sourcebook: Incorporating Social Dimensions into Bank-supported projects*, Washington DC, The World Bank: Social Development Department, 2003.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix B

10. Appendix B: Universe as a Tripartite World

10.1 The Universe as a Tripartite World

The developed Cosmic Interdependence model, which is based on the holistic-reductionist-holistic approach, describes the universe in terms of four different cosmos: Economic Cosmos, Social Cosmos, Biotic Cosmos and Abiotic Cosmos [B1]. The four cosmos are interdependent (see Figure 10-1) and in the intersection areas of the four cosmos there are millions of combinations of conflict and harmony between the natural (abiotic and biotic) and human (social and economic) universe.

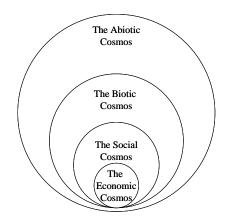


Figure 10-1: The Cosmic Interdependence [B1]

The human universe is often described as a "tripartite world" consisting of three pillars namely: business, civil society and government [B2]. The tripartite model is a novel perception of the human world. Up until the early 1990's the human universe was mostly perceived as bipolar, consisting of two parts: government and non-government [B2]. The Institutional-Ideological Model depicts the way in which human activity is organized (see Figure 10-2) according to a tripartite approach. It places ecology (i.e. the natural universe) and technology in the centre since it represents the foundations of opportunities available to business-, government- and public institutions [B3]. The model distinguishes between the institutional and ideological component of each of the pillars of the tripartite world. The ideological component thus entails all ideas, values and beliefs that underlie collective activities while groups and organisations, i.e. the setting for these activities, are categorized under the institutional component. The range of the ideological component of each pillar is depicted in Figure 10-3.

Sustainable project life cycle management: Development of social criteria for decision-making

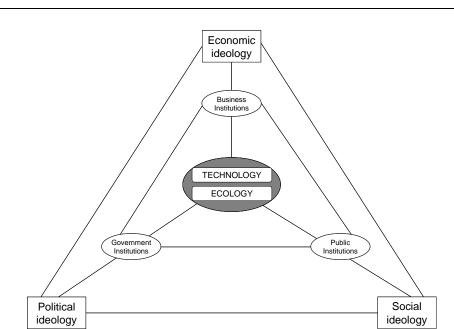


Figure 10-2: The Institutional-Ideological Model [B3]

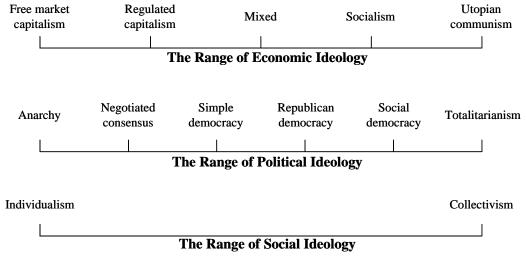


Figure 10-3: Range of Ideology [B3]

The major shortcoming of any tripartite-based model is the fact that it views business separate from civil society while civil society provides all the opportunities, innovation, wealth of progress and, most importantly, business's licenses to exist, operate and sell [B2]. The interdependency and interrelations between the three pillars (i.e. business, civil society and government) and the strong reliance of all three pillars on the natural universe for existence [B4] is therefore underemphasized.

Appendix B

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix B

10.2 Business and its surrounding Environments

From the perspective of business, it operates in and interacts with an external environment. The business's external environment can be defined as all surrounding conditions and forces that affect the business's development and growth, but are typically beyond its control [B5]. The external environment of business has been analysed and classified in numerous ways.

Wilson [B6] views business as embedded in an environment consisting of four different sectors namely: social environment, economic environment, political environment and technological environment. However, Wilson's model ignores the natural environmental aspects of the external environment. Since the 1987 Brundtland report and the 1992 Earth Summit the influence of ecology on business and of business on the natural universe has grown in importance [B7]. Wood [B8] thus adapted Wilson's model by introducing an additional sector namely ecology or natural environment. The adapted model is often referred to as the SEPTEmber-model (see Figure 10-4) and classifies unique aspects of the external environment as separate sectors. The model also distinguishes between the business environment and the global business environment.

	Social Environment	Economic Environment	Political Environment	Technological Environment	Ecology (Natural) Environment
Business Environment	Culture Values People Organizations	Conditions of production and distribution	Governance Law Policy Influence	Tools Methods Knowledge	Natural resources Sustenance Beauty
Global Business Environment	Billions of people Thousands of cultures and languages Different organizational forms	Differing competitive conditions National trade policies Foreign ownership International development, aid, etc.	Country, international and global-level policies and regulations Stable or unstable regional politics Military balance, etc.	Country investment in research & development Technology transfer issues Information flows Developed and developing country interaction problems	Sustainable development efforts Disasters waiting to happen Pressures for environmental protection Ozone depletion, etc.
			The Firm		

Figure 10-4: SEPTEmber model of the business environment [B8]

Nevertheless, the business and its external environment are intricately interconnected, i.e. events in one sector will have consequences for events and conditions in every other sector [B3]. Therefore, another

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix B

method of describing the external environment is to divide all external forces and role players into three interrelated subcategories based on the spatial scale of interaction between the business and the specific force or role player. These subcategories are Macro Environment, TASK environment and Industry [B5, B9]². These subcategories are illustrated in Figure 10-5. Business first of all operates in its own *internal* environment that can consist of different functional areas such as: marketing, finance, production, management, computer information systems, human resources, etc. It then forms part of a specific industry together with its competitors and the industry then competes in a more extended *TASK* environment, which includes the, suppliers, customers and other organizations with which the business directly interacts. The TASK environment at a more general level. The macro environment is often defined as the Political, Economical, Social and Technological Forces (PEST) [B9]. Nevertheless, events listed in the SEPTEmber model manifest at the TASK and Industry levels as well.

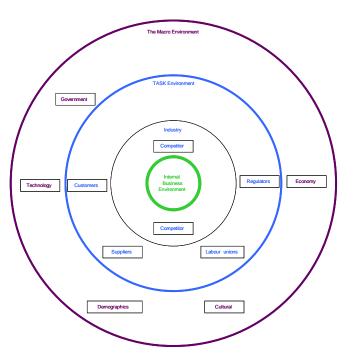


Figure 10-5: Business and the three spheres of the external environment (adapted from [B9])

These different models show the same forces or role players in the external environment from various perspectives (see Table 10-1) and do not contradict each other. The conclusion from the models is that business is not operating in a vacuum, but is rather part of an interdependent and interrelated universe. The traditional idea of business's isolation and independence thus does not hold true any longer [B3].

² Other terminology can also be used to refer to the subcategories for example the macro environment can be referred to as the remote environment and the TASK environment as the operating environment.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix B

Business is not only influenced by its external environment but also influences and impacts on the external environment and must take responsibility for its actions [B10].

Role player/	Cosmos	IIM	SEPTEmber Model	Subcategory
Force				
Company	Economic	Business Institution	Social Environment	Internal
	and Social			
Competitor	Economic	Business Institution	Social Environment	Industry
Customer	Social	Society – Public Institution	Social Environment	TASK
Supplier	Economic	Business Institution	Social Environment	TASK
Labour Unions	Economic and Social	PublicInstitutionoperatesinBusinessIdeology	Social Environment	TASK
Regulators	Economic	Government Institution	Political Environment	TASK
Government	Social and Economic	Political Ideology	Political Environment	Macro
Technology	Economic	Technology - Core of	Technological	Macro
	and Social	Model	Environment	
Economy Economic		Economic Ideology	Economic Environment	Macro
Demographics Social		Characteristic of Social Ideology	Social Environment	Macro
Cultural Social		Characteristic of Social Ideology	Social Environment	Macro

Table 10-1: Comparison of Models

10.3 References

[B1] Mebratu, D., *Sustainability as a Scientific Paradigm*, International Institute for Industrial Environmental Economics, Lund, 1996.

[B2] Holliday, C.O., Schmidheiny, S., & Watts, P., Walking the Talk: The Business Case for Sustainable Development, Greenleaf Publishing, Sheffield, 2002.

[B3] Wartick, S.L., & Wood, D.J., International Business and Society, Blackwell, Malden, MA, 1998.

[B4] Department for International Development: United Kingdom, Directorate General for Development: European Commission, United Nations Development Programme and The World Bank, *Linking Poverty Reduction and Environmental Management: Policy Challenges and Opportunities,* Publication for 2002 World Summit, July 2002.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix B

[B5] Pearce, J.A., & Robinson, R.B., *Formulation, Implementation and Control of Competitive Strategy*, Richard D. Irwin, Inc., Boston, 1991.

[B6] Wilson, I.H., Socio-political forecasting: A new dimension to strategic planning. In: Carroll, A.B., (ed), Managing Corporate Social Responsibility, Little, Brown and Company (Inc.), Boston, 1977, pp 159-169.

[B7] Rees, W.E., A Role for Environmental Assessment in Achieving Sustainable Development, Environmental Impact Assessment Review, Vol. 8, No.4, 1988, pp. 273-291.

[B8] Wood, D.J., Business and Society, 2nd Edition, Harper Collins, New York, 1994.

[B9] Bateman, T.S., & Zeithaml, C.P., *Management Function and Strategy*, Richard D. Irwin, Inc, Boston, 1990.

[B10] World Resource Institute, United Nations Environment Programme & World Business Council for Sustainable Development, *Tomorrow's Markets: Global Trends and Their Implications for Business*, A WBCSD Publication, 2002 Sustainable project life cycle management: Development of social criteria for decision-making

Appendix C

11. Appendix C: Corporate Response to Changing Expectations

11.1 Corporate Social Responsibility to Corporate Responsibility

Corporate Social Responsibility (CSR) is not a new concept to business, since business through the ages has demonstrated varying degrees of responsibility to society [C1]. The concept has been evolving for decades and as early as 1930 courses have been offered to educate the businessman in a new sense of social responsibility [C2]. However, the concept first generated broader interest in the 1960's in the United States [C3] as well as in the United Kingdom [C4] and then spread to Europe in the 1970's. Nevertheless, hardly any attention was paid to the concept for the next 15 years and it only re-emerged in the mid-1990's [C5]. Different driving forces behind the re-emerging of Corporate Social Responsibility has been identified [C6, C7] and are discussed in Table 11-1.

Table 11-1: Driving forces behind the re-emerging of CSR [C6, C7]

1. Shrinking role of government:

Due to shrinking government resources and a distrust of regulations, voluntary and non-regulatory initiatives have been explored. Furthermore, communities are looking at business to help solve problems governments used to address.

2. Personal ethics of individual entrepreneurs:

The personal ethics of one individual within a company can drive the re-emerging of a CSR agenda, although this will not ensure sustainable operational commitment.

3. Supply chain pressures from Northern trading partners:

International financing requirements and head offices (for reputation management purposes) are pressurising companies to adopt voluntary codes of conduct. Northern companies are also starting to pressure companies within their supply chains to adopt these voluntary codes of conducts (e.g. ETI, SA 8000).

4. Laws and regulations:

Effectively enforced laws can drive companies to responsible behaviour, e.g. environmental laws that have resulted in drastic improvement of businesses' environmental performances.

5. Public relations and reputation assurance:

Companies start viewing CSR as a strategic tool for promotion of reputation and brand value and thus the issue starts receiving more attention.

6. Shareholder activism and investor relations:

Investors are increasingly demanding greater disclosure with regards to environmental and social issues. The growth in socially responsible investment is also pressurising companies to address CSR.

7. Social license to operate:

The need to secure a "social license to operate" from society has become increasingly important. A prerequisite for business survival is society's approval of the way in which business conducts its operations. CSR definitely influence the way in which society regards business and must therefore be addressed.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix C

Table 11-1: Driving forces behind the re-emerging of CSR [C6, C7] (continues)

8. Increased customer interest in social aspects

Increased customer interest started with a "Green Consumer" outlook, which is now embracing social issues as well. It has been found that the ethical conduct of business exerts a growing influence on the purchasing decisions of customers.

9. Competitive Labour Market:

Employees are increasingly looking beyond their salaries and benefits, and are seeking employers with whose operating practices and philosophies they can associate to. CSR are thus becoming an important prerequisite for ensuring that a company become or remains an employer of choice.

Although the term "Corporate Social Responsibility" has been in use for more than forty years, there exist no universally accepted definition for the term [C1, C8, C9]. Table 11-2 contains various definitions for the term and in summary the following lists various views as to what the core meaning of social responsibility is:

- Profit making only [C10]
- Going beyond profit making (Davis as cited in [C11])
- Going beyond economic and legal requirements (McGuire as cited in [C2])
- Economic, legal and voluntary activities ([C1]; Mann as cited in [C2])
- Responsibility in a number of social problem areas ([C12]; [C9]; Eilbert & Parket, 1973 as cited in [C13]; [C14])
- Giving way to social responsiveness [C6, C15]

Table 11-2 Definitions of Corporate Social Responsibility

Corporate Social Responsibility is a broad strategic view of business's vital roles and responsibilities in every society and in the global environment [C12] The social responsibility of business is to increase its profits [C10] Corporate Social Responsibility is the ethical behaviour of a company towards society, in particular

this means the management acting responsibly in its relationships with all stakeholders who have a legitimate interest in the business [C1]

Corporate Social Responsibility supposes that the corporation has not only economic and legal obligations, but also certain responsibilities to society which extend beyond those obligations (McGuire as cited in [C2])

Corporate Social Responsibility is the commitment of business to contribute to sustainable economic development, working with employees, their families, the local community and society at large to improve their quality of life [C9]

Corporate Social Responsibility is the firm's consideration of, and response to, issues beyond the narrow economic, technical and legal requirements of the firm to accomplish social benefits along with the traditional economic gains which the firm seeks [Davis as cited in C11]

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix C

Table 11-2 Definitions of Corporate Social Responsibility (continues)

Corporate Social Responsibility refers to the commitment by business to an active role in the solution of broad social problems such as racial discrimination, pollution, transport and urban decay (Eilbert & Parket, 1973 as cited in [C13])

Corporate Social Responsibility is concerned with treating the stakeholders of a firm ethically or in a socially responsible manner [C14].

Corporate Social Responsibility implies bringing corporate behaviour up to a level where it is in congruence with currently, prevailing social norms, values and performance expectations [C15]

Corporate Social Responsibility is the concept that an enterprise is accountable for its impact on all relevant stakeholders. It is the continuing commitment by business to behave fairly and responsibly and contribute to economic development while improving the quality of life of the work force and their families as well as of the local community and society at large [C6]

It is concluded that the two main questions with regards to Corporate Social Responsibility are:

- What aspects or social concerns should business take responsibility for?
- Who are the stakeholders business are responsible to or what are the boundaries of corporate social responsibility?

Carroll [C16] attempted to answer the first question by suggesting that corporate social responsibility can be divided into four categories of responsibility and that these four categories should be depicted as a pyramid (see Figure 11-1).

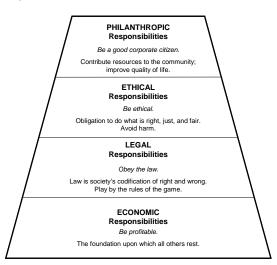


Figure 11-1: Pyramid of Corporate Social Responsibility [C16]

Although corporate social responsibility is often interpreted as philanthropy [C17], it is evident that it actually entails far more than just philanthropic contributions. For example, core business activities have a greater social impact than the philanthropic side of any business will ever have [C18]. The

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix C

Prince of Wales Institute [C19] acknowledges this fact when it states that corporate social responsibility should aim to make a positive contribution in the following three areas of influence:

- Core Business Activities by ensuring a responsible implementation thereof.
- Poverty-focused social investment and philanthropy programmes.
- Institution Building and public policy dialogues by getting involved.

However, companies normally progress through three stages when engaging with the concept of corporate social responsibility. These stages are:

- Stage 1: Pure Philanthropy: The company donates money or "in-kind" contributions to charities or civil society groups. In South Africa, this stage is referred to as 'Corporate Social Investment'. The stage is associated with paternalistic behaviour by companies, i.e. companies think they know for what money is needed and start projects in communities without prior consultation with these communities.
- Stage 2: Corporate Social Responsibility: This stage still involves "donor-style" support to
 society, but businesses in this stage will engage in partnerships with society and would thus
 manage there corporate social investment as a business activity. Projects that are sponsored would
 thus be monitored and evaluated continuously and the long-term sustainability thereof when
 company support ends will be studied before hand.
- Stage 3: Corporate Citizenship: In this stage companies contribute to all three areas of influence by acknowledging the social and environmental dimensions of the full range of business functions and activities in the strategic management of the company and by continuing partnerships in the community [C6].

An organisation in stage 3 actually progressed from corporate social responsibility to corporate responsibility, which can be defined as "*the voluntary commitment by business to manage its activities in a responsible manner*" [C20]. Corporate Responsibility thus constitutes three different aspects, namely: corporate social responsibility, corporate financial responsibility and corporate environmental responsibility [C1].

In an attempt to determine the boundaries of corporate responsibility Amnesty International and the Prince of Wales Business Leader Forum depict the boundaries as nested circles of responsibility or spheres of influence (see Figure 11-2) [C21]. This approach takes the degree of corporate control over the sphere into consideration.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix C

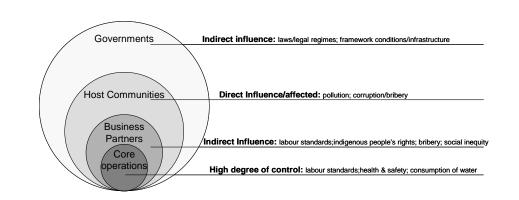


Figure 11-2: Spheres of Influence [adapted from C21]

The World Business Council for Sustainable Development states that in determining the boundaries of corporate responsibility the social issues or dilemmas along the value chain or product's life cycle should be mapped to guide the company [C9]. Figure 11-3 shows an example of such a map.

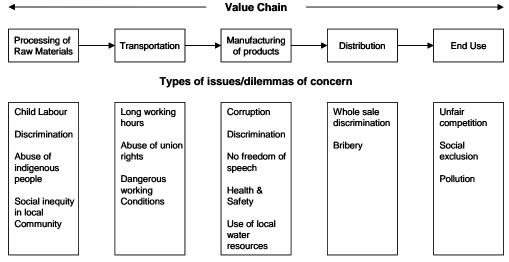


Figure 11-3: Social Issues in the Product's life cycle [C9]

In conclusion the essence of corporate social responsibility is that business and society are interwoven and not distinct entities [C11] and business can only contribute fully to society if it is efficient, profitable and conduct its activities in a responsible manner, i.e. by taking the impacts and effects on the society and the environment into consideration (Sieff as cited in [C22]).

11.1.1 From Corporate Responsibility to Corporate Sustainability

Corporate Social Responsibility is accepted as an integral part of sustainable development, but exactly how the two terms fit together is debated vigorously [C1]. Hopkins [C23] views CSR and corporate

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix C

sustainability as two sides of the same coin, since CSR defines the social responsibilities of a business, which, if implemented, will lead to the business being sustainable. A business being sustainable and a business incorporating business sustainability is however not necessarily the same thing. A more accurate statement is that the acceptance of Corporate Social responsibility is a prerequisite for implementing the concept of business sustainability [C8], but it goes beyond corporate social responsibility. A company must first accept its corporate responsibility (Stage 3 of CSR, see section 11.1) before it can align itself with the principles of business sustainability focuses on environmental, social and economic aspects. The company thus acknowledge corporate citizenship i.e. it is accountable to a wider group of stakeholders [C24] and should ask itself whether it is part of the solution to social and environmental problems or part of the problem [C25]. Corporate Citizenship is thus seen as the acceptance by business of its role in society and in the challenge of sustainable development and has three main focus areas namely:

- Basic business practices, values and policies
- Management of environmental and social issues within the product life cycle or value chain
- Voluntary contributions to community development [C24].

In conclusion the acceptance of Corporate Responsibility, i.e. up taking of corporate citizenship, is viewed as the first step of business sustainability. The principles of CSR, which are embedded in a broader corporate responsibility view, will thus manifest in and offers support to a business sustainability strategy.

11.2 Corporate or Business Sustainability

11.2.1 Sustainable Development as a concept

Humankind embraced the concept of sustainable development as the only path to future existence, mainly due to the fact that:

- the increased resource and energy demands of industrial activity lead to environmental decay; and in addition
- the population pressures and the division of resources resulted in sectors of the global population being deprived of basic human needs and security (e.g. food, shelter, health, education and family planning). This phenomenon is referred to as cycles of poverty [C26].

Business is also concerned with these two problems, due to the fact that declining ecosystems and failing societies will cause the failure of business in the twenty-first century [C27]. Furthermore, since the official conception of the term 'sustainable development' in 1987, the concept has shaped the political, economic and social environment in which all businesses operate [C28]. However, the concept of sustainable development is inherently vague [C29] and although it is understood intuitively it remains difficult to express in concrete, operational terms [C30]. In 1992 there were already more than 70 definitions for sustainable development [C31], but most agree that the concept comprises social, environmental and economic dimensions with equal importance [C32]. The World Bank [C33]

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix C

states that sustainable development can only be achieved when social, environmental and economic objectives or needs are balanced in decision-making. Figure 11-4 shows some of the aspects of each dimension.

Sustainable Development **Economic** Social Environmental Aspects Aspects Aspects **Biodiversity** Services Equity Industrial Growth Participation Natural Resources Households Needs Carrying Capacity Empowerment

Ecosystem Integrity Clean air and water	Agricultural Growth Efficient Use of Labour	Social Mobility Cultural Preservation

Figure 11-4: Sustainable Development Issues [C33]

Gardner [C34] identified eight principles for Sustainable Development and divided the principles into two categories: substantive and process-oriented (see Table 11-3).

Table 11-3: Principles of Sustainable Develo	opment [C34]
--	--------------

Substantive Principles	Process-Oriented Principles
a) Satisfaction of human needs.	a) Approaches to sustainable development
	should be goal seeking.
b) Maintenance of Ecological Integrity.	b) Analytical aspects of the approaches must
	be relational and systems-oriented.
c) Achievement of equity and social justice.	c) Strategies for sustainable development
	must be adaptive.
d) Provision for self-determination and	d) Organization for sustainable development
cultural diversity	should be interactive.

It is evident that there is consensus on the objectives and basic principles of sustainable development, but the details of how to achieve sustainable development or maintain sustainability are difficult to generalize as "perceptions of and necessary actions for achieving sustainable development differ

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix C

between social-cultural and political contexts and change over time"[C30]. This is especially true from the business perspective.

11.2.2 Business Sustainability

The focus of sustainable development implementation has recently shifted strongly towards business. Most managers have accepted that corporate or business sustainability is a prerequisite for staying in business [C5] and that business will have to play a more central role in efforts to achieve the goals of sustainable development [C35]

The International Institute for Sustainable Development (IISD) realised that the concept of sustainable development should be defined in terms that are familiar to the business community. This resulted in sustainable development for business (i.e. business sustainability) being defined as "adopting business strategies and activities that meet the needs of the enterprise and its stakeholders today, while protecting, sustaining and enhancing the human and natural resources that will be needed in the future" [C36].

Knoepfel [C37] identified five key principles for corporate sustainability, namely:

- Innovation: Investing in innovations that will lead to a more efficient, effective and economic use of financial, social and natural resources over the long term.
- Governance: Establishing high standards of corporate governance, which include management quality and responsibility, organizational capability and corporate culture.
- Shareholders: Ensuring sound financial returns, long-term economic growth and productivity improvements and global competitiveness, which will meet the demands of shareholders.
- Leadership: Developing standards for best practice by which the industry can be lead to sustainability.
- Society: Securing a long-term license to operate by establishing long lasting social well being in local and global communities.

Businesses follow different strategic approaches to incorporate these principles of business sustainability. It is possible to distinguish between five strategic approaches, referred to as introverts, extroverts, bottom-liners, top-liners and transformers [C38]. Table 11-4 shows the differences between the five strategic approaches.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix C

	Introverts	Extroverts	Bottom-Liners	Top-Liners	Transformers
Thrust Stay with the		Take the high	Cost leadership	Differentiation	Growth
	pack	road			
Questions	Should I do	How can I better	How can I get	How can I	How can I
	anything?	align with	cost advantage?	capitalize on	leverage
		stakeholders?		sustainable	sustainable
				development?	development to
					transform the
					organization?
Actions	Wait and see:	Strengthen	Improve eco-	Create products	Leverage
	track the issues	communities and	efficiency of	and services with	sustainable
		environmental	processes	unique	development to
		protection		characteristics	better learn,
					innovate and
					manage for the
					future

Table 11-4: A Range of Strategic Approaches to Sustainable Development [C38]

11.3 References

[C1] Watts, P., & Holme, R., *Corporate Social Responsibility: Meeting Changing Expectations*, World Business Council for Sustainable Development Publication, 1999. Available from:

http://www.wbcsd.org/DocRoot/Fc7YqesJY1mU6ilvhnSZ/CSRmeeting.pdf visited on 9 December 2003.

[C2] Carroll, A.B., *A Three-Dimensional Conceptual Model of Corporate Performance*, Academy of Management Review, Vol. 4, No. 4, 1979, pp.497-505.

[C3] Likert, R., *The Human Organisation: Its Management and Values*. McGraw-Hill, New York, 1967.

[C4] Goyder, G., *The Responsible Company*, Basil Blackwell, Oxford, 1961.

[C5] Dyllick, T., & Hockert, K., *Beyond the Business Case for Corporate Sustainability*, Business Strategy and the Environment, Vol. 11, No.2, 2002, pp.130-141.

[C6] Business and Sustainable Development, Corporate Social Responsibility,

http://www.bsdglobal.com/issues/sr.asp, visited on 30 April 2003.

[C7] Ward, H., Borregaard, N., & Kapelus, P., Corporate Citizenship – Revisiting the Relationship between Business, Good Governance and Sustainable Development, IIEE WSSD Opinion, Johannesburg, 2002.

[C8] Murphy, K., & Coles, D., *Social Accountability – A new approach to Business,* Sustainable Developments International, Edition 1, 1999, pp.17-19.

[C9] World Business Council for Sustainable Development, *Corporate Social Responsibility: The WBCSD's journey*, World Business Council for Sustainable Development, January 2002. Available

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix C

from http://www.wbcsd.org/DocRoot/wYlpnLQLIjKQfQ3lk0Oj/csr2002.pdf visited on 9 December 2003.

[C10] Friedman, M., *The social responsibility of business is to increase its profits*. The New York Time Magazine, 13 September 1970, pp. 32-33; 123-125.

[C11] Wood, D.J., *Corporate Social Performance Revisited*, Academy of Management Review, Vol. 16, No.4, 1991, pp.691-718.

[C12] Wartick, S.L., & Wood, D.J., International Business and Society, Blackwell, Malden, MA, 1998.[C13] Malan, L.A., Perceptions of Corporate Social Responsibility and their relationship to worker

attitudes, Dissertation submitted to the Faculty of Arts, University of the Witwatersrand, Johannesburg, 1992.

[C14] Hopkins, M.J.D., *Sustainability in the Internal Operations of Companies*, Corporate Environmental Strategy, Vol. 9, No. 4, 2002, pp.398-408.

[C15] Sethi, S.P., A Conceptual Framework for Environmental Analysis of Social Issues and Evaluation of Business Response Patterns. Academy of Management Review, Vol. 4, No. 1, 1979, pp.63-74.

[C16] Carroll, A.B., *The Pyramid of Corporate Social Responsibility: Toward the Moral Management of Organizational Stakeholders.* Business Horizons, July-August 1991, pp. 39-48.

[C17] Bibb, P., & Bendix, W., *Corporate Social Responsibility in the present South African Socio-Economic and Political Context*, Industrial Relations Journal of South Africa. Vol. 11, No. 1, 1991, pp.43-59.

[C18] Zadek, S., *Stalking Sustainability*, Greener Management International, Vol. 26, Summer, 1999, pp.21-31.

[C19] Nelson, J., *Corporate Social Responsibility: Passing fad or fundamental to a more sustainable future?*, Sustainable Development International, Vol.7, 2002, pp.37-39.

[C20] Miller, L., *Social Responsibility and the Mechanical Bull: The International Chamber of Commerce dresses for success.* Retrieved from the World Wide Web:

http://www.globalpolicy.org/reform/business/2002/mechbull.htm, visited on 21 January 2003.

[C21] Frankental, P., & House, F., *Human rights - is it any of your business?*, Amnesty International,&, Prince of Wales Business Leaders Forum, London, April 2000.

[C22] Moir, L., *What do we mean by Corporate Social Responsibility?*, Corporate Governance, Vol. 1, No. 2, 2001, pp.16-22.

[C23] Hopkins, M., *Is Corporate Social Responsibility the same as Corporate Sustainability?* MHC International Ltd Monthly Feature, No. 6, December 2000. Available from:

http://www.mhcinternational.com/sustainability.htm visited on 11 December 2003.

[C24] Logan, D., *Corporate Citizenship: defining terms and scoping key issues*, The Corporate Citizenship Company, London, 1997.

[C25] Hart, S.L., Beyond Greening: Strategies for a Sustainable World, Harvard Business Review, Vol. 75, No. 1, 1997, pp. 66-76.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix C

[C26] Roome, N.J. (ed), *Sustainability Strategies for Industry: The Future of Corporate Practice*, Island Press, Washington, 1998.

[C27] Holliday, C., *Sustainable Growth, the DuPont Way,* Harvard Business Review, Vol. 79, No. 9, 2001, pp.129-134.

[C28] Lancaster, O., Success and Sustainability: A guide to sustainable development for owners and managers of small and medium sized businesses, Midlothian Enterprise Trust, Edinburgh, 1999.
[C29] Daly, H.E., Toward some operational principles of Sustainable Development, Ecological Economics, Vol. 2, No. 3, 1990, pp. 1-6.

[C30] Briassoulis, H., *Sustainable Development and its indicators: Through a (planner's) glass darkly*, Journal of Environmental Planning and Management, Vol. 44, No. 3, 2001, pp. 409-427.

[C31] Holmberg, J., & Sandbrook, R., Sustainable Development: What is to be done?, In: Holmberg, J.

(ed), Policies for a Small Planet, Earthscan, London, 1992, pp.19-38.

[C32] Azapagic, A., & Perdan, S., *Indicators for Sustainable Development for Industry: A General Framework*, Trans IChemE, Vol. 78, Part B, July 2000, pp. 243-261.

[C33]World Bank Group, What is Sustainable Development?,

http://www.worldbank.org/depweb/english/sd.html, visited on 11 December 2003.

[C34] Gardner, J.E., Decision Making for Sustainable Development: Selected Approaches to

Environmental Assessment and Management, Environmental Impact Assessment Review, Vol. 9, No. 4, pp. 337-366.

[C35] Elkington, J., *Towards the Sustainable Corporation: Win-Win-Win Business Strategies for Sustainable Development*, California Management Review, Vol. 36, No. 2, 1994, pp.90-100.

[C36] International Institute for Sustainable Development, Deloitte & Touche, & The World Business Council for Sustainable Development, *Business Strategies for Sustainable Development: Leadership and Accountability for the 90's*, International Institute for Sustainable Development, Winnipeg, 1992. Available from <u>http://www.iisd.org/publications/publication.asp?pno=242</u>, visited on 10 December 2003.

[C37] Knoepfel, I., *Dow Jones Sustainability Group Index: A Global Benchmark for Corporate Sustainability*, Corporate Environmental Strategy, Vol. 8, No. 1, 2001, pp. 6-15.

[C38] Hedstrom, G., Poltorzycki, S., & Stroh, P., *Sustainable Development: The Next Generation of Business Opportunity*, Arthur D. Little: Prism-Sustainable Development: How Real, How Soon and Who's doing what?, No. 4, 1998, pp. 5-19.

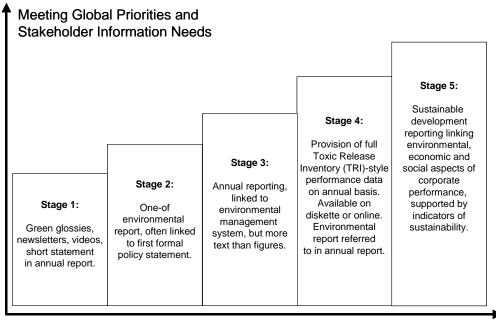
Sustainable project life cycle management: Development of social criteria for decision-making

Appendix D

12. Appendix D: Analysis of Sustainable Development Reporting

12.1 Status of Sustainable Development Reporting

Since the early 1990's companies have been targeted to show their commitment to environmental (and later sustainability) issues and to furthermore, report on their proactive activities as well the damaging impacts of their operational activities on the environment as well as society [D1]. The idea of sustainable development reporting is based on the simple proposition that economic actors have a local as well as global environmental and social impact and that it is their responsibility to disclose those impacts to all their stakeholders [D2]. Although there are historical examples of social reporting in the early 1970's it lost momentum in the 1980's [D2] and only in the first decade of the 21st century the trend in corporate reporting starting shifting from being solely environmental to incorporate both environmental and social aspects [D1]. Thus, together with the annual financial reporting, companies now try to report on all dimensions of sustainable development. This marks the emergence of a new era in corporate accountability [D3]. The evolution in sustainable development reporting have been analysed and it is believed that companies progress through five different stages, which meet variable stakeholder needs [D4]. The five-stage evolution process is shown in



Time, Effort

Figure 12-1: The evolution process for sustainable development reporting [D4]

Nevertheless, corporate sustainable development reporting is still viewed by many as mere window dressing, due to pressure from governments and society, which is likely to stop the moment these

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix D

pressures recede [D1]. A survey amongst NGOs revealed that on average only 44% of sustainability reports are "believable" according to the NGO's [D5] and experts at the European Accounting Federation has warned that unless companies have their reports independently verified it is "*little more than advertising*" [D6].

In spite of this the quantity and quality of sustainability reporting initiatives continue to grow as more and more companies start issuing reports [D7]. The 2001 Benchmark Survey of the State of Global Environmental and Social reporting revealed that in 2001 50% of the top 100 global companies were producing environmental and social reports [D2]. In addition, the 2002 KPMG International Survey of Corporate Sustainability Reporting revealed that 45% of the Global Fortune Top 250 companies are reporting on sustainability issues, an increase of 10% from the 1999 survey. Nevertheless, only 29% of these companies had their report verified by an independent third party [D8]. Furthermore, the style of reporting is not standardized and the following ways for structuring sustainability reports have been identified:

- according to stakeholders, e.g. the Body Shop;
- according to sections of the business;
- according to environmental and social issues; and/or
- according to guidelines such as the Global Reporting Initiative or the Public Environmental Reporting Initiative [D2].

Companies do not always report on all three dimensions of sustainable development in the same document, but rather issue separate financial, social and environmental, health and safety reports. Social reporting is also not as well developed as environmental reporting yet and the use of truly "societal" external indicators is rather infrequent [D1]. Adding to the complexity of social sustainability reporting is the fact that the impact of a business on society can be measured on three different levels, which are not mutually exclusive. These levels are:

- measuring performance against stated objectives in vision, mission and value statements by interviewing stakeholder groups;
- measuring whether the company meet stakeholder expectations by first surveying what stakeholders think the company should be doing and then determining to what degree it is doing it; and
- measuring stakeholders' actual experience of how the company is performing, thus the true social impact of the activities by using indicators developed by taking stakeholders' expectations into consideration [D9].

An analysis of the sustainable development reports of the Global Fortune Top 250 companies revealed that, with regards to societal aspects the focus so far are more on expression of concerns, intentions and policies, than on indicators measuring actual impacts [D1].

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix D

In South Africa, the King II report on Corporate Governance promoted integrated-sustainability reporting or triple-bottom-line reporting and recommended that the practice take force from March 2002. Nevertheless few companies have instituted the process by February 2003 [D10]. The KPMG 2001 survey of Sustainability Reporting in South Africa revealed that reporting on sustainability issues remained at a fairly superficial level. Also, of the seventeen standalone-reports on sustainability issues reviewed, only one report had sufficient information on all three dimensions of sustainable development to be viewed as a sustainability report. The other reports were classified as, either Health, Safety and Environmental Reports, or Social Reports [D11].

12.2 Analysis of Sustainable Development Reports

Eight sustainable development reports have been analysed to determine the scope of issues reported on. Four South African companies were chosen as well as four international companies with business operations in South Africa. The Financial Mail's Top Companies 2002 report has been used to choose the South African companies. The four top companies based on turnover (excluding financial institutions) have been chosen. These companies are: Billiton, Anglo American, Sasol and Sappi [D12]. The 2003 Fortune list of most admired companies were used to choose the international companies. Due to the process industry focus of this document two companies in the chemical division and two companies in petroleum refining division have been chosen. These companies are: Dow Chemical, Bayer, BP and the Royal Dutch/Shell Group [D13].

All of the companies except SAPPI have published sustainability or environmental, health, and safety reports or societal reports. The seven reports that have been analysed are:

- BP Environmental and Social Review 2002 [D14]
- The Dow Global Public Report 2002 [D15]
- The Shell Report: Meeting the energy challenge 2002 [D16,D17]
- Anglo American Report to Society: Towards Sustainable Development 2002 [D18]
- BHP Billiton Health Safety Environment and Community Report: Policy into Practice 2002 [D19]
- Sasol Sustainable Development Report: Share it with Sasol 2002 [D20]
- Bayer Sustainable Development Report 2001 [D21].

All reports were issued in 2002 except the Bayer report, which was issued in 2001. This was the most recent report released by Bayer at the time of the analysis. An analysis of the seven reports is summarised in Table 12-1.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix D

stion			TAINABLE DE		Anglo			
	Name of Company	BP	Dow	Shell	American	Billiton	SASOL	Bayer
	Annual Turnover (\$ Million)	180186	27609	235598	15,145	17778	5996	27101
	Number of Employees	115250	50725	116000	127000	51000	31100	11690
	Does the company report on sustainability using:	110200	00120	110000	121 000	0.000	01100	
	a) Web	x	x	х	X	х		х
	b) Printed report	x	x	x	X	x	X	х
	c) Section in Annual report	~	x	x	x		x	
4	Does this reporting cover the following dimension							
	of sustainable development							
	a) Environmental	х	x	x	x	x	X	Х
	b) Economic		х	х	х		x	
Ì	c) Social - only CSR							
	d) Social - CSR & Employee well-being							Х
i	e) Social - CSR, Employees and impact on society	х	х	х	x	x	x	
5	Is the report structured according to:							
[a) Different stakeholders							
	b) Section of the business	х				X		
[c) Three dimensions of sustainability		х	Х	Х	х	Х	Х
	d) Social and Environmental issues	х			X	х		Х
	e) Specific Guidelines e.g. GRI							
	Does the company issue seperate reports for						No but	
	every division or country in which it operates?			In some			performance per	
		Yes	No	instances	Yes	Yes	section is listed	No
	Does the report contain the following:							
	a) Statement by CEO	х	х	х	Х	х	X	х
	b) Mentioning of GRI guideline compliance	х	х	х	Х	х	X	х
	c) Mentioning of performance on a SRI index or SRI							
	evaluation		х	х		х	х	х
	d) Performance Indicators	х	X	Х	X	X	X	Х
	e) Goals		х	х	X	х	X	х
	f) Assurance Statement or Third Party Review							
	Statement	х	х	х	x	x	x	х
9	Are Health and Safety of employees discussed as:							
	a) an environmental aspect		x				+ +	
	a) an environmental aspect b) a social aspect		×				+ . +	
	o) a social aspect c) Seperate issue	x	-	х	x		X	
	C) Seperate issue Are social performance indicators used?	Yes	Yes	Yes	Yes	Yes	Yes	X Yes
	If yes, what of the following types of indicators are	res	Tes	Tes	Tes	Tes	Tes	Tes
	used (even if used for another dimension of sustainability) Employees							
	-Number of Employees	x	x		х	×	X	
ł	Namber er Employeee	~	^		^	~		
	Diversity Profile of workforce by gender and nationality	х	×	x	×	×		
t	-Non discrimination facts e.g. percentage of previous							
	disadvantaged people in management			x	x		x	
	-Number of Fires, explosions and releases						X	Х
t	Number of Leaks, breaks and spills						x	Х
l	Indicators with regards to Health & Safety e.g. fatal							
	accident rate; number of fatalities; lost time injury							
	frequency, recordable case rate	х	× **	x	x	x	x	х
	Indicators with regards to Wages			X		x		
	Indicators with regards to Child labour			x		x		
	Indicators with regards to Contracting and							
	Procurement			х				
ł	Indicators with regards to worker training e.g. training							
	hours or training expenses		×		x			
ł	Indicators with regards to dismissals or staff turnover							
	and reasons why	x			x			
ł	Indicators with regards to ethics e.g.number of ethic			l				
	workshops	х	x					
ł	-Indicators with regards to Union and staff -							
	membership, involvement and forums and grievance							
	procedures			х				
ł	Indicators with regards to worker empowerment and							
	internal complaints		×				x	
	Society							
	-							
	-Indicators with regards to community outreach forums						x	
Ì	-CSI Investment/Community Spending	х	х	х	х	х		
l	-Public Favorability Scores							
ł	-Transportation Incidents							х
l	-Number of External Complaints					x	X	
ł	Indicators with regards to economic distribution to							
	regions, or taxes or by type				x	х		
	- Political payments, competition cases and bribery							
ľ					1			
Ī	cases			х				

Table 12-1: Analysis of Sustainable Development Reports

It can be concluded from the analysis that social reporting still has a very strong internal focus and that the strongest external social performance indicator remains Corporate Social Investment or CSR investments. It is thus be concluded that the use of truly "societal" external indicators (i.e. indicators that assess the true impact of the business operations on society) is rather infrequent. However, there is a definite move towards reporting on societal aspects since most reports expressed concerns and

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix D

mentioned intentions, policies and actual CSR projects, which were sometimes discussed as case studies.

12.3 Reference

[D1] Kolk, A., *Trends in Sustainability Reporting by the Fortune Global 250*, Business Strategy and the Environment, Vol. 12, No. 5, 2003, pp. 279-291

[D2] Line, M., Hawley, H., & Krut, R., *The Development of Global Environmental and Social Reporting*, Corporate Environmental Strategy, Vol. 9, No. 1, 2002, pp. 69–78.

[D3] Ranganathan, J., *Sustainability Rulers: Measuring Corporate Environmental and Social Performances*, Sustainable Enterprise Perspectives, World Resources Institute Publication, Vol. May 1998, 1998.

[D4] Wheeler, D., & Sillanpää, M., *The Stakeholder Corporation: A Blueprint for maximizing stakeholder value*, Pitman Publishing, London, 1997.

[D5] GreenBiz.com, *Survey: NGOs more likely to believe CSR reports that admit fault*, GreenBiz.com, 26/11/2003, retrieved from

http://www.wbcsd.com/plugins/DocSearch/details.asp?type=DocDet&DocId=3185 visited on 1 December 2003.

[D6] Chapman, P., *EU Regulations: Auditors push for sustainability yardsticks to verify firms' claims*, EIU ViewsWire, 3 May 2004.

[D7] World Business Council for Sustainable Development, *Corporate Social Responsibility: The WBCSD's journey*, World Business Council for Sustainable Development, January 2002. Available from http://www.wbcsd.org/DocRoot/wYlpnLQLIjKQfQ3lk0Qj/csr2002.pdf visited on 9 December 2003.

[D8] Visser, W., & Panton, A., *Sustainability Reporting becoming mainstream*, <u>http://www.kpmg.co.za/modules/library/detail.cfm?libid=189&month=6&year=2002</u> visited on 15 September 2002.

[D9] Wilson, A., Social Reporting: Developing Theory and Current Practice, In: Bennett, M. & James,P., (eds), Sustainable Measures, Greenleaf Publishing, Sheffield, 1999, pp 509-528.

[D10] Spicer, D., SA business still coming to terms with triple-bottom-line reporting, Engineering News, Vol. 23, No. 5, 2003, pp.16-17, 22.

[D11] Visser, W.A.M-T., *Sustainability Reporting in South Africa*, Corporate Environmental Strategy, Vol. 9, No. 1, 2002, pp. 79-85.

[D12] Financial Mail, Top Companies, Supplement to the Financial Mail, 28 June 2002.

[D13] Hjelt, P., The World's Most Admired Companies, Fortune, Vol. 147, No. 4, 2003, pp. 24-32.

[D14] BP, Environmental and Social Review, BP Distribution Services, Surrey, 2003.

[D15] The Dow Chemical Company, *The Dow Global Public Report*, The Dow Chemical Company, Michigan, 2003.

[D16] Royal Dutch/Shell Group of Companies, *The Shell Report: Meeting the Challenge*, Royal Dutch/Shell Group of Companies, The Hague, 2003.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix D

[D17] Royal Dutch/Shell Group of Companies, *Financial and Operational Information* 1998 – 2002, Royal Dutch/Shell Group of Companies, The Hague, 2003.

[D18] Anglo American, *Anglo American Report to Society: Towards Sustainable Development*, Anglo American Corporate Communications Department, London, 2003.

[D19] BHP Billiton, *Health Safety Environment and Community Report: Policy into Practice*, BHP Billiton. Melbourne, 2003.

[D20] Sasol, Sasol Sustainable Development Report: Share it with Sasol, Sasol, Rosebank, 2003.

[D21] Bayer, Sustainable Development: Bayer's commitment to society and the environment, Bayer, 2002

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix E

13. Appendix E: Minimum Wages

Country		Minimum wag	e
·	Pounds sterling (£)	Euros	US dollars (\$)
European Union			· ·
Luxembourg ¹	6.04	9.67	8.59
Netherlands ²	4.54	7.35	6.64
Belgium ³	4.27	6.85	6.21
France ⁴	4.17	6.67	6.03
UK ⁵	4.10	6.57	5.96
Ireland	3.96	6.43	5.76
Italy	3.95	6.41	5.71
Greece	1.65	2.65	2.40
Portugal	1.30	2.09	1.89
Spain	1.13	1.80	1.64
Eastern Europe			
Poland	0.77	1.22	1.12
Hungary	0.76	1.21	1.10
Czech Republic ⁶	0.54	0.88	0.79
Turkey ⁷	0.48	0.77	0.70
Romania	0.20	0.32	0.29
Bulgaria	0.17	0.27	0.24
Slovenia	0.12	0.20	0.18
Ukraine	0.09	0.15	0.14
Russia	0.04	0.07	0.06
South America			
Argentina	0.86	1.38	1.25
Chile	0.64	1.03	0.94
Peru	0.50	0.80	0.74
Colombia	0.48	0.77	0.70
Brazil	0.25	0.40	0.37
North America			
USA ⁸	3.55	5.68	5.15
Asia Pacific			
Australia	3.82	6.11	5.54
Japan	3.48	5.57	5.05
New Zealand ⁹	2.28	3.64	3.31
Taiwan	1.97	3.15	2.87
South Korea	0.99	1.59	1.45
Vietnam	0.13	0.22	0.20

Comparison of minimum wages between different countries

¹ In Luxembourg, there is a minimum wage for skilled workers (shown in the table) and another for unskilled workers and young persons under the age of 18 (equivalent of £5.04; EUR 8.06; and US\$ 7.16).

² For an employee over age 21.

³ This amount applies to workers aged over 21. Lower rates are set for workers under the ages of 20, 19, 18 and 17.

⁴ A different minimum income is set for young workers under the age of 18.

⁵ In the UK, lower rates apply to employees between 18 and 21, or over 21 for the first six months on a new job

⁶ Lower rates apply to workers on a first employment contract (90%), to employees between 18 and 21 (90%), to teenagers (80%), and to people entitled to a partial or full disability pension (75% and 50%, respectively).

⁷ For workers above age 18.

⁸ This is the US federal minimum wage. Some states have set a minimum wage that is slightly higher than the federal minimum wage.

⁹ This amount is for persons over 20. A lower rate applies to young employees between ages 16 and 19

Exchange rates of 3 September 2001 had been used

Source: The Irish Jobs Column, New research reveals wide variations in employment conditions and

benefits worldwide, http://www.exp.ie/advice/mercer.html visited on 2 February 2004

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix F

14. Appendix F: Case Study Protocol for the verification of the sustainability assessment framework

14.1 Overview of the first set of case studies

The main goal of the first set of case studies is to verify that the social aspects that are relevant to the life cycle of an operational initiative are included within the social sustainability framework. The case studies will be divided into three distinct parts, each focussing on one specific life cycle phase.

The main research question for each of these parts is:

• What are the social aspects that become problematic or must be addressed in the construction/operation/decommissioning phase of the operational initiative?

The research question links directly to the second main research question, "What social business sustainability impacts or aspects should be considered in the project life cycle?". The objective with these case studies is descriptive in nature and thus the general analytic strategy is to describe the social aspects in relation with the proposed framework and to identify any social aspects that cannot be classified into the framework.

14.2 Framework Verification Part 1: Construction Phase

The unit of analysis for this part is the construction project of a new operational initiative. The project progresses through the normal project life cycle phases and is concluded when the operational initiative complies with the set standards of production and is handed over to a business unit. Four different construction projects are investigated.

14.2.1 Field Procedures

The case study relies on three sources of information, namely: documents, archival records and interviews. Interviews are conducted personally or telephonically and take approximately 20 to 30 minutes. Interviews are not only conducted with company personnel but also with relevant community members or members of NGO's where applicable.

The following preparations are required:

- Identification of relevant people to interview or to obtain information from
- Gathering of contact details for the relevant company personnel
- Letter of introduction to relevant company personnel
- Acquire permission to obtain documentation
- Schedule interview or meeting times

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix F

14.2.2 Case Study Questions

The following questions will be addressed:

- What social issues had to be addressed in the project?
 - o Check against the framework
- Why were these social issues addressed?
- Were these issues addressed proactively or reactively? Why? How?
- At what stage in the project were these aspects detected or addressed for the first time?
- At what stage in the project has reliable information with regards to these aspects been available? (This question must be asked for the whole framework)
- How were these social issues documented?
- Has any social issue become problematic?
 - o If so, why?
 - And how was it handled?
- How much time and money (of the project budget) had been allocated to deal with social issues?
- Have social issues influenced a decision at any of the decision gates?
- For the second project only:
 - Was it a social issue that stopped the project?
 - o If so, what issue and why?
 - How could things have been handled differently?
 - Would it have changed the outcome of the project?

14.3 Framework Verification Part 2: Operational Phase

The unit of analysis for this part is the operational plant that is manufacturing products. The record of complaints of companies is investigated. The aim is to investigate records of complaints for at least the last 2 years of four different chemical facilities. Two of the facilities operate in developed countries, namely United States and Germany, and the other two in the same developing country, namely South Africa. The age of the facilities are summarised in Table 14-1.

Table 14-1: Age of	chemical facilities
--------------------	---------------------

Chemical Facility	Time in Operation
United States	\pm 45 years
Germany	\pm 80 years
South Africa A	\pm 55 years
South Africa B	± 25 years

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix F

14.3.1 Field Procedures

The case study will rely on two sources of information, namely: archival records and interviews. Interviews will be conducted personally or telephonically and will take approximately 20 to 30 minutes.

The following preparations are required:

- Identification of relevant people to interview or to obtain information from
- Gathering of contact details for the relevant company personnel
- Letter of introduction to relevant company personnel and other
- Acquire permission to obtain documentation
- Schedule interview or meeting times

14.3.2 Case Study Questions

The case study will be based on an archival analysis and interviews with the persons responsible for the record of complaints. Stakeholders such as community members and members of NGO's will be interviewed where applicable. The main source of information is the archival records.

The archival records will be analysed by using the following classification systems for each complaint:

Classification System 1: Origin of Complaint

- Internal Complaint
- External Complaint

Classification System 2: Nature of External Complaint (A)

- Economic
- Social
- Environmental3
- Other If other specify

Classification System 3: Nature of External Complaint (B) (If Social)

- Employment Stability
- Employment Practices
- Health & Safety (of employees)
- Capacity Development
- Human Capital

³ External environmental complaints with regards to pollution or noise will be viewed as Social complaints and specifically Community Capital in nature. This is also relevant to the decommissioning and construction phases.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix F

- Productive Capital
- Community Capital
- Socio-Economic Performance
- Socio-Environmental Performance
- Information Provision
- Stakeholder Influence
- Other If other specify

Classification System 4: Action taken with regards to External complaint

- Ignored
- Investigation and report
- Changes made to address problem (Specify)

Classification System 5: Nature of Internal Complaints (A)

- Environmental Incidents (e.g. spilling of chemicals, road accidents, etc).
- Social Incidents (e.g. health related or work related complaints)
- Other (e.g. production process problems that should be documented)

Classification System 6: Nature of External Complaint (B) (If Social)

• Use Classification System 3.

14.3.2.1 Interviews with responsible persons of record of complaints:

The following questions will be addressed in the interviews:

- What is the normal process to handle complaints?
- Are all complaints captured in the record of complaints?
- What is the average feedback time on complaints?
- Can complaints be made anonymously?
- What mechanisms are in place to allow stakeholders to complain?
- Are complaints with regards to social issues common?
- Are these complaints handled differently?
- Is there a difference in the way in which internal and external complaints are handled?

14.3.2.2 Interviews with stakeholders:

The following questions will be addressed in the interviews:

- Is the process of complaints known to stakeholders? Are stakeholder complaints reported back to stakeholders/communities?
- How does the company react towards complaints from stakeholders?
- What is the general feeling with regards to the company's stakeholder engagement approaches?

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix F

• Has the company add value to the community in which it operates?

14.4 Framework Verification Part 3: Decommissioning Phase

The unit of analysis for this part is the decommissioning and rehabilitation of an operational initiative. Three decommissioning projects or sites are studied, namely:

- a cyanide plant;
- a fibres plant; and
- a mine.

14.4.1 Field Procedures

The case study will rely on three sources of information, namely: documents, archival records and interviews. Interviews will be conducted personally or telephonically and will take approximately 20 to 30 minutes. Interviews will not only be conducted with company personnel but also with relevant community members or members of NGO's where applicable.

The following preparations are required:

- Identification of relevant people to interview or to obtain information from
- Gathering of contact details for the relevant company personnel
- Letter of introduction to relevant company personnel
- Acquire permission to obtain documentation
- Schedule interview or meeting times

14.4.2 Case Study Questions

The following questions will be addressed:

- What social issues had to be addressed in the project?
 - o Check against the framework
- Why were these social issues addressed?
- Were these issues addressed proactively or reactively? Why? How?
- At what stage in the project were these aspects detected or addressed for the first time?
- At what stage in the project has reliable information with regards to these aspects been available? (This question must be asked for the whole framework)
- Has social information been gathered or projected during the construction project of the operational initiative?
- If so, what is the accuracy of that information?
- How were these social issues documented?
- Has any social issue become problematic?
- If so, why?
- And how was it handled?

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix F

- How much time and money (of the project budget) had been allocated to deal with social issues?
- Have social issues influenced a decision at any of the decision gates?

14.5 Summary

In summary the research design for each set of case studies are summarised using components identified by Yin [1] and are shown in Table 14-2.

Phase	Study Question	Unit of Analysis	Data	Case Description
			Analysis	Structure
			Technique	
Construction	What are the	Construction	Evidence	a) Background
	social aspects that	project of a new	must be	Information
	become	operational	placed into	b) Case Study
	problematic or	initiative	the proposed	Approach (if
	had to be		social	applicable)
	addressed in the		sustainability	c) Social Issues
	project?		framework.	manifesting in
				project
Operation	What are the	An operational	Data are	a) Background
	social aspects	facility	analysed	Information
	become		following the	b) Complaint Process
	problematic to		classification	c) Analysis of
	community		system	Complaints
	members?		described in	
			section	
			14.3.2.	
Decommissioning	What are the	Decommissioning	Evidence	a) Background
	social aspects that	and rehabilitation	must be	Information
	become	project of an	placed into	b) Reasons for
	problematic or	operational	the proposed	Decommissioning
	had to be	facility.	social	c) Social Issues
	addressed in the		sustainability	manifesting in
	project?		framework.	project

Table 14-2: Summary of Research Designs

Yin [1] proposes four tests to judge the quality of the research design namely: Internal and external validity, reliability and construct validity. In order to address these aspects the following tactics are proposed for case study execution:

- Multiple data sources will be used as far as possible. If not available, data obtained should be verified by interviews with various project members and stakeholders.
- Key informants will be requested to review draft case study reports.
- The case study protocol will be applied during all executions.

14.6 References

[1] Yin, R.K., *Case Study Research: Design and Methods*, 2nd Edition, SAGE Publications, London, 1994.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix G

15. Appendix G: Survey Questionnaire

15.1 Survey Design

The survey was designed to determine whether the specific criteria are relevant to business. A criterion is relevant to business when it is a social aspect which business should address or consider in its activities or when it is a social aspect for which business should take responsibility. The survey consists of three sections. Section 1 gathers general information to determine the knowledge level of participants with regards to sustainable development as well as the expertise of the participants. Section 2 addresses the main criteria of the three dimensions of sustainable development and Section 3 addresses the lower levels of social criteria. Two aspects thereof are evaluated, namely:

- the relevance thereof in terms of a three point scale High, Medium and Low; and
- the appropriateness of the level within the framework using a binary response Yes/No.

The survey was designed to be completed electronically and distributed using e-mail. Respondents had the option to respond either via e-mail or to fax it to the research institution.

The survey address the second research question: *What social business sustainability impacts or aspects should be considered in the project life cycle?* Although the survey address business relevance, it specifically relates to the first sub-question, namely, *What are the social aspects relevant to project management within the process industry?* since criteria can only be relevant to company projects if it is relevant to business.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix G

15.2 Example of Survey Questionnaire

15.2.1 Information Page

AIM OF THIS SURVEY:

- Evaluate the relevance of suggested criteria to measure sustainable development from a process industry perspective.
- Determine whether the criteria (especially social criteria) address all aspects of sustainable development from a company perspective.

GUIDELINES ON COMPLETING THE SURVEY

- The survey can be completed electronically. Please save the file when done and mail it back to Jurie Steyn or directly to Carin Labuschagne (<u>carin.labuschagne@up.ac.za</u>)
- The survey has been set up in Word using forms. Please use the "TAB" or "Page Up"/"Page Down" keys to move between questions. Boxes can be marked or unmarked by clicking on the "Space bar" when on the box.
- If preferred the survey can be faxed to (012) 362 5307 to maintain confidentiality.
- Thank you very much for your time.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix G

15.2.2 General Questions

L

GENERAL QUESTIONS:					
Job Description:					
Do you regularly work with or are you regularly involved with any of the following activities or					
business models:					
Business Development and Implementation (BD&I) Model					
Environmental Impact Assessment Studies					
CSR Projects					
Project Management (Gate Reviews etc)					
In what way?					
Please indicate your awareness on the following issues:					
Does your company have a sustainable development strategy?					
Yes No Don't know					
If yes, how familiar are you with the strategy? Choose one of the following					
Do you think Corporate Social Responsibility Projects contribute towards the overall sustainability of a					
company?					
Yes No Don't know					
Do you think social and environmental aspects and impacts of a project should be taken into					
consideration during GATE REVIEW meetings?					
Yes, environmental only					
Yes, social and environmental					
Yes, social only					
No					
Please motivate your answer in question 4 briefly					

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix G

15.2.3 Main criteria

Sustainable Development Criteria for Business

The 2002 World Summit on Sustainable Development highlighted that the concept of sustainability is increasingly recognized by governments and businesses worldwide. There are currently more than 100 definitions for sustainable development. For the business environment the International Institute for Sustainable Development's definition is proposed: *"For the business enterprise, sustainable development means adopting business strategies and activities that meet the needs of the enterprise and its stakeholders today, while protecting, sustaining and enhancing the human and natural resources that will be needed in the future"*. A prerequisite for sustainable development is, however, the construction of sustainability indicators. On national and community level progress have been made; nevertheless the concept of business sustainability indicators is still in an infancy stage. This survey proposes a set of sustainability criteria, which address all three general accepted objectives of sustainability, i.e. to measure the sustainability of new or current business initiatives. The aim of the survey is to evaluate the relevance and appropriateness of the proposed criteria.

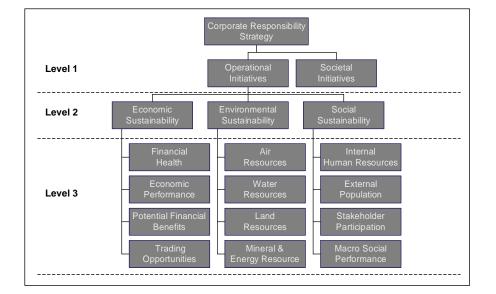


Figure 15-1: Framework to assess sustainability

A prerequisite for the introduction of sustainable measures in a company is a corporate strategy that acknowledges the company's responsibilities towards society and the support of local, national and/or international sustainable development initiatives. The proposed framework therefore focuses on business sustainability from a strategic perspective and consists of different levels. The corporate strategy is supported by two main company focus areas namely operational and societal initiatives (Level 1). Operational Initiatives include all core business activities, projects, day-to-day functioning of the business etc., which should all support the sustainability strategy. Societal initiatives refers to all company activities that influence the sustainability of the business, but does not form part of its core business activities, e.g. philanthropic projects such as Sasol support for wildlife literature. Level 2 lists the three main sustainability categories against which business initiatives are evaluated while the subcriteria of the social criterion are listed at 4 (Figure 2). Definitions for the Level 2 categories and Level 3 criteria are provided in the following table.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix G

Table 1: Definitions of Categories

Sustainability business. It has an internal focus that evaluates the organization's short and long-term financial stability and survival capabilities. Financial Health Financial Health entials those aspects assessing the internal financial stability of a company and includes traditional measures such as profitability, liquidity and solvability. Economic Economic Performance assesses the company's value as perceived by shareholders, top management and government and includes measures such as share indicators. Potential Financial Benefits and/or international subsidies based on the environmental, social and/or technological improvements due to company activities. Trading Trading opportunities assess the vulnerability of the organization's trade network as well as the risks it is exposed to by the network it is embedded in, by considering the number of national and/or international organizations in the trade network. Environmental The environmental dimension concerns an organization's impacts on the trade network. Air resources Air resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion. Mater resources assess the availability of clean and safe water by focusing on an organization's impacts on the quantity and quality of land resources an organization's impacts on the quantity and energy systems in which it operates, as well as the organization's contribution to the depletion of non-renewable mineral and energy resources. </th <th>Category/Criteria</th> <th>Definition</th>	Category/Criteria	Definition				
Iong-term financial stability and survival capabilities. Financial Health Financial Health entails those aspects assessing the internal financial stability of a company and includes traditional measures such as profitability, liquidity and solvability. Economic Economic Performance assesses the company's value as perceived by Performance share indicators. Economic aspects the company state as a share profitability, contribution to Gross Domestic Product as well as market share indicators. Potential Financial Benefits assess financial benefits other than profits e.g. national and/or international subsidies based on the environmental, social and/or technological improvements due to company activities. Trading Trading opportunities assess the vulnerability of the organization's trade network as well as the risks it is exposed to by the network it is embedded in, by considering the number of national and/or international organizations in the trade network. Environmental The environmental dimension concerns an organization's impacts on the environment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources. Air resources Air resources assess the valiability of clean and safe water by focusing on an organization's impacts on the quantity and quality of water. Land Resources Land resources assess an organization's impact on the social systems in which it operates, as well as the organization's contribution to the depletion of non-renewable mineral and energy resources. Social Sustainability	Economic	The economic dimension concerns the economic health and viability of the				
Financial Health Financial Health entails those aspects assessing the internal financial stability of a company and includes traditional measures such as profitability, liquidity and solvability. Economic Economic Performance assesses the company's value as perceived by shareholders, top management and government and includes measures such as share profitability, contribution to Gross Domestic Product as well as market share indicators. Potential Financial Potential Financial Benefits assess financial benefits other than profits e.g. national and/or international subsidies based on the environmental, social and/or technological improvements due to company activities. Trading Trading opportunities assess the vulnerability of the organization's trade network as well as the risks it is exposed to by the network it is embedded in, by considering the number of national and/or international organizations in the trade network. Environmental The environmental dimension concerns an organization's impacts on the trade network. Air Resources Air resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion. Water resources Land resources assess an organization's impacts on the quantity and quality of land resources assess an organization's impact on the social systems in which it operates, as well as the organization's contribution to the depletion of non-renewable mineral and energy resources. Social Sustainability The social dimension concerns the organi	Sustainability	business. It has an internal focus that evaluates the organization's short and				
of a company and includes traditional measures such as profitability, liquidity and solvability. Economic Economic economic performance assesses the company's value as perceived by shareholders, top management and government and includes measures such as share profitability, contribution to Gross Domestic Product as well as market share indicators. Potential Financial Potential Einancial Benefits assess financial benefits other than profits e.g. national and/or international subsidies based on the environmental, social and/or technological improvements due to company activities. Trading Trading opportunities assess the vulnerability of the organization's trade network as well as the risks it is exposed to by the network it is embedded in, by considering the number of national and/or international organizations in the trade network. Environmental The environmental dimension concerns an organization's impacts on the environment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources. Air resources Air resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric core. depletion. Water resources Water resources assess an organization's impacts on the quanity and quality of water resources, including aspects such as biodiversity, erosion, transformation an organization's impacts on the quanity and quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc. Mineral and Energy <td< th=""><th></th><th></th></td<>						
and solvability. Economic Economic Performance assesses the company's value as perceived by shareholders, top management and government and includes measures such as share profitability, contribution to Gross Domestic Product as well as market share indicators. Potential Financial Potential Financial and/or international subsidies based on the environmental, social and/or technological improvements due to company activities. Trading Trading opportunities assess the vulnerability of the organization's trade network as well as the risks it is exposed to by the network it is embedded in, by considering the number of national and/or international organizations in the trade network. Environmental The environmental dimension concerns an organization's impacts on the environment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources. Air resources Air resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion. Water resources Land resources assess an organization's impacts on the quantity and quality of land resources ascess an organization's impacts on the quantity and upality of land resources assess an organization's impact on the social systems in which it operates, as well as the organization's contribution to the depletion of non-renewable mineral and energy resources. Social Sustainability The social dimension concerns the organization's relationships with its various stakeholdd	Financial Health					
Economic Economic Performance Schareholders, top management and government and includes measures such as share profitability, contribution to Gross Domestic Product as well as market share indicators. Potential Financial Potential Financial Benefits assess financial benefits other than profits e.g. national and/or international subsidies based on the environmental, social and/or technological improvements due to company activities. Trading Trading oportunities assess the vulnerability of the organization's trade network as well as the risks it is exposed to by the network it is embedded in, by considering the number of national and/or international organizations in the trade network. Environmental The environmental dimension concerns an organization's impacts on the environment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources. Air Resources Air resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion. Water Resources Water resources assess an organization's impacts on the quantity of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc. Mineral and Energy Mineral and energy resources assess an organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders. Internal Human Internal Ruman Resources focuses on		of a company and includes traditional measures such as profitability, liquidity				
Performance shareholders, top management and government and includes measures such as share profitability, contribution to Gross Domestic Product as well as market share indicators. Potential Financial Potential Financial Benefits assess financial benefits other than profits e.g. national and/or international subsidies based on the environmental, social and/or technological improvements due to company activities. Trading Trading opportunities assess the vulnerability of the organization's trade network as well as the risks it is exposed to by the network it is embedded in, by considering the number of national and/or international organizations in the trade network. Environmental The environmental dimension concerns an organization's impacts on the environment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources. Air Resources Air resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion. Water Resources Land resources assess an organization's impacts on the quantity and quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc. Mineral and Energy Mineral and energy resources assess an organization's contribution to the depletion of non-renewable mineral and energy resources. Social Sustainability The social dimension concerns the organization's relationships with its various stakeholders. Inter		and solvability.				
share profitability, contribution to Ĝross Domestic Product as well as market share indicators.Potential BenefitsFinancial Potential Financial Benefits assess financial benefits other than profits e.g. national and/or international subsidies based on the environmental, social and/or technological improvements due to company activities.Trading OpportunitiesTrading opportunities assess the vulnerability of the organization's trade network as well as the risks it is exposed to by the network it is embedded in, by considering the number of national and/or international organizations in the trade network.Environmental SustainabilityThe environmental dimension concerns an organization's impacts on the environment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources.Air resourcesAir resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion.Water ResourcesWater resources assess an organization's impacts on the quantity and quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.InternalMineral and energy resources.ResourcesThe social dimension concerns the organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.InternalHumanInternalInternal Human Resources focuses on the social responsibility of the company towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.) <td>Economic</td> <td>Economic Performance assesses the company's value as perceived by</td>	Economic	Economic Performance assesses the company's value as perceived by				
share indicators. Potential Financial Benefits Potential Benefits Potential Benefits Potential Benefits Potential Benefits Potential Benefits Potential Benefits Trading Trading Trading opportunities assess the vulnerability of the organization's trade network as well as the risks it is exposed to by the network it is embedded in, by considering the number of national and/or international organizations in the trade network. Environmental The environmental dimension concerns an organization's impacts on the environment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources. Air resources Air resources assess the availability of clean and safe water by focusing on an organization's impacts on the quantity and quality of water. Land Resources Water resources assess an organization's impacts on the quantity and quality of land resources assess an organization's impacts on the quantity and quality of land resources including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc. Mineral and Energy Mineral and energy resources. Social Sustainability Social Sustainability The social dimension concerns the organization's impact on the social systems in which it operates, as we	Performance	shareholders, top management and government and includes measures such as				
Potential Financial Potential Financial Benefits assess financial benefits other than profits e.g. national and/or international subsidies based on the environmental, social and/or technological improvements due to company activities. Trading Trading opportunities assess the vulnerability of the organization's trade network as well as the risks it is exposed to by the network it is embedded in, by considering the number of national and/or international organizations in the trade network. Environmental The environmental dimension concerns an organization's impacts on the environment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources. Air resources Air resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion. Water Resources Water resources assess the availability of clean and safe water by focusing on an organization's impacts on the quantity and quality of land resources, ascess an organization's impacts on the quantity and quality of land resources assess an organization's impacts on the advality of land nesources. Social Sustainability The social dimension concerns the organization's impact on the social systems in which it operates, as well as the organization's impact on the social initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc. External Population External population focuses on the impact of the company's operational inititaives on a society, e.g. impact on availability of serv		share profitability, contribution to Gross Domestic Product as well as market				
Benefits national and/or international subsidies based on the environmental, social and/or technological improvements due to company activities. Trading Trading opportunities assess the vulnerability of the organization's trade network as well as the risks it is exposed to by the network it is embedded in, by considering the number of national and/or international organizations in the trade network. Environmental The environmental dimension concerns an organization's impacts on the environment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources. Air Resources Air resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion. Water Resources Uard resources assess an organization's impacts on the quantity and quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc. Mineral and Energy Mineral and energy resources assess an organization's impact on the social esptension's relationships with its various stakeholders. Social Sustainability The social dimension concerns the organization's relationships with its various stakeholders. Internal Human Resources Early the operates, as well as the organization's relationships with its various stakeholders. Early the resources assess on organization is impact on the social esystems in which it operates, as well as the organi						
and/or technological improvements due to company activities.Trading OpportunitiesTrading opportunities assess the vulnerability of the organization's trade network as well as the risks it is exposed to by the network it is embedded in, by considering the number of national and/or international organizations in the trade network.Environmental SustainabilityThe environmental dimension concerns an organization's impacts on the environment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources.Air ResourcesAir resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion.Water ResourcesWater resources assess an organization's impacts on the quantity and quality of narresources, sincluding aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's impact on the social systems in which it operates, as well as the organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.Internal ResourcesHuman Internal Human Resources focuses on the social responsibility of her company systems in which it operates, use on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.StakeholderStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree	Potential Financial	Potential Financial Benefits assess financial benefits other than profits e.g.				
and/or technological improvements due to company activities.Trading OpportunitiesTrading opportunities assess the vulnerability of the organization's trade network as well as the risks it is exposed to by the network it is embedded in, by considering the number of national and/or international organizations in the trade network.Environmental SustainabilityThe environmental dimension concerns an organization's impacts on the environment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources.Air ResourcesAir resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion.Water ResourcesWater resources assess an organization's impacts on the quantity and quality of narresources, sincluding aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's impact on the social systems in which it operates, as well as the organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.Internal ResourcesHuman Internal Human Resources focuses on the social responsibility of her company systems in which it operates, use on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.StakeholderStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree	Benefits					
Trading OpportunitiesTrading opportunities assess the vulnerability of the organization's trade network as well as the risks it is exposed to by the network it is embedded in, by considering the number of national and/or international organizations in the trade network.Environmental SustainabilityThe environmental dimension concerns an organization's impacts on the environment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources.Air resourcesAir resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion.Water ResourcesWater resources assess the availability of clean and safe water by focusing on an organization's impacts on the quantity and quality of land resources assess an organization's impacts on the quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's impact on the social systems in which it operates, as well as the organization's impact on the social systems in which it operates, as well as the organization's impact on the social systems in which it operates, as well as the organization's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.Stakeholder Stakeholder participationStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.Macro Perf						
Opportunitiesnetwork as well as the risks it is exposed to by the network it is embedded in, by considering the number of national and/or international organizations in the trade network.EnvironmentalThe environmental dimension concerns an organization's impacts on the environment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources.Air ResourcesAir resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion.Water ResourcesWater resources assess the availability of clean and safe water by focusing on an organization's impacts on the quantity and quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.Internal ResourcesHuman ResourcesInternal Resources focuses on the social responsibility of the company to wards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.)External Population ParticipationStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.MacroSocial PerformanceMacro Social Performance focuses on the contribution of an organization to the environmental and financial per	Trading					
by considering the number of national and/or international organizations in the trade network.Environmental SustainabilityThe environmental dimension concerns an organization's impacts on the environment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources.Air ResourcesAir resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion.Water ResourcesWater resources assess the availability of clean and safe water by focusing on an organization's impacts on the quantity and quality of water.Land ResourcesLand resources assess an organization's impacts on the quantity and quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.Internal ResourcesInternal Ruman Resources focuses on the social responsibility of the company towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.)External PopulationStakeholder participation focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.Stakeholder ParticipationStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information s						
trade network.EnvironmentalThe environmental dimension concerns an organization's impacts on the environment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources.Air ResourcesAir resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion.Water ResourcesWater resources assess the availability of clean and safe water by focusing on an organization's impacts on the quantity and quality of water.Land ResourcesLand resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.Internal ResourcesInternal Human Resources, complation focuses on the social responsibility of the company towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.)External PopulationStakeholder participation focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.Stakeholder ParticipationStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.Macro SocialSocial Performance focuses on the contribution of an organiz	11					
Sustainabilityenvironment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources.Air ResourcesAir resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion.Water ResourcesWater resources assess the availability of clean and safe water by focusing on an organization's impacts on the quantity and quality of water.Land ResourcesLand resources assess an organization's impacts on the quantity and quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's impact on the social systems in which it operates, as well as the organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.Internal ResourcesHuman External PopulationExternal PopulationExternal population focuses on the impact on availability of services; community cohesion, economic welfare, etc.Stakeholder ParticipationStakeholder surficient of the company's operational initiatives on a society, e.g. impact on availability of services; community and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.Macro SocialSocial Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.						
Sustainabilityenvironment. It has an external focus and addresses impacts on air, water, land and mineral and energy resources.Air ResourcesAir resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion.Water ResourcesWater resources assess the availability of clean and safe water by focusing on an organization's impacts on the quantity and quality of water.Land ResourcesLand resources assess an organization's impacts on the quantity and quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's impact on the social systems in which it operates, as well as the organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.Internal ResourcesHuman External PopulationExternal PopulationExternal population focuses on the impact on availability of services; community cohesion, economic welfare, etc.Stakeholder ParticipationStakeholder surficient of the company's operational initiatives on a society, e.g. impact on availability of services; community and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.Macro SocialSocial Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.	Environmental	The environmental dimension concerns an organization's impacts on the				
Iand and mineral and energy resources.Air ResourcesAir resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion.Water ResourcesWater resources assess the availability of clean and safe water by focusing on an organization's impacts on the quantity and quality of water.Land ResourcesLand resources assess an organization's impacts on the quantity and quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.Internal ResourcesHuman Internal Human Resources focuses on the social responsibility of the company towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.)External PopulationExternal population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.StakeholderStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.MacroSocialMacro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.	Sustainability					
Air ResourcesAir resources assess an organization's contribution to regional air quality effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion.Water ResourcesWater resources assess the availability of clean and safe water by focusing on an organization's impacts on the quantity and quality of water.Land ResourcesLand resources assess an organization's impacts on the quantity and quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.Internal ResourcesHuman Resources on the social responsibility of the company towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.)External PopulationExternal population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.Stakeholder ParticipationStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.Macro SocialMacro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.	•					
effects (e.g. visibility, smell, noise levels, etc.) as well as to global effects such as global warming and stratospheric ozone depletion.Water ResourcesWater resources assess the availability of clean and safe water by focusing on an organization's impacts on the quantity and quality of water.Land ResourcesLand resources assess an organization's impacts on the quantity and quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's contribution to the depletion of non-renewable mineral and energy resources.Social Sustainability ResourcesThe social dimension concerns the organization's relationships with its various stakeholders.Internal ResourcesInternal Human employment practices, work conditions, workforce development etc.)External PopulationExternal population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.Stakeholder ParticipationStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.Macro PerformanceMacro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.	Air Resources					
as global warming and stratospheric ozone depletion.Water ResourcesWater resources assess the availability of clean and safe water by focusing on an organization's impacts on the quantity and quality of water.Land ResourcesLand resources assess an organization's impacts on the quantity and quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.Internal ResourcesInternal Human External PopulationExternal PopulationExternal population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.Stakeholder ParticipationStakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.MacroSocial Macro SocialMacro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.						
Water ResourcesWater resources assess the availability of clean and safe water by focusing on an organization's impacts on the quantity and quality of water.Land ResourcesLand resources assess an organization's impacts on the quantity and quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's contribution to the depletion of non-renewable mineral and energy resources.Social Sustainability ResourcesThe social dimension concerns the organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.Internal ResourcesInternal Human Resources focuses on the social responsibility of the company towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.)External Population ParticipationStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.Macro PerformanceSocial Macro SocialMacro PerformanceSocial Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.						
an organization's impacts on the quantity and quality of water.Land ResourcesLand resources assess an organization's impacts on the quantity and quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's contribution to the depletion of non-renewable mineral and energy resources.Social Sustainability ResourcesThe social dimension concerns the organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.Internal ResourcesHuman Internal Human Resources focuses on the social responsibility of the company towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.)External PopulationExternal population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.Stakeholder ParticipationStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.MacroSocialMacro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.	Water Resources					
Land ResourcesLand resources assess an organization's impacts on the quantity and quality of land resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's contribution to the depletion of non-renewable mineral and energy resources.Social Sustainability ResourcesThe social dimension concerns the organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.Internal ResourcesHuman Internal Human Resources focuses on the social responsibility of the company towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.)External PopulationExternal population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.Stakeholder ParticipationStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.Macro PerformanceSocial Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.						
Iand resources, including aspects such as biodiversity, erosion, transformation and rehabilitation ability, etc.Mineral and Energy ResourcesMineral and energy resources assess an organization's contribution to the depletion of non-renewable mineral and energy resources.Social Sustainability Social SustainabilityThe social dimension concerns the organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.Internal ResourcesHuman Internal Human Resources focuses on the social responsibility of the company towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.)External PopulationExternal population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.Stakeholder ParticipationStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.Macro PerformanceSocial Macro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.	Land Resources					
Mineral and Energy ResourcesMineral and energy resources assess an organization's contribution to the depletion of non-renewable mineral and energy resources.Social SustainabilityThe social dimension concerns the organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.InternalHuman ResourcesInternal Human Resources focuses on the social responsibility of the company towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.)External PopulationExternal population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.StakeholderStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.MacroSocial PerformanceMacro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.						
Mineral and Energy ResourcesMineral and energy resources assess an organization's contribution to the depletion of non-renewable mineral and energy resources.Social SustainabilityThe social dimension concerns the organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.InternalHuman ResourcesInternal Human Resources focuses on the social responsibility of the company towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.)External PopulationExternal population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.StakeholderStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.MacroSocial PerformanceMacro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.		and rehabilitation ability, etc.				
Resourcesdepletion of non-renewable mineral and energy resources.Social SustainabilityThe social dimension concerns the organization's impact on the social systems in which it operates, as well as the organization's relationships with its various stakeholders.InternalHumanResourcesInternal Human Resources focuses on the social responsibility of the company towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.)External PopulationExternal population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.StakeholderStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.MacroSocialMacro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.	Mineral and Energy					
systems in which it operates, as well as the organization's relationships with its various stakeholders.InternalHumanInternal Human Resources focuses on the social responsibility of the company towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.)External PopulationExternal population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.StakeholderStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.MacroSocialMacro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.	Resources	depletion of non-renewable mineral and energy resources.				
its various stakeholders.InternalHumanResourcesInternal Human Resources focuses on the social responsibility of the company towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.)External PopulationExternal population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.StakeholderStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.MacroSocial PerformanceMacro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.	Social Sustainability	The social dimension concerns the organization's impact on the social				
Internal ResourcesHumanInternal Human Resources focuses on the social responsibility of the company towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.)External PopulationExternal population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.Stakeholder ParticipationStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.Macro PerformanceSocial the environmental and financial performance of a region or nation (e.g.		systems in which it operates, as well as the organization's relationships with				
Resources towards its workforce and includes all aspects of employment (e.g. employment practices, work conditions, workforce development etc.) External Population External population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc. Stakeholder Stakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision-making. Macro Social Performance Macro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.		its various stakeholders.				
employment practices, work conditions, workforce development etc.) External Population External population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc. Stakeholder Stakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision-making. Macro Social Macro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.	Internal Human	Internal Human Resources focuses on the social responsibility of the company				
External PopulationExternal population focuses on the impact of the company's operational initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc.Stakeholder ParticipationStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.Macro PerformanceSocial the environmental and financial performance of a region or nation (e.g.	Resources	towards its workforce and includes all aspects of employment (e.g.				
initiatives on a society, e.g. impact on availability of services; community cohesion, economic welfare, etc. Stakeholder Stakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision-making. Macro Social Performance Social		employment practices, work conditions, workforce development etc.)				
cohesion, economic welfare, etc. Stakeholder Stakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making. Macro Social Macro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.	External Population	External population focuses on the impact of the company's operational				
Stakeholder ParticipationStakeholder participation focuses on the relationships between the company and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision- making.Macro PerformanceSocial the environmental and financial performance of a region or nation (e.g.		initiatives on a society, e.g. impact on availability of services; community				
Participation and ALL its stakeholders (internally and externally) by assessing the standard of information sharing and the degree of stakeholder influence on decision-making. Macro Social Performance Macro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.)		cohesion, economic welfare, etc.				
of information sharing and the degree of stakeholder influence on decision- making. Macro Social Macro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.	Stakeholder					
of information sharing and the degree of stakeholder influence on decision- making. Macro Social Macro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.	Participation	and ALL its stakeholders (internally and externally) by assessing the standard				
making. Macro Social Macro Social Performance focuses on the contribution of an organization to the environmental and financial performance of a region or nation (e.g.	-					
Performance the environmental and financial performance of a region or nation (e.g.		• •				
Performance the environmental and financial performance of a region or nation (e.g.	Macro Social	Macro Social Performance focuses on the contribution of an organization to				
· · · ·	Performance					

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix G

Criteria Evaluation

Please rate whether you think the specific criteria is relevant to business sustainability evaluation i.e. does it contribute towards overall sustainability of a business.

ECONOMIC SUSTAINABILITY:LEVEL 3 CRITERIA							
Criteria		Relevance			Al	ppropriate Level	
	High	Medium	Low	Yes	No	If no, what level is appropriate for the criteria?	
Financial Health							
Economic Performance							
Potential Financial Benefits							
Trading Opportunities							
ENVIRONMEN' Criteria	TAL SU	STAINABI Relevance	LITY:L	EVEL 3 (A opropriate Level	
	High	Medium	Low	Yes	No	If no, what level is appropriate for the criteria?	
Water Resources							
Air Resources							
Land Resources							
Mineral & Energy Resources							
SOCIAL SUSTA	INABILI	TY:LEVEL	3 CRITI	ERIA			
Criteria		Relevance			A	ppropriate Level	
	High	Medium	Low	Yes	No	If no, what level is appropriate for the criteria?	
Internal Human Resources							
External Population							

Population			
Stakeholder			
Participation			
Macro Social			
Performance			

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix G

15.2.4 Social Criteria

LEVEL 4: Social Criteria Evaluation

Please rate whether you think the specific criteria is relevant to social business sustainability evaluation i.e. does it contribute towards overall social sustainability of a business.

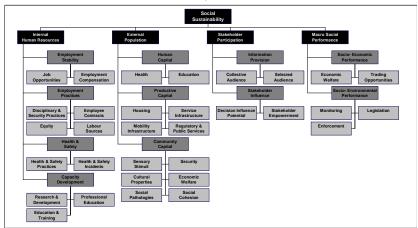


Figure 2:Social Sustainability Framework

(See Figure 2 and Criteria		Relevance				nnuonvioto I ovol
Criteria	High	Medium	Low	Yes	A No	ppropriate Level If no, what level is appropriate for the criteria?
Employment Stability						
Employment Practices						
Health and Safety						
Capacity Development						
Human Capital						
Productive Capital						
Community Capital						
Information Provision						
Stakeholder Influence						
Socio-Economic Performance						
Socio- Environmental Performance						

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix G

Criteria	Definition
Employment	The criterion addresses a business initiative's impact on work opportunities within
Stability	the company, the stability thereof as well as evaluating the fairness of
	compensation.
Employment	Disciplinary and Secrecy Practices as well as employee contracts are addresses
Practices	under this criterion. These are evaluated to ensure that it complies with the laws of
	the country, international human rights declarations as well as other human rights
	and fair employment practice standards. The gender and racial equity inside the
	company is also addressed under this criterion as well as the legitimacy of labour
	sourcing practices, e.g. child labour, etc.
Health and	The criterion focuses on the health and safety of the workforce and evaluates
Safety	preventive measures as well as the occurrence and handling of health and/or safety
~ .	incidents.
Capacity	The criterion addresses two different aspects namely research and development
Development	and career development.
Human	Human Capital refers to an individual's ability to work in order to generate an
Capital	income and encompasses aspects such as health, psychological wellbeing,
	education, training and skills levels. The criterion addresses Health and Education
	separately. Health focuses on any illnesses caused by, or due to, the operational initiative as well as additional strain on medical facilities. Education considers the
	impact on education facilities and the effect of possible training opportunities and
	the sharing of information on the community's level of education
Productive	Productive capital entails the assets and infrastructure an individual needs in order
Capital	to maintain a productive life. The criterion measures the strain placed on these
Cupitai	assets and infrastructure availability by the business initiative.
Community	This criterion takes into account the effect of an operational initiative on the social
Capital	and institutional relationships and networks of trust, reciprocity and support as
Cupitur	well as typical characteristics of the community.
Information	The quantity and quality of information shared with stakeholders are measured.
Provision	Information can either be shared openly with all stakeholders (Collective
	Audience) or shared with targeted, specific groups of stakeholders (Selected
	Audience).
Stakeholder	The degree to which the company actually listens to the stakeholders' opinion
Influence	should also be evaluated. Two separate groups are included: Decision Influence
	Potential and Stakeholder Empowerment.
Socio-	This criterion addresses the external economic impact of the company's business
Economic	initiatives. Economic welfare (contribution to GDP, taxes, etc.) as well as trading
Performance	opportunities (contribution to foreign currency savings etc) are addressed
	separately.
Socio-	This criterion considers the contributions of an operational initiative to the
Environmental	improvement of the environment for society on a community, regional and
Performance	national level. The extension of the environmental monitoring abilities of society,
	as well as the enhancement of legislation and the enforcement thereof, are included
	in this criterion.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix H

16. Appendix H: Additional Survey Results

16.1 Participants perception of Sustainable Development

The survey included some general questions on Sustainable Development. The first of these dealt with the sustainable development strategy of the company and the second tested the participants' knowledge of these strategies. The results of these two questions are summarised in

Participants familiarity with Sustainable Development strategy of company.

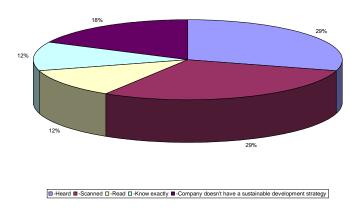
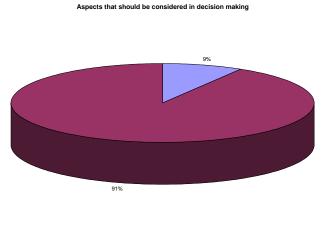


Figure 16-1: Respondents familiarity with Sustainable Development Strategy of Company

The third question assessed whether the respondents thought Corporate Social Responsibility projects contributed to the overall sustainability of the company. Ninety-six (96%) percent of all respondents thought it did. The last question dealt with project decision-making and asked whether social and environmental aspects should be taken into consideration during the decision making process. Results are shown in Figure 16-2.



□-only environmental aspects ■-social & environmental aspects □-social aspects only □ None

Figure 16-2: Aspects that should be considered in decision making.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix H

16.2 95% Confidence Intervals of true proportions

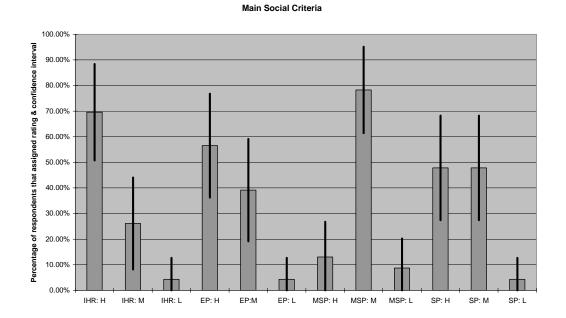
The following figures (Figure 16-3 to Figure 16-7) depict the 95% confidence intervals of true proportions, which is also summarised in Table 16-1. The following abbreviations are used on the specific figures:

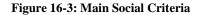
- Main Social Criteria
 - IHR: Internal Human Resources
 - EP: External Population
 - o MSP: Macro Social Performance
 - SP: Stakeholder Participation
- Internal Human Resources
 - ES: Employment Stability
 - EP: Employment Practices
 - HS: Health and Safety
 - CD: Career Development
- External Population
 - o HC: Human Capital
 - o PC: Productive Capital
 - o CC: Community Capital
- Macro Social Performance
 - EC: Socio-Economic Performance
 - o ENV: Socio-Environmental Performance
- Stakeholder Participation
 - o IP: Information Provision
 - o SI: Stakeholder Influence

The H, M and L refer to the specific rating given.

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix H





Internal Human Resources

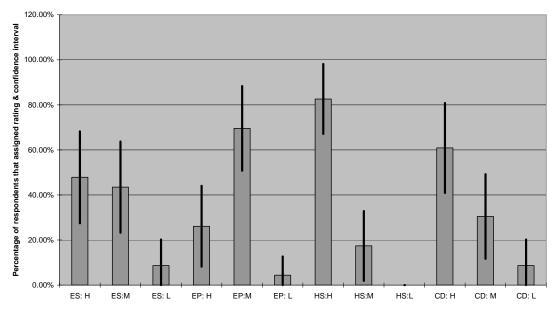


Figure 16-4: Internal Human Resources

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix H

External Population

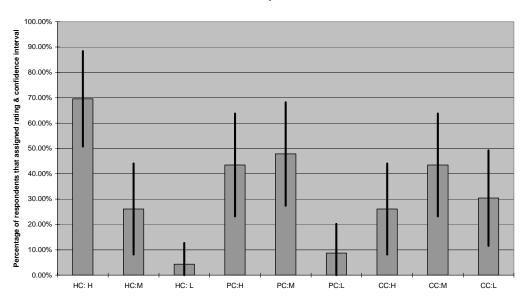
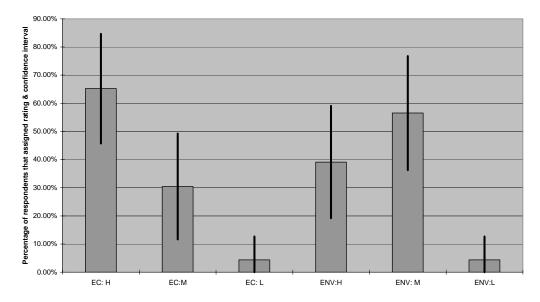
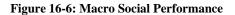


Figure 16-5: External Population

Macro Social Performance





Sustainable project life cycle management: Development of social criteria for decision-making

Appendix H

Stakeholder Participation

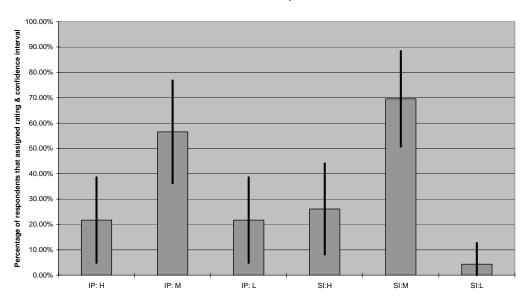


Figure 16-7: Stakeholder Participation

Table 16-1: Summary of 95% confidence levels of true proportions

	Re	evance: High	Rele	vance: Medium	Re	levance: Low
Criterion	Response	Confidence Interval	Response	Confidence Interval	Response	Confidence Interval
Internal Human Resources	69.57%	50.76 < p < 88.37	26.09%	8.14 < p < 44.03	4.35%	0 < p < 12.68
External Population	56.52%	36.26 < p < 76.78	39.13%	19.18 < p < 59.07	4.35%	0 < p < 12.68
Stakeholder Participation	47.83%	27.41 < p < 68.24	47.83%	27.41 < p < 68.24	4.35%	0 < p < 12.68
Macro Social Performance	13.04%	0.00 < p < 26.81	78.26%	61.40 < p < 95.12	8.70%	0 < p < 20.21
Employment Stability	47.83%	27.41 < p < 68.24	43.48%	23.21 < p < 63.74	8.70%	0 < p < 20.21
Employment Practices	26.09%	8.14 < p < 44.03	69.57%	50.76 < p < 88.37	4.35%	0 < p < 12.68
Health & Safety	82.61%	67.12 < p < 98.10	17.39%	1.9 < p < 32.88	0.00%	N/A
Capacity Development	60.87%	40.92 < p < 80.81	30.43%	11.63 < p < 49.24	8.70%	0 < p < 20.21
Human Capital	69.57%	50.76 < p < 88.37	26.09%	26.09 < p < 44.04	4.35%	0 < p < 12.68
Productive Capital	43.48%	23.21 < p < 63.74	47.83%	27.41 < p < 68.24	8.70%	0 < p < 20.21
Community Capital	26.09%	8.14 < p < 44.03	43.48%	23.21 < p < 63.74	30.43%	11.63 < p < 49.23
Information Provision	21.74%	4.88 < p < 38.59	56.52%	36.26 < p < 76.78	21.74%	4.88 < p < 38.60
Stakeholder Influence	26.09%	8.14 < p < 44.03	69.57%	50.76 < p < 88.37	4.35%	0 < p < 12.68
Socio-Economic Performance	65.22%	45.75 < p < 84.68	30.43%	11.63 < p < 49.24	4.35%	0 < p < 12.68
Socio-Environmental						
Performance	39.13%	19.18 < p < 59.07	56.52%	36.26 < p < 76.78	4.35%	0 < p < 12.68

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix I

17. Appendix I: Indicators per criteria for each asset life cycle phase

The indicators listed are classified by the types of indicators. Based on the literature review of indicators, the classification framework (of Figure 17-1) is proposed for indicators and will be used to classify the indicators.

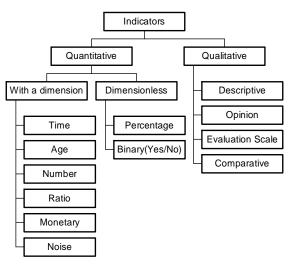


Figure 17-1: Classification System for Indicators

Unfortunately, all types of indicators cannot be used with the same ease and one of the major shortcomings of current indicator frameworks is the lack of clear and detailed guidance for indicator use, specifically on how to apply these indicators [IO]. Currently, quantitative indicators are preferred above qualitative indicators, since it is believed that it is easier to gather the necessary data for an impact assessment. However, the use of only quantitative indicators can turn out to be just another accounting exercise [IO]. The development of indicators should thus also look at the practicality thereof as well as at data availability to facilitate comparison. Criteria should never be excluded due to problems with indicator measurement or data availability. A more optimal approach is to find an indicator type that can easily be measured for the specific criteria and to

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix I

continuously strive to measure indicators in more detail, for example by moving from a binary indicator to a quantitative indicator with dimension or a qualitative indicator. The following table lists the criteria and associated indicators, the characteristic types of the indicators, and the life cycle phase where the indicators are applicable.

	Criteria & Indicators	References	Type of Indicator	Design	C^4	Operation	\mathbf{D}^5
1.	Internal Human Resources						
	Reputation of company as a desirable employer as measured by	[I1, I2]	Qualitative:			Х	
	national surveys, employee surveys and job applicant feedback		Opinion				
	Level of employee satisfaction relative to industry norms	[I1, I3, I4]	Quantitative or		Х	Х	Х
			Qualitative				
	SA8000 certification	[I9]	Quantitative:			Х	
			Binary				
	Does the company measure and control the long-term success of	[I4]	Quantitative:			Х	
	its human resource policies in a formal/standardised way?		Binary				
<u>1.1</u>	Employment Stability						
	Average duration of a contract	[I5]	Quantitative: Time		Х	Х	Х
	Average duration of employment	[I5]	Quantitative: Time		Х	Х	Х
	Retirement Age	[I6]	Quantitative: Age			Х	
<u>1.1.1</u>	Employment Opportunities						
a)	Breakdown of workforce by:						
	• Status (employee/non-employee)	[I7]	Quantitative: Nr		Х	Х	Х
			or Percentage				

⁴ C= Construction

⁵ D= Decommissioning

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix I

		Criterion & Indicators	References	Type of Indica	tor	Design	С	Operation	D
	٠	Type (full time/part time)	[I1,I7]	Quantitative:			Х	Х	Х
				Number	or				
				Percentage					
	•	Contract (indefinite/permanent/fixed term/temporary)	[I7]	Quantitative:			Х	Х	Х
				Number	or				
				percentage					
	•	Location	[I1,I7]	Quantitative:			Х	Х	Х
				Number					
	•	Salary Level	[I1,I7]	Quantitative:			Х	Х	Х
				Number					
b)	New en	nployees appointed:							
	•	Net employment creation	[I1, I7, I8,	Quantitative:			Х	Х	Х
			I9,I10]	Number					
	•	Percentage of employees hired based on a validated	[I4]	Quantitative:			Х	Х	
		selection test		Percentage					
	•	New appointments as a percentage of number of direct	[I8]	Quantitative:				Х	
		employees		Percentage					
c)	Employ	yees leaving the company:							
	•	Number of employees who have resigned or have been	[18]	Quantitative:				Х	Х
		made redundant per year		Number					
	•	Total number of dismissals	[19]	Quantitative:				Х	Х
				Number					

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix I

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
•	Percentage of dismissals over 45 years of age compared	[I9]	Quantitative:			Х	Х
	to total number of dismissals		Percentage				
•	Percentage of skilled employees that left the company in	[I4]	Quantitative:			Х	Х
	the course of the past year relative to the total average number of skilled employees		Percentage				
•	Percentage of workforce that is systematically outplaced	[I4]	Quantitative:			Х	Х
	or re-assigned because of weak performance of the		Percentage				
	employee relative to the total average number of total workforce						
•	Does your company have policies covering redundancies?	[I11]	Quantitative:			Х	
			Binary				
l) Other:							
Numbe	er of employees; can be expressed as full-time equivalents	[18, 19, 112,	Quantitative:		Х	Х	Х
		I13, I14]	Number				
Employ	yee turnover (resigned + redundant/number employed) (can	[I1, I3, I7,	Quantitative:		Х	Х	Х
be com	pared to sector norms)	I8]	Percentage				
What is	s the company's policy or preferences with regards to labour		Qualitative:	Х	Х	Х	Х
intensi	ve processes versus technology intensive processes?		Descriptive				

Sustainable project life cycle management: Development of social criteria for decision-making

Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
Rate the following statements as: Not at all; to a small extent, to	[I3]	Qualitative:			Х	
some extent, to a great extent, nearly always:		Evaluation Scale				
• The company takes social considerations into account when						
dismissals are necessary, for example:						
olonger period of notice						
o compensation payments						
0 redeployment						
oretaining of workers whose dismissal would have the worst						
consequences (e.g. single parents, persons with difficulty in						
finding new employment, etc.)						
o helping dismissed workers find new employment (putting them						
in contact with the employment service, advertising in the						
daily press or other forms of job placement, etc.).						
• The company takes special account of workers who for one						
reason or another are not fully able to cope with their jobs (e.g.						
by offering retraining, further training or redeployment in a						
different type of job).						
• The company organises work so that a number of jobs are						
reserved for workers who become chronically sick or disabled.						
• The company's efforts to retain disabled workers cover the main						
categories of the workforce.						

Appendix I

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
	Rate the following statements as: Not at all; to a small extent, to	[I3]	Qualitative:			Х	
	some extent, to a great extent, nearly always:		Evaluation Scale				
	• The company seeks to do all it can to ensure that older workers						
	can continue as long as they want. For example by providing:						
	o opportunities for working shorter hours						
	o transfer to other tasks and responsibilities						
	\circ further training. \						
	• The company offers work experience placements (e.g. for school						
	pupils, apprentices, students, persons with disabilities, etc.).						
<u>1.2</u>	Employment Remuneration						
	Total Payroll Expenses, can subdivide into total wage expenses	[I8]	Quantitative:		Х	Х	Х
	and total benefit expenses		Monetary				
	Average Disability Pensions	[I6]	Quantitative:			Х	Х
			Monetary				
a)	Salaries/Wages:						
	• Indicative wage and benefit package for highest-paid 10%	[I8]	Quantitative:		Х	Х	Х
	and lowest-paid 10% of employees		Monetary				
	• Lowest wage paid per month in comparison with statutory	[I1, I2, I5,	Quantitative: Ratio		Х	Х	Х
	minimum in country	I9, I15]					
	• Income + benefit ratio comparison between top 10% and	[15, 18, 19]	Quantitative: Ratio		Х	Х	Х
	bottom 10% or highest and lowest salary.						

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix I

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
•	Does your company have policies covering wages? If yes,	[I11]	Quantitative:		Х	Х	Х
	does it also address living wage? If yes, does it also		Binary				
	address cash profit sharing?						
•	What percentage of your company's employees is	[I11]	Qualitative:		Х	Х	Х
	covered by these policies?		Percentage				
•	How are these policies communicated (languages,	[I11]	Qualitative:		Х	Х	Х
	availability etc.)?		Descriptive				
b) Employ	yment Benefits:						
•	Employment benefits beyond those legally mandated	[I4, I6]	Qualitative:		Х	Х	Х
			Descriptive				
•	Benefits as percentage of payroll expense	[I8]	Qualitative:		Х	Х	Х
			Percentage				
•	Percentage of company shares held by employees	[I9]	Qualitative:			Х	
			Percentage				
•	Percentage of employees included in profit sharing	[I1, I4, I9]	Qualitative:			Х	
	programme		Percentage				
•	Percentage of employees included in Bonuses programme	[I4, I9]	Qualitative:			Х	
			Percentage				
•	Does the company offer a:	[19]	Quantitative:		Х	Х	Х
	• A family health plan		Binary				
	• Support for children's education						

• Financing for purchasing of housing

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
	• Percentage of employees with medical insurance, paid	[I1]	Qualitative:		Х	Х	Х
	leave and other benefits		Percentage				
	• Comparison of benefits and hourly wages between full-	[I1]	Qualitative:		Х	X	Х
	time and part-time employees		Descriptive/				
			Quantitative: Ratio				
<u>1.2</u>	Employment Practices						
	Does your company publicly support the United Nations Universal	[I4, I11]	Quantitative:		Х	Х	Х
	Declaration on Human Rights?		Binary				
	Does your company publicly support any ILO conventions? If yes,	[I4, I11]	Quantitative:		Х	Х	Х
	please specify which ILO conventions.		Binary				
	Does your company have a management system covering human	[I11]	Quantitative:			Х	
	and labour rights? If yes, what percentage of employees is covered		Binary and				
	by this system?		Percentage				
	SA8000/ BS 8800 certification	[I9]	Quantitative:			Х	
			Binary				
	Does your company conduct audits of human and labour rights	[I11]	Quantitative:		Х	Х	Х
	activities? If yes:		Binary				
	• what percentage of your operations is audited?	[I11]	Quantitative:		Х	Х	Х
			Percentage				
	• are these audit performed on a regular basis?	[I11]	Quantitative:		Х	Х	Х
			Binary				
	• are these audits verified by a third party?	[I11]	Quantitative:		Х	Х	Х
			Binary				

Appendix I

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
l)	Work-Life:						
	Does the company	[I9]	Quantitative:			Х	
	• Offer a program of prevention and treatment of drug and alcohol addiction?		Binary				
	• Encourage workout during working hours?						
	Existence of work-life programs such as flexitime, job sharing,	[I1]	Quantitative:			Х	
	telecommuting, child care, sabbaticals, and training; and		Binary and				
	percentage of employees participating in these programs relative		Percentage				
	to sector norms						
	Other: Rate the following statements as: Not at all; to a small	[I3]	Qualitative:				
	extent, to some extent, to a great extent, nearly always:		Evaluation Scale				
	• The company has surveyed the requirements and possibilities for preventing persons outside the company					Х	
	from being excluded from the labour market (introducing						
	jobs with flexible hours, work placements, supporting						
	activities for young people in the local community, etc.).						
	• Workers have a strong influence on working time.						
	• Workers have a strong influence on the daily scheduling						
	of working time.						
	Workers are able to work reduced hours or obtain leave in special						
	situations (e.g. serious illness of close relatives).						

Appendix I

Criterion & Indicat	tors	References	Type of Indicato	or Design	С	Operation	D
Rate the following statements as: Not at	all; to a small extent, to	[I3]	Qualitative:			Х	
some extent, to a great extent, nearly alwa	iys:		Evaluation Scale				
• Workers have the company's sup	pport in taking up various						
leave opportunities.							
• Workers have the company's su	pport in taking up public						
office (e.g. local politics).							
• Workers are able to pursue	time consuming leisure						
interests (e.g. competitive sport).							
2.1 Disciplinary & Security Practices							
Description of appeal practices		[I7]	Qualitative:		Х	Х	Х
			Descriptive				
Description of non-retaliation policy an	nd effective confidential	[I7]	Qualitative:		Х	Х	Х
employee grievance system			Descriptive				
Security Personnel statistics:							
• Use of security personnel as requ	ired by law	[I15]	Quantitative:			Х	
			Binary an	ıd			
			Qualitative:				
			Descriptive				
• Number of armed company se	curity, armed contractor	[I15]	Quantitative:				
security and armed government f	forces		Number				

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
	Human rights training for security personnel	[I7]	Quantitative:		Х	Х	Х
			Binary and				
			Qualitative:				
			Descriptive				
<u>1.2.2</u>	<u>Employee Contracts</u>						
	Clarity of contractual terms	[I16]	Qualitative:		Х	Х	Х
			Opinion				
a)	Working Hours & Overtime:						
	Average working hours	[I13]	Quantitative: Time		Х	X	Х
	• Average of overtime worked per employee per year	[I9]	Quantitative: Time		Х	Х	Х
	• Does the company have a compensation and overtime	[I9]	Quantitative:		Х	Х	Х
	policy for managers and executives?		Binary				
b)	Freedom of Association and Collective Bargaining:						
	• Percentage of employees represented by independent	[I7, I15]	Quantitative:		Х	Х	Х
	trade union organisations or other bona fide employee		Percentage				
	representatives						
	• Percentage of employees covered by collective	[I7, I15]	Quantitative:		Х	Х	Х
	bargaining agreements broken down by region/country		Percentage				
	• Description of freedom of association policy and extent	[I7, I16]	Qualitative:		Х	Х	Х
	to which this policy is universally applied independent of		Descriptive				
	local laws, as well as description of		-				
	procedures/programmes to address this issue						
	procedules, programmes to address and issue						

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
	• Does your company have policies that cover Freedom of	[I11]	Quantitative:				
	association and collective bargaining? Please also		Binary and				
	indicate the percentage of your company's employees		Percentage				
	covered by these policies.						
.2.3	Equity & Diversity						
a)	Equity:						
	• Ratio of average female wage to average male wage	[I17]	Quantitative: Ratio		Х	Х	Х
	• Description of equal opportunity policies or programmes	[I7]	Qualitative:		Х	Х	Х
	as well as monitoring systems to ensure compliance and		Descriptive				
	results of monitoring						
	Description of global policy and procedures/programmes	[I7]	Qualitative:		Х	Х	Х
	preventing all forms of discrimination in operations,		Descriptive				
	including monitoring systems and results of monitoring						
	• Number of plants with equal opportunity policies	[I15]	Quantitative:			Х	
			Number				
	• Does your company have policies that cover the	[I11]	Quantitative:		Х	Х	Х
	Discrimination? Please also indicate the percentage of		Binary and				
	your company's employees covered by these policies.		Percentage				

Appendix I

Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
Does the company:	[I9]	Quantitative:			Х	
 support community projects that aim to improve the competitiveness of groups which commonly encounter discrimination in the labour market? have a special program for hiring physically and mentally disabled people? offer work opportunities for former prison inmates? have a policy of giving preference in hiring processes to individuals over 45 years of age or those who have been unemployed for over 2 years? 		Binary				
• have effective guidelines and processes to combat sexual harassment?						
 Rate the following statements as: Not at all; to a small extent, to some extent, to a great extent, nearly always: The company has surveyed the requirements and possibilities for helping persons <i>outside</i> the company enter the labour market (recruiting persons with disabilities, other ethnic backgrounds, etc.). The company endeavours to ensure a broad mix of workers in terms of e.g. gender, age, ethnic background etc. when recruiting. 	[I3]	Qualitative: Evaluation Scale			Х	

Sustainable project life cycle management: Development of social criteria for decision-making

Criterion & Indicators	Refere	nces Type of Indicator	Design	С	Operation	D
Rate the following statements as: Not at all; to a small exte	ent, to [I3]	Qualitative:			Х	
some extent, to a great extent, nearly always:		Evaluation Scale				
• The company considers whether vacancies or new	tasks					
can be filled by persons with disabilities.						
• The company is in constant contact with the employ	yment					
service and the local authority with a view to wheth	er the					
company can offer employment to disadvantaged per	rsons.					
• Personnel composition (e.g. training, age, ge	ender,					
seniority) corresponds to the company's objectives						
b) Diversity:						
• Composition of senior management and corporate gover	mance [I7]	Quantitative: Ratio			Х	
bodies (including the board of directors): female/male	e ratio					
and other indicators of diversity as culturally appropriate						
Gender diversity: Percentage women	in [I9,	I11, Quantitative:		Х	Х	Х
supervisory/professional positions, management posi	itions, I12,	I13, Percentage				
senior leadership positions; all of the above by ra	ce or I15]					
percentage of workforce by gender type.						
• <i>Minority Groups:</i> Numbers, percentage, and lengths of so	ervice [I1]	Quantitative:		Х	Х	Х
of women and minorities: in senior management and o		Number,				
board; interviewed, employed, and promoted by job cate		percentage and				
earning above industry and/or local averages; and comp	•••	time				
	0					

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix I

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
٠	Regional diversity: Percentage of country chair positions for	[I12, I15]	Quantitative:			Х	
	which suitably qualified local nationals exist or percentage of		Percentage				
	senior leadership staff (management staff) by nationality						
٠	Age: Percentage of employees over 45 years of age out of the	[I9, I12]	Quantitative:		Х	Х	Х
	total number of employees or percentage of employees by age		Percentage				
•	groups Disadvantaged Groups: Percentage of previously	[I14]	Quantitative:		Х	Х	Х
	disadvantaged groups in management and workforce		Percentage				
٠	Does your company have policies covering workforce	[I11]	Quantitative:		Х	Х	Х
	diversity?		Binary				
La	ubour Sources						
i) Ch	hild Labour						
	• Description of policy excluding child labour as defined by	[17, 19, 113,	Qualitative:	Х	Х	Х	Х
	the ILO Convention 138 and extent to which this policy is	I15]	Descriptive				
	visibly stated and applied, as well as description of						
	procedures/ programmes to address this issue, including						
	monitoring systems and results of monitoring						
	• How these policies are pushed in the supply chain.	[I9, I15]	Qualitative:		Х	Х	Х
			Descriptive				
	• Number of assessment filed by the Labour Ministry for	[19]	Quantitative:		Х	Х	
	using child labour in the period		Number				

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	References	Type of Indic	ator	Design	С	Operation	D
	• Does your company have policies that cover child labour?	[I11]	Quantitative:		Х	Х	Х	Х
	Please also indicate the percentage of your company's		Binary	and				
	employees covered by these policies.		Percentage					
b) Fo	rced Labour:							
	• Description of policy to prevent forced and compulsory	[I7]	Qualitative:		Х	Х	Х	Х
	labour and extent to which this policy is visibly stated and		Descriptive					
	applied as well as description of procedures/programmes							
	to address this issue, including monitoring systems and							
	results of monitoring							
	• Does your company have policies that cover forced	[I11]	Quantitative:		Х	Х	Х	Х
	labour? Please also indicate the percentage of your		Binary	and				
	company's employees covered by these policies.		Percentage					
c) Ot	her:							
	• What are the major human and labour rights challenges in	[I11]	Qualitative:			Х	Х	Х
	your industry?		Descriptive					
	• Does your company have policies that cover indigenous	[I11]	Quantitative:		Х	Х	Х	Х
	people's rights? Please also indicate the percentage of		Binary	and				
	your company's employees covered by these policies.		Percentage					
	• Percentage of employees sourced from local communities	[I2]	Quantitative:			Х	Х	Х
	relative to the total number of employees.		Percentage					

Appendix I

1.3 Health & Safety Fines, penalties and settlements: number thereof and amount spent [I14] Quantitative: X Number and Monetary Monetary 1.3.1 Health & Safety Practices Monetary a) Procedures, practices and systems Value Value • Practices on recording and notification of occupational [I7] Qualitative: X X accidents and diseases, and how they relate to the ILO Descriptive Code of Practice on Recording and Notification of Occupational Accidents and Diseases Value Value X X Guidelines for Occupational Health Management Descriptive Descriptive Descriptive Descriptive	
Number and Number and Monetary Number 1.3.1 Health & Safety Practices a) Procedures, practices and systems • Practices on recording and notification of occupational [I7] Qualitative: X x X	
Health & Safety Practices Monetary a) Procedures, practices and systems X • Practices on recording and notification of occupational [I7] accidents and diseases, and how they relate to the ILO Descriptive Descriptive Code of Practice on Recording and Notification of Occupational Occupational Accidents and Diseases Evidence of substantial compliance with the ILO [I7] Qualitative: X X	
1.3.1 Health & Safety Practices a) Procedures, practices and systems • Practices on recording and notification of occupational [I7] Qualitative: X X accidents and diseases, and how they relate to the ILO Descriptive Code of Practice on Recording and Notification of Occupational Accidents and Diseases Evidence of substantial compliance with the ILO [I7] Qualitative: X X	
 a) Procedures, practices and systems Practices on recording and notification of occupational [I7] Qualitative: X X X accidents and diseases, and how they relate to the ILO Descriptive Code of Practice on Recording and Notification of Occupational Accidents and Diseases Evidence of substantial compliance with the ILO [I7] Qualitative: X X 	
 Practices on recording and notification of occupational [I7] Qualitative: X X X accidents and diseases, and how they relate to the ILO Descriptive Code of Practice on Recording and Notification of Occupational Accidents and Diseases Evidence of substantial compliance with the ILO [I7] Qualitative: X X 	
accidents and diseases, and how they relate to the ILO Descriptive Code of Practice on Recording and Notification of Occupational Accidents and Diseases • Evidence of substantial compliance with the ILO [I7] Qualitative: X X	
Code of Practice on Recording and Notification of Occupational Accidents and Diseases • Evidence of substantial compliance with the ILO [I7] Qualitative: X X	Х
Occupational Accidents and Diseases Evidence of substantial compliance with the ILO [I7] Qualitative: X X 	
• Evidence of substantial compliance with the ILO [I7] Qualitative: X X	
Guidelines for Occupational Health Management Descriptive	Х
Suucines joi Secupational India India Contra Descriptive	
Systems.	
• Description of formal joint health and safety committees [I7] Qualitative: X X	Х
comprising management and worker representatives and Descriptive	
proportion of workforce covered by any such committees	
• Exposure of employees to hazardous and potentially [I1] Qualitative: X X	Х
hazardous substances and conditions Descriptive	
• Number of Certifications held e.g. ISO 14000, OHSAS [I14] Quantitative: X	
18001, Rating on NOSA 5 star system Number	

Sustainable project life cycle management: Development of social criteria for decision-making

Criterion & Indicators	References	Type of Indicato	or Design	С	Operation	D
• Does your company have a written OHS policy? If yes,	[I11]	Quantitative:			Х	
how is this policy communicated to employees (e.g. is it		Binary ar	nd			
communicated in local languages, how it is made		Qualitative:				
available)?		Descriptive				
• Does your company have a management system covering	[I11]	Quantitative:			Х	
OHS? If yes, is this system in accordance with the ILO		Binary ar	nd			
Guidelines for Occupational Health		Qualitative:				
Management Systems and what percentage of your		Descriptive an	nd			
employees is covered by this system?		Quantitative:				
		Percentage				
Agreements, audits, training, prevention actions and disaster						
preparedness						
• Description of formal agreements with trade unions or	[I7]	Qualitative:		Х	Х	Х
other bona fide employee representatives covering health		Descriptive an	nd			
and safety at work and the proportion of the workforce		Percentage				
covered by any such agreements						
• Does your company conduct audits of its OHS activities?	[I11]	Quantitative:		Х	Х	Х
If yes:		Binary	&			
		Percentage				
o what percentage of your operations is audited?						
o what percentage of your operations is audited?o are these audits performed on a regular basis?		-				

Sustainable project life cycle management: Development of social criteria for decision-making

Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
Results of third party audits	[I16]	Qualitative:		Х	Х	Х
		Descriptive				
• Number and percentage of employees attending safety	[I1]	Quantitative:		Х	Х	Х
education classes		Number and				
		Percentage				
• How is OHS training given to employees (e.g. frequency,	[I11]	Qualitative:		Х	Х	Х
topics, number of employees covered)?		Descriptive and				
		Quantitative:				
		Number				
• Percentage of the hours of training regarding health and	[I2]	Quantitative:		Х	Х	Х
safety relative to the total number of hours worked		Percentage				
• Description of policies or programmes (for the workplace	[I7]	Qualitative:		Х	Х	Х
and beyond) on HIV/AIDS		Descriptive				
• Expenditure on illness and accident prevention as a	[I8]	Quantitative:		Х	Х	Х
percentage of payroll expense		Monetary and				
		Percentage				
• Disaster Preparedness:	[I18]	Quantitative:		Х	Х	Х
• Share of employees trained in First Aid		Percentage, and				
• Expenditures for disaster prevention						
• Frequency of risk assessments and contingency plans		Monetary, and				
in business		Number.				

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
	Adequacy of disaster planning/response	[I16]	Qualitative:			Х	
			Opinion				
c)	Other: Rate the following statements as: Not at all; to a small	[I3]	Qualitative:			Х	
	extent, to some extent, to a great extent, nearly always:		Evaluation Scale				
	• The company has surveyed the requirements and						
	possibilities for preventing workers in the company from						
	being excluded from the labour market (prevention of						
	sickness, poor health, etc.).						
	• The company has surveyed the requirements and						
	possibilities for helping workers likely to be excluded						
	from the labour market.						
	• The company provides active assistance when workers						
	become seriously ill, suffer a personal crisis or similar.						
	• The company provides rehabilitation facilities, gradual						
	reintegration, etc.						
	• The company offers to pay treatment at private clinics or						
	provide other forms of financial support.						
	• The company provides all workers with full pay when						
	sick.						
	• The company cooperates with the local authority with						
	regards to workers registered as long-term incapacitated.						

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
.3.2	Health & Safety Incidents						
a)	Lost days/ Absenteeism:						
	Lost days rate	[I7]	Quantitative: Ratio		Х	Х	Х
	Absentee rate	[I7]	Quantitative: Ratio		Х	Х	Х
	• Level of absenteeism relative to industry norms	[I1,I3]	Quantitative: Ratio		Х	Х	Х
	• Working hours lost through absence (can express as Percentage of total working hours)	[15,18]	Quantitative: Time or Percentage		Х	Х	Х
	• Lost time accident frequency (number per million hours worked)	[18]	Quantitative: Ratio		Х	Х	х
	• Lost time injury frequency (Injury hours per million exposure hours)	[I1, I11, I15, I19]	Quantitative: Ratio		Х	Х	X
	Percentage of accidents that resulted in:	[I9]	Quantitative:		Х	Х	Х
	 Temporary leave of absence of employee(s)/ service provider(s) 		Percentage				
	 Injury or other physical damages to employee(s)/ service provider(s) 						
	• Permanent disability leave (including repetitive strain injuries)						
b)	Cases and Accidents:						
	• Injury and Illness rate (can be expressed per x number of working hours)	[I7,I12]	Quantitative: Ratio		Х	Х	Х

Sustainable project life cycle management: Development of social criteria for decision-making

Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
• Total reportable occupational illness frequency (per x	[I14,I15]	Quantitative: Ratio		Х	Х	Х
number of working hours)						
• Total reportable case frequency (Injury hours per million	[I15]	Quantitative: Ratio		Х	Х	Х
exposure hours)						
• Average annual number of work accidents per employee	[19]	Quantitative: Ratio			Х	
• Number of accidents by type	[I1,I16]	Quantitative:		Х	Х	Х
		Number				
Transportation incidents	[I12,I14]	Quantitative:		Х	Х	Х
		Number or ratio				
• Process Safety: Number of fires, explosions and releases;	[I14]	Quantitative:		Х	Х	Х
leaks, breaks and spills		Number				
c) Fatalities:						
• Percentage of accidents that resulted in death of	[19]	Quantitative:		Х	Х	Х
employee(s)/ service provider(s)		Percentage				
• Number of work-related fatalities (including	[I7, I12,I14,	Quantitative:		Х	Х	Х
subcontracted workers)	I15,I19]	Number				
• Fatal accident rate (number of fatalities per x million	[I15,I19]	Quantitative: Ratio		Х	Х	Х
exposure hours)						
• Fatality rate (number of fatalities per number of	[I11]	Quantitative: Ratio		Х	Х	Х
employees per year)						

Appendix I

d) Compensation: . • Number of compensated occupational diseases [I2] Quantitative: X Number . Number . • Expenditure on workers compensation relative to sector [I1] Quantitative: X Monetary 1.4 Capacity Development . . . Is formal organizational learning/knowledge management systems [I4] Quantitative: .	x x x x
Expenditure on workers compensation relative to sector [I1] Quantitative: X Monetary <u>1.4 Capacity Development</u>	хх
Expenditure on workers compensation relative to sector [I1] Quantitative: X Monetary 1.4 Capacity Development	
1.4 Capacity Development	
1.4 <u>Capacity Development</u>	Х
	Х
Is formal organizational learning/knowledge management systems [I4] Quantitative:	Х
in place in the company and what percentage of employees are Binary	
involved in them?	
1.4.1 <u>Research & Development</u>	
• Expenditure on Research and Development as a [I17] Quantitative: X	Х
percentage of GDP ⁶ Percentage	
R & D expenditure as percentage of sales [I8] Quantitative:	Х
Percentage	
• Percentage of research expenditure for sustainability [I18] Quantitative: X	Х
Percentage	
• Percentage of GDP spent on environment and [I18] Quantitative:	Х
development policies ⁶ Percentage	
Description of R&D process to develop ideas into Qualitative: X	Х
sustainable business opportunities. Descriptive	

⁶ Note indicator has been developed for a nation; it can be adapted for business by using turnover instead of GDP.

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
<u>1.4.2</u>	Career Development						
a)	Training:						
	• Average hours of training per year per employee by	[I1, I5, I7,	Quantitative: Time			Х	
	category of employee	I9, I12]	or Ratio				
	• Total training expenses	[I8]	Quantitative:		Х	Х	Х
			Monetary				
	• Training expenses as percentage of payroll expenses	[I8]	Quantitative:		Х	Х	Х
			Percentage				
	• Training and career planning cost per employee	[I1]	Quantitative:			Х	
			Monetary Ratio				
	• Training costs per hour	[I12]	Quantitative:		Х	Х	Х
			Monetary Ratio				
	• Number of employees participating in training	[I1]	Quantitative:		Х	Х	Х
			Number				
	• Percentage of employees for whom there is a company	[I4]	Quantitative:			Х	
	training program, specific to their job category which		Percentage				
	must be taken before or within a definite time period after						
	taking their position						
	• Frequency of training	[I16]	Quantitative: Ratio		Х	Х	Х
b)	Human Rights Training:						
	• Employee training on policies and practices concerning	[I7]	Qualitative:		Х	Х	Х
	all aspects of human rights relevant to operations		Descriptive				
	r ····································		1.				

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix I

Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
Does your company provide information/training	[I11]	Quantitative:		Х	Х	Х
concerning human rights and labour rights to your		Binary &				
employees? If yes:		Percentage				
o what percentage of your employees receives such		Qualitative:				
information/training?		Descriptive				
• in which languages is this information/training given?						
• what is the nature of this information/training?						
c) Employability & Career Planning:						
• Description of programmes to support the continued	[I7]	Qualitative:		Х	Х	Х
employability of employees and to manage career endings		Descriptive				
• Specific policies and programmes for skills management	[I7]	Qualitative:		Х	Х	
or for lifelong learning		Descriptive				
• Percentage of total revenue spent on professional	[I9]	Quantitative:			Х	
development and education		Percentage				
• Percentage of employee development goals achieved	[I1, I3]	Quantitative:			Х	
		Percentage				
• Does your company have policies covering employee	[I11]	Quantitative:			Х	
career plans?		Binary				
• Does the company	[19]	Quantitative:			Х	
 maintain a program for eliminating illiteracy for its employees, with established goals and resources? 		Binary				

• maintain a program of basic or continuing education?

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
ł)	Other:	[I3]	Qualitative:			Х	Х
	Rate the following statements as: Not at all; to a small extent, to		Evaluation Scale				
	some extent, to a great extent, nearly always:						
	• The company provides alternative employment or further						
	training for workers in connection with readjustments						
	occasioned by new technology, organisational changes,						
	etc.						
	• The company endeavours to retain workers through						
	fluctuations in the company's level of activity (e.g. by						
	making use of slack periods to train workers).						
	• The company plans the development and training of						
	workers to ensure they remain employable on the labour						
	market.						
	• The company trains its supervisors, worker						
	representatives and personnel staff so that they can						
	promote the development of workers/colleagues.						
	• The company coordinates workers' training and						
	development needs with company plans so that workers						
	always have the right qualifications for remaining in the						
	company						

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
e) Prom	otions & Appraisals:						
•	Number of direct employees promoted	[I8]	Quantitative:			Х	
			Number				
•	Promotion rate (the number of promotions as a percentage	[I8]	Quantitative: Ratio			Х	
	of the number employed)						
•	Percentage of promotions that are internal	[I1]	Quantitative:			X	
			Percentage				
•	Number of promotions by type of job and salary level	[I1]	Quantitative:			X	
			Number				
•	Percentage of skilled employees and executives receiving	[I4]	Quantitative:			Х	
	a regular (e.g. a least once per year) formal evaluation of		Percentage				
	their performance (performance appraisal)						
•	Describe how senior/middle management is appraised	[I4]	Qualitative:		Х	Х	Х
			Descriptive				
f) Level	of knowledge within company:						
•	Percentage of employees with post school qualification	[I8]	Quantitative:		Х	Х	Х
			Percentage				
•	Average duration of school, university or other	[I5]	Quantitative:		Х	X	Х
	educational enrolment amongst employees		Number				
•	Number of employees that are financially sponsored by	[I2]	Quantitative:			Х	
	the company for further education		Number				

Appendix I

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
	• Does the company have a medium-term workforce and	[I4]	Quantitative:			Х	
	skills plan comparing current employees and their skills		Binary				
	with the future number, type and skills of employees						
	required to execute the business plan?						
2.	External Population						
	Social and recreational benefits provided to community	[I1]	Qualitative:		Х	Х	Х
			Descriptive				
	• Hours of community relationship-building training and	[I1]	Quantitative: Time		Х	Х	Х
	number of employees trained		and Number				
	• Number and percentage of employees, including top	[I1]	Quantitative:		Х	Х	Х
	management, who participate in company-sponsored		Number and				
	volunteer activities on their own and company time		Percentage				
	• Number and type of community activities held on	[I1]	Quantitative:		Х	Х	Х
	company property		Number and				
			Qualitative:				
			Descriptive				
	• Community awards, accolades received, and assessment	[I1]	Qualitative:		Х	Х	Х
	of impact of charitable contributions		Descriptive				
	• Number of proposed developments that require	[I2]	Quantitative:		Х	Х	Х
	resettlement of communities		Number				
	resettlement of communities		Number				

Sustainable project life cycle management: Development of social criteria for decision-making

Criterion & In	dicators	References	Type of Indic	cator	Design	С	Operation	D
Amount of money spend an	d percentage of profits and/or	[I1]	Quantitative:				Х	
in-kind resources donated to	improve the quality of life in		Monetary	and				
community			Percentage					
• Does your company evalu	ate its impacts on the local	[I11]	Quantitative:			Х	Х	Х
communities in which it op	erates? If yes, which topics are		Binary	and				
included in this evaluation	and which stakeholder groups		Qualitative:					
are involved?			Descriptive					
Rate the following statements as: N	ot at all; to a small extent, to	[I3]	Qualitative:			Х	Х	Х
some extent, to a great extent, nearly	always:		Evaluation Sca	ale				

- The company is in constant contact with others in the local community regarding persons with disabilities or tenuous links with the labour market The company cooperates with training institutions (labour market training providers, vocational colleges and schools).
- The company participates in networks/exchanges of experience with other companies.
- The company offers persons specially adapted jobs (onthe-job training, flexible jobs, sheltered work, under the social chapter, etc.). The company supports activities in the (local) community (e.g. leisure activities, sport, culture, etc.).

Appendix I

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
.1	Human Capital						
<u>.1.1</u>	Health						
a)	Children						
	• Nutritional Status of Children = Percentage of children	[I17]	Quantitative:				
	under 5 with acceptable weight/height for age		Percentage				
	• Mortality rate under 5 years old or Infant mortality rate	[I17, I20,	Quantitative: Ratio				
		I21]					
	Immunization against infectious childhood diseases	[I17]	Quantitative:				
			Binary of				
			Percentage	All indicators can be assessed in the different phases, but the indicators assess conditions in the community and does not directly measure the			
	Percentage of malnourished children	[I20,I21]	Quantitative:				
			Percentage	-			
	• Life Expectancy at birth and in general	[I6, I17,	Quantitative: Age	•		tion or influence	
		I21]		company s		ndition.	on the
b)	Primary Health Care & Availability of Facilities				con	lation.	
	• Percentage of population with access to primary health	[I17]	Quantitative:				
	care		Percentage				
	• Number of hospital and health care centres, doctors and	[I6, I18,	Quantitative:				
	nurses (Can be expressed per 100 inhabitants)	I22]	Number or Ratio				
	• Number of clinics per population	[I22, I23]	Quantitative:				
			Number or Ratio				

Sustainable project life cycle management: Development of social criteria for decision-making

		Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
c)	Other:							
	•	Total health spending per area	[I6, I23]	Quantitative:	Does not ass	ess compa	ny's impact or co	ntribution
				Monetary				
	•	HIV Infection rates	[I23]	Quantitative: Ratio				
	•	Total number of health and safety complaint from local	[I2, I23]	Quantitative:		Х	Х	Х
		communities to the company or Indicators of health		Number or				
		conditions or illnesses due to pollutions		Qualitative:				
				Descriptive				
<u>2.1.2</u>	Educati	on						
a)	Childre	n						
	•	Children reaching Grade 5 of Primary Education	[I17, I20]	Quantitative: Nr or				
				Percentage				
	•	Public education expenditure	[I6]	Quantitative:				
				Monetary	All indicat	tors can be	e assessed in the d	ifferent
	•	Enrolment rate for primary, secondary and tertiary	[I20, I23]	Quantitative: Ratio	phases, but t	the indicat	ors assess condition	ons in the
		education institutions (if applicable)			communit	y and does	s not directly meas	sure the
	•	Pupil-teacher ratio	[I23]	Quantitative: Ratio	company	's contribu	ation or influence	on the
	•	Number of schools per 1000 people	[I22, I23]	Quantitative:		CO	ndition.	
				Number or Ratio				
	•	Percentage of matriculates successful per year	[I23]	Quantitative:				
				Percentage				
				Number or Ratio Quantitative:		co	ndition.	

Sustainable project life cycle management: Development of social criteria for decision-making

		Criterion & Indicators	Refere	ences	Type of Indicator	Design	С	Operation	D
	٠	Number of children in primary, secondary and tertiary	[I23]		Quantitative:				
		education institutions as percentage of school age			percentage				
		population							
	•	Gender equality in education for all the relevant	[I20]		Quantitative:				
		indicators			Percentage or				
					Qualitative:				
					Comparative	All indicat	ors can be	assessed in the	different
	•	Age children leave school	[I22]		Quantitative: Age	phases, but t	he indicate	ors assess condit	tions in the
b) A	dults &	& Community Indexes				communit	y and does	not directly me	asure the
	•	Adult secondary Education Achievement Level	[I17]		Qualitative:	company	's contribu	ition or influence	e on the
					Descriptive		coi	ndition.	
	•	Adult Literacy Rate	[I17,	I20,	Quantitative: Ratio				
			I23]						
	•	Percentage of literacy and related indexes	[I21]		Quantitative:				
					Percentage				
	•	Percentage of 25-64 year olds with a vocational or higher	[I6]		Quantitative:				
		education qualification			Percentage				
	•	Opportunities for training for community residents	[I1]		Qualitative:		Х	Х	Х
					Descriptive				
	•	Support for community education programmes: level of	[I16]		Quantitative:			Х	
		investment in either monetary terms or time			Monetary and/or				
		-			Time				

Appendix I

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
2.2	Productive Capital						
<u>2.2.1</u>	<u>Housing</u>						
	• Floor area per person or per capita	[I17, I23]	Quantitative: Ratio				
	• Area of urban zones	[I6]	Quantitative:				
			Number or square				
			kilometres				
	• Expansion of urban edge	[I23]	Quantitative:				
			Kilometres	All indicato	rs can be	e assessed in the d	ifferent
	Average household size	[I23]	Quantitative:	phases, but the	e indicat	ors assess condition	ons in the
			Number	community	and does	s not directly meas	sure the
	• Percentage of population with adequate housing	[I23]	Quantitative:	company's	contribu	ution or influence	on the
			Percentage	condition. It i	s possibl	le to assess indica	tor before
	• Nature of home occupancy – rent, own, etc.	[I22]	Qualitative:	and after cons	truction	for example but o	ne would
			Comparative	still not necessa	arily be a	ble to isolate the	company's
	Availability of rental accommodation	[I22]	Qualitative:	C	contribut	ion or impact.	
			Descriptive or				
			Quantitative:				
			Number				
<u>2.2.2</u>	Service Infrastructure						
	Percentage of population with adequate sewage disposal	[I17, I20,	Quantitative:				
		I23]	Percentage				

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	Refere	ences	Type of Indicator	Design	С	Operation	D
•	Percentage of population with access to safe drinking	[I17,	I20,	Quantitative:			ess company's in	
	water or with public taps, piped water at dwelling, piped	I23]		Percentage	*		ndicator before an	
	on site				constructio	n for exam	ple but one would	d still not
•	Percentage of households without electricity	[I21]		Quantitative:	necessari	ly be able	to isolate the com	pany's
				Percentage		contribut	ion or impact.	
•	Company strategy with regards to the use of community			Qualitative:	Х	Х	Х	Х
	service infrastructure			Descriptive				
•	Percentage of the population with access to electricity,	[I23]		Quantitative:				
	gas, candles, wood			Percentage				
•	Trends in: energy consumption, water consumption and	[I6]		Qualitative:				
	waste amounts in dwellings/households			Comparative				
•	Infrastructure expenditure per capita	[I6]		Quantitative: Ratio			assessed in the d	
•	Telephones:				•		ors assess conditi	
	• Main telephone lines per 1000 inhabitants	[117]		Quantitative:		•	not directly mea	
				Number or Ratio			tion or influence	
	• Telephones per 1000 inhabitants	[I21]		Quantitative:			e to assess indica	
	· ·			Number or Ratio			for example but o	
3 Mobilit	y Infrastructure				still not neces	•	ble to isolate the	company
	ys & Distances:					contribut	ion or impact.	
•	Average journey length by purpose	[I6]		Quantitative: Time				
	Distance travelled relative to income	[16]		Quantitative: Ratio				

Sustainable project life cycle management: Development of social criteria for decision-making

		Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
	٠	Average distance per capita to key amenities and	[I23]	Quantitative: Ratio				
		facilities						
	•	Annual change in average trip time	[I23]	Quantitative: Time				
b)	Traffic	Status:						
	٠	Traffic congestion	[I6]	Qualitative:				
				Descriptive	All indicat	tors can be	e assessed in the	e different
	٠	Vehicles per 1000 population	[I23]	Quantitative: Ratio	phases, but	the indicat	ors assess cond	itions in the
	•	Mode of travel to/from work	[I23]	Qualitative:	communit	y and does	s not directly m	easure the
				Descriptive	company	's contribu	ution or influen	ce on the
c)	Public T	Fransport:			condition. I	t is possibl	le to assess indi	cator before
	٠	Annual income derived from public transport services	[I23]	Quantitative:	and after con	nstruction	for example bu	t one would
				Monetary	still not neces	sarily be a	ble to isolate th	e company
	٠	Public transport seats (number of seats per 1000	[I23]	Quantitative:		contribut	ion or impact.	
		inhabitants)		Number or Ratio				
d)	Cargo:							
	•	Total tonnage of cargo moved per annum	[I23]	Quantitative: Ratio				
	•	Numbers of containers moved as a proportions of	[I23]	Quantitative: Ratio				
		capacity						
	•	Company policy with regards to the use of public roads		Qualitative:	Х	Х	Х	Х
		or public transport systems for cargo transport		Descriptive				

Appendix I

		Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
.2.4	<u>Regulat</u>	ory & Public Services						
a)	Politics							
	•	Percentage of households registered to vote	[I21]	Quantitative:				
				Percentage				
	•	Percentage of population voting in elections	[I21]	Quantitative:				
				Percentage				
	•	Number of active political parties	[I23]	Quantitative: Nr				
b) Ir	•	Membership numbers of political parties	[123]	Quantitative: Nr & Qualitative: Comparative	All indicators can be assessed in the phases, but the indicators assess condi community and does not directly me			ons in the sure the
b)	Informa	ntion Availability:					tion or influence	
	•	Access to info e.g. library loans, internet users etc	[I6]	Qualitative:		•	e to assess indica	
				Descriptive			for example but o	
	•	Number of Public libraries and users	[I6, I22	Quantitative:		•	ble to isolate the	company s
				Number		contribut	ion or impact.	
	•	Number of Post Offices	[I22]	Quantitative:				
				Number				
c)	Other:							
	•	Number of Banks	[I22]	Quantitative:				
				Number				
	•	Number of Community centres/Halls	[I22]	Quantitative:				
				Number				

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
	• Number of Youth Centres/Child care centres and Family	[I22]	Quantitative:			ess company's im	-
	Day care programs		Number	*		dicator before an	
	Number of swimming pools	[I22]	Quantitative:			ple but one would	
			Number	necessari		o isolate the com on or impact.	pany's
d)	Company:				contributi	on or impact.	
	• Did the company have its name cited in the press as	[I9]	Quantitative:		Х	Х	Х
	being suspected of participating in an incident involving		Binary				
	the offer of bribes and corruption of public officials?						
	• Does your company disclose its contributions to political	[I11]	Quantitative:		Х	Х	Х
	organisations?		Binary				
	• Reported cases of bribery - offered by or accepted by	[I15]	Quantitative:		Х	Х	Х
	company or intermediaries		Number				
	Number of political payments	[I9, I15]	Quantitative:		Х	Х	Х
			Number				
<u>2.3</u>	Community Capital			All indica	tors can be	assessed in the d	ifferent
	Quality of Life	[I6]	Qualitative:	phases, but	the indicate	ors assess condition	ons in the
			Opinion or	communit	y and does	not directly measured	sure the
			Descriptive	company	's contribu	tion or influence	on the
<u>2.3.1</u>	<u>Sensory Stimuli</u>				con	dition.	
	Noise level	[I6]	Quantitative:				
			Decibel				

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
•	Carbon dioxide emissions per capita	[I20]	Quantitative: Ratio	Does not	assess the	company's contri	bution
•	Has the company received complaints and expressions of	[I9]	Quantitative:		Х	Х	Х
	concern (petitions, formal requests, protests) made by the		Binary				
	community because of:						
	o excessive garbage, emission of foul odours and				Х	Х	Х
	other forms of pollution?						
	\circ excessive vehicular traffic, causing noise and				Х	Х	Х
	annoyance?						
	o interference in communications systems?				Х	Х	Х
<u>3.2</u> Securi	<u>ity</u>						
•	• Number of recorded crimes per 100 000 inhabitants	[I17, I23]	Quantitative: Ratio				
•	• Level of crime and Fear of crime	[I6]	Quantitative: Ratio	All indian	tors can be	e assessed in the d	ifforant
			and Qualitative:			ors assess condition	
			Opinion	•			
•	Incidents of violent crime, property related crime and	[I23]	Quantitative: Nr		-	s not directly meas ution or influence	
	social fabric crime						
•	Number of security personnel per 10 000 of population	[I23]	Quantitative: Ratio		-	le to assess indica for example but o	
•	Number of convictions as a percentage of total number	[I23]	Quantitative:			able to isolate the	
	of arrests		Percentage	sun not neces	•	ion or impact.	company
•	Number of Police Officers in community	[I22]	Quantitative:		contribut	ion or impact.	
			Number				

Sustainable project life cycle management: Development of social criteria for decision-making

		Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
2.3.3	<u>Cultural I</u>	Properties						
	•]	Description of policies, guidelines and procedures to	[I7]	Qualitative:		Х	X	Х
	:	address the needs of indigenous people		Descriptive				
	•	Cultural heritage: meadows and pastures; visits to	[I6]	Quantitative: Nr or	Assess exi	stence an	d not company's i	mpact.
	1	museums; age structure of buildings		Qualitative:				
				Descriptive				
<u>2.3.4</u>	<u>Economic</u>	<u>c Welfare</u>						
a)	Commun	ity Characteristics:						
	•]	Percentage of Population living below Poverty Line	[I17, I20,	Quantitative:				
			I21, I23]	Percentage				
	•	Unemployment Rate	[I17, I22,	Quantitative: Ratio				
			I23]		All indicate	ors can be	assessed in the d	ifferent
	•	Average income per household per area per race	[I22, I23]	Quantitative:	phases, but th	he indicat	ors assess condition	ons in the
				Monetary Ratio	community	and does	not directly meas	sure the
	• '	Total income per area based on average earned per	[I23]	Quantitative:	company'	s contribu	tion or influence	on the
]	household by population group		Monetary	condition. It	is possibl	e to assess indicat	tor before
	•]	Motor vehicle ownership	[I22]	Quantitative:	and after con	struction	for example but o	ne would
		*		Number	still not necess	sarily be a	ble to isolate the	company's
	•]	Distribution of Wealth	[I22]	Qualitative:		contribut	ion or impact.	
				Descriptive or				
				Quantitative:				
				Percentages				
				0				

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
b)	Company Impacts:						
	• Share of operating revenues from the area of operations	[I7]	Quantitative:			Х	
	that are redistributed to local communities		Percentage				
	• Ratio of indirect jobs per number of direct employees	[I8]	Quantitative: Ratio		Х	Х	Х
	• Indirect community benefit per unit value added	[I8]	Quantitative:		Х	Х	Х
			Monetary Ratio				
	• Contracting an procurement in local communities,	[115]	Qualitative:		Х	Х	Х
	Comparison between \$000 million spend outside country; inside the country: international contractors and suppliers; local contractors (in community)		Comparative				
	0 1 11	[I2]	Quantitative:		Х	Х	Х
	the total number of suppliers		Percentage				
	• Nature and magnitude of public/private partnerships	[I1]	Qualitative:		Х	Х	Х
			Descriptive				
	• Long-term commitment to community investment	[I16]	Qualitative:			Х	
			Descriptive				
c)	Changes in Economic Opportunities:						
	• Change in economic opportunities: number of newly	[I23]	Quantitative: Nr or	All indicat	ors can be	assessed in the di	ifferent
	registered businesses, vulnerability index, dependency		Qualitative:	phases, but t	he indicate	ors assess condition	ons in th
	ratio		Comparative	communit	y and does	not directly meas	sure the
				compa	ny's contr	ibution or influen	ce

Sustainable project life cycle management: Development of social criteria for decision-making

Criterion & Indicators	References	Type of Indicator	r	Design	С	Operation	D
 Net gain/loss in local jobs, income and/or business opportunities over time 	[I1]	Quantitative: N or Monetary	٨r			assessed in the doors assess condition	
• Increase in local retail sales and savings	[I10]	Quantitative: Monetary			•	not directly mea ntion or influence	
 Presence of business incubators, business enterprise centres, Co-operatives, Skills Centres, regional economic development contracts 	[I22]	Quantitative: Binary o Qualitative: Descriptive	or	and after co	nstruction a ssarily be a	e to assess indica for example but o ble to isolate the ion or impact.	one would
 2.3.5 <u>Social Pathologies</u> Daily smokers & Obesity 	[I6]	Quantitative: Number o Qualitative: Comparative	or			assessed in the c	
 Alcohol and drug related illnesses HIV Infections Suicides Teenage pregnancy: number of pregnancies of 15 and 15- 19 year old girls 	[I6, I22] [I6, I20] [I6] [I20]	-		communit company condition. I and after co	ty and does 7's contribu (t is possibl nstruction :	ors assess conditi not directly mean ntion or influence e to assess indication for example but o	sure the on the tor before one would
Child Abuse	[I22]	Quantitative: Nr o Qualitative: Descriptive o Comparative	or	still not nece	•	ble to isolate the	company's

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix I

		Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
	•	Domestic Violence	[I22]					
	•	Separation and Divorce Rates	[I22]	Quantitative: Ratio				
<u>.3.6</u>	<u>Social</u>	<u>Cohesion</u>						
a)	Popula	tion Characteristics						
	•	Population growth rate (can be per annum)	[I17, I23]	Quantitative: Ratio				
	•	Population of urban formal and informal settlements	[I17, I22,	Quantitative:				
			I23]	Number	All indicate	ors can be	e assessed in the	different
	•	Population: density and growth rate	[I21, I22]	Quantitative: Ratio	phases, but th	ne indicat	ors assess cond	itions in the
	•	Urban/rural population distribution	[I21, I23]	Quantitative:	community	and does	s not directly me	easure the
				Number or	company'	s contribu	ution or influence	e on the
				Qualitative:	condition. It	is possibl	le to assess indi	cator before
				Comparative	and after con	struction	for example but	t one would
b)	Change	es or Migration:			still not necess	sarily be a	ble to isolate th	e company's
	•	Annual population change	[I6]	Quantitative:		contribut	ion or impact.	
				Number				
	•	Internal migration	[I6]	Quantitative:				
				Number				
	•	Net migration rate	[I22, I23]	Quantitative: Ratio				
	•	Change in demographic structure of population: age,	[I23]	Qualitative:				
		gender, racial grouping, cultural diversity		Comparative				
	•	Percentage of sites (in the company) with "fly-in, fly-out"	[I2]	Quantitative:		Х	Х	Х
		operations relative to the total number of sites		Percentage				

	Criterion & Indicators	References	Type of Indicator Design	С	Operation	D
	Presence of seasonal workers	[I22]	Quantitative:	Х	Х	Х
			Binary and/or			
			Number			
	Presence of Active social/professional/trade/volunteer	[I22]	Quantitative:	Х	Х	Х
	organizations		Binary			
	Community Opinion	[I24]	Qualitative:	Х	Х	Х
			Opinion			
3.	Macro Social Performance					
<u>8.1</u>	Socio-Economic Performance					
8. <i>1.1</i>	Economic Welfare					
	• Contracting an procurement in local communities,	[I15]	Qualitative:	Х	Х	Х
	Comparison between \$000 million spent outside country		Comparative			
	and inside the country: international contractors and					
	suppliers; local contractors (national)					
	• Shareholders: dividends per change in net worth	[19]	Quantitative: Ratio		Х	
	• Taxes paid to governments in total and by region	[I9, I12,	Quantitative:	Х	Х	Х
		I13, I19]	Monetary			
	• Total Purchases: Percentages by region	[I12]	Quantitative:	Х	Х	Х
			Percentage			
	Shareholders by region	[I19]	Quantitative:		Х	
			Number			

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
	• Distribution of benefits arising from economic activity:	[I19]	Quantitative:		Х	Х	Х
	suppliers, employees, dividends, taxes and interest		Percentage				
<u>1.2</u>	Trading Opportunities						
	• Joint ventures/Contract divested due to operations	[I15]	Qualitative:		Х	Х	Х
	incompatible with business principles		Descriptive				
	Competition cases	[I15]	Quantitative: Nr or			Х	
			Qualitative:				
			Descriptive				
	• Has the company already been charged or sued for unfair	[19]	Quantitative:			Х	
	competition practices?		Binary				
.2	Socio-Environmental Performance						
.2.1	Monitoring						
	• Number of company monitoring stations that provide		Quantitative: Nr			Х	
	information to the government						
	• What contribution does the company make to the		Qualitative:		Х	Х	Х
	environmental monitoring capabilities (i.e. systems or		Descriptive				
	techniques or experts) of the country or region?						
	• Are company resources (e.g. people, time, equipment,		Quantitative:	Х	Х	X	Х
	money) made available to assist with national or regional		Binary or				
	monitoring? What are the company's strategy with		Qualitative:				
	regards to assisting government with monitoring?		Descriptive				

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
<u>3.2.2</u>	Legislation						
	• Are company resources (e.g. people, time, equipment,		Quantitative:		Х	Х	Х
	money) made available to participate in the legislation		Binary or				
	development or adaptation processes of government?		Qualitative:				
			Descriptive				
<u>3.2.3</u>	<u>Enforcement</u>						
	• Number of suppliers with ISO 14000 accreditation		Quantitative: Nr		Х	Х	Х
	• Number of suppliers who are regularly audited to ensure		Quantitative: Nr		Х	Х	Х
	environmental stewardship						
	• Description of initiatives to enforce environmental		Qualitative:		Х	Х	Х
	sustainability within the supply chain		Descriptive				
4.	Stakeholder Participation						
<u>4.1</u>	Information Provisioning						
	Clarity and accessibility of information disclosed (as from	[I16]	Qualitative:		Х	Х	Х
	stakeholder group perspective)		Opinion and				
			Descriptive				
<i>4.1.1</i>	<u>Collective Audience</u>						
	• Number of meeting with external stakeholders concerning	[18]	Quantitative:		Х	Х	Х
	company operations per year		Number				
		[18]	Quantitative: Ratio		Х	Х	Х
	currency value						

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix I

Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
	[I1]	Qualitative:	Design	x	X	X
	[11]	Opinion and		Λ	Λ	Λ
disclosures and responses to their informational needs		•				
	[11]	Descriptive		V	V	V
• Quantity and Quality of required and voluntary	[I1]	Qualitative:		Х	Х	Х
disclosures		Descriptive and				
		Quantitative:				
		Number or Ratio				
	[10]	or Percentage			X7	
Rate the following statements as: Not at all; to a small extent, to	[I3]	Qualitative:			Х	
some extent, to a great extent, nearly always:		Evaluation Scale				
• The company is committed to assuming social						
responsibility, for example through agreements with the						
employment service, social administration, etc. For large						
companies, this may for example also take the following						
forms:						
• Informing the public of their social efforts (for example,						
in annual accounts, separate social accounts, company						
newsletter, etc.).						
• Publishing concrete targets for social responsibility (for						
example in social or ethical accounts).						
 The company welcomes visits, offers tours and holds 					Х	
The company wereomes visits, oriers tours and nords						

lectures and presentations on the company

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix I

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
4.1.2	Selected Audience						
a)	Employees						
	• Policy and procedures involving information, consultation and negotiation with employees over changes in the reporting of the organisation's operations (e.g. restructuring)	[17]	Qualitative: Descriptive		Х	Х	Х
	• Does your company have a management system covering its labour relations? If yes, what percentage of your employees is covered by this system?	[I11]	Quantitative: Binary and Percentage			Х	
		[111]	Quantitative: Binary and Percentage		Х	Х	Х
		[I11]	Qualitative: Descriptive		Х	Х	Х
	• How is employee satisfaction measured?	[I11]	Qualitative: Descriptive		Х	Х	Х

Sustainable project life cycle management: Development of social criteria for decision-making

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
b)	Customers or Consumers						
	• Does the company have a Customer Service Department [[19]	Quantitative:			Х	
	(CSD)?		Binary				
	• Total number of calls attended by customer service [[19]	Quantitative:			Х	
	department.		Number				
	• Percentage of complaints in terms of the total number of	[19]	Quantitative:			Х	
	calls attended by CSD.		Percentage				
	• Percentage of complaints unattended by CSD [[19]	Quantitative:			Х	
			Percentage				
	• Average waiting time on the telephone before being [attended by CSD	[9]	Quantitative: Time			Х	
	• Does the company provide ongoing training for its [[19]	Quantitative:			Х	
	customer service staff?		Binary				
	• Is the company's board of directors directly involved in [[19]	Quantitative:			Х	
	customer/consumer service programs?		Binary				
c)	Community						
	• Description of jointly managed community grievance	[17]	Qualitative:		Х	Х	Х
	mechanisms/authority		Descriptive				
	Number of community outreach forums	[113, 114]	Quantitative:		Х	Х	Х
			Number				
	• Summary of the policy for liaison with local communities	[12]	Qualitative:		Х	Х	Х
			Descriptive				

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix I

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
•	Relations with community organizations:	[I9]	Quantitative:			Х	
	 Does the company actively participate, with other companies, in the discussion of community problems and proposes solutions? Does the company carry out educational or other campaigns of public interest in the community? 		Binary				
d) Genera	d						
•	Does the company enable its public relations department	[I9]	Quantitative:		Х	Х	Х
	to provide a quick and transparent response in the event of a crisis?		Binary				
•	Number and nature of meetings held with stakeholders	[I1]	Quantitative:		Х	Х	Х
			Number and				
			Qualitative:				
			Descriptive				
•	Does the company regularly track the satisfaction and/or	[I4]	Quantitative:		Х	Х	Х
	complaints of the following stakeholders: Governments, interest groups, local communities, media, NGO's,		Number				

367

shareholders, suppliers/service providers, trade unions

Sustainable project life cycle management: Development of social criteria for decision-making

Appendix I

	Criterion & Indicators	References	Type of Indicator	Design	С	Operation	D
Please	e indicate how the company engages with external	[I4]	Qualitative:		Х	Х	Х
stakeh	olders:		Descriptive				
•	Identification, prioritising and mapping key stakeholders for input into corporate strategy Regular briefings/meetings in form of stakeholder dialogue Feedback from stakeholders to boards/supervisory boards and/or senior directors						
•	Ongoing project teams/partnerships Not applicable						
•	Does the company have an Ombudsman?	[I4, I9]	Quantitative: Binary			Х	
<u>Stakel</u>	holder Influence						
2.1 Decisi	ion Influence Potential						
•	Provision for formal worker representation in decision- making or management, including corporate governance	[I7]	Qualitative:DescriptiveorQuantitative:Binary		Х	Х	Х
•	Union involvement: % of countries which acknowledge unions in discussions; % of countries which involve unions in negotiations	[I15]	Quantitative: Percentage		Х	Х	Х

Sustainable project life cycle management: Development of social criteria for decision-making

Criterion & Indica	itors	References	Type of Indicator	Design	С	Operation	D
• Number of innovations in	nplemented based on	[I9]	Quantitative:			Х	
suggestions from Ombudsman a	nd/or CSD		Number				
• Does the customer/consumer se	ervice staff participate in	[I9]	Quantitative:			Х	
the decision-making processes of	f the company?		Binary				
• Number of board resolution	utions generated by	[I1]	Quantitative: Nr &			Х	
stakeholders/investors and respo	nses by board		Qualitative:				
			Descriptive				
• Summary of the policy on	stakeholder involvement	[I2]	Qualitative:		Х	Х	Х
including the mechanisms by	which stakeholders can		Descriptive				
participate in decision-making	on issues that concern						
them							
2.2 Stakeholder Empowerment							
a) Staff: Grievances & Complaints							
• Staff forums and grievance pro-	ocedures: % of countries	[I15]	Quantitative:		Х	Х	Х
with staff forums; % of co	ountries with grievance		Percentage				
procedures; % of staff with	access to staff forum,						
grievance procedure or support s	system						
• Is a system in place to collect	ct and handle employee	[I4]	Quantitative:		Х	Х	Х
grievances and complaint?			Binary				
• Number of strikes and work stop	ppages in company	[I9]	Quantitative:		Х	Х	Х
			Number				

Sustainable project life cycle management: Development of social criteria for decision-making

		References	Type of Indicator	Design	С	Operation	D
•	Progress towards empowerment measured by differences	[I12]	Qualitative:		Х	Х	Х
	in responses by employees to "Global Employee Opinion		Relative or				
	and Action Survey" percentages		Quantitative:				
			Percentage				
•	Relationship with union; record and outcomes of	[I1]	Qualitative:		Х	Х	Х
	complaints, frequency of job actions and legal		Descriptive or				
	proceedings		Quantitative: Ratio				
•	Number of times grievance procedure used	[I15]	Quantitative:		Х	Х	Х
			Number				
b) Compla	aints and Legal Actions:						
•	Number of complaints registered from members of the	[I8]	Quantitative:		Х	Х	Х
	public concerning the process or products		Number				
•	Number of internal and external complaints	[I14]	Quantitative:		Х	Х	Х
			Number				
•	Number of complaints per unit of value added	[I8]	Quantitative: Ratio		Х	Х	Х
•	Number of successful legal actions taken against	[I8]	Quantitative:		Х	Х	Х
	company or employees for work-related incidents or		Number				
	practices						
•	Number of legal actions per unit of value added	[I8]	Quantitative: Ratio		Х	Х	Х

Appendix I

		Criterion & Indicators	References	Type of Indicator	r Design	С	Operation	D
c)	Genera	1:						
	•	Number and nature of communications from stakeholders	[I1]	Quantitative:		Х	Х	Х
		(e.g. complaints, suggestions)		Number and	d			
				Qualitative:				
				Descriptive				
	•	Does the company identify and analyse the expectations	[I9]	Quantitative:		Х	Х	Х
		and demands from the various groups affected by its		Binary				
		activities?						
	•	Is the nature of the company's processes, products and	[I9]	Quantitative:		Х	Х	Х
		services criticized or opposed by any interested group or		Binary				
		party?						

17.1 References

[I0] Veleva, V., & Ellenbecker, M., A Proposal for Measuring Business Sustainability – Addressing shortcomings of Existing Frameworks, Greener Management International, Vol. 31, Autumn, 2000, pp. 101-120.

[I1] Goodell, E. (editor), Social Venture Networks: Standards of Corporate Social Responsibility, Social Venture Networks, San Fransisco, 1999.

[I2] Azapagic, A., *Developing a Framework for sustainable development indicators for the mining and minerals industry*, Journal of Cleaner Production, Vol. 12, No. 6, 2004, pp 639-662.

[I3] Danish Ministry of Social Affairs, KPMG, & Socialforskningsinstituttet, *Social Index: Measuring a Company's social responsibility*, Danish Ministry of Social Affairs, Copenhagen, 2000.

[I4] SAM Research Inc., Corporate Sustainability Assessment Questionnaire 2003: General Part, SAM Research Inc, Zollikon-Zurich, 9 April 2003.

Appendix I

[I5] Spangenberg, J.H., & Bonniot, O., Sustainability Indicators – A Compass on the Road Towards Sustainability, Wuppertal Paper No. 81, February 1998.

[I6] Hass, J.L., Brunvoll, F, & Hoie, H., Overview of Sustainable Development Indicators used by National and International Agencies, OECD Statistics Working Paper 2002/1, Paris, 2002.

[I7] Global Reporting Initiative, Sustainability Reporting Guidelines 2002, Global Reporting Initiative, Boston, 2002.

[I8] Institution of Chemical Engineers, *The Sustainability Metrics: Sustainable Development Progress Metrics recommend for use in the Process Industries*, Institution of Chemical Engineers. Rugby, 2002.

[I9] Ethos Institute for Business and Social Responsibility, *ETHOS Corporate Social Responsibility INDICATORS*, Instituto Ethos de Empresas e Responsabillidade Social, Såo Paulo, 2001.

[110] Overseas Development Administration, A guide to Social Analysis for Projects in Developing Countries, HMSO, London, 1995.

[I11] Storebrand Investments, Storebrand Social Responsibility Questionnaire Draft, Storebrand Investments, Oslo, December 2002.

[I12] The Dow Chemical Company, The Dow Global Public Report, The Dow Chemical Company, Michigan, 2003.

[I13] BHP Billiton, Health Safety Environment and Community Report: Policy into Practice, BHP Billiton. Melbourne, 2003.

[I14] Sasol, Sasol Sustainable Development Report: Share it with Sasol, Sasol, Rosebank, 2003.

[115] Royal Dutch/Shell Group of Companies, The Shell Report: Meeting the Challenge, Royal Dutch/Shell Group of Companies, The Hague, 2003.

[116] Holme, R., & Watts, P., Corporate Social responsibility: making good business sense, World Business Council for Sustainable Development, Geneva, January 2000

[I17] United Nations Commission on Sustainable Development, *Indicators of sustainable development: guidelines and methodologies*, United Nations, 2001. Available from http://www.un.org/esa/sustdev/natlinfo/indicators/indisd/mg2001.pdf, visited on 19 November 2003.

[I18] Spangenberg, J.H., Sustainability Management Indicators and the Corporate Human Development Index CHDI, Seri Working Paper Series, Sustainable Europe Research Institute, Cologne, May 2000

[119] Anglo American, Anglo American Report to Society: Towards Sustainable Development, Anglo American Corporate Communications Department, London, 2003.

[I20] Udjo, E.O., Simelane, S., & Booysen, D., Socio-Economic Indicators of Development Progress within the OECD framework in South Africa, Paper presented at the Millennium Conference of Commonwealth Statisticians, Gaborone, Botswana, 1-5 May 2000.

[I21] Briassoulis, H., Sustainable Development and its indicators: Through a (planner's) glass darkly, Journal of Environmental Planning and Management, Vol. 44, No. 3, 2001, pp. 409-427.

Appendix I

[I22] Shantz, T., Social Impact Assessment for the New South Wales Far North Coast, Discussion Paper prepared for the Northern Rivers Regional Strategy, September 2002.
 [I23] McClintock, S., Strategic Environmental Management Plan for the Richards Bay SEA, Environmentek report, JX01K, CSIR, prepared for the Richard Bay Transitional Local Council: Forward Planning Section, 2000.

[I24] Center for Urban Transportation Research, Community Impact Assessment Handbook, Department of Transportation, Florida, 2000.

Appendix J

18. Appendix J: Social Aspects in asset life cycle

The design phase of the asset life cycle (see Figure 2.4) is not included in the discussion since the few social aspects that are relevant to the design phase are all addressed in strategies or guiding principles which are or should be considered during the phase. The only criterion addressed as a process is Research and Development, and often the Research & Development life cycle activities coincides with the design phase.

Criteria	Construction	Operation	Decommissioning		
Employment Opportunities ⁷	The criterion assesses the number and ty	pes of employment opportunities that exist	st within the business. These might change		
a) Definition:	annually and employee turnover also oc	curs. In decommissioning employment op	pportunities will be destroyed. Employees		
	might be relocated or re-assigned between	h business units or within the industry sector	r.		
b) Ways to address the criterion:	• Employee procurement process and	• Employee procurement process and	• Employee procurement process and		
	policies	policies.	policies.		
	• Communication with Stakeholders	• Report situation in sustainable	• Communication with Stakeholders (link		
	(link to Information Provisioning	development reports (measurement of	to Information Provisioning criteria)		
	criteria)	outcomes).	• Report in Sustainable development		
	• Measurement of outcomes after		report (measurement of outcomes)		
	construction				
Employment Remuneration	Employment Remuneration is a criterion that assesses the existence and quality of business practices. The remuneration				
a) Definition:	received by employees influence the value of employment opportunities created. In most countries employment remuneration				
	are strongly influenced and governed by l	egislation determining minimum wages.			

18.1 Internal Human Resources criteria through the asset life cycle phases

⁷ The criterion Employment Opportunities has a direct linkage to the Community Capital criterion Economic Welfare.

Sustainable project life cycle management: Development of social criteria for decision-making

b) Ways to address the criterion:	• Strategic decision of business to	• Strategic decision of business to	• Strategic decision of business to follow
b) ways to datress the criterion.	e	0	ç
	follow country legislation or to over	follow country legislation or to over	country legislation or to over more.
	more.	more.	Remuneration policies
	Remuneration policies	Remuneration policies	• Address as part of selection criteria in
	• Address as part of selection criteria in	• An aspect of SA 8000 accreditation	contractor selection process or
	contractor selection process or	• Reports on situation in sustainable	contractor codes of conduct.
	contractor codes of conduct.	development report (measurement of	• Measurement of outcomes after
	• Measurement of outcomes after	outcomes).	decommissioning.
	construction		
Disciplinary & Security Practices	Disciplinary and Security Practices is a c	riterion, which assesses the existence and	quality of the business process to deal with
a) Definition:	disciplinary hearings, etc. In certain case	s the criterion also describes the situation v	vith regards to security personnel within the
	company. It thus assesses conditions or p	rocesses and not direct impacts.	
b) Ways to address the criterion:	Business policies	Business policies	Business policies
	• Address as part of selection criteria in	• An aspects of SA 8000 accreditation	• Address as part of selection criteria in
	contractor selection process or	• Reports on situation in sustainable	contractor selection process or
	contractor codes of conduct.	development report (measurement of	contractor codes of conduct.
	• Measurement of outcomes after	outcomes)	• Measurement of outcomes after
	construction		decommissioning.
Employee Contracts	Employee Contracts is a criterion that asse	esses the existence and quality of business	practices and a specific business process. In
a) Definition:	most countries legislation can dictate what should be included in an employee contract. The criterion thus measures wheth		
	company practices/policies adheres to leg	islation and international standards with reg	gards to their employee contracts.

Sustainable project life cycle management: Development of social criteria for decision-making

b) Ways to address the criterion:	Business policies	Business policies	Business policies
	• Address as part of selection criteria in	• An aspect of SA 8000 accreditation.	• Address as part of selection criteria in
	contractor selection process or	• Reports on situation in sustainable	contractor selection process or
	contractor codes of conduct.	development report (measurement of	contractor codes of conduct.
	• Measurement of outcomes after	outcomes)	• Measurement of outcomes after
	construction		decommissioning.
Equity & Diversity	Equity and Diversity is a criterion that de	escribes the situation within the company w	vith regards to gender, race, age, region and
a) Definition:	minority or disadvantaged equity and d	iversity. The indicators can also assess	certain practices or adherence to national
	initiatives or laws such as affirmative acti	on policies in South Africa.	
b) Ways to address the criterion:	Business policies	Business policies	Business policies
	• Address as part of selection criteria in	• An aspect of SA 8000 accreditation	• Address as part of selection criteria in
	contractor selection process or	• Reports on situation in sustainable	contractor selection process or
	contractor codes of conduct.	development report (measurement of	contractor codes of conduct.
	• Measurement of outcomes after	outcomes)	• Measurement of outcomes after
	construction		decommissioning.
Labour Sources	The Labour Sources criterion describes the	he situation within the company with regar	ds to child and forced labour as well as the
a) Definition:	use of local labour sources. In addition business policies and procedures to ensure that no child or forced labour are used are		
	also assessed.		

		N N N N N N N N N N	
b) Ways to address the criterion:	• Business policies, which can state	• Business policies, which can state	• Business policies, which can state
	preference for local labour.	preference for local labour.	preference for local labour.
	• Address as part of selection criteria in	• An aspect of SA 8000 accreditation	• Address as part of selection criteria in
	contractor selection process or	• Reports on situation in sustainable	contractor selection process or
	contractor codes of conduct.	development report (measurement of	contractor codes of conduct.
	• Measurement of outcomes after	outcomes)	• Measurement of outcomes after
	construction		decommissioning.
Health & Safety Practices	The criterion Health and Safety Practices	assesses the quality of all health and safe	ty related business practices. In addition, it
a) Definition:	also describes the current situation within	n the business with regards to health and s	afety training and disaster preparedness. It
	does not measure any direct impacts on en	nployees.	
b) Ways to address the criterion:	Business policies	• Business policies with regards to	Business policies
	• Address as part of selection criteria in	training	• Address as part of selection criteria in
	contractor selection process or	• An aspect of SA 8000 accreditation	contractor selection process or
	contractor codes of conduct.	NOSA/ISO certification	contractor codes of conduct.
	• Measurement of outcomes after	• Reports on situation in sustainable	• Measurement of outcomes after
	construction	development report (measurement of	decommissioning.
		outcomes)	
Health & Safety Incidents	The Health and Safety Incidents criterion	measures the direct actual or predicted imp	pacts on employees due to health and safety
a) Definition:	incidents.		
b) Ways to address the criterion:	Response/Emergency processes	• Reports on situation in sustainable	Response/Emergency processes
	• Predict the possible incidents	development report (measurement of	• Predict the possible incidents
	• Measurement of outcomes after	outcomes)	• Measurement of outcomes after
	construction.	Response/Emergency processes	decommissioning.

Sustainable project life cycle management: Development of social criteria for decision-making

Research & Development	The construction of a new plant can	Research and Development activities	Research and Development can be used to
a) Definition:	imply the implementation of R&D ideas	that support the goals of sustainable	find new usages for the existing plant
	or proposals.	development have a positive social	and/or technology.
		sustainability impact, which contribute	
		to total business sustainability.	
b) Ways to address the criterion:	• Business policies with regards to the	• Business strategy with regards to	• Business policies with regards to the
	involvement of Research and	R&D.	involvement of Research and
	Development team on an as needed	• Business policies with regards to the	Development team on an as needed
	basis.	management and funding of R&D.	basis.
		• Reports on situation in sustainable	
		development report (measurement of	
		outcomes)	
Career Development	The Career Development criterion assess	es the quality of business practices and pro	cedures with regards to the development of
a) Definition:	individual employees. It also describes the	e current situation with regards to employe	e development.
b) Ways to address the criterion:	Business policies	Business policies	Business policies
	• Development Programmes/process to	Development Programmes	• Development Programmes to ensure
	ensure future employability of	• Reports on situation in sustainable	future employability of workers.
	temporary workers for example.	development report (measurement of	• Measurement of outcomes after
	• Measurement of outcomes after	outcomes)	decommissioning.
	construction.	Human Resource Structures	

Appendix J

18.2 External Population criteria through the asset life cycle phases

Criteria	Construction	Operation	Decommissioning			
Health	The criterion, Health, describes the hea	The criterion, Health, describes the health situation in the community with regards to the availability of services and the				
a) Impact	increase or decreases in certain illnesses.	With regards to the availability of medical	services the business can have an indirect			
	impact due to the people it attracted to t	he area or a direct impact by making its fa	acilities available to the community. The			
	increases or decreases in diseases can	be a result of migratory effect in the	local community or through first-order			
	environmental impacts (precautionary prin	nciple).				
b) Ways to address the criterion:	Measurement of outcomes after	• CSR projects can focus on the Health	• Measurement of outcomes after			
	construction, comparison between	dimension.	decommissioning, comparison			
	before, during and after.	• Sustainable development reports can	between before, during and after.			
		address external health complaints and				
		report on the number of people served				
		by the business's facilities.				
		(measurement of outcomes)				
Education	The criterion, Education, describes the ed	ucation situation in the community with reg	ards to the availability of schools, etc. and			
a) Impact	the level of education. The business can	have an indirect impact on education availa	bility as a result of the migation of people			
	in the area because of the business's op	perations. The business can also directly	influence the level of education within a			
	community by means of CSR projects.					
b) Ways to address the criterion:	• Measurement of outcomes after	• CSR projects that focus on the	• Measurement of outcomes after			
	construction, comparison between	Education dimension	decommissioning, comparison			
	before, during and after.	• Sustainable development reports can	between before, during and after			
		address educational initiatives in the				
		local community.				

Sustainable project life cycle management: Development of social criteria for decision-making

Housing	The criterion, Housing, describes the h	ousing situation within the community v	vith regards to the cost of housing, the			
a) Definition:	availability of housing and the average size of households. The business can influence this situation either directly by building					
	houses or buying houses, or indirectly due	e to the migration of people in the area since	e the business is operating there or through			
	a change in prices due to the location of pr	roperty relative to business operations.				
b) Ways to address the criterion:	Measurement/prediction of outcomes	• Housing can be part of Employee	• Measurement/prediction of outcomes			
	after construction, comparison	Remuneration (See criterion under	after construction, comparison			
	between before, during and after.	Internal Human Resources).	between before, during and after.			
	• Housing can be part of Employee	• Business policy with regards to	• Business policy with regards to			
	Remuneration (See criterion under	company housing or accommodation.	company housing or accommodation.			
	Internal Human Resources).		• Housing can be part of Employee			
	• Business policy with regards to		Remuneration (See criterion under			
	company housing or accommodation.		Internal Human Resources).			
	• The building of adequate housing can					
	be included into construction project					
	thus if company decides on the policy					
	as a strategy.					
Service Infrastructure	Service Infrastructure is a descriptive crit	terion of the community situation. Business	s can directly influence the "load" on this			
a) Definition:	infrastructure, which can influence the	availability. Furthermore, social second	ary indirect impacts due to first order			
	environmental impacts can influence the	quality of the service infrastructure. The in	flux of people due to the existence of the			
	business can also indirectly influence the '	business can also indirectly influence the "load" on the infrastructure.				

b) Ways to address the exiterior.	Management (and listing of anterna	Demont on second in sectoin the	Manager Handling Containing
b) Ways to address the criterion:	• Measurement/prediction of outcomes	• Report on usage in sustainable	• Measurement/prediction of outcomes
	after construction, comparison	development report (measurement of	after decommissioning comparison
	between before, during and after.	outcomes).	between before, during and after.
	• Communicate with authorities if	• CSR projects can focus on this area.	• Communicate with authorities if
	necessary. (Information Provisioning		necessary. (Information Provisioning
	policies)		policies)
Mobility Infrastructure	The Mobility Infrastructure criterion des	cribes the current situation in the commu	nity with regards to public transport and
a) Definition:	transport networks. The business can dire	ectly and indirectly influence the load on tra	nsport networks and indirectly the load on
	public transport. Indirect impacts are due	to influx of people and direct impacts are du	e to logistic activities of the company.
b) Ways to address the criterion:	Measurement/prediction of outcomes	• Report on usage in sustainable	Measurement/prediction of outcomes
	after construction, comparison	development report (measurement of	after decommissioning, comparison
	between before, during and after.	outcomes).	between before, during and after.
	• Communicate with authorities if		• Communicate with authorities if
	necessary. (Information Provisioning		necessary. (Information Provisioning
	policies)		policies)
	• Construction can include the building		
	of infrastructure.		
Regulatory & Public Services	The criterion Regulatory and Public Serv	ices assesses the current situation in the co	ommunity with regards to access to public
a) Definition:	services and the functioning of regulatory	services. The company can indirectly influ	nence the status due to the influx of people
	or directly by either contributing funds/tir	ne to enhance the quality or quantity of pub	blic services or by making contributions to
	the regulatory services.		

		<u>a</u>	
b) Ways to address the criterion:	• Company strategy with regards to	• Company strategy with regards to	• Measurement/prediction of outcomes
	briberies, etc.	briberies, etc.	after decommissioning, comparison
	• Measurement/prediction of outcomes	• Report on situation with regards to	between before, during and after.
	after construction, comparison	political party payment and/or	• Company strategy with regards to
	between before, during and after.	briberies in sustainable development	briberies, etc.
		report (measurement of outcomes).	
		• CSR projects	
Sensory Stimuli	The Sensory Stimuli criterion describes t	he current situation within the community.	It is usually assessed qualitatively. The
a) Definition:	business has indirect impacts on this criter	rion, first because of secondary indirect soci	al impacts due to first order environmental
	impacts and second due to influx of people	е.	
b) Ways to address the criterion:	Measurement/prediction of impacts	• Report on external complaints in	• Measurement/prediction of impacts
	after construction, comparison	sustainable development report	after decommissioning, comparison
	between before, during and after	(measurement of outcomes).	between before, during and after
	• Investigate mitigation options for		• Investigate mitigation options for
	possible sensory stimuli impacts.		possible sensory stimuli impacts.
	• Communicate with		• Communicate with
	community(Information Provisioning		community(Information Provisioning
	policies)		policies)
Security	The Security criterion describes the situat	ion in the community with regards to crime.	The business can have an indirect impact
a) Definition:	on the criterion due to the influx of people	2.	

L) Ways to a damage the suit suit suit suit suit suit suit suit			
b) Ways to address the criterion:	• Measurement/prediction of outcomes	• Measurement/prediction of outcomes	• Measurement/prediction of outcomes
	after construction, comparison	from specific operational activities	after decommissioning, comparison
	between before, during and after.	such as major maintenance projects,	between before, during and after.
		comparison between before, during	
		and after.	
Cultural Properties	The Cultural Properties criterion assesses	the impact of the business on cultural prop	erties such as graveyards or heritage sites.
a) Definition:	It measures the direct impact and might no	ot always be applicable.	
b) Ways to address the criterion:	• Determine predicted impact if any	Business policies	• Determine predicted impact if any
	• Business policies to handle if cultural		• Business policies to handle if cultural
	properties are endangered.		properties are endangered.
Economic Welfare	The Economic Welfare criterion describe	s the economic situation within the commu	inity. The business can directly influence
a) Definition:	the welfare due to employment opportun	ities created (link to employment opportun	ities) combined with a policy that prefers
	local labour and indirectly because of indi	rect job spin-offs or influx of people.	
b) Ways to address the criterion:	Business policies to buy locally.	Business policies to buy locally	• Business policies to buy locally
	• Measurement/prediction of outcomes	• Report on local purchases etc in	• Measurement/prediction of outcomes
	after construction, comparison	sustainable development report	after decommissioning, comparison
	between before, during and after.	(measurement of outcomes).	between before, during and after.
Social Pathologies	The Social Pathologies criterion describes	the situation in the community with regard	s to social pathologies such as alcoholism,
a) Definition:	HIV infections, etc. The business can have	ve an indirect impact on the criterion due t	to influx of people or loss of employment
	opportunities. The company can also offe	r programs to assist workers suffering from	social pathologies.

Appendix J

b) Ways to address the criterion:	• Policies to address Social Pathologies	• Policies to address Social Pathologies	• Policies to address Social Pathologies	
	under employees.	under employees.	under employees.	
	• Measurement/prediction of outcomes	• Company can offer drug and alcohol	• Measurement/prediction of outcomes	
	after construction, comparison	or other counseling to employees.	after decommissioning, comparison	
	between before, during and after.	• CSR projects that focus on Social	between before, during and after.	
		Pathologies (e.g. AIDS programs)		
Social Cohesion	The Social Cohesion criterion is a desc	riptive criterion (thus qualitative) assessing	g the sense of place of the community.	
a) Definition:	Aspects such as the togetherness and the	degree to which people feel part of the com	munity are assessed by this criterion. The	
	business can indirectly influence this criterion due to influx of people and the impact on the criterion can become direct if any			
	business operations involve resettlement of communities.			
b) Ways to address the criterion:	• Resettlement Policies if applicable.	• CSR projects which focuses on	• Resettlement policies if applicable.	
	• Measurement/prediction of outcomes	community cohesion.	• Measurement/prediction of outcomes	
	after construction, comparison		after decommissioning, comparison	
	between before, during and after.		between before, during and after.	

18.3 Macro Social Performance criteria through the asset life cycle phases

Criteria	Construction	Operation	Decommissioning
Economic Welfare	The criterion Economic Welfare measures the contribution of the company to the economic welfare of the region or nation, and		
a) Definition:	thus measures a direct impact.		
b) Ways to address the criterion:	Measurement/prediction of outcomes	• Address in sustainable development	• Measurement/prediction of outcomes
	after construction, comparison	report (measurement of outcomes)	after decommissioning, comparison
	between before, during and after.		between before, during and after.

Trading Opportunities	The criterion, Trading Opportunities, measures the indirect contribution (positive or negative) that is made by the company to		
a) Definition:	the economy through trading initiatives.		
b) Ways to address the criterion:	Measurement/prediction of outcomes after construction, comparison between before, during and after.	• Address in sustainable development report (measurement of outcomes)	• Measurement/prediction of outcomes after decommissioning, comparison between before, during and after.
Monitoring a) Definition:	The Monitoring criterion assesses the existence of company practices and/or monitoring stations to assist government with monitoring environmental impacts.		
b) Ways to address the criterion:	 Monitoring Stations can be build as part of the construction. Business Processes to gather data and to share with government. (Information Provisioning policies) 	 Business Processes to gather data and to share with government. (Information Provisioning policies) Report in sustainable development report (measurement of outcomes) 	• Monitoring stations can be lost due to decommissioning
Legislation a) Definition:	The Legislation criterion assesses the existence of company policies to participate in legislation development processes.		
b) Ways to address the criterion:	 Business policies Measurement/prediction of outcomes after construction. 	 Business policies Address in sustainable development report (measurement of outcomes) 	 Business policies Measurement/prediction of outcomes after decommissioning.
<i>Enforcement</i> a) Definition:	The Enforcement criterion assesses the ex	istence of company practices to enforce env	ironmental standards on to their suppliers.

Appendix J

b) Ways to address the criterion:	Business process/policies	Business process/policies	Business process/policies
	• Address as part of selection criteria in	• Address as part of selection criteria in	• Address as part of selection criteria in
	contractor selection process or	contractor selection process or	contractor selection process or
	contractor codes of conduct.	contractor codes of conduct.	contractor codes of conduct.
	• Address as part of selection criteria in	• Address as part of selection criteria in	• Address as part of selection criteria in
	Supplier Selection Process or Supplier	Supplier Selection Process or	Supplier Selection Process or Supplier
	codes of conduct.	Supplier codes of conduct.	codes of conduct.
	• Measurement/prediction of outcomes	• Address in sustainable development	• Measurement/prediction of outcomes
	after construction.	report (measurement of outcomes)	after decommissioning.

18.4 Stakeholder Participation criteria through the asset life cycle phases

Criteria	Construction	Operation	Decommissioning
Collective Audience	The Collective Audience criterion describes the information provisioning practices and policies within the company and also		
a) Definition:	assesses these practices and policies.		

b) Ways to address the criterion:	• Business Strategy with regards to	• Business Strategy with regards to	• Business Strategy with regards to
	stakeholders.	stakeholders.	stakeholders.
	Business policies	Business policies	Business policies
	• Stakeholder meetings	• Stakeholder meetings	• Stakeholder meetings
	• Webpage	• Webpage	• Webpage
	• Stakeholder surveys	• Stakeholder surveys	• Stakeholder surveys
	• Media releases	Media releases	Media releases
	• Measurement/prediction of outcomes	Sustainable development reports	• Measurement/prediction of outcomes
	after construction.	• Address in sustainable development	after decommissioning.
		report (measurement of outcomes)	
Selected Audience	The Selected Audience criterion describes and assesses the information provisioning practices and policies of the company		
a) Definition:	towards specific stakeholders.		
b) Ways to address the criterion:	• Business strategy with regards to	• Business strategy with regards to	• Business strategy with regards to
	stakeholders.	stakeholders.	stakeholders.
	Business policies	Business policies	• Business policies
	Contact centres	• Contact centres	• Contact centres
	• Measurement/prediction of outcomes	• Address in sustainable development	• Measurement/prediction of outcomes
	after construction.	report (measurement of outcomes)	after decommissioning.
Decision-Influence Potential	The criterion addresses the degree to which the company actually incorporates the stakeholders' opinions into operational		
a) Definition:	decision-making.		
b) Ways to address the criterion:	Measurement/prediction of outcomes	• Address in sustainable development	• Measurement/prediction of outcomes
	after construction.	report (measurement of outcomes)	after decommissioning.
	• Business process to communicate	• Business process to communicate	• Business process to communicate

Sustainable project life cycle management: Development of social criteria for decision-making

	stakeholders' view to decision-makers.	stakeholders' view to decision-makers.	stakeholders' view to decision-makers.
Stakeholder Empowerment	The criterion addresses the quality and quantity of structures to ensure that stakeholders can express their views and that it is		
a) Definition:	known throughout the company.		
b) Ways to address the criterion:	Staff/Community Forums	Staff/Community Forums	Staff/Community Forums
	• Measurement/prediction of outcomes	• Address in sustainable development	• Measurement/prediction of outcomes
	after construction.	report (measurement of outcomes)	after decommissioning.
	• Business processes to ensure the	• Business processes to ensure the	• Business processes to ensure the
	stakeholders' views are known.	stakeholders' views are known.	stakeholders' views are known.