19. Appendix K: Delphi Technique's Questionnaire

19.1 Questionnaire Round 1:

Respondent Number:

Relevance of Criteria

Please state whether you think the following criteria are should be addresses within the project by the project team or whether it should be addressed on a higher or other level within the company?

The following definitions apply:

Project Management:

- Addressed within the project.
- Guidelines set or developed by project managers
- Measured within different phases of project

Corporate Governance Framework:

- Addressed on a higher level within company by a guideline or policy or preferred action steps.
- Addressed by department in company in accordance with guidelines or policies or strategy
- Policies/Guidelines that guides all company activities also guides similar activities in project
- Measured after project completion to determine project adherence to corporate policies.

Definitions for the criteria are as follows:

Employment Opportunities	Employment Opportunities are concerned with the type of employment opportunities together with the consistency in the number thereof created or destroyed by a project.
Employment Remuneration	Employment Remuneration refers to the payment of employees for work delivered or executed. It includes the monetary amount paid as well as additional benefits that employees receive as part of their salary packages.
Disciplinary & Security Practices	Disciplinary and Security Practices is concerned with the company's disciplinary procedures as well as the use of security personnel. These practices should not violate any human or other rights of the employees.
Employee Contracts	Employee Contracts is concerned with the agreement between the employer and the employee. The contract must adhere to legal standards.
Equity & Diversity	The diversity aspects of the criterion is concerned with the composition of staff with regards to gender, race and cultural heritage. The equity aspects of the criterion will determine whether all people are treated justly, fairly and impartially.

Labour Sources	The criterion focuses on what sources of labour the company employ, e.g. child labour, forced labour.
Health & Safety Practices	Health and Safety Practices assess all precautionary procedures and practices of the company to ensure preparedness for possible health and safety incidents.
Health & Safety Incidents	Health and Safety Incidents, assesses actual incidents that take place and analyses these according to seriousness and compensation.
Research Development	Research and Development evaluates the company's contribution to sustainable product development through its research and development programmes as well as its innovativeness
Career Development	Career Development focuses on the training of employees and the provision of career guidance and higher-education opportunities
Health	Health focuses on the additional strain or beneficiation of a company's activities on local medical facilities.
Education	Education considers the following impacts of a company: • impact on education facilities due to the operational activities, • impact of possible training opportunities, and, • impact on the community's level of education through information sharing by the company
Housing	Housing assesses the impact of the business on the availability and quality of housing within the external community
Service Infrastructure	Service infrastructure studies the impact of the operational activity on: Access to clean and safe water, Electricity supply, Sewage services, and Waste services.
Mobility Infrastructure	Mobility Infrastructure determines the additional burden the operational activities of the company place on the public transport system and on the transport network of the external community.
Regulatory & Public Services/ Institutional Services	Regulatory and Public Services studies the availability of public services such as libraries, swimming pools, etc. and also looks at the political set-up within an external community.
Sensory Stimuli	Sensory Stimuli describes typical community characteristics with regards to noise, odour and aesthetics.
Security	Security describes the security characteristics of the community.
Cultural Properties	Cultural Properties describes unique features or characteristics of a specific community.
Economic Welfare	Economic Welfare describes the economic climate within the community as well as the community's economic characteristics.
Social Pathologies	Social Pathologies describes the existence of social conditions that are deviations from the norm, which can include the occurrence of certain diseases, for example: alcoholism, domestic violence, suicides, etc

Social Cohesion	Social Cohesion or Community Cohesion refers to the degree to which residents have a sense of belonging to their neighbourhood or community.
Economic Welfare	Economic Welfare assesses the contribution of the company to the economic welfare of the region or nation.
Trading Opportunities	Trading Opportunities assesses the contribution (positive or negative) that is made by the company to the economy in the form of indirect benefits or costs that the operations of the company resulted in on a regional or national level.
Monitoring	Monitoring considers all initiatives of the company that aims to extend or improve the environmental monitoring abilities of society.
Legislation	Legislation assesses the company's involvement in the writing of new environmental legislation for the country or region in which the company operates.
Enforcement	Enforcement entails any company practices to enforce good environmental management practices down the supply chain.
Information Provisioning	Information Provisioning studies the quantity and quality of information that is shared with stakeholders.
Stakeholder Influence	Stakeholder Influence studies the degree to which the company actually incorporate the stakeholders' opinions into operational decision-making as well as the quality and quantity of structures to ensure that stakeholders can express their views and that it is known throughout the company

Who should address the specific criterion – Project Management or Corporate Governance Framework?

Criteria	Project Management	Corporate Governance Framework	Comments
Employment Opportunities			
Employment Compensation			
Disciplinary & Security Practices			
Employee Contracts			
Equity			
Labour Sources			
Health & Safety Practices			
Health & Safety Incidents			
Research Development			
Career Development			
Health			
Education			
Housing			
Service Infrastructure			
Mobility Infrastructure			
Regulatory & Public Services/ Institutional Services			
Sensory Stimuli			
Security			
Cultural Properties			
Economic Welfare			
Social Pathologies			
Social Cohesion			
Economic Welfare			
Trading Opportunities			
Monitoring			
Legislation			
Enforcement			
Information Provisioning			
Stakeholder Influence			

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19.2 Questionnaire Round 2:

Respondent Number:

Relevance of Criteria

- Please review each of the following items identified in the individual interviews as being relevant to the project life cycle, i.e. they should be addressed in the BD&I model by means of guidelines or measurements in the individual life cycle phases.
- Please indicate whether you agree or disagree.
- Please feel free to provide clarification or any additional comments in the last column.
- The focus is on normal projects under normal circumstances and not on new ventures in new countries or areas.

Criteria	Comments of respondents	Agree/Disagree	Comments on item
Job Opportunities			
Disciplinary & Security Practices	Project might develop own or will adhere to company's		
Equity	Project must adhere to company or country goals		
Labour Sources	Project must enforce company labour source policy		
Health & Safety Incidents			
Research & Development	Involved at least until Gate 3. Project can request additional R&D		
Career Development	Project is career development opportunity for existing personnel as well as part-time skilled workers for		

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	which each new project is development.		
Health	The impact of the business initiative on society are normally studied in the EIA.		
Education			
Housing			
Service Infrastructure			
Mobility Infrastructure			
Sensory Stimuli			
Security			
Cultural Properties			
Economic Welfare			
Social Pathologies			
Social Cohesion			
Economic Welfare on a Macro Social Level			
Monitoring			
Legislation			
Enforcement			
Information Provisioning	Guided by company guidelines of how public participation should be executed.		
Stakeholder Influence			

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Please indicate whether you think the following social aspects should be addressed in or by the project, business strategy or functional departments within the company (i.e. Finances, HR). Social aspects can be addressed by more than one of the choices. If you choose a functional department please indicate which functional department.

Criteria	Project	Business Strategy	Functional Department
Employment Opportunities			
Employment Remuneration			
Disciplinary & Security Practices			
Employee Contracts			
Equity & Diversity			
Labour Sources			
Health & Safety Practices			
Health & Safety Incidents			
Research Development			
Career Development			
Health			
Education			
Housing			
Service Infrastructure			
Mobility Infrastructure			
Regulatory & Public Services/ Institutional Services			
Sensory Stimuli			

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Security			
Cultural Properties			
Economic Welfare			
Social Pathologies			
Economic Welfare			
Trading Opportunities			
Monitoring			
Legislation			
Enforcement			
Information Provisioning			
Stakeholder Influence			

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20. Appendix L: Ways to address social criteria in projects

Criterion	*Approach in Project Management Methodology*
INTERNAL HUMAN RESOURCES	
Employment Opportunities	• Company strategy with regards to employee intensive versus technology intensive approaches will influence how the criterion manifests in the project. • Measure predicted social impact • Project Governance Framework: o Post Implementation Review (Indicators): ▪ Actual employment creation indicators • Risk Management: o Guidelines to guarantee that the temporary nature of certain employment opportunities are communicated to ensure no false expectations (link to Information Provisioning criterion). • Functional Department (Human Resources) should provide guidance and assistance in accordance to company policy/strategy and be actively involved.
Employment Remuneration	• The functional department Human Resources should handle employment remuneration as part of employee contracts in accordance to Business Policies. • Project Governance Framework (CFG). o Policy regarding minimum wages (linked to company policy/strategy) o Post Implementation Review (Indicators): ▪ Wage indicators o Include criterion in Contractor codes of conduct and selection criteria.

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Disciplinary & Security Practices	• Project Governance Framework (CFG). o Include criterion in Contractor codes of conduct and selection criteria. o Post Implementation Review (Indicators): ▪ Indicators reporting on the use of disciplinary & security practices • Functional Department (Human Resources) should provide guidance and assistance in accordance to company policy/strategy and be actively involved.
Employee Contracts	• Project Governance Framework (CFG). o Include criterion in Contractor codes of conduct and selection criteria. o Post Implementation Review (Indicators): ▪ Indicators reporting on existence and standards of employee contacts • Functional Departments (Human Resources & Legal Department) should provide guidance and assistance in accordance to company policy/strategy and be actively involved.
Equity & Diversity	• Company strategy with regards to equity will influence how the project addresses equity. • Project Governance Framework (CFG). o Include criterion in Contractor codes of conduct and selection criteria. o Post Implementation Review (Indicators): ▪ Indicators reporting on the equity of labour force used in project • Functional Department (Human Resources) should provide guidance and assistance in accordance to company policy/strategy and be actively involved in employee sourcing process.

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Labour Sources	• Company strategy about preferred labour sources will influence how the project addresses labour sources. • Project Governance Framework (CFG). o Policy regarding labour sources o Include criterion in Contractor codes of conduct and selection criteria. o Post Implementation Review (Indicators): ▪ Labour sources and equity indicators • Risk Management o Guidelines about preferred labour sources for employment opportunities, which can be handled by Human Resources Functional Department. • Functional Department (Human Resources) should provide guidance and assistance in accordance to company policy/strategy and be actively involved.
Health & Safety Practices	• Company strategy about safety standards and practices will influence how the project addresses the criterion. • Functional Departments (e.g. SHE departments or departments dealing with SHE issues) should be involved in project and provide guidance and assistance. • Project Governance Framework (CFG). o Policy regarding safety and health practices. o Include criterion in Contractor codes of conduct and selection criteria. o Post Implementation Review (Indicators): ▪ Indicators to assess project's adherence to policies.
Health & Safety Incidents	• Risk Assessment to assess risks of incidents before quantitative impact predictions can be made • Measure predicted social impact when information is available • Risk Management o Guidelines to communicate to right audience if high risks exist (link to Selected Audience criterion)

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Research & Development	• Company strategy guides all research & development activities that are usually performed by a functional department (e.g. R&D). • In cases where project budget funds additional research and development to ensure project technology can exist, the predicted costs are measured as a social impact if technology supports sustainable development.
Career Development	Projects are opportunities for certain employees to develop new skills and the project can promote skills development under unemployed members of the community, thus it should be addressed by: • Project Governance Framework (CFG). o Policy regarding training and education. o Include criterion in Contractor codes of conduct and selection criteria if deemed as important. o Post Implementation Review (Indicators): ▪ Career Development Indicators • Risk Management: o Guidelines for employee training opportunities. • Functional Department (Human Resources) should provide guidance and assistance in and be actively involved.
EXTERNAL POPULATION	
Health	• Company strategy with regards to the health of the external population will guide project actions • If applicable and deemed important by community, the social development plan can address health issues and health facilities • Measure predicted social impact
Education	• If applicable and deemed important by community, the social development plan can address education issues and education facilities. • Measure predicted social impact

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Housing	• Company strategy with regards to housing for employees will influence project actions. • Measure predicted impact • Risk Management: o Determine risk due to influx of people o Mitigate risk if applicable • If applicable and deemed important by community, the social development plan can address housing.
Service Infrastructure	• If applicable and deemed important by community, the social development plan can address service infrastructure (e.g. the creation of a pipe network for water) . • Measure predicted social impact • Risk Management: o Guidelines with regards to the use of community service infrastructure and the obtaining of company's own service infrastructure (example electricity directly from ESKOM instead of municipality). o Guidelines for interaction with authorities (link to selected audience criterion)
Mobility Infrastructure	• If applicable and deemed important by community, the social development plan can address mobility infrastructure. • Measure predicted social impact • Risk Management: o Guidelines if building temporary infrastructure in accordance with company policy o Guidelines for interaction with authorities (link to selected audience criterion)

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Regulatory & Public Services	• If applicable and deemed important by community, the social development plan can address public services e.g. libraries or swimming pools. • Project Governance Framework (CFG). o Policy regarding interaction with regulatory services dealing with aspects such as bribes, contributions to political parties, etc. o Post Implementation Review (Indicators): ▪ Indicators measuring adherence to policies.
Sensory Stimuli	• Measure predicted social impact • Risk Management: o Risk Assessment to assess risks of incidents before quantitative impact predictions can be made (linkage to environmental dimension) o Mitigation options to be investigated if necessary. o Guidelines for interaction with community (link to collective and selected audience criteria) with regards to information sharing. • Active involvement from the Environmental Department to assist with predictions and to provide guidance.
Security	• Community security is influenced by influx of people. • Measure predicted impact if possible
Cultural Properties	• Measure possible social impact. • Risk Management: o Determining if cultural properties are applicable to project or might be endangered by project o Guidelines to handle situation if applicable. o Guidelines to interact with community (link to selected audience criterion)
Economic Welfare	• Company strategy with regards to local economy will influence project actions. • Measure the predicted social impact.
Social Pathologies	• If deemed important by community, social development action plan can address social pathologies with regards to treatment centres, etc. • Measure the predicted social impact if possible.

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Social Cohesion	• Importance assign to social cohesion in the community will influence project actions. • Measure predicted impacts if possible • Risk Management: o Guidelines if resettlement is applicable.
MACRO SOCIAL PERFORMANCE	
Economic Welfare	• Company strategy/policies with regards to the economy and the economic situation will influence project actions. • Measure predicted social impact.
Trading Opportunities	• Company strategy/policies with regards to the economy and the economic situation will influence project actions. • Measure predicted social impact • Functional Departments should be involved to provide guidance if necessary if project involves imports and exports.
Monitoring	• Company strategy/policies with regards to environmental monitoring will guide project actions. • Functional Departments (e.g. Environmental Department) should be involved and provide guidance in monitoring of environmental impacts of project or if additional monitoring stations are required due to the project.
Legislation	• Company strategy/policies with regards to handling of and involvement in legislation will guide project actions • Risk Assessment: o Determine if project are illegal in terms of any legislation or if project will require new legislation to be passed. o Functional Departments (e.g. Legal Department) should be involved and provide guidance if attempts to adjust legislation or have new legislation implemented needs to be made.

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Enforcement	• Company strategy/policies with regards to environmental enforcement will guide project actions • Project Governance Framework (CFG). o Policy with regards to the enforcement of environmental standards. o Include criterion in Contractor codes of conduct and selection criteria. o Guidelines for supplier selection and codes of conduct which include criterion o Post Implementation Review (Indicators): ▪ Indicators measuring enforcement actions. • Risk Management o Determine if any environmental practices of contractors or suppliers can endanger the company's image or reputation.
STAKEHOLDER PARTICIPATION	
Collective Audience	• Company strategy/policies with regards information provisioning will guide project actions • Project Governance Framework (CFG). o Policy with regards to information provisioning o Guidelines for sharing information with all. o Post Implementation Review (Indicators): ▪ Indicators measuring information provisioning. • Risk Management o Identification of all stakeholders. o Identification of possible critical areas of concern with regards to stakeholder involvement o Guidelines for interaction with stakeholders and handling difficult stakeholders.

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Selected Audience	• Company strategy/policies with regards to information provisioning will guide project actions • Project Governance Framework (CFG). o Policy with regards to information provisioning o Guidelines for sharing information with selected audiences. o Post Implementation Review (Indicators): ▪ Indicators measuring information provisioning. • Risk Management o Identification of specific stakeholders groups that should be handled separately. o Identification of possible critical areas of concern with regards to the involvement of these groups. o Guidelines for interaction with selected groups of stakeholders and information sharing.
Decision-Influence Potential	• Company strategy/policies with regards to stakeholder influence will guide project actions • Project Governance Framework (CFG). o Policy with regards to involving stakeholders in decision-making. o Guidelines for distributing stakeholders' views o Post Implementation Review (Indicators): ▪ Indicators measuring decision-influence potential. • Risk Management o Identification of resistance to company decisions. o Guidelines for incorporating and communicating stakeholders' views on certain decisions.
Stakeholder Empowerment	• Company strategy/policies with regards to stakeholder influence will guide project actions • Project Governance Framework (CFG). o Policy with regards to empowering stakeholders. o Post Implementation Review (Indicators):

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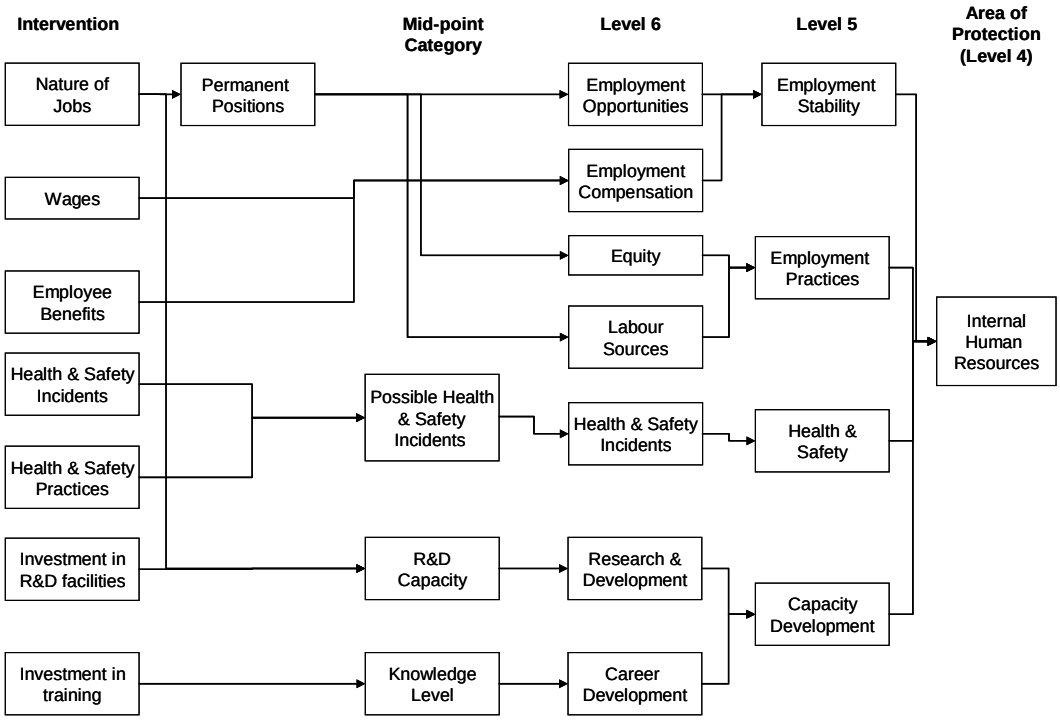
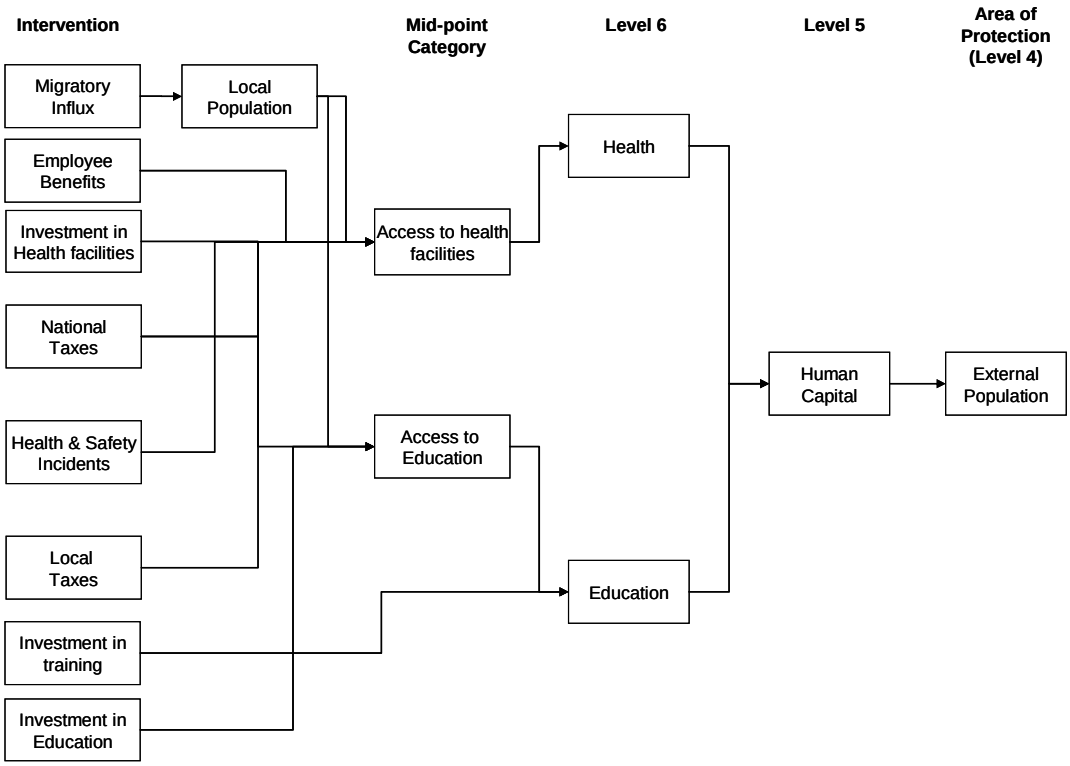
- Indicators measuring empowerment actions.

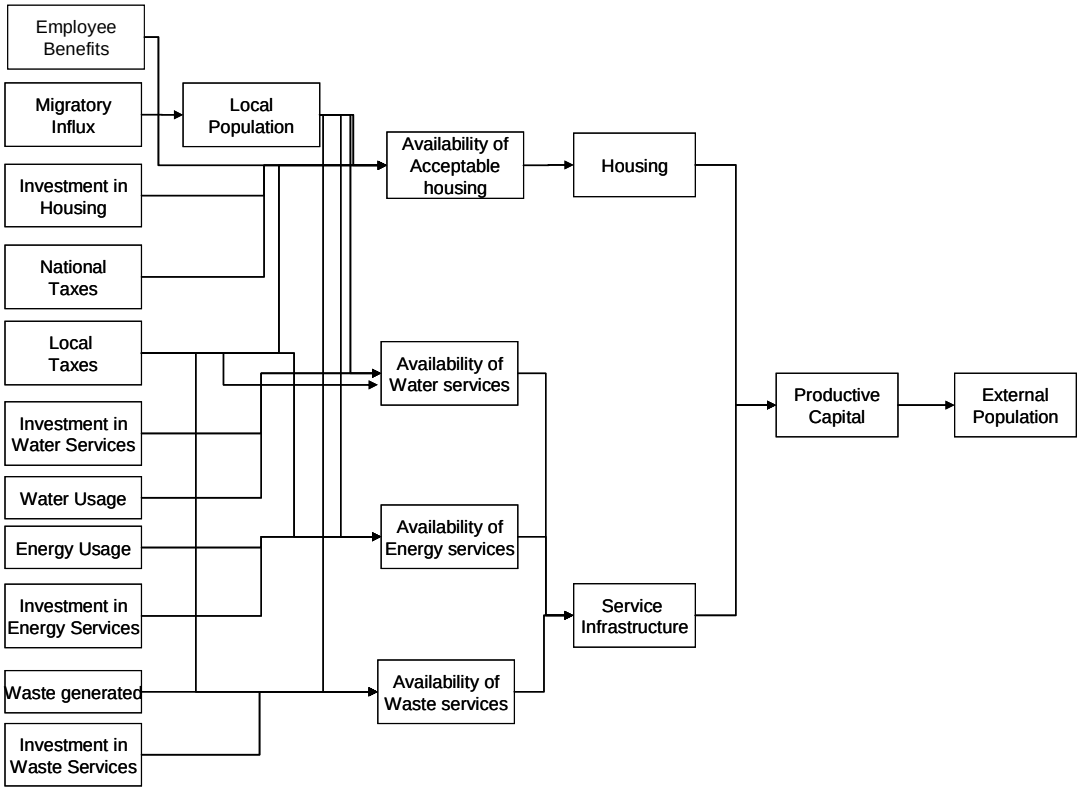
- Risk Management
  - Identification of possible groups abusing stakeholder empowerment.
  - Mitigation actions to ensure stakeholders have the opportunity to provide input.

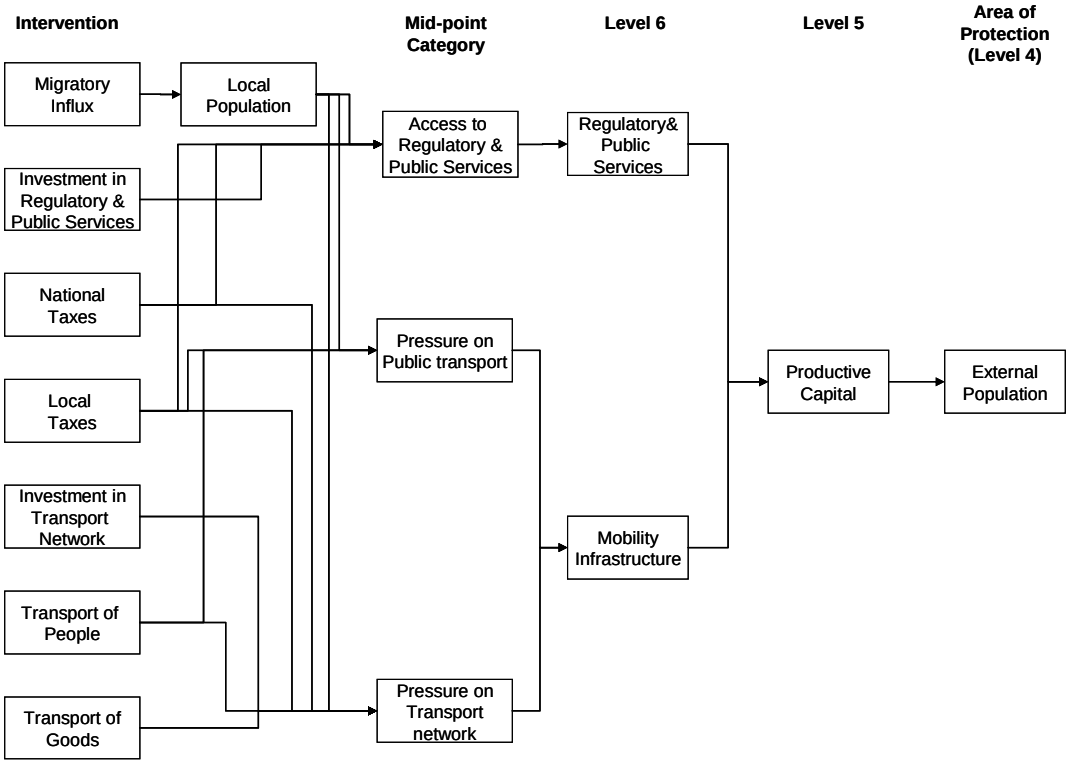
21. Appendix M: Causal Relationships

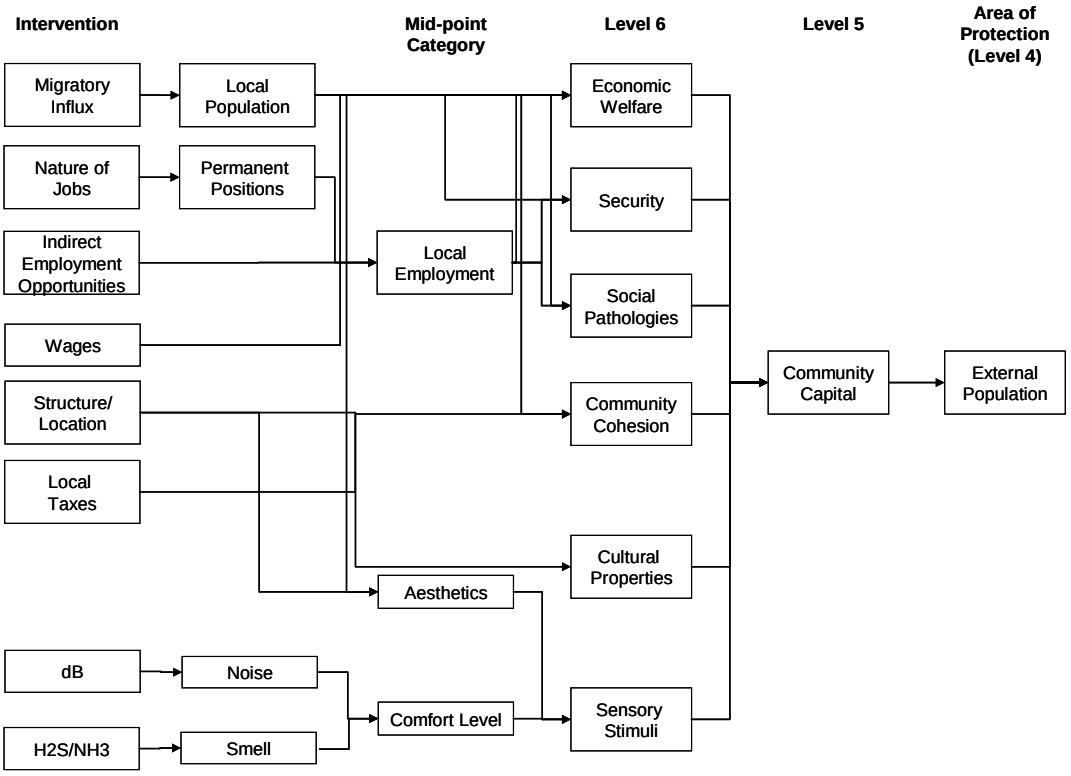
The causal relationships between the interventions and the areas of protection (level 4 of proposed social sustainable development framework) are shown in the following figures.

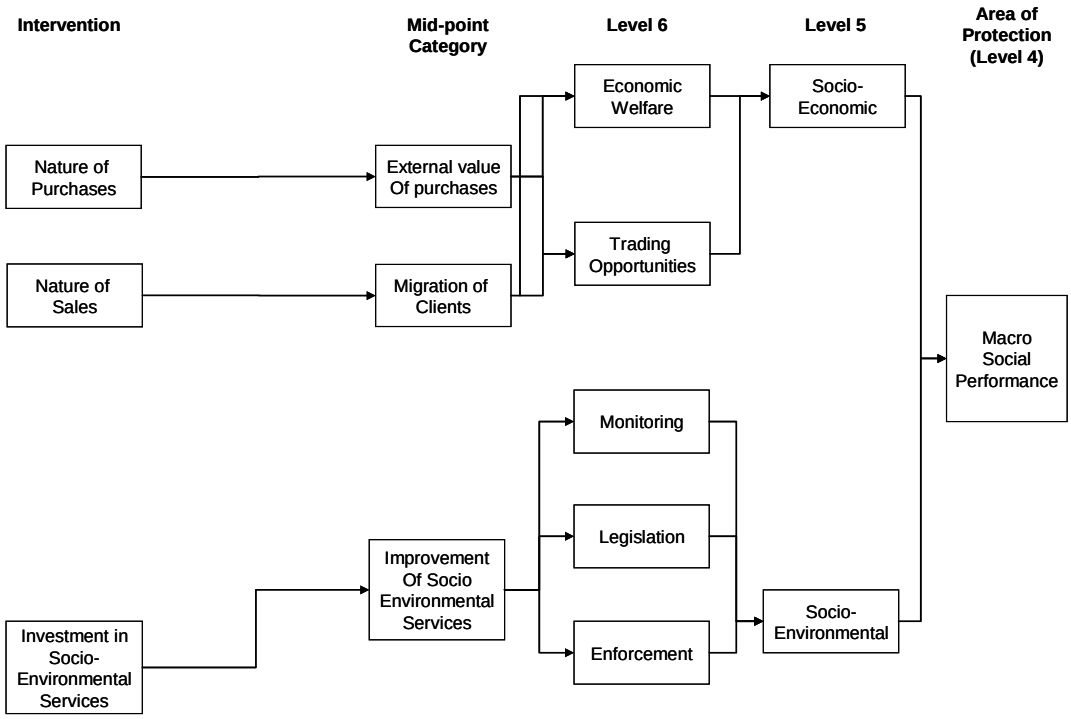





Employee Benefits
Migratory Influx
Local Population
Investment in Housing
National Taxes
Local Taxes
Investment in Water Services
Water Usage
Energy Usage
Investment in Energy Services
Waste generated
Investment in Waste Services
Availability of Acceptable housing
Housing
Availability of Water services
Availability of Energy services
Service Infrastructure
Availability of Waste services
Productive Capital
External Population


Intervention
Mid-point Category
Level 6
Level 5
Area of Protection (Level 4)
Migratory Influx
Local Population
Investment in Regulatory & Public Services
National Taxes
Local Taxes
Investment in Transport Network
Transport of People
Transport of Goods
Access to Regulatory & Public Services
Pressure on Public transport
Pressure on Transport network
Regulatory& Public Services
Mobility Infrastructure
Productive Capital
External Population


Intervention
Mid-point Category
Level 6
Level 5
Area of Protection (Level 4)
Migratory Influx
Local Population
Nature of Jobs
Permanent Positions
Indirect Employment Opportunities
Local Employment
Wages
Structure/ Location
Local Taxes
Economic Welfare
Security
Social Pathologies
Community Cohesion
Cultural Properties
Sensory Stimuli
Community Capital
External Population
Aesthetics
dB
Noise
H2S/NH3
Smell
Comfort Level


Intervention
Mid-point Category
Level 6
Level 5
Area of Protection (Level 4)
Nature of Purchases
External value Of purchases
Nature of Sales
Migration of Clients
Economic Welfare
Trading Opportunities
Socio-Economic
Macro Social Performance
Monitoring
Legislation
Enforcement
Improvement Of Socio Environmental Services
Socio-Environmental
Investment in Socio-Environmental Services

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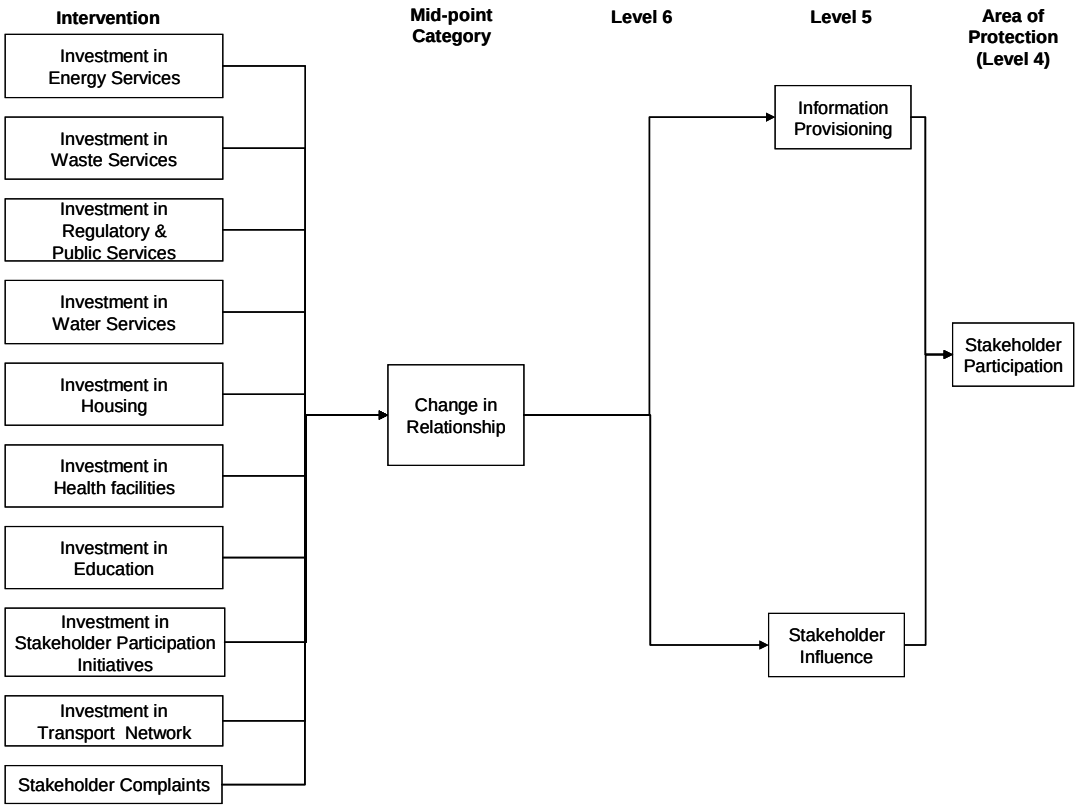

22. Appendix N: Delphi Technique Questionnaires

22.1 Questionnaire Round 1:

Respondent Number:

Information Availability for Indicators

Before which decision-point (gate) in the project life-cycle is the information available or can it be predicted?

Mid Point Category	Equivalence of	G1	G2	G3	G4	G5	G6
Permanent Positions	Number and type of jobs created						
Requirements to stabilize the situation	Health & Safety risks						
Knowledge Level	Number of specific skilled personnel required						
R&D Capacity	Cost spend on R&D						
Comfort Level	Environmental risks e.g. smells						
Aesthetics	Nuisance risks to public						
Local Employment	Percentage of jobs that can be filled by local people						
Local Population	Possible inflow of people						
Access to health facilities	Possible impact on health (inflow of people or investment)						
Access to Education	Possible impact on education (inflow of people or investment)						
Availability of acceptable houses	Project will invest in housing						
Availability of water services	Water Usage of project						
Availability of energy services	Energy Usage for project						
Availability of waste services	Waste generated by project						

Pressure on public transport services	Pressure on public transport services						
Pressure on transport network	Pressure on transport network by additional people transfers e.g. company buses						
Access to Regulatory & Public Services	Investment in regulatory or public services						
External value of purchases	Percentage of goods required for project that can be purchased locally						
Migration of clients	Possibility of clients migrating to project location						
Improvement of Socio-Environmental Services	Knowledge about whether the project should invest in macro social environmental aspects e.g. monitoring.						
Change in relationships	Information with regards to stakeholders						

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22.2 Questionnaire Round 2

Respondent Number:

Information Availability for Indicators

- Please review the results from round 1. The specific gate at which information seems to be available is indicated.
- Please indicate whether you agree or disagree
- Please feel free to provide clarification or any additional comments in the last column.

Type of Information needed	Gate (at which it should be available although not 100% accurate)	Agree/Disagree	Comments
Number and type of jobs created	3		
Health & Safety risks	2		
Number of specific skilled personnel required	3		
Cost spend on R&D	2		
Environmental risks e.g. smells	2-3		
Nuisance risks to public	3		
Percentage of jobs that can be filled by local people	3		
Possible inflow of people	2		
Project will invest in housing	2		
Water Usage of project	2		
Energy Usage for project	2		
Waste generated by project	2		
Pressure on public transport services	2		

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Pressure on transport network by additional people transfers e.g. company buses	2		
Percentage of goods required for project that can be purchased locally	3-4		
Possibility of clients migrating to project location	1		
Knowledge about environmental monitoring the project should invest in or legislation it should look at etc. Thus information about macro social environmental aspects	4		
Information with regards to stakeholders	2-3		
Number and type of jobs created	3		
Health & Safety risks	2		
Number of specific skilled personnel required	3		

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23. Appendix O: Information Availability

The following table summarises information available from Statistics South Africa (StatsSA), the Municipal Demarcation Board as well as the State of Environment Report of the South African Department of Environmental Affairs and Tourism (DEAT). The following StatsSA publications are referred to:

- P0302 – Mid year Population Estimates
- Report 03-51-03: Documented Migration
- P8001: Economic Activity Survey
- P4141: Electricity generated and available for distribution
- P0318: General Household Survey
- Report 02-01-01: Occupational Survey
- P0275: Survey of Employment and Earnings
- P0441: Gross Domestic Product
- P0111.1-9: Income and Expenditure of households per province
- P0210: Labour Force Survey
- P0318: General Household Survey
- P7101: The Transport Industry, 2002
- P7142: Land freight transport
- P9114: Census of Municipalities
- P9115: Non-Financial Census of Municipalities
- P9119.2: National Government Expenditure
- P9120: Provincial government expenditure

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Information Available	Level	Source	Frequency of Updates	Relevant Mid-point Category
Statistics South Africa				
Employed, Unemployed and Not Economically Active per Gender	Municipality	Census	5 yearly	Local
Work Status by Gender: Paid Employee; Paid Family Worker; Self-Employed; Employer; Unpaid Family Worker; Not Applicable.	Municipality	Census/ P0318	5 yearly / annually	Employment / Permanent Positions
Employment according to population group and gender or major industrial group or by gender and population group to occupations or major industrial groups.	National	Report 02-01-01	Periodically (1996)	
Employment, vacancies and vacancy rates according to major occupational groups or major industry groups	National	Report 02-01-01	Periodically (1996)	
Employment statistics by type, sector, population group, occupation, economic activity, highest level of education, gender	National/ Industry	P0210	Bi-Annually	
Employment statistics existence of written contract, terms of employment, paid leave status, trade union membership, medical aid/health fund contributions	National/ Industry	P0210	Bi-Annually	
Unemployment by age, population group, gender, duration of job seeking, length of time since last worked and industry in which they worked, highest level of education	National	P0210	Bi-Annually	
Number of employees and Gross earnings with percentage changes between subsequent quarters and years.	Industry	P0275	Quarterly	
Unemployed and not economically population by reason for not working and gender	National	P0210	Bi-Annually	
Population aged 66 years and older by type of economic activity, gender, population group, if working by main industry, occupation	National	P0210	Bi-Annully	
Education: Population aged over 20 by highest level of education, age, population group, gender	Provincial/ National	P0318	Annually	Access to Education

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Information Available	**Level**	**Source**	**Frequency of Updates**	**Relevant Mid-point Category**
Education: Population aged 15 years and older by whether they can read and write, age, population group, gender	Province/ National	P0318	Annually	Access to Education
Education levels: Number of people in a specific category. Categories from: No schooling to Higher Degree, than Honours)	Municipality	Census	5 yearly	
Adult literacy rate (per gender, per population group)	Provincial	P0015	Published 2001	
Health: Medical Aid coverage by population group, age group and gender	Provincial/ National	P0318	Annually	Access to health facilities
Population: age, gender, population group	Provincial	P0302/ P0318	Annually	Local Population
Population: age, gender, population group	National	P0210/ P0318	Bi-Annually	
Life Expectancy at Birth	Provincial	P0015	Published 2001	Access to health facilities
Life Expectancy at Birth	National	P0302	Annually	
Migration streams within the country	Provincial	P0302	Annually	Local
Imigrant & Emigrant figures	National	Report 03-51-03	Annually	Population
Type of energy used by households (gas, electricity, etc.)	Municipality	Census	5 yearly	Availability of energy services
Volume of electricity available for distribution	National/ Provincial	P4141	Monthly	

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Information Available	**Level**	**Source**	**Frequency of Updates**	**Relevant Mid-point Category**
Volume of electricity imported, exported, produced and consumed in power stations and available for distribution	National	P4141	Monthly	Availability of energy services
Gross Domestic Product	Industry or Region	P0441	Annually / Quarterly	External Value of purchases
Real GDP per Capita	Provincial	P0015	Published 2001	
Turnover per year	Industry	P8001	Annually	
Net profit before providing for company tax and dividends at current prices	Industry	P8001	Annually	
Capital expenditure on new assets at current prices	Industry	P8001	Annually	
Book value of non-current assets at current prices	Industry	P8001	Annually	
Profitability, Current and Acid test ratio	Industry	P8001/ P0441	Annually	
Gross salaries & wages	Industry	P8001	Annually	Local Employment
Company tax paid	Industry	P8001	Annually	All human and productive capital mid point categories
Purchases	Industry	P8001	Annually	External Value of Purchases
Foreign Trade: Volume and Unit Values	National	Discontinued, figures of 1997 available		
Rental of land, buildings and other structures, including water and electricity payments	Industry	P8001	Annually	

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Information Available	**Level**	**Source**	**Frequency of Updates**	**Relevant Mid-point Category**
Annual household expenditure according to income group, size, occupational group of head of household, type of dwelling, expenditure group	Provincial	P0111	5 yearly	Access to health facilities or Education
Annual household expenditure on specific items	Provincial	P0111	5 yearly	
Household by dwelling, sources of water, electricity, etc.	National	P0318	Annually	Availability of energy services
Household Transport Statistics: Time it takes to reach certain destinations	National	P0318	Annually	Pressure on public transport services
Number of people transported by bus or train	National	Discontinued, figures from 1997 available		
Volume of Goods Transported in the Transport Industry by type of transport	National	P7101	Every 3 -5 years	Pressure on transport network
Volume of goods transported by road	National	P7142	Monthly	
Provincial Profiles: Geography, demographics, labour, education, households, health, safety and security, politics, climate	Provincial	Report: 00-91-01 to 00-91-09	Published in 2004	All human and productive capital mid-point categories
Analysis of acquisition of fixed assets: Housing Services & Income and Expenditure: Housing Services	Municipalities by province	P9114	Annually	Availability of acceptable houses
Analysis of acquisition of fixed assets: Electricity & Gas Services & Income and Expenditure: Electricity & Gas Services	Municipalities by province	P9114	Annually	Availability of energy services
Analysis of acquisition of fixed assets: Sewerage and sanitation services	Municipalities by province	P9114	Annually	Availability of waste services

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Analysis of acquisition of fixed assets: Passenger transport services & Income and Expenditure: Passenger transport services	Municipalities by province	P9114	Annually	Pressure on public transport services
Analysis of acquisition of fixed assets: Water Services & Income and Expenditure: Water Services	Municipalities by province	P9114	Annually	Availability of water services
Income and Expenditure: Health & ambulance services	Municipalities by province	P9114	Annually	Access to health facilities
Income and Expenditure: Road services	Municipalities by province	P9114	Annually	Pressure on transport network
Income and Expenditure: Sanitation & refuse removal services	Municipalities by province	P9114	Annually	Access to waste services
Income and Expenditure: Sewage services	Municipalities by province	P9114	Annually	Access to waste services
Income and Expenditure: Traffic services	Municipalities by province	P9114	Annually	Pressure on transport network
Details regarding water supply in each province	Provincial	P9115	Annually	Availability of water services
Electricity consumption and payment in each province	Provincial	P9115	Annually	Availability of energy services
Total expenditure from the National Revenue Fund per financial year according to type of service	National	P9119.2	Annually	All External Population Categories

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Information Available	**Level**	**Source**	**Frequency of Updates**	**Relevant Mid-point Category**
Total expenditure from the National Revenue Fund per financial year according to type of service	Provincial	P9120	Annually	All External Population Categories
Total expenditure on environmental protection	Provincial	P9120	Annually	Improvement of Socio-Environmental Services
Municipality Demarcation Board				
Population by population group	Municipality	Census	5 yearly	Local Population
Population by gender and age groups	Municipality	Census	5 yearly	
Education institutions attended by 5-24 years old	Municipality	Census	5 yearly	Access to education
Highest Education Levels attained by over 20 years old	Municipality	Census	5 yearly	
Labour force by employed, unemployed, not-economically active	Municipality	Census	5 yearly	Permanent Positions/Local Employment
Employment by industry	Municipality	Census	5 yearly	
Occupation breakdown	Municipality	Census	5 yearly	
Monthly Income breakdown	Municipality	Census	5 yearly	
Population breakdown by first language	Municipality	Census	5 yearly	
Disability statistics	Municipality	Census	5 yearly	
Birthplace & Citizenship Statistics	Municipality	Census	5 yearly	Local Population

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Information Available	**Level**	**Source**	**Frequency of Updates**	**Relevant Mid-point Category**
Mode of travel to work and school	Municipality	Census	5 yearly	Pressure on public transport network
Dwelling types	Municipality	Census	5 yearly	Availability of acceptable houses
Household size	Municipality	Census	5 yearly	
Number of rooms	Municipality	Census	5 yearly	
Source of electricity used in households	Municipality	Census	5 yearly	Availability of energy services
Household Refuse statistics	Municipality	Census	5 yearly	Availability of waste services
Household sanitation statistics	Municipality	Census	5 yearly	Availability of waste services
Household Telephone statistics	Municipality	Census	5 yearly	
Source of water used in households	Municipality	Census	5 yearly	Availability of water services
Annual Household Income Distributions	Municipality	Census	5 yearly	
State of the Environment Report (National and Provincial)	**Level**	**Indicator Number**	**Frequency**	**Relevant Mid-point Category**
Access to Sanitation	National	HW14	Annually	Availability of waste services

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Description	Level	Indicator Number	Frequency	Relevant Mid-point Category
Access to water	National	HW13	Annually	Availability of water services
Adult literacy rate	National	HW08	5 Yearly	Access to education
Available landfill lifespan	National	WM08	5 Yearly	Availability of waste services
Employment rate	National	HW09	Annually	Permanent Positions/ Local Employment
GDP per capita	National	HW06	Annually	External value of purchases
HW11 HIV/Aids incidence	National	HW11	Annually	Access to health facilities
Household Energy Use	National	HW12	Annually	Availability of energy services
Life Expectancy	National	HW07	5 Yearly	Access to health facilities

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Description	**Level**	**Indicator Number**	**Frequency**	**Relevant Mid-point Category**
Living Space available per household	National	HW03	5 Yearly	Availability of acceptable housing
Population growth rate	National	HW10	5 Yearly	Local Population
Proportion of urban area in South Africa	National	HW05	5 Yearly	
Urban & Rural Population	National	HW04	5 Yearly	
Compensation Commissioner: Compensation for Occupational Injuries and Diseases Act, 1993: Report on the 1999 Statistics	**Level**		**Frequency**	**Relevant Mid-point Category**
Number of Accident by Extent of Disablement	National		Unknown	Possible Health & Safety Incidents
Average actual number of days lost per extent of disablement	National		Unknown	
Number of accidents according to age group	National		Unknown	
Sex and conjugal state of injured persons	National		Unknown	
Number and Percentage of Accidents according to period of absence and extent of disablement	National		Unknown	
Number of cases by location of injury, permanent disablement, fractures and traumatic amputations	National		Unknown	
Cost of accident by industrial classification and extent of disablement	National		Unknown	
Extent of disablement according to industry	Industry		Unknown	
Accident frequency rate per industry	Industry		Unknown	
Accident severity rate per industry	Industry		Unknown	
Fatal accidents per industry	Industry		Unknown	
Injured workmen according to magisterial district or Province	Provincial/ Magisterial District		Unknown	

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24. Appendix P: Acrylic Fibre Plant - Information

24.1 Project Information

Table 24-1: Project Information

		96/97	*97/98*	*98/99*	*99/00*	*Average*
Production						
Tons (36000 * 80% efficiency)		28800	28800	28800	28800	28800
kg		28800000	28800000	28800000	28800000	28800000
Energy Usage						
Electricity	kWh/kg	1.53	1.91	1.71	1.57	1.68
Electricity Total	kWh	44064000	55008000	49248000	45216000	48384000
	MWh	44064	55008	49248	45216	48384
	GWh	44.064	55.008	49.248	45.216	48.384
Per Month	GWh	3.672	4.584	4.104	3.768	4.032
Water Usage						
Water Used	litre/kg	49.6	44.7	50.1	54.1	49.625
Water Total	Litre	1428480000	1287360000	1442880000	1558080000	1429200000
Per Year	Kiloliter	1428480	1287360	1442880	1558080	1429200
Per Month		119040	107280	120240	129840	119100
Coal Usage						
Coal/Production	kg/kg	1.59	1.45	1.8	1.6	1.61
Total Coal	kg	45792000	41760000	51840000	46080000	46368000

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		96/97	*97/98*	*98/99*	*99/00*	*Average*
Atmospheric Emissions						
SO2	kilo ton	0.56	0.55	0.372	0.469	0.48775
Nox	kilo ton	0.121	0.117	0.095	0.111	0.111
VOC	kilo ton	0.005	0.006	0.004	0.005	0.005
Solid Waste						
General/Domestic	1000m3	4.2	3.1	1.4	1.6	2.575
General/Domestic	tons	DWAF minimum requirements Waste Density: 0.6 tons/m^3 [P1]				1545
Industrial/Non Hazardous	1000m3	3.4	3.2	1.6	2.5	2.675
Total	1000m3	7.6	6.3	3	4.1	5.25
Health & Safety						
Disabling Injuries	nr	7	11	7	1	6.5
Disabling Injury Rate	no/200k hour	2.1	4.1	3	0.3	2.375
Work hours lost due to Injury	hours	731	560	458	152	475.25
Complaints & Incidents						
Complaints	nr	1	1	0	0	0.5
Plant Incidents (spillages)	nr	2	0	0	1	0.75
Turnover	Annualy (million Rand)	500	500	500	500	500
Employees	Number	250	250	250	250	250

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		96/97	*97/98*	*98/99*	*99/00*	*Average*
Water Effluent						
Average conductivity for year	µS/cm	4651	3808	3833	3643	3983.75
Average Acrylonitrile for year	mg/litre	108	84	69	71	83
Average NaSCN for year	mg/litre	195	291	290	186	240.5
Steam Use						
Steam/Production	kg/kg	12.1	11	13.7	12.5	12.325
Steam Use	kg	348480000	316800000	394560000	360000000	354960000

Source: Sasol, *Sustainable Development: Sasol Safety, Health and Environmental Report 2000 (for the period 26 June 1998 to 25 June 2000)*, Sasol, Johannesburg, 2000.

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24.2 Social Footprint Information:

Table 24-2: Social Footprint Information

Employment & Unemployment

	Male	*Female*	*Total*	*Percentage*
eThekwini (STATSSA Census 2001)				
Employed	445 689	337 244	782 933	36.95 %
Unemployed	277 677	313 347	591 024	27.90%
Not Economically Active	292 944	452 009	744 953	35.15%
Durban South Basin (SEA)				
Unemployed/Not economically active			208 000	52%

Gross Domestic Product (Kwa Zulu Natal Region) Unit: R million (STATSSA)

Year:	*1996*	*1997*	*1998*	*1999*	*2000*	*Average*
R million	95 535	105 117	112 461	119 768	132 354	113 047

Air Emissions (eThekwini) (Directly from Council)

Emission	Year	Tons/year/ha	Total area (ha)	Tons/year	Kilotons/year
SO_2	1999	0.4	136 235	54 494	54.50
NO_X	1999	0.4	136 235	54 494	54.50

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Water Usage (eThekwini) (Directly from Council)

Unit	*97/98*	*98/99*	*99/00*	*Average*
Without Water loss taken into consideration				
Kilolitre	284751122	279089275	276607942	280149446.3
Mega litre	284751.12	279089.28	276607.94	280149.45
With water loss taken into consideration				
Kilolitre	170850673.2	167453565	165964765.2	168089667.8
Mega litre	170850.67	167453.57	165964.77	168089.67

Electricity Usage (eThekwini) (Directly from Council)

Unit	*96/97*	*97/98*	*98/99*	*99/00*	*Average*
KWh	8941330707	9183151356	9073412900	9195922772	9098454434
GWh	8941.33	9183.15	9073.41	9195.92	9098.45

Durban South Basin Statistics: (SEA)

Description	*Unit of Measurement*	*Measurement/Value*
Traffic	Vehicles entering in peak hours (07:00-09:00 am)	19000
Education	Pupil : Teacher Ratio	40:1
Health	Average distance to health facilities	3 kilometres

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Security	Police Stations : Residents ratio	6:400 000
Waste	Domestic waste generated per year	45 000 tons
Hazardous waste	Percentage of province's hazardous waste generated in area	50%

eThekwini Statistics:(Council Website)

Description	*Unit of Measurement*	*Measurement/Value*
Population	Number of people	3 090 121
Public Transport Seats	Number per 1000 people	158

24.3 References

[P1] Department of Water Affairs and Forestry, *Waste Management Series: Minimum Requirements for Waste Disposal by Landfill, Second Edition*, Pretoria, DWAF, 1998.

25. Appendix Q: Social Questionnaires and Checklists for use in the project life cycle

25.1 Kick-Off Phase

25.1.1 Social Questionnaire

Questionnaire					
		Yes	No	Uncertain	Deliverable
Activities					
1	Has the company strategy/approach with regards to technology intensive vs employee intensive been communicated to the design team?				
2	Has the company strategy/approach with regards to Health & Safety Practices been communicated to the Design Team?				
3	Does the project require Research & Development support?				
3.1	If yes, interact with R&D department to clarify project roles.				Clear project roles
3.2	If yes, will the R&D be funded by the project or by the mother company?				
4	Is the project an opportunity for current employees to develop their expertise?				
4.1	If yes, decide on how to choose the most suitable project team members				Project Team defined
5	Has all stakeholders (internally and externally) been identified?				List of Stakeholders
5.1	Has internal stakeholders been informed of the Project Kick-off?				
Possible Impacts or Sources thereof					
6	Can the project result in possible inflow of people to the region?				
7	What is the regulatory set-up in the proposed country?				
8	Are there any known cultural properties that might be affected by the project?				
8.1	If yes, is this a critical concern based on risk evaluation?				
	(Use the Social Risk Assessment Grid as developed by the World Bank)				

Likelihood of Occurrence	Low	Moderate	Substantial	High
High	R	R	MP	K
Substantial	R	R	MP	MP
Moderate	I	R	T	T
Low	I	R	T	T

Importance of Risk

K= Killer Concern/Assumption
R= Review and Reconsider
MP = Modify Plan – Take action by mitigating
I = Ignore
T=Triggers (Establish indicator, if reached address impact by measures of compensation, etc.)

25.1.2 Social Checklist (for use at the end of the phase)

Checklist				
	Has the folowing been done?	***Yes***	***No***	***Uncertain***
1	Communicate all relevant strategies to design team			
2	Clarify the role of R&D in the project			
3	Identify individuals for project team in accordance with competencies and career paths			
4	Identify all stakeholders			
5	Complete questionnaire and identify possible areas of concern			

25.2 Pre-Feasibility Phase

25.2.1 Social Questionnaire

	Questionnaire				
		Yes	No	Uncertain	Deliverable
1	Are technologies considered in line with compan strategy (technology intensive vs employee intensive)?				
2	Can Health & Safety practices for the proposed technologies be developed that are in line with the company strategy/standards?				
3	Are additional investments in Research & Development required to make technology work?				
4	Will the project have to invest in training & education to ensure that there will be capable employees to operate the technology or are skill available locally?				Capacity Requirements
5	Will the project require additional monitoring stations?				
6	Are there any legislation that oppose the project or that needs to be developed for the project?				List of relevant legislation
7	Have a strategy and plan for stakeholder engagement been finalised?				Stakeholder Engagement Plan
7.1	Identify any possible problematic stakeholders which can require additional attention				
8	Will the project increase any of the following sensory stimuli:				
	- noise				
	- smell				
	- physical appearance of plant/aesthetics				
9	Will the project decrease any of the following sensory stimuli:				
	- noise				
	- smell				
	- physical appearance of plant/aesthetics				
10	Can the project involve the relocation of people?				
10.1	If yes, develop an action plan to handle relocation project				Relocation Action Plan
11	**Possible risks to External Population due to influx of people & construction of asset**				
	Access to Health Facilities	Use the following risk matrix to assign values.			
	Access to Education Facilities				
	Availability of Acceptable houses				
	Availability of water services				
	Availability of Energy Services				
	Availability of Waste Services				
	Additional burden on transport network				

Likelihood of Occurrence				
High	R	R	MP	K
Substantial	R	R	MP	MP
Moderate	I	R	T	T
Low	I	R	T	T
	Low	Moderate	Substantial	High

Importance of Risk

K= Killer Concern/Assumption R= Review and Reconsider

MP = Modify Plan – Take action by mitigating I = Ignore

T=Triggers (Establish indicator, if reached address impact by measures of compensation, etc.)

25.2.2 Social Checklist (for use at the end of the phase)

Checklist				
Has the folowing been done?		***Yes***	***No***	***Uncertain***
1	Strategies known to Design team			
2	R&D Requirements clarified			
3	Capacity Requirements clarified			
4	Legislative and Monitoring Requirements clarified			
5	Stakeholder Engagement Plan Developed/Designed			
6	Possible impacts of concern identified.			

25.3 Feasibility Phase

25.3.1 Social Questionnaire

Questionnaire (Part A)

		Yes	No	Uncertain	Deliverable
1	Has the scope for the SIA been compiled?				Scope for SIA
2	Will this project create employment opportunities?				Number and type of employment opportunities
2.1	If yes, will these employment opportunities be permanent or temporary?				
2.2	Please complete the following for each type of employment:				
	- Number of employments:				
	- Is special skill training required?				
	- Can local labour sources be used?				
3	Will this project destroy employment opportunities?				
3.1	If yes, please answer the following questions:				
	- Number of employments				
	- What skill level employments are destroyed?				
	- Can local labour sources be affected?				

Questionnaire (Part B)					
		Yes	No	Uncertain	Deliverable
4	Is the rand value of employment compensation known?				
4.1	If yes, what is it?				
5	Are the project team familiar with the equity & diversity strategy of the company?				
5.1	If yes, can the project implementation adhere to the strategy in terms of available skill levels for employment opportunities?				
5.2	If not, can training or education bridge the gap?				
6	Are the project team familiar with the company strategy with regards to preferred labour sources?				
7	Are the company capable to develop and implement Health & Safety Practices as required by the proposed technologies?				
7.1	If not, can training or education bridge the gap?				
8	Risk of Technology in terms of Health & Safety Incidents Impacts Descriptions (**using DEAT method & Worldbank method)**				Description of possible impacts
9	Are additional investments in Research & Development required to make technology work?				
9.1	If yes, what is the predicted cost?				
10	Will the project have to invest in training & education to ensure that there will be capable employees to operate the technology or are skill available locally?				Capacity Requirements
10.1	If yes, are instructors, etc available?				
10.2	If yes, what is the time and cost implications likely to be?				Capacity Requirements
11	Will the project have to invest in housing?				
11.1	If yes, has an action plan been developed?				Housing Action Plan
12	What load will be placed on the service infrastructure? (Water, Energy, Waste)				Service Requirements
12.1	Can the service infrastruture handle the load?				
12.2	If no, action plan necessary				
13	Will the project require the building of temporary infrastructure?				
14	What load will be placed on the mobility infrastructure (networks & public transport)?				
14.1	Can the mobility infrastruture handle the load?				
14.2	If no, action steps must be taken.				
15	External Population - describe potential impacts in terms of **DEAT Method**				Description of possible impacts
16	Can the project involve the relocation of people?				
16.1	If yes, develop an action plan to handle relocation project				Relocation Action Plan
17	Does the project have any potential economic benefits (other than jobs) for the local community?				
17.1	If yes, please list these potential benefits				
18	Will the project require additional monitoring stations?				
19	Are there any legislation that oppose the project or that needs to be developed for the project?				List of relevant legislation

Questionnaire (Part C)

		Yes	No	Uncertain	Deliverable
20	Has the stakeholder engagement plan been activated?				
20.1	If yes, how many information sessions have been held?				
21	Are there any resistance to the project at present?				
21.1	If yes, please describe and rate risk				

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25.3.3 DEAT Method that needs to be applied in Feasibility Phase

Criterion			Health & Safety Incidents	Health	Education	Sensory Stimuli			Security	Cultural Properties	Economic Welfare		Social Pathologies	Social Cohesion	
		Impact Description	Risk inherit in technology for Health & Safety Incidents	Influx of People on access to health facilities	Influx of People on access to education facilities	Noise	Smells/ Odours	Aesthetics	Influx of people - increase in crime		Indirect employment opportunities	Influx of people	Influx of People	Resettlement?	Influx of people (Demographic changes)
Spatial Scale of Impact	High	Widespread: Regional/national/International													
	Medium	Beyond site boundary - Local													
	Low	Within site boundary													
Intensity/ Severity of Impact	High	Destruction or serious disturbance													
	Medium	Complete change in conditions													
	Low	Minor changes													
Duration of Impacts	High	Long term - Permanent or longer than 15 years													
	Medium	Medium term - 5 to 15 years													
	Low	Short term - 0 to 5 years													
Mitigatory Potential of Impacts	High	High potential to mitigate to a level of insignificant effects.													
	Medium	Potential to mitigate but mitigation may still not prevent some negative effects.													
	Low	Little or no mechanism to mitigate													
Acceptability of impacts	High	Unacceptable - Abandon project or serious redesign													
	Medium	Manageable - with regulatory controls													
	Low	Acceptable - no risk to public health													
Degree of Certainty	Definite	More than 90% sure - substantial supportive data exist to verify assessment.													
	Probable	Over 70% sure													
	Possible	Only over 40% sure													
	Unsure	Less than 40% sure													
Status of Impacts	Positive	A benefit to the community													
	Negative	A cost or risk to community													
	Neutral	No impact on community													
Legal Requirements:	Please state any specific legal or permit requirements that are relevant to the impact.														

25.4 Development Phase

25.4.1 Social Questionnaire

Questionnaire (Part A)					
		Yes	No	Uncertain	Deliverable
1	Will this project create employment opportunities?				Number and type of employment opportunities
1.1	If yes, will these employment opportunities be permanent or temporary?				
1.2	Please complete the following for each type of employment:				
	- Number of employments:				
	- Is special skill training required?				
	- Can local labour sources be used?				
	- What steps have been taken to ensure that equity and human rights are guaranteed in the contract?				
	- For temporary jobs: What steps are in place to ensure that the temporariness of the jobs have been thoroughly communicated?				
2	Will this project destroy employment opportunities?				
2.1	If yes, please answer the following questions:				
	- Number of employments				
	- What skill level employments are destroyed?				
	- Can local labour sources be affected?				
	- What steps have been taken to communicate and facilitate the retrenchment?				
	- What action plans have been developed to ensure that retrenched employees have skills to rely on?				
3	What is the financial value of employment compensation for new employees?				
4	Are the project team familiar with the equity & diversity strategy of the company?				
4.1	If yes, can the project implementation adhere to the strategy in terms of available skill levels for employment opportunities?				
4.2	If not, can training or education bridge the gap?				
5	Are the project team familiar with the company strategy with regards to preferred labour sources?				
5.1	If yes, can the project implementation adhere to the strategy?				
5.2	If not, why not and what can be done to ensure adherence?				
6	Have the necessary Health and Safety practices been developed to ensure safe operation of planned technology?				Health & Safety Practices
6.1	Are a training schedule in development to ensure workers know the practices?				Training Schedule
7	Will the project develop new skills in the community & company?				
8	If the project require additional monitoring stations is it planned for and feasible to construct?				
9	If there any legislation that oppose the project or that needs to be developed for the project have it been addressed and is everything in order to pursue project?				
10	Does a plan to enforce environmental standards on suppliers and contractors been developed or adopted?				Environmental Enforcement Plan

Questionnaire (Part B)					
		Yes	No	Uncertain	Deliverable
11	Are the stakeholder views on the project known and known to all personnel involved?				
12	How many information sessions took place with groups of people or all stakeholders?				
13	Are there any unhappy stakeholders that threatens the project?				
14	If the project involve resettling or relocation, has the plan been accepted by the community?				
15	Has the SIA been completed?				
15.1	If yes, has the SIA identified any critical social concerns?				
16	Will the project have to invest in housing?				
16.1	If yes, has an action plan been developed?				Housing Action Plan
17	Is the predicted impact on the following criteria according to the SIA known?				
	Criterion				Units of Equivalence to express impact
	Health & Safety Incidents				Risk of Health & Safety Incidents according to Worldbank matrix
	Health				Qualitative description of what predicted impact can be
	Education				
	Housing				
	Service Infrastructure				Influence on Availability of water services, energy services and waste services by taking additional loads into consideration
	Mobility Infrastructure				Influence on mobility structure due to additional loads being transported and additional people
	Sensory Stimuli				Impact on ambient noise and odour levels. Qualitative description of aesthetics
	Security				Qualitative description of what predicted impact can be
	Cultural Properties				Qualitative description of what predicted impact can be
	Economic Welfare				Indirect employment opportunities and additional employment opportunities. Predicted increase in spending in community
	Social Pathologies				Qualitative description of what predicted impact can be
	Social Cohesion				Qualitative description of what predicted impact can be
	MSP:Economic Welfare				Contribution to GGP and purchases that will take place regionally or nationally
	MSP: Trading Opportunities				Qualitative description of what predicted impact can be

25.4.2 Social Checklist (for use at the end of the phase)

Checklist				
	Has the folowing been done?	***Yes***	***No***	***Uncertain***
1	Social Impact Assessment			
2	Identify any social areas of concern			
3	Health & Safety Practices Training Schedule			
4	Environmental Enforcement Plan			

25.5 Execution & Testing Phase

25.5.1 Social Questionnaire

Questionnaire (Part A)					
		Yes	No	Uncertain	Deliverable
1	Have the temporariness of certain employment opportunities been communicated during the appointment process?				
2	Are minimum wages as specified by the country or the company's strategy adhered to?				
3	Have disciplinary and security practices been adopted?				
4	Does all employees have employee contracts according to the law of the country?				
5	Has the equity strategy been considered during the appointment of employees?				
6	Does the permanent employee appointments adhere to the equity strategy or policy?				
7	Has the labour source strategy or policy of the company been considered during the appointment process?				
8	Does the permanent employee appointments adhere to the labour source strategy or policy?				
9	Have the necessary Health & Safety training and communication took place to ensure Health &Safety readiness and alertness?				
10	Are measures in place to measure health & safety incidents?				
11	Have skills of temporary personnel been developed or improved?				
12	Has training etc been scheduled for new capabilities that needs to be developed?				

Questionnaire (Part B)					
		Yes	No	Uncertain	Deliverable
13	Are measures in place to measure actual impacts on the health of the external population?				
14	Are adequate housing facilities available for the influx of people?				
15	Can the service infrastructure handle the additional load?				
15.1	If not, what other options can be explored to mitigate the impact				
16	Can the mobility infrastructure handle the additional load?				
16.1	If not, what other options can be explored to mitigate the impact				
17	What steps will be taken to ensure that temporary infrastructure does not become permanent or are sufficient to serve as permanent infrastructure?				
18	Are regulatory services kept informed of progress?				
19	Are measures in place to monitor impacts on sensory stimuli?				
20	Is the company taking any measures to assist with induced social pathologies?				
21	Are environmental standards enforced on suppliers and contractors?				
22	How many information sessions took place with groups of people or all stakeholders?				
23	Are all possible steps taken to keep stakeholders informed?				

25.5.2 Social Checklist (for use at the end of the phase)

Checklist				
	Has the folowing been done?	***Yes***	***No***	***Uncertain***
1	Appointments have been made in accordance with equity and labour source strategy			
2	Disciplinary & Security Practices have been adopted			
3	Measures in place to measure impacts internally and externally			
4	Health & Safety Training and capacity development training have been scheduled and took place			

25.6 Launch Phase

25.6.1 Social Questionnaire

Questionnaire					
		Yes	No	Uncertain	Deliverable
1	Will the asset rely on the functional departments of the company or will it create its own functional departments?				
1.1	If not,				
1.1.1	Have the new asset adopt disciplinary and security practices?				
1.1.2	Are a standard for Employee Contracts in place for future appointments?				
1.1.3	Are an equity strategy or policy adopted and measures in place to assess adherence there to?				
1.1.4	Are a labour source strategy or policy adopted and measures in place to assess adherence there to?				
1.1.5	Are HS practices well documented to ensure continues education/improvement?				
1.1.6	Are a set of measures developed to track Health & Safety Performacne & Incidents?				
1.1.7	Is there a R&D strategy?				
1.1.8	Are their exisiting or planned Career Development paths for employees ?				
1.1.9	Are measures in place to measure impacts on external population?				
1.1.10	Has CSR projects been considered for the long term?				
1.1.11	Has a strategy to build long-term stakeholder relationships been developed?				
1.1.12	Is there a plan in place to ensure enforcement of environmental standards on suppliers and contractors?				

25.6.2 Social Checklist (for use at the end of the phase)

Checklist				
Has the folowing been done?		***Yes***	***No***	***Uncertain***
1	Adopting strategies and business practices for future functioning as an independent unit.			
2	Initiation of actions to build a long-terms stakeholder relationships with stakeholder.			

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26. Appendix R: Social Sustainability Tool for Projects (Internet Version)

26.1 Website Layout

The webpage consists of three main sections, namely:

- the project life cycle section: the section contains gate questions and links to questionnaires and checklists for each phase. It also graphically shows all social aspects relevant to the phase;
- the library section: it contains links to documents discussing social aspects as well as links to related websites, and
- the evaluation tool section: the section shows proposed gate questions which can guide decision-makers as well as a link to an Excel spreadsheet that can be of assistance when calculating SII.

26.2 Screen Captures of Website

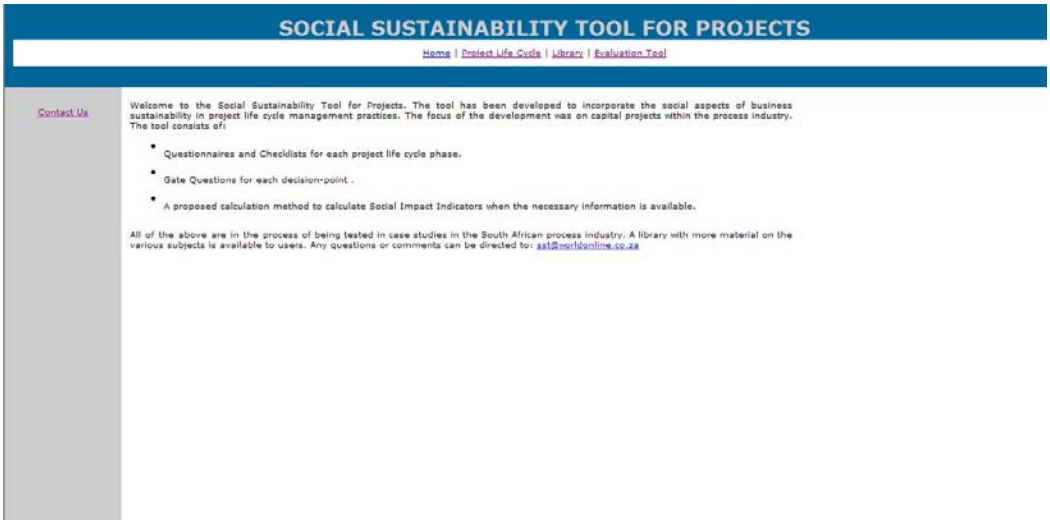

Figure 26-1: Homepage

The main page contains links to the three sections of the website as well as a link to contact the author.

26.2.1 Project Life Cycle Phases: Examples

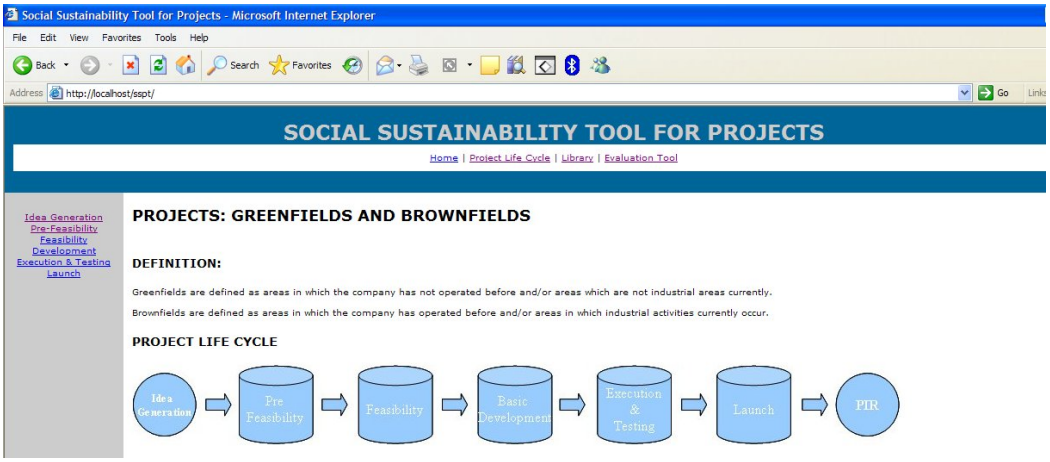

Figure 26-2: Homepage of Project Life Cycle Section

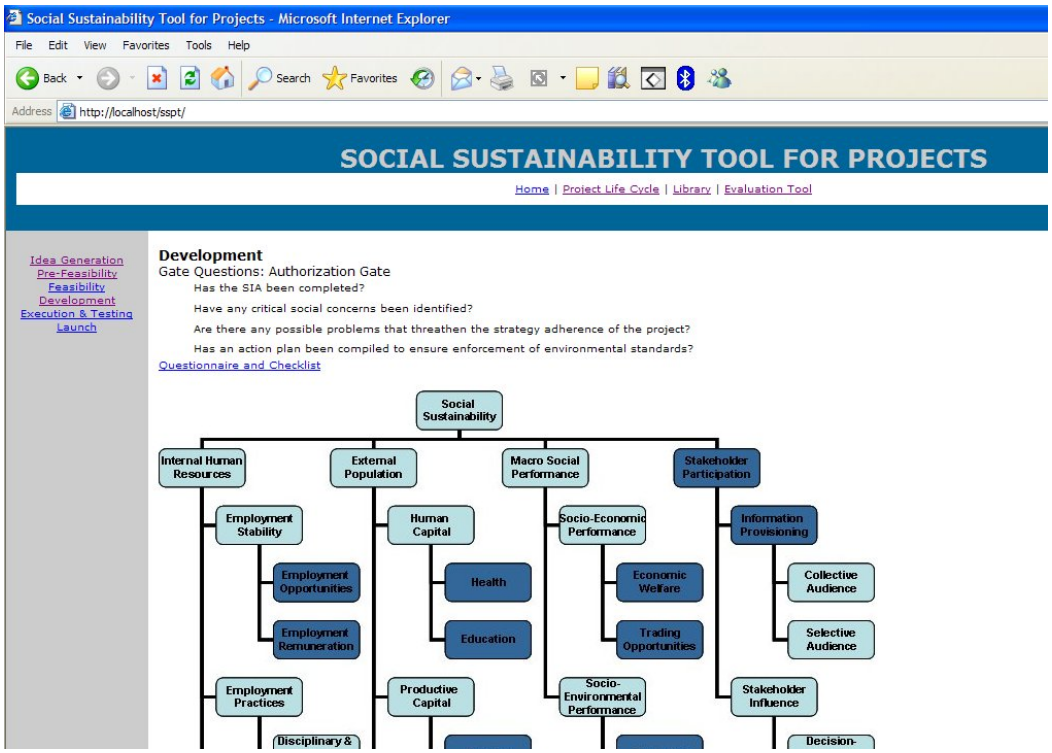

Figure 26-3: Example of webpage for each life cycle phase: Development

The main page contains links to individual pages for each life cycle phase. The webpage of each phase contains gate questions, a link to an example of a social questionnaire and checklist which can be used during the phase as well as a picture of the social sustainability framework indicating the relevant social aspects in the phase.

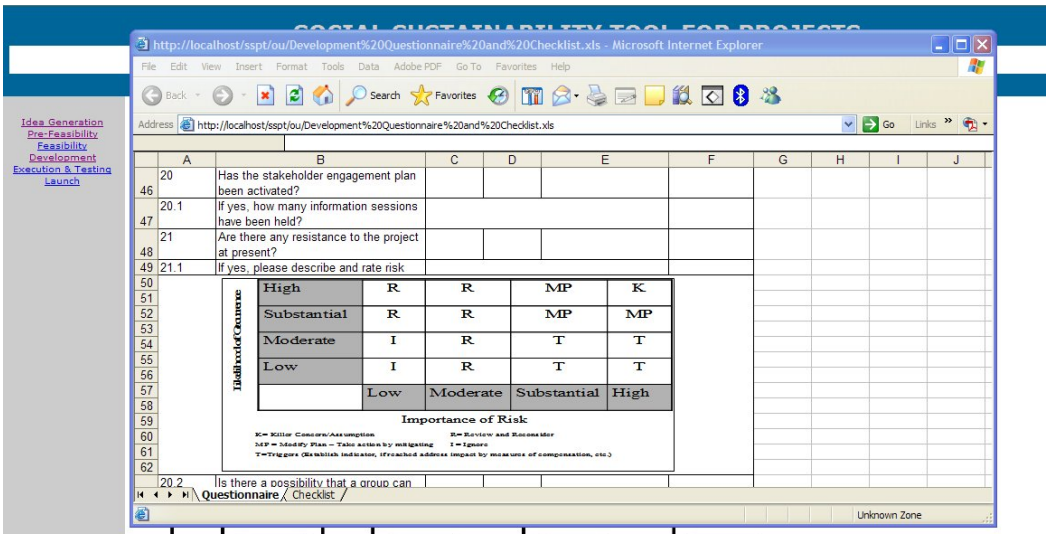

Figure 26-4: Link to Excel Checklist and Questionnaire

The questionnaire link opens an Excel workbook which contains a worksheet for the questionnaire and a worksheet for the checklist. If greenfield projects require additional steps in the specific phase an extra worksheet is added in the file which contains specific guidelines and/or hints with regards to these steps.

26.2.2 Library Section

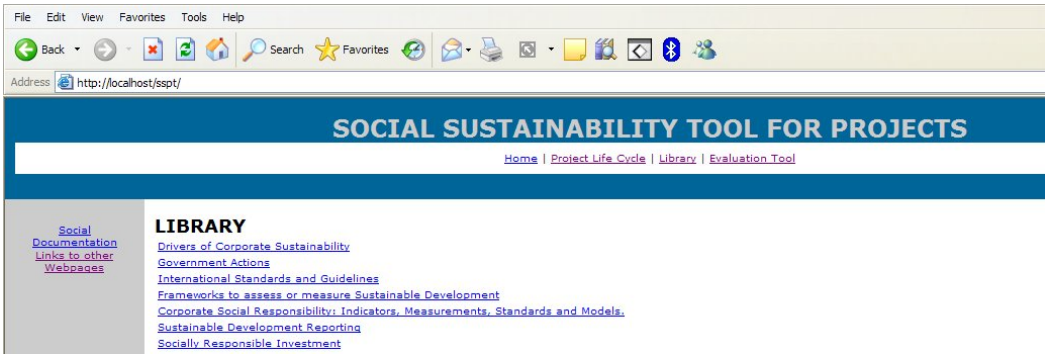

Figure 26-5: Library Main Page

The library page contains links to documents (in pdf format) discussing various social sustainability aspects. The library section also contains a page with links to various other social sustainability related websites.

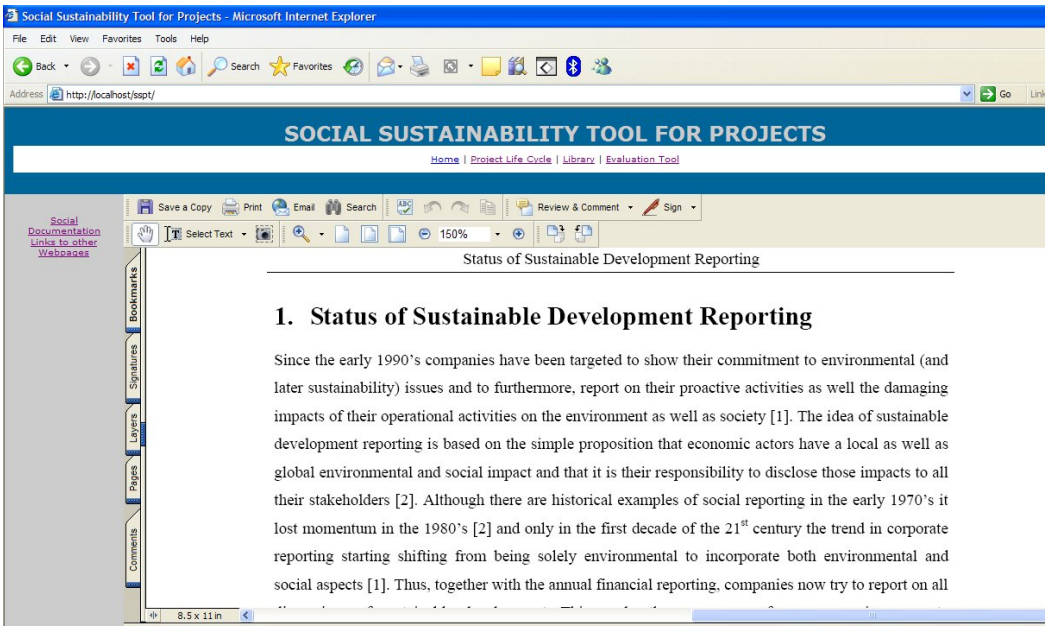

Figure 26-6: Example of a .pdf document in the library

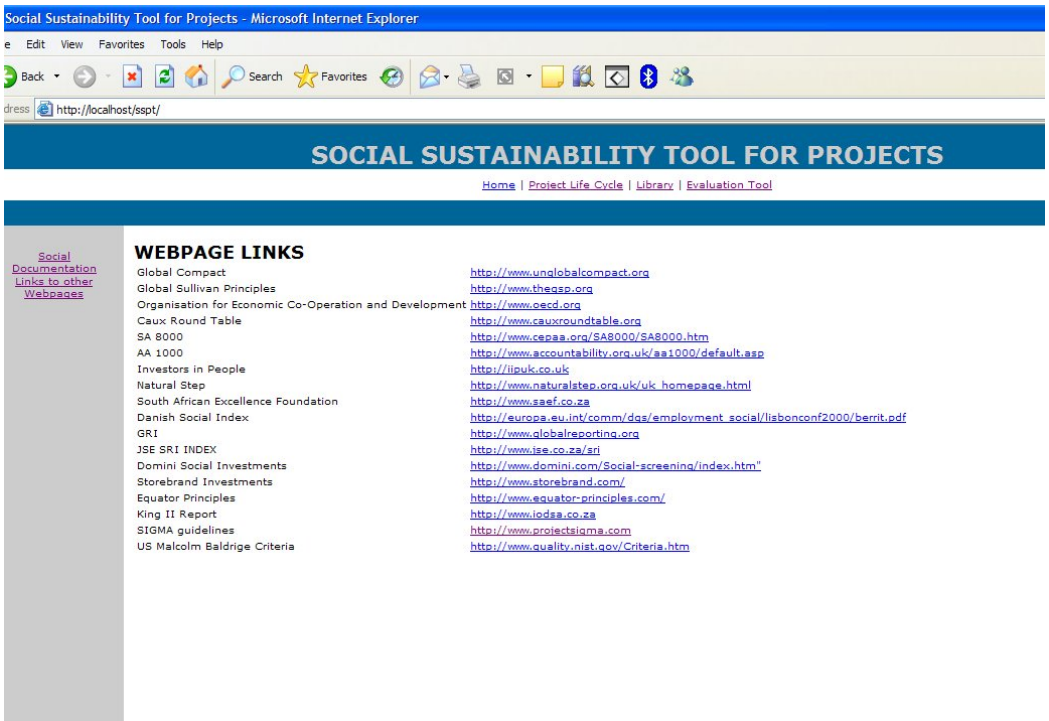

Figure 26-7: Library page with links to other websites

26.2.3 Evaluation Tool Section

The section consist of one page which indicate proposed gate questions that can guide decision-makers and contains a link to an Excel spreadsheet which can assist with calculation of Social Impact Indicators.

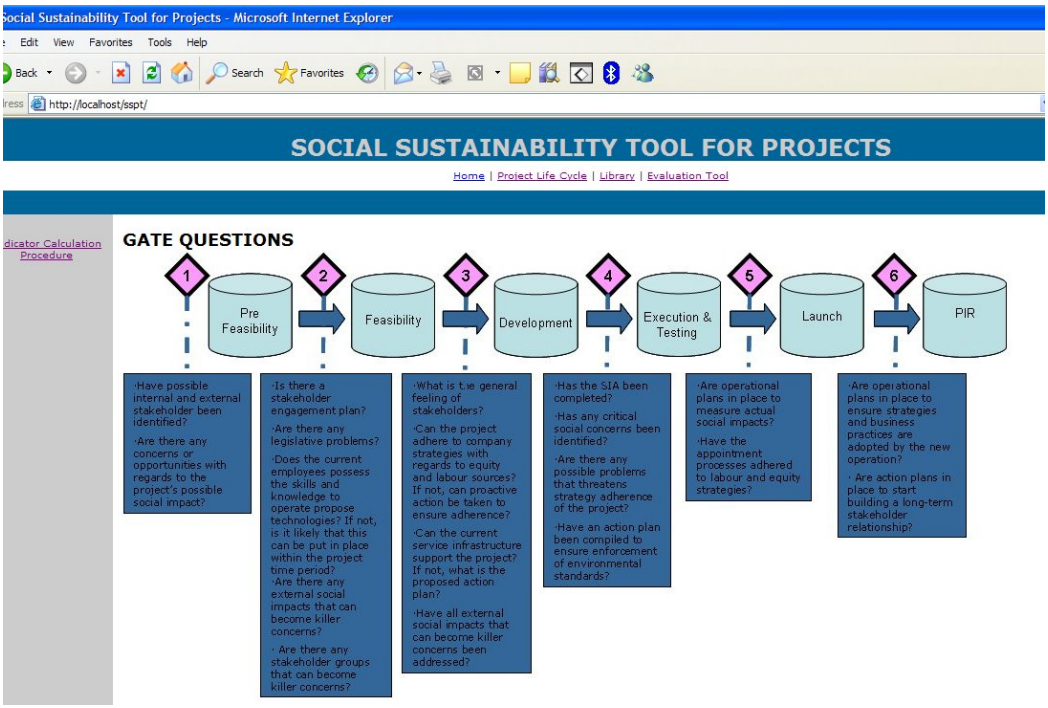

Figure 26-8: Evaluation Tool Section Home Page

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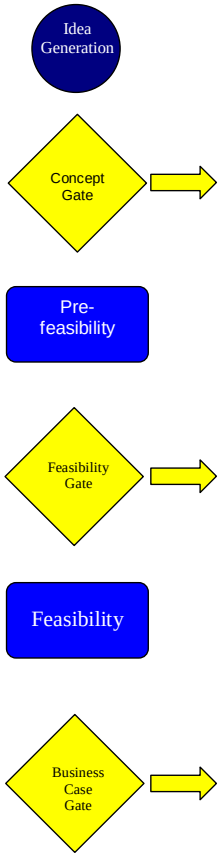
27. Appendix S: Examples of Existing Gate Questions



Business Strategy	***Technical Management***	***Project Management***
•Is it clear which business units or function the proposal support? •Does the proposal fit the strategy? •Is the opportunity attractive relative to alternative proposals? •Is the proposal likely to be acceptable to the customers and shareholders? •Do any competitors have capabilities similar to this? •Will the proposal provide the business with a competitive advantage? •Has a project sponsor been identified for at least the next phase/stage of the project?	•Can resources be committed to do the pre-feasibility study? •Is the business likely to be able to develop or acquire the required capabilities to support the proposal? •Is the proposal technically feasible with current technology? •Has the organization operational capability to support the proposal?	•Has a project manager been identified for the pre-feasibility phase/stage?
•Is it clear which business units or function the project support? •Does the project fit the strategy? •Is the business opportunity attractive? •Are the risks acceptable? •Is the initial business case and investment appraisal acceptable? •Have all the relevant business units and functions been involved in creating and reviewing the deliverables? •Has a project sponsor been identified for the project?	•Can resources be committed to perform the feasibility study? •On current knowledge is it technically feasible with current technology, or it there a possible technical development path to provide the capability or service? •Does the business currently possess the operational capability to support the project? If not is it likely that this can be put in place within the current/proposed process architecture?	•Has a project manager been identified for the project? •Is there a detailed schedule, resource and cost plan for the Feasibility Phase/Stage? •Is there an outline schedule, resource and cost plan for the full project?
•Is it clear which business units or function the project support? •Does the project still fit the strategy? •Have the development concepts e.g. marketing been researched and tested on target segments and the need reaffirmed? •Is the detailed business plan acceptable and compelling? •Have the key sensitivities and scenarios for the recommended option been checked and confirmed as acceptable? •Is the output definition clear? •Is the business case ready to be build into the overall business plan?	•Is it technically feasible with current technology? •Does the organization have the operational capability to support the project? •Are there resources to undertake the Development and Execution phase/stage? •Have formal commitments been made by the relevant line managers? •Have all relevant environmental permits been obtained?	•Are the project plans full and complete? •Is there a detailed schedule, resource and cost plan for the Development and Execution Phase/Stage? •Is there an outline schedule, resource and cost plan for the full project? •Are there sufficient review points in the plan? •Has the project been designed to eliminate known high risks?

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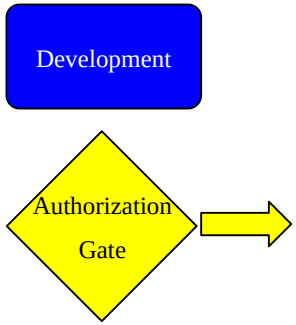
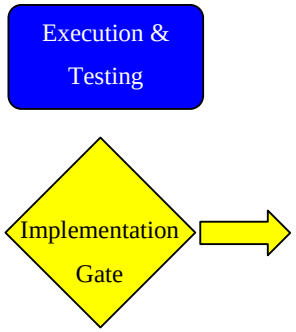
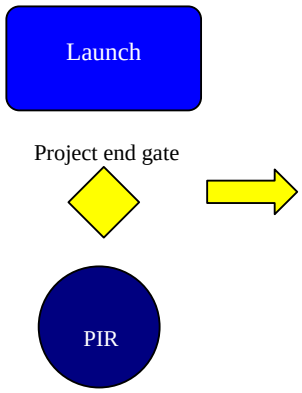


Business Strategy	*Technical Management*	*Project Management*
• Is the project still a good business proposition? •Is the project still correctly reflected in the overall business plan of the business? •Have all the high risks been eliminated?	•Is this the most suitable technical solution? •Has the EIA study been completed and environmental approval been obtained? •Have all the alternatives been evaluated?	• Is the project plan up to date, full and complete? •Is there a detailed schedule, resource and cost plan for the Execution and Testing Phase/Stage? •Is there an outline plan for the remainder of the project? •Are sufficient resources allocated to conduct the execution and testing?



•Is the project still a good business proposition? •Have all the high and medium risks been eliminated from the project? •Have the costs and benefits been reforecast against the business plan?	•Have the tests been finalized and the results accepted? •Have process design across the business been accepted and is all training completed? •Are benefits/results monitoring systems in place?	•Is the project plan updated, full and complete? •Is there a detailed schedule, resource and cost plan for the Launch Phase/Stage? •Are sufficient resources allocated to undertake the launch??



•Has the business forecast been updated to take into account the benefits arising from the project? •Has someone agreed to be accountable for monitoring the benefits? •Have review points and metrics for measuring the benefits been defined? •Has the project account been closed so that no more costs can be incurred? •Have all relevant stakeholders been informed of the project closure? •Have all issues been resolved?	•Have all issues been resolved? •Has ownership of each outstanding risk and issue been accepted by a NAMED person in the line or in another project?	•Are the project plans full and complete? •Is there a detailed schedule, resource and cost plan for the Development and Execution Phase/Stage? •Is there an outline schedule, resource and cost plan for the full project? •Are there sufficient review points in the plan? •Has the project been designed to eliminate known high risks?

Post Implementation Review

28. Appendix T: Questionnaire

1. SECTION A: GENERAL QUESTIONS:

Male ☐ Female ☐

How many years of work experience do you have?

- 2– 5 years ☐
- 5 – 10 years ☐
- 10 – 15 years ☐
- More than 15 years ☐

What is the size of the company you work for?

- Less than 50 employees ☐
- 51- 500 employees ☐
- 501- 1000 employees ☐
- 1001-10000 employees ☐
- more than 10000 employees ☐

Do you regularly work with or are you regularly involved with any of the following activities or business models:

- Project Management Methodology Models ☐
- Environmental Impact Assessment Studies ☐
- Corporate Social Responsibility Projects ☐
- Project Management Functions ☐

Have you been registered for a post graduate Project Management Module yet? Yes ☐ No ☐

If yes, have you completed the module yet? Yes ☐ No ☐

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?

- Heard about it ☐
- Scanned through it ☐
- Read it thoroughly ☐
- Know it in detail, are able to explain and defend it ☐

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 project progress meetings?

Yes, environmental only ☐ Yes, social and environmental ☐

Yes, social only ☐ No ☐

2. Section B: Criteria Evaluation

Please rate the following criteria against each other. The scale is as follows:

3: extremely more important

2: strongly more important

1: slightly more important

0: equally important

Criteria A	A more important				B more important			Criteria B
	3	2	1	0	1	2	3	
Environment	☐	☐	☐	☐	☐	☐	☐	Social
Environment	☐	☐	☐	☐	☐	☐	☐	Economic
Economic	☐	☐	☐	☐	☐	☐	☐	Social

3. Section C: Social Criteria: Assigning Values to Criteria

You have 100 points to attribute to each of the following sets of criteria, which describe the sustainability of a project, please indicate how you will distribute it. You do not have to allocate points to all criteria, only to those you feel are relevant.

SET A

Criteria	**Number of Points Allocated**
Social Sustainability	
Environmental Sustainability	
Economic Sustainability	

SET B

Criteria	**Number of Points Allocated**
Internal Human Resources – company impact on employees	
External Population – company impact on community (in close vicinity to the operations)	
Macro Social Performance – company impact on larger spatial scale thus on region or province or country	
Stakeholder Participation- company's efforts to engage with stakeholders and consider their opinions.	

SET C

Criteria & Example of Indicator	**Number of Points Allocated**
Employment Opportunities e.g. Number of permanent jobs created/destroyed; Percentage of unskilled jobs created/destroyed	
Employment Compensation e.g. Annual wages as a percentage of turnover, additional benefits in comparison to industry norms	

SET D

Criteria & Example of Indicator	**Number of Points Allocated**
Disciplinary & Security Practices e.g. Qualitative assessment of disciplinary practices, number of security personnel on premises	
Employee Contracts e.g. employee opinion of contract; employee contract in comparison to industry norm, average of overtime worked, Percentage of	

employees covered by collective bargaining agreements	
Equity & Diversity e.g. ratio between male and female wages on various levels, percentage of women in organisation	
Labour Sources e.g. number of child labourers	

SET E

Criteria & Example of Indicator	**Number of Points Allocated**
Health & Safety Practices e.g. Percentage of the hours of training regarding health and safety relative to the total number of hours worked,.	
Health & Safety Incidents e.g. fatal accidents, man-hours lost, absentee rate.	

SET F

Criteria & Example of Indicator	**Number of Points Allocated**
Research & Development e.g. annual amount spend on R&D	
Career Development e.g. number of training hours per employee per year	

SET G

Criteria & Example of Indicator	**Number of Points Allocated**
Health e.g. patients per doctor ratio, occurrence rate of certain diseases	
Education e.g. adult literacy level, students per teacher ratio	

SET H

Criteria & Example of Indicator	**Number of Points Allocated**
Housing e.g. quality of houses, number of occupants per house	
Service Infrastructure e.g. average water consumption per capita, waste generated per capita	
Mobility Infrastructure e.g. ton kilometres per capita, public transport seats available per capita	
Regulatory and Public Services e.g. people per library ratio, existence of political parties	

SET I

Criteria & Example of Indicator	Number of Points Allocated
Sensory Stimuli e.g. percentage of community complaints about odour or noise or aesthetics	
Security e.g. crime rate, people per police officer ratio	
Cultural Properties e.g. number of cultural sites	
Economic Welfare e.g. unemployment rate of community, average income per household	
Social Pathologies e.g. percentage of alcoholics, percentage of people who are HIV positive	
Social Cohesion e.g. number of community clubs, number of community events	

SET J

Criteria & Example of Indicator	Number of Points Allocated
Economic Welfare e.g. company's contribution to regional GDP	
Trading Opportunities e.g. Company purchases in region, Indirect job creation	

SET K

Criteria & Example of Indicator	Number of Points Allocated
Monitoring e.g. annual amount spend on environmental monitoring, hours spend in regional environmental meetings	
Legislation e.g. man hours spend in legislative workshops	
Enforcement e.g. number of suppliers with ISO 14001, qualitative assessment of supplier selection codes	

SET L

Criteria & Example of Indicator	Number of Points Allocated
Information Provisioning e.g. number of press releases per year, number of times website has been updated	
Stakeholder Influence e.g. number of stakeholder meetings per year, existence of mechanisms to distribute stakeholders' opinions	

SET M

Criteria & Example of Indicator	Number of Points Allocated
Macro Socio-Economic Performance e.g. contribution to GDP	
Macro Socio-Environmental Performance e.g. annual amounts spend on interaction with environmental department of government	

SET N

Criteria & Example of Indicator	Number of Points Allocated
Human Capital e.g. change in life expectancy at birth	
Productive Capital e.g. average water consumption per capita, ton kilometres per capita, people per library ratio	
Community Capital e.g. community opinion on sense of place	

SET O

Criteria & Example of Indicator	Number of Points Allocated
Employment Stability e.g. change in number of jobs available or total annual amount spend on wages	
Employment Practices e.g. percentage of employees covered by collective bargaining, percentage of female workers	
Health & Safety e.g. annual amount spend on Health and Safety, number of fatal accidents	
Capacity Development e.g. does the company have a knowledge management policy, amounts spend on training	