Vedanta Resources Plc

Sustainability Governance System

Guidance Note GN16

Conducting ESIAs to International Standards

Guidance Note – Conducting ESIAs to International Standards

Guidance Document Title:	**Conducting ESIAs To International Standards**	**Date of Revision**	22/03/2013
Document:	VED/CORP/SUST/GN 16	**Revision:**	V.1

Document Issue and Revision History		
DATE	**REVISION NUMBER**	**CHANGE SUMMARY**
22/03/2013	V1.	Original issue

Prepared by:	Mukul Kumar	**Authorised by:**	Tony Henshaw
Signature		**Signature**	
Position:	Head of Environment	**Position:**	Chief Sustainability Officer

1 INTRODUCTION

1.1 Who is this Guidance Note aimed at?

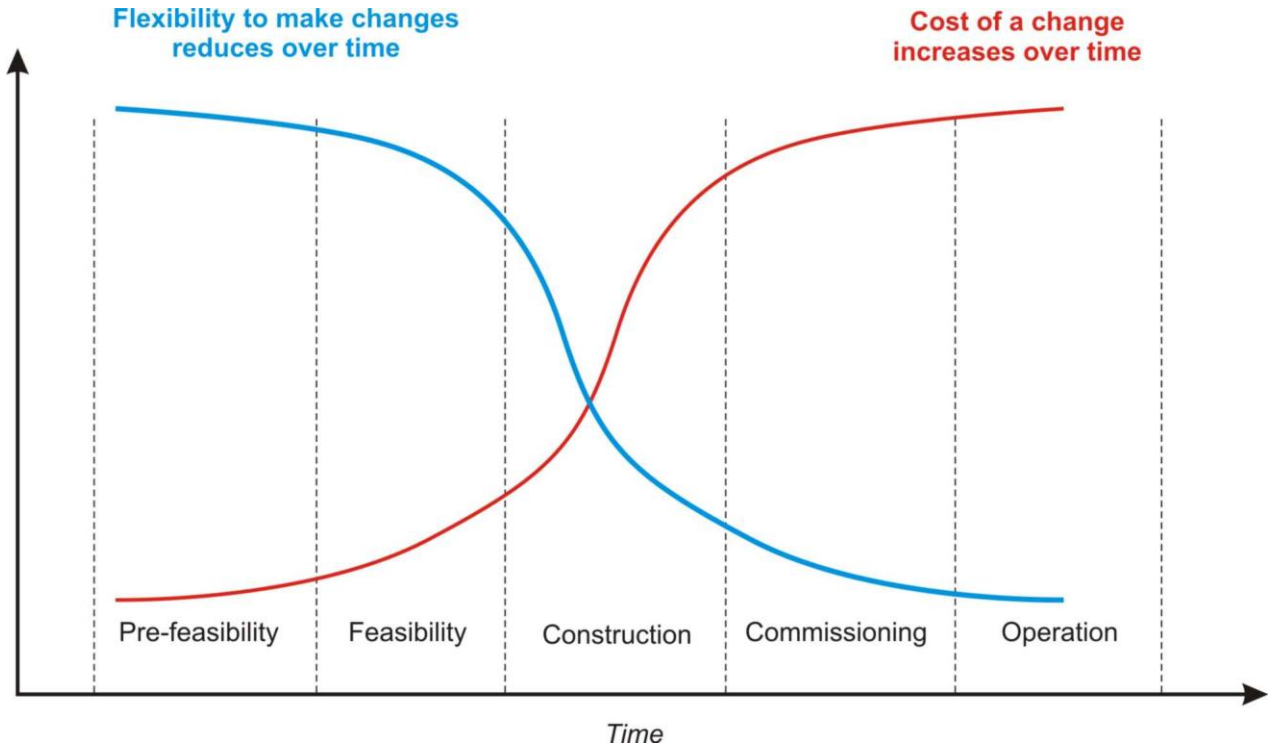
This Guidance Note is aimed at all Vedanta subsidiaries, operations and managed sites, including new acquisitions, corporate offices and research facilities and to all new and existing employees and contractor employees. This Guidance Note is applicable to the entire operation lifecycle (including exploration and planning, evaluation, operation and closure).

1.2 Why is it important to conduct ESIAs to international standards?

Conducting an ESIA to international standards promotes the development of a socially and environmentally responsible project that complies with legal and regulatory requirements and achieves broad community support.

ESIA is conducted in the early stages of project planning and aims to identify the social and environmental impacts associated with a proposed project in order to avoid or mitigate potential negative impacts and enhance benefits. The company can then communicate these both internally and externally, to groups such as governments, financial institutions and the affected communities.

As represented in the graph below, early planning allows greater flexibility and reduces costs by allowing changes to be made early on that can help to eliminate, mitigate or manage environmental and social risk, thereby greatly reducing the chance of project failure.



Undertaking an ESIA is typically a legal requirement and condition of international project finance for new projects of a certain size or significant expansion to existing operations. The Vedanta Technical Standard TS 08 on *Conducting ESIA's to International Standards* and other supporting Technical Standards specify what and how environmental and social issues should be assessed and managed depending on the nature, scale and potential impacts of a Project. The Vedanta Management Standard MS 09 on *New Projects, Planning Processes and Site Closure* follows the international lending community [IFC / Multilateral Development Banks (MDBs)] requirements to review and assess new projects (IFC Performance Standard 1 and related Equator Principles provide a benchmark for ESIA requirements for international project finance).

Where ESIAs are not done to international standards there is a greater risk that the project will fail, be delayed, overspend or not reach its full potential because not all environmental and social risks will be adequately identified or assessed, the result of this is a failure to perform financially and potential reputational damage. Accordingly, it is important that Operations carry out new projects (including significant expansion of existing operations) as per the Vedanta Sustainability Framework.

Vedanta's TS 08 – Conducting ESIA to International Standards follows the IFC guidance and assigns projects a category of A, B or C to reflect the magnitude of environmental and social sensitivity. In descending order, these categories are:

i. Category A: Projects expected to have significant adverse social and/or environmental impacts that are diverse, irreversible, or unprecedented. Typical Category A projects include new, large-scale mining projects with associated facilities (e.g. roads, railway, port).
ii. Category B: Projects expected to have limited adverse social and/or environmental impacts that can be readily addressed through mitigation. Typical category B projects include expansions to existing manufacturing operations.
iii. Category C: Projects expected to have minimal or no adverse impacts, including certain financial intermediary projects. Examples of category C projects include funding for expanded mobile phone services using existing data centres and mobile platforms.

More information about project categorisation is provided under *Categorisation of Project* in *Section 3.3.1.* Introduction

1.3 What is the aim of this Guidance Note?

This guidance note aims to provide a simple and standard step by step methodology for commissioning and managing Environmental and Social Impact Assessments (ESIAs) in order to ensure that they meet the requirements of the Vedanta Sustainability Framework. It is intended to provide detailed guidance for ESIA development in conjunction with Vedanta Technical Standard TS 08 – Conducting ESIA to International Standards, which provides technical requirements for the ESIA process and is in accordance with international standards.

The method provided is a standardised template based on industry best practice. It must be noted that the development of an individual ESIA is likely to be dependent on a number of unique variables and, as such, the methodology provided here will require a degree of refinement to satisfy the specifics of individual projects.

This document has particular relevance for projects located in regions which may have weak environmental and social impact legislation or for projects seeking international finance.

1.4 What issues does this Guidance Note address?

This Guidance Note is intended to reflect good practice and provide the basis for continual improvement of sustainability issues across Vedanta operations, which includes the ESIA process. Some of the issues covered herein include: ESIA screening, scoping, baseline data collection, impact assessment, stakeholder engagement, ESIA outputs, and commissioning and managing an ESIA.

1.5 How should this Guidance Note be used?

The Guidance Note focus is on the provision of preferred methods and outcomes rather than prescriptions whilst at the same time representing a practical "how to" guide for all Vedanta operators. The issues covered in this Guidance Note and the framework methodology provided should therefore not be taken as exhaustive. Reference is made to useful sources of information that provide further guidance or examples, which might be appropriate for certain projects or situations.

Where this Guidance Note is not used, operations will need to demonstrate (and document) how an equivalent process is in place and how management of social and environmental issues achieves best practice.

The Guidance Note is structured as follows:

Contents **Page**

2 UNDERSTANDING ENVIRONMENT AND SOCIAL IMPACT ASSESSMENTS

2.1 Objective of the ESIA

Environment and Social Impact Assessment is the methodology used to identify potential risks to and impacts (both positive and negative) from a proposed project on local people and the environment. It is important to assess these risks and impacts and identify relevant mitigation measures at the outset of the project in order to ensure that the project is viable and can develop in a sustainable manner. The ESIA process should result in a comprehensive and dynamic operational level management system, designed to manage environmental and social performance on an on-going basis.

The ESIA process aims [(1)]:

- to identify and evaluate environmental and social risks and impacts which may occur due to project activities;
- to avoid, offset or minimise these impacts through the implementation of appropriate mitigation measures;
- to improve environmental performance through the implementation of appropriate environmental management systems;
- to ensure an appropriate grievance mechanism is in place, which allows Affected Communities and other stakeholders to voice their concerns and opinions;
- to promote and provide means for engagement with Affected Communities throughout the lifecycle of project activities.

2.2 Vedanta Corporate Standards

The Vedanta Technical Standard 08 – Conducting ESIA to International Standard is mandatory for all Vedanta operations. This describes the requirements that should be followed by all Vedanta subsidiary companies and operations with regards the commissioning and management of ESIAs.

In addition, there are a range of Technical and Management Standards that are of relevance to the issues addressed in ESIAs. These include, but are not limited to:

- Vedanta Technical Standard TS 01: Cultural Heritage
- Vedanta Technical Standard TS 04: Grievance Mechanisms
- Vedanta Technical Standard TS 05: Stakeholder Engagement
- Vedanta Technical Standard TS 07: Biodiversity Management
- Vedanta Technical Standard TS 09: Resource Use and Waste Management
- Vedanta Technical Standard TS 10: Safety Management
- Vedanta Technical Standard TS 11: Environmental Management
- Vedanta Technical Standard TS 12: Occupational Health Management
- Vedanta Technical Standard TS 14: Water Management
- Vedanta Technical Standard TS 16: Energy and Carbon Management
- Vedanta Technical Standard TS 19: Social Investment Management

2.3 National and Regional Regulatory Requirements

(1) This list is adapted from IFC Guidance Note 1,Assessment and Management of Environmental and Social Risks and Impacts: http://www1.ifc.org/wps/wcm/connect/b29a4600498009cfa7fcf7336b93d75f/Updated_GN1-2012.pdf?MOD=AJPERES *accessed 08/08/2012*

The legal requirements for Environment and Social Impact Assessment and related environmental, social and health and safety issues, vary in scope and detail according to different national and regional jurisdictions. Vedanta operators should always ensure compliance with the regulatory framework in their area or region of operations. Consultation with appropriate government agencies or administrative bodies will be an important element of this. The key government responsibilities of relevance will include but are not limited to:

- environment (including biodiversity, forestry and water resources);
- labour and social welfare;
- health and safety;
- land use;
- cultural heritage; mineral resources; and
- Issuance of appropriate licences and permits.

3 THE ENVIRONMENT AND SOCIAL IMPACT ASSESSMENT PROCESS

The ESIA process comprises 6 key stages as outlined below. Further guidance on the activities that are involved in each stage is provided in the remainder of this section.

Stage 1: Screening Exercise
This is a desk based exercise that determines whether an ESIA is required and if so, what Impact Assessment (IA) requirements apply to the project. The outcome of this exercise is to help management decide the viability of a project by communicating the key or major environmental and social risks associated with the project based on:

- identification of applicable regulatory requirements;
- preliminary identification of project stakeholders;
- preliminary understanding of potential project risks and impacts;
- assignment of a Project category for the purposes of internal guidance and for review/assessment of international finance community (MDBs), in case required; and
- consideration of alternatives if significant project risks or impacts are identified.

Stage 2: Scoping Exercise
This is a desk and field based exercise that aims to focus the remainder of the Impact Assessment process on any impacts likely to result in significant risks. This involves:

- defining the project Area of Influence;
- conducting preliminary Stakeholder Consultation including
    - further identification and mapping of stakeholders
    - design and implementation of the Grievance Mechanism
- identifying potential interactions between the project and environmental and social receptors based on a preliminary project description, preliminary baseline data collection and stakeholder input.

Stage 3: Baseline Data Collection
This is a desk and field based exercise to define the baseline (i.e. pre-development) social and environmental conditions in the Area of Influence.

Stage 4: Impact Assessment
This identifies expected project impacts (positive and negative) and assesses how significant they are likely to be based on:

- characterising the magnitude of impacts;
- defining the sensitivities of resources/receptors;

- defining the likelihood of unplanned events;
- identifying mitigation and enhancement measures; and
- consideration of cumulative impacts

Stage 5: ESIA Study Outputs
This is the development of management and monitoring requirements and commitments that capture the mitigation and enhancement measures identified through the impact assessment. This will include, for example:

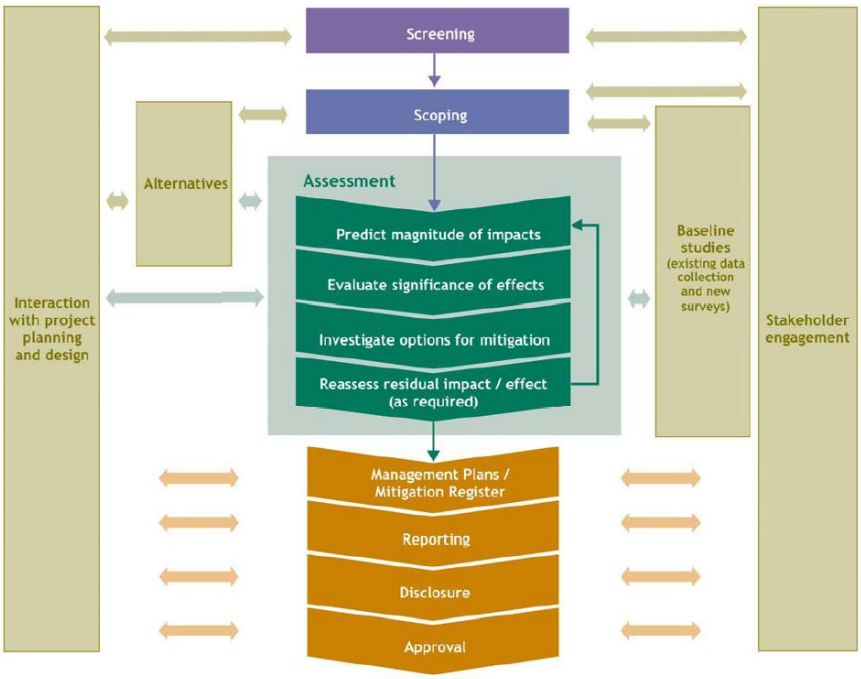
- Environmental, Social and Health Management System (ESHMS);
- Stakeholder Engagement Plan (SEP);
- *Vulnerable Social Group Development Plan (VSGDP) (if required);*
- *Biodiversity Management Plan (BMP) (if required)*
- *Emergency Preparedness and Response Plan (if required)*
- *Contractor Management Plan (if required);*
- *Waste Management Plan (if required); and*
- *Site Closure Plan.*

Stage 6: Public Disclosure
For internationally financed projects and under certain jurisdictions, a final draft of the ESIA must be made publically available for comment before final approval. For Category A projects the disclosure period is 60 days and for all other projects it is 30 days.

It is important to note that the ESIA process is an iterative, not a linear, process. Many of the steps involved in each stage interact with one another such that it is likely that the ESIA team will move back and forth between the stages throughout the process. Stakeholder consultation and engagement will also be a key and on-going input to every stage in the ESIA process (See section 3.4 below).

Figure 3.1 provides an illustration of the standard ESIA process.

Figure 3.1 Environment and Social Impact Assessment Process



3.1 Environmental and Social Impact Assessment Organisation

Operations are responsible for screening, commissioning and managing the ESIA process and for implementing the resultant Environmental, Social and Health Management System. A designated ESIA team, made up of in-house staff and/or external consultants with the requisite competency and experience, should be appointed to undertake the ESIA process from scoping onwards, including data collection, impact assessment and reporting.

Certain international and national requirements specify that independent assessment, by external consultants, is necessary during the ESIA development to guarantee impartiality and in-depth knowledge of specialist subject areas. Depending on the project, external consultants may therefore be required to provide technical expertise in areas including:

- biodiversity;
- emissions management
- health;
- cultural heritage;
- forestry;
- water resources and management;
- consultation and community engagement;
- contractor management
- resettlement;
- indigenous peoples;
- ingress issues;
- other vulnerable groups;
- grievance mechanisms;
- community health and safety
- air quality; and
- noise mitigation and management.

The ESIA team should work in close collaboration with both internal and external stakeholders who may be decision makers or act as important sources of information. Internally, this may include the rest of the operations project team, including management, design engineers, the legal and health and safety experts. Externally, they include financial lenders (e.g. IFC or other banks), shareholders, environmental agencies, NGOs, local and national governments and their agencies, contractors and supply chain representatives.

3.2 Stakeholder Engagement

Stakeholder Engagement is a key element of the ESIA process and should run through the entire ESIA and project lifecycle Stakeholder Engagement gives stakeholders an opportunity to learn about and provide comment on the project, the scope of the ESIA and any studies produced during the ESIA process. The views of stakeholders should be taken into account when assessing project impacts and reflected in subsequent project decision making and in the design of mitigation and enhancement measures. As such stakeholder engagement is an on-going process.

In order for engagement to be effective disclosure of project information is required. Disclosure refers to the provision of relevant and adequate project information to enable stakeholders to understand the risks, impacts and opportunities of the project. The final ESIA should be communicated to all stakeholders for their comment and these views should be reflected in the Environmental and Social Management System (described in *Section 3.3.5* below).

Stakeholder Engagement should be conducted in a respectful and transparent manner that is inclusive and culturally appropriate. It should include the following elements: stakeholder analysis and planning, disclosure and dissemination of information, consultation and participation, grievance mechanism, and on-going reporting to affected communities. Further guidance on stakeholder engagement is provided in the Vedanta Technical Standard *TS05 Stakeholder Engagement.*

3.3 Performing an Environmental and Social Impact Assessment

The following section outlines the key steps that should be taken to fulfil the requirements of each stage of the ESIA process.

3.3.1 Stage 1 - Screening

1. Desk based research

As outlined in TS 08 – Conducting an ESIA to International Standards, the information gathered during screening should come mainly from desk based research[1]. This should be supplemented with project information from those involved in the project. *Table 3.1* details the information needed to determine whether an ESIA is required, along with potential sources of that information (within Vedanta) and an explanation of how the information should be used.

Table 3.1 Screening Information

Information Required	Information sources	How will the information be used?
Regulatory Framework: An understanding of the Vedanta Standards, local laws and regulations and the IFC Performance Standards	• Legal team • EHS Manager • Community Team • Government authorities	To determine whether the project triggers a regulatory requirement for an ESIA and if so, which Impact Assessment requirements apply to the project.
Project Information: Understanding of the project design and any project alternatives. A list of project information that Vedanta Project Managers will need in order to complete the screening exercise is provided in *Box 3.1* .	• Project Managers • Projects Design Engineers • EHS Manager • Operations Manager	Used in conjunction with information about local environmental and social characteristics for preliminary identification and evaluation of project impacts
Local, regional and national environmental and social data: Preliminary understanding of the local environmental, social and health characteristics of the project area. AAlist of the relevant information required is provided in *Box 3.1*	• Community Team • EHS Manager	Used in conjunction with project information for preliminary identification and evaluation of project impacts

[1] Vedanta Technical Standard TS 08: Conducting ESIA to International Standard p. 9

Box 3.1 Information requirements for screening[1]

The lists below detail the project information and environmental and social data required to complete the ESIA screening exercise.

Project characteristics
- Project size
- Project duration
- Water use
- Production of waste
- Use of hazardous materials
- Habitat alteration
- Airborne emissions including dust and gaseous emissions
- Noise emissions
- Energy use
- Visual changes to surrounding landscape
- Project transport requirements
- Labour requirements
- Changes to land use

Local, Regional and National Environmental and Social Data:
- Size and location of nearby human settlements
- Presence of vulnerable groups, particularly indigenous people
- Cultural heritage
- Existing land use
- Social, health and community infrastructure and services
- Political profile and history of relations between communities and the mining sector
- Traffic patterns
- Air quality
- Sensitive habitats and presence of rare, threatened or endangered species
- Geology and soils natural hazards
- Availability, quality and regenerative capacity of natural resources
- The absorption capacity of the natural environment, paying particular attention to the following areas: wetlands; coastal zones; mountain and forest areas; nature reserves and parks; areas classified or protected under legislation; special protected areas; areas in which the environmental quality standards laid down in Community legislation have already been exceeded densely populated areas; and landscapes of historical, cultural or archaeological significance.

The approximate area over which the effects of the project on environmental and social receptors will extend should be estimated at the screening stage based on the project and baseline information available. At this stage, the key aspect to consider is whether project impacts extend beyond the Project Footprint. This will facilitate preliminary identification of the extent of potential impacts. A more precise project *Area of Influence*, which outlines the area likely to be affected by direct project activities and indirect and/or unplanned impacts will be defined in the next stage, *scoping.* Guidelines on what the Area of Influence encompasses are given in *Section 3.3.2.3 Scoping Exercise.*

2. Identification of potential impacts and requirements for impact assessment

Based on the project information and local, regional and national environmental and social data collected during screening, Operations should complete the screening checklist provided in Annex A by answering ‘yes’ or ‘no’ to each of the questions asked and filling in (in detail) the reasoning to

[1] This list is also provided in Annex B.

support the decision in the "Explanation" column. If necessary, project personnel (e.g. project design engineers) should be consulted to help answer the questions.

Positive responses to any of the questions in the screening checklist indicate where a project activity is likely to have an environmental or social impact and which environmental or social resources/receptors are likely to be sensitive to impacts. Positive responses therefore are used in two ways i) to challenge the project sponsors to review and modify the project design at the earliest possible stage of pre-feasibility and ii) if no improvements can be made, to indicate the aspects that the ESIA will need to focus on and the standards and regulations that will apply in order to be able to manage impacts.

It may not be possible to answer all of the screening questions with accuracy based on the information available at this stage. Answers should therefore be conservative, considering any 'maybes' as a 'yes' in order to keep the range of issues considered as wide as possible until more is known about the project and the surrounding area. Information gaps should be noted and will support further data collection activities in the scoping and baseline stages. Collection of project and baseline information will continue throughout the impact assessment process.

Note: For the screening checklist with regards to biodiversity, Operations to request Corporate to run the IBAT tool for the proposed new project. Depending upon the risk levels (IBAT tool output), next steps to be developed.

3. *Categorisation of Project*

Based on the severity of the impacts identified in this screening exercise the project should be categorised on the basis of the IFC categorisation protocol for the purposes of internal guidance and to aid project selection[1] (See Section 1.2). It should be noted that the IFC F1 project category is excluded from this list as it is used as a means of categorising projects on the basis of their source of funding and not on the basis of the level of potential environmental impact.

The project category governs how Vedanta Policy will apply to the proposed investment. For the most sensitive projects, Vedanta discloses more information and develops more detailed Environment and Social Management Plans to manage the associated risk. If preliminary information is limited, the ESIA team may change the project category as new information is received. For both Category A and Category B projects the full contents of the ESIA will be determined during the scoping exercise (see *Section 3.3.2*).

The IFC Categories A to C are described below:

- **Category A project:** a project likely to have significant adverse environmental (and social) impacts that are sensitive, diverse or unprecedented. These projects may affect an area broader than the sites or facilities subject to physical works. Examples of typical Category A project and impacts is provided in *Box 3.2.* For a Category A project, a full ESIA conducted by independent experts not affiliated with the project is required. The ESIA should examine the project's potential positive and negative impacts, compare them with those of feasible alternatives (including the 'without project' scenario) , and recommend any measures needed to prevent, minimize, mitigate or compensate for adverse impacts and improve performance.

[1] It should be noted that if the project is to receive direct IFC funding it will be categorised by the IFC as follows and likewise if the project is to be indirectly funded by the IFC (for example through a financial intermediary) it will be categorised as an F1 project if environmental impacts are anticipated.

Box 3.2 Typical Category A Projects

Although decisions on categorization are made on a case-by-case basis, examples of Category A projects and impacts are:

- Projects affecting indigenous people or ethnically distinct groups
- Projects involving resettlement of communities / families
- All projects which pose serious socioeconomic concerns
- Projects associated with induced development (eg inward migration)
- Project with impacts on cultural property (eg religious and archaeological sites)
- Projects which pose serious occupational or health risks
- Impacts on protected natural habitats or areas of high biological diversity including wetlands, coral reefs and mangroves
- Forestry operations
- Mining (open cast and pit)
- The project proponent has strong political links being used for promotion of the project
- The project is in a sector that has a reputation for poor governance
- Construction of dams or reservoirs
- Pesticides or herbicides: production or commercial use
- Major irrigation projects or other projects affecting water supply in a given region
- Domestic or hazardous waste disposal operations
- Hazardous chemicals: manufacture, storage or transportation above a threshold volume
- Oil and gas developments , including pipeline construction
- Large infrastructure projects, including development of ports and harbours, airports, road, rail and mass transit systems
- Metal smelting, refining and foundry operations
- Large thermal and hydropower developments
- The project has had negative publicity in the recent past

- **Category B project**: a project with potential environmental (and social) impacts that are less adverse than those of Category A projects. These impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for Category A projects. Examples of typical Category B Projects are provided in *Box 3.3.* The scope of an ESIA for a Category B Project will vary from project to project but is narrower than that of a Category A project. Like Category A projects, the IA should examines the project's potential positive and negative impacts and recommend any measures needed to prevent, minimise, mitigate or compensate for adverse impacts and improve environmental and social performance.

  For Category B projects that are not in environmentally sensitive areas and that present well defined and well understood issues of narrow scope, alternative approaches for meeting ESIA requirements may be accepted: for example, for a small scale mining project or small scale extensions of existing mining operations, evidence of an approach using environmentally and socially sounds design criteria, siting criteria and pollution standards that meet the standards set out in the Vedanta Sustainability Framework may be sufficient.

Box 3.3 Typical Category B Projects

Although decisions on categorization are made on a case-by-case basis, examples of Category B projects and impacts are:

- Agro-industries (small scale)
- Aquaculture and mariculture
- Renewable energy (except large hydro-electric power projects)
- Breweries
- Cement manufacture
- Dairy operations
- Food processing
- General manufacturing plants
- Hospitals
- The company does not have a regular functional board
- Hotel / tourism development
- Mining (small scale)
- Metal plating
- Rehabilitation, maintenance and modernisation of existing plants (small scale)
- Pulp and paper mills
- Textile plants
- Telecommunications
- Greenfield projects in existing industrial estates

Category C project: a project that is likely to have minimal or no adverse impacts. Examples of typical Category C projects are provided in Box 3.4. For Category C projects a screening exercise is usually sufficient and an ESIA is not required.

Box 3.4 Typical Category C Projects

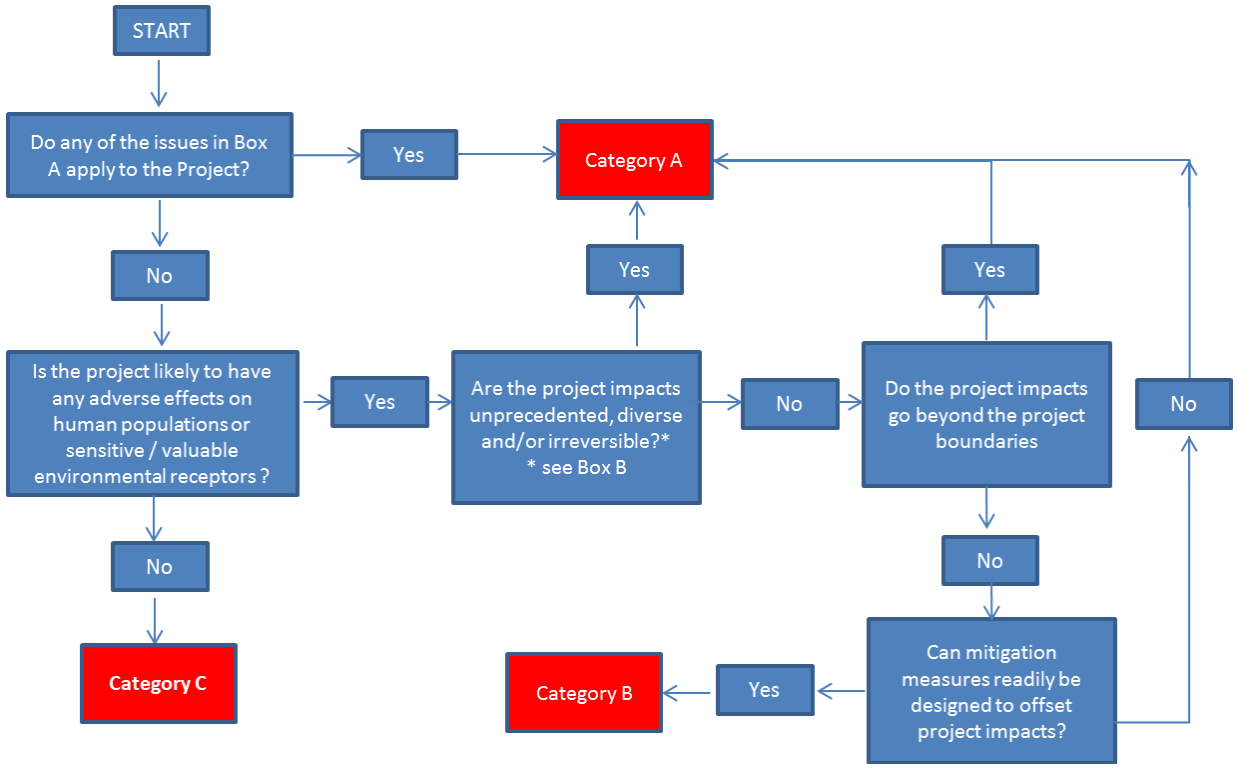
Typical Category C Projects include:

- Software development
- Consulting firms
- Service industries
- Technical Assistance
- Regular disclosure on the Board's affairs and management
- Factoring companies
- Share registries
- Stock broking
- Retail banking
- No past linkages or reputational damage

A decision tree to guide project categorisation is provided in

Figure **3.2**. It should be noted that the boundary between Category A and Category B projects is not strictly defined and will depend very much on professional judgement.

Figure 3.2 Project categorisation



Box A - Potentially significant issues

- Projects affecting indigenous peoples or ethnically distinct groups
- Projects involving resettlement of communities / families
- Project pose serious socioeconomic concerns
- Projects associated with induced development (eg inward migration)
- Project which impact on cultural property (eg religious and archaeological sites)
- Projects which pose serious occupational or health risks
- Impacts on protected natural habitats or areas of high biological diversity including wet;ands. coral reefs and mangroves
- The project proponent has strong political links being used for promotion of the project
- The project is in a sector which has a reputation for poor governance
- Forestry operations
- The project has had negative publicity in the recent past.

Box B

- *Unprecedented*: Not found in the area / greenfield site / different from prevailing activities in the area
- *Diverse*: Multi component and multi location project impacts
- *Irreversible*: Impossible to repair, rectify or restore impacts

Both Category A and Category B projects require an Environmental and Social Management System to be developed and maintained. The contents of this will be determined on a case by case basis and will include relevant Environmental and Social Management Plans that address the issues raised in the ESIA and incorporate actions required to comply with the applicable Vedanta Sustainability framework.

For Category A and Category B projects, a process of effective and structured Stakeholder Engagement based on Informed Consultation and Participation must be conducted. A Grievance Mechanism Procedure must also be established *(see Section 3.2* and *3.3.2.3).*

Project categorization also determines the requirements for disclosure of project information to stakeholders. For all Category A projects and, as relevant, Category B projects, electronic copies or web links to the relevant ESIA should be provided (see *Section 3.4*). Category A projects require a minimum 60-day disclosure period. All other projects require at least 30 days. Records and documentation of the stakeholder consultation process should also be made publically available. This includes records of any actions agreed resulting from the consultation process.

4. Consideration of Alternatives

Where significant project risks or impacts have been identified, considerations should be given to modifications in project design and/or project alternatives to reduce or eliminate these risks. The best project option should be selected at this stage. In severe cases, this may mean abandonment or relocation.

5. Documentation

The results of the screening process and related decisions should be documented in a Screening Report. This is a simple document built around the screening checklist that summarises which IA requirements apply to the project. In addition to the checklist, it should therefore describe the results of the analysis of the regulatory framework; provide a brief overview of expected project impacts and their significance; describe relevant consultations with Project stakeholders (e.g., authorities, external consultants, lenders); and provide evidence of official screening decisions, including consideration of alternatives and the preferred project option that has been selected.

3.3.2 Stage 2 - Scoping

Once *Stage 1 - Screening* is completed and if it has been decided that the project is sufficiently viable to proceed and an ESIA will be required, a designated ESIA team will be appointed with responsibility for completing data collection, impact assessment and identification of mitigation and management measures. It is recommended that external consultants are recruited when impacts are considered to be potentially significant and when the requisite expertise is not available in-house.

3.3.2.1 Commissioning and managing an ESIA

If an ESIA is required and the project impacts are considered to be significant or the requisite expertise is not available in-house, an external consultancy should be commissioned to undertake the ESIA process. A tender should therefore be put out requesting proposals for the defined piece of work. A template for a request to tender is provided in Annex C. The HSE manager (or nominated

person with responsibilities for sustainability-related issues) should prepare the tender with support from the legal team, Operations Manager, Community Relations Manager and the engineering team.

Proposals submitted during the tender process should be assessed by a proposal review team consisting of the HSE manager, Operations Manager, Community Relations Manager and other relevant staff as deemed appropriate. Proposals will be reviewed first according to technical quality and second according to cost analysis.

Technical expertise should be assessed according to:

- Expertise of staff proposed
- Project experience in related work
- Industry experience
- Use of local knowledge and expertise
- Methodology

Financial delivery should be assessed according to:

- Affordability and value for money
- Fee rates of individual consultants.

3.3.2.2 Roles and Responsibilities

Once the consultant has been appointed a team should be appointed to manage the ESIA process. It is important to ensure that the staff who must manage the ESIA process are competent and have the relevant skills and knowledge, including current knowledge of the operating country's regulatory requirements and the IFC Performance Standards, to ensure the requirements of Vedanta TS 08 – Conducting ESIA to International Standards are properly implemented. The following staff will have a key role in the commissioning and management of ESIA.

Project Manager

It is vital that the ESIA programme be fully integrated into the overall project plan and overseen by the Project Manager.

Sustainability / HSE Manager

The HSE manager will typically take overall responsibility for ESIA management. They will be responsible for leading the process for ESIA screening and commissioning, as well as overseeing all activities related to identification and assessment of potential risks and impacts. This should include:

- facilitating the involvement of relevant Vedanta staff in the ESIA process and integrating the ESIA consultant into project planning by facilitating liaison between the ESIA team and senior management, project planners and engineering staff;
- assisting the ESIA engagement process;
- reviewing or delegating review of ESIA deliverables;
- coordinating and delegating logistical planning for the ESIA process;
- liaising between the ESIA team, Vedanta senior management and any regulatory authorities as necessary;

- keeping track of ESIA project updates through weekly calls/meetings/emails; and
- reporting progress and key issues to the overall management of the project.

Community Relations Team

The community relations team should provide key input into ESIA screening based on an understanding of the project design and the legal and regulatory environment in which it is taking place. They will also play a key role in facilitating internal and external ESIA engagement for data collection and information disclosure. This includes identification of key stakeholders in the community including community leaders, arbitrators, vulnerable groups, potential suppliers and workers; organisation of, and participation at stakeholder meetings; receiving comments and communicating project information; and, managing the grievance mechanism system. They will usually lead the stakeholder engagement and public consultation processes.

Legal Affairs Team

The legal affairs team are responsible for providing assistance in ESIA screening by providing relevant information on international and national laws and regulations. They will also assist with the oversight of the ESIA process by providing advice on specific legal or permitting issues and reviewing reports for adherence to the identified legal requirements.

Operations Manager

Each manager of an operation will have overall responsibility for ensuring all project employees cooperate with the ESIA process and for adherence to the Environmental and Social Management Plan. The Operations Managers should themselves assist in ESIA screening by providing relevant project information. They should also facilitate the ESIA process by assisting communication with the ESIA team and project staff; helping and taking part in stakeholder engagement; and, providing advice and review where needed on specific questions. They are responsible for the implementation of the ESMP within their area of operation.

3.3.2.3 Scoping Exercise

Scoping is designed to provide a 'roadmap' for the remainder of the ESIA process by confirming the impacts identified in the screening process and verifying that no others exist that are likely to result in significant effects. It provides the specific studies that will be necessary to assess those impacts, as well as the key stakeholder groups that will be involved in this process.

Scoping should inform Operations any potential impacts that could cause material, scheduling or cost issues so that they can focus on addressing those impacts as early as possible. To achieve this, coordination with the project engineers is needed to finalise a preliminary project description, written to incorporate any environmental, social and health information such as land take requirements, use of natural resources, workforce requirements and health and safety policies and procedures. Without this description it is not possible for the social and environmental baseline conditions to be assessed.

The project scope can and should be revisited throughout the ESIA process in an iterative fashion as the project design evolves and further baseline information and stakeholder input is gathered. This information may alter prediction of impacts, which can therefore alter the scope of what should and should not be included in the impact assessment. For example, it may be that the initial scoping exercise predicted that there would be no significant impacts from project activities on endangered bird species. Later conversations with local stakeholders may reveal, however, that there is an

endangered bird species present near the project area. The scope would therefore need to be reviewed to include studies of this bird. An alternative example is that the project may initially be designed for a specific road to be used but changes to a rail link may render use of this road less viable than using the rail. Use of the railway will change the impacts of the project. All changes should be documented to show this iterative process.

The scoping exercise begins by looking at where impacts are likely to occur i.e. the geographical area over which the project will have an influence. This is known as the 'Area of Influence' (AoI). Preliminary baseline information should then be collected on the environmental and social resources/receptors within the AoI, based on the environmental and social risks identified as part of screening and with input from relevant stakeholders. A preliminary assessment should then be made of whether or not these receptors are likely to be effected by the project and if yes, whether any of the impacts are likely to be significant.

1. Defining the Area of Influence of the project

To begin the task of understanding what should be included in the ESIA the Area of Influence, the area and populations over which the Project is likely to have an effect, needs to be identified. This is based on knowledge of the physical project area and planned activities (including associated facilities to be part of the project and also those that may be reasonably expected to be built at a later date). This knowledge may be cursory at first thus during scoping, a conservative definition of the Area of Influence should be made. This will be used to define the geographical and temporal parameters of the studies and a more precise Area of Influence will need to be defined under the Project Description in the final ESIA report.

The project Area of Influence may vary depending on the effect being considered. For example, effects of increased noise from blasting will likely extend over a smaller area than effects from loss of incomes due to acquisition of agricultural land for a Project. The AoI should thus include any area within which it is likely that a significant impact could occur. This encompasses impacts that come from[1]:

- The Project Footprint, which is the primary project site and related facilities directly owned, operated or managed by the Vedanta Operator (including contractors). This includes transport corridors, power transmission corridors, pipelines, canals, tunnels, access roads, borrow and disposal areas, construction camps and contaminated land (e.g. soil, groundwater, surface water and sediments).

- Associated facilities, which are facilities that are not funded as part of the Project but are essential for the Project and without which the Project cannot proceed, and the additional areas in which aspects of the environment could conceivably experience significant impacts. E.g. a national road built by the government but used as a major transport corridor for the Project with associated risks of impacts from the additional project traffic.

- Areas potentially affected by cumulative impacts resulting from other developments known at the time of the ESIA, further planned phases of the Project or and other existing circumstances. E.g. another mining operation located in a neighbouring concession.

[1] See IFC Guidance Note 1 – Assessment and Management of Environmental and Social Risks and Impacts, 2012. P7

- Areas potentially affected by impacts from unplanned but predictable developments caused by the Project that may occur later or at a different location. E.g. in-migration to a nearby town linked to perceived direct or indirect employment opportunities with the project.

- Areas potentially affected by indirect project impacts on biodiversity or ecosystem services upon which Affected Communities' livelihoods are dependent. E.g. Noise from blasting activities could scare away animals within 10km of the mine site that are hunted by a nearby community. The disappearance of these animals therefore indirectly impacts the communities that were dependant on hunting as a source of food or income.

- Areas potentially affected by perceived Project impacts. For example, a project may be located close to an area of historical importance. Some people may believe this area will lose its historical and cultural value as a result of developments associated with Project activities.

Maps of the correct level of granularity should be used when defining the AoI to help visualise where impacts are likely to occur.

The whole ESIA team should discuss the AoI as an integrated team in order to understand if and where different impacts interact. For example, a water specialist may identify impacts to groundwater availability, which could in turn affect crop yield, which a social specialist may then identify as impacting the livelihoods and food security of families living in another village that are dependent on those crops. Initial discussion about the AoI can be held during an ESIA kick-off meeting. The results of this meeting should be summarised by the ESIA Project Manager and shared with the ESIA team. Regular exchange of information between specialists should then continue throughout the ESIA process. Weekly ESIA team meetings can be held to ensure all specialists are up to date on the latest project information and assessment of impacts.

2. Preliminary identification of receptors potentially affected by the Project

Once the Project's Area of Influence has been defined, preliminary information about key economic and social indicators in that area should be sought with input from relevant stakeholders.

Data collection during the scoping phase should again be based primarily on desktop research with some initial stakeholder consultation to confirm findings. Key data gaps should be identified at this stage and methods or sources for filling these gaps during baseline studies should be identified.

Table 3.2 lists the environmental and social indicators that should be considered, although this list is not exhaustive and other subject matter may need to be included based on the issues identified in the screening exercise.

Table 3.2 Environmental and Social Indicators

Environmental	Social
Air quality	Local communities (including social and cultural structure, indigenous people)
Water quality	Cultural heritage
Soil / land impacts	Health, Safety and Security (including quality, availability, access to and costs of health care)
Biodiversity (including critical natural habitats, wildlife, vegetation, red list species etc)	Impacts to particularly Vulnerable Groups including Indigenous Peoples

Environmental	Social
Visual impacts	Socio-economic factors (including demographics, economy and livelihoods, education and skills)
Transportation impacts including corridor management and new/increased access	Social and health Infrastructure and services
Noise and vibration	Human Rights due diligence
	Ingress management (including contractor management and accommodation)
Geology	Local employment
	Land Use
	Cultural Heritage

The indicators listed in this table should then be examined at a high level against the project phases and activities to identify whether the receptors:

- Are not likely to be affected
- Will possibly be affected but any resulting impacts are unlikely to be significant
- Will possibly be affected and at least one of the resulting impacts is likely to lead to a significant effect.

The results of this analysis should help to provide a roadmap for the remainder of the ESIA, focusing on those receptors that are likely to experience significant impacts. Any receptors that are considered unlikely to be affected can be scoped out, as well as those that are likely to be affected but without any significant resulting impacts.

3. *ESIA Stakeholder Engagement Plan*

The scoping exercise should be undertaken with input from key stakeholders. An initial stakeholder mapping exercise should also be undertaken at this stage, which identifies key stakeholder groups. Guidance on conducting stakeholder identification and mapping is provided below. Reference should also be made to the Vedanta Technical Standard TS 05 – Stakeholder Engagement and associated Guidance Note.

Stakeholder Identification and Mapping

Stakeholder identification

The premise for undertaking stakeholder identification and analysis is to identify and understand who might be directly or indirectly affected or interested in Vedanta operations, either positively or negatively as well as who can contribute to or hinder their success.

Proactive stakeholder identification and analysis will enable operations to effectively manage their social risks and responsibilities and foster positive relationships and trust with the stakeholders for each operation

In order to identify all possible affected and interested stakeholders and stakeholder groups the following affected and interested parties as well as authorities will be considered, acknowledging that this is not an exhaustive list:

Tenant and neighbouring communities	Indigenous or tribal peoples with special ties to land or who have specific land, resources and cultural rights
Employee's families	Both political and traditional tribal structures and leaders
Women, men, youth, minority groups and disadvantaged or disempowered regardless of income level or position in society	Local government authorities
People owning land or assets impacted by the project or identified for resettlement (both on and off-site)	National agencies including social and environmental
People using agricultural land or natural resources potentially impacted by the project	Commercial and industrial enterprises including suppliers, customers and contractors
People living on the existing site (whether they have title or not)	Unions including labour
In-migrants attracted to the project and its potential labour benefits prior to implementation	National agencies
People from surrounding areas who may be potential sources of labour	Media
People's organisations and institutions affected by the project such as village civil society groups, development associations, recreational groups, women's groups, farming, fishing or other activity based cooperatives, and religious groups	Activist groups (local, national and international where relevant)
	Non-governmental organisations (local, national and international where relevant)
	Artisanal or small-scale mining groups and individuals
	Research institutes and educational institutions

In addition to the process above, Vedanta will identify stakeholder representatives who may be used as main points of contact to make the flow of information both to and from interested and affected parties more efficient. It is essential that these representatives are genuine advocates of the views of those they represent and do not isolate any groups or individuals. These representatives must be proposed by the stakeholders themselves rather than suggested by the company.

Stakeholder representatives may include elected public representatives of village, local or national councils, traditional or tribal representatives, such as village headmen or religious leaders. They could include leaders or chairmen of local cooperatives or other community-based organisations, NGO's, women, farmers or women's groups etc.

Vedanta will ensure that representatives provide adequate and equal representation to all members of society by talking directly to a sample of impacted and interested stakeholders to ensure that their views are being communicated and represented accurately.

Stakeholder mapping

Stakeholder identification and analysis through a participatory stakeholder mapping exercise is critical to developing a good understanding of project stakeholders.

Site specific stakeholder mapping allows for improved understanding of:

- who is affected by the project and how;
- who the formal and informal leaders are and to what degree they are seen as representative; and
- how different stakeholders can influence the project and what risks or opportunities this presents to the Project.

The plotting of stakeholders allows for an improved understanding of the role they can play in the social context of a project, helping to define the appropriate levels of engagement. Stakeholders will be mapped according to their influence and interest in the Project and according to their stance towards the Project. The following questions must be considered and recorded to help understand how stakeholders are affected / interested by or can themselves affect the Project:

Questions to discuss during the Stakeholder Analysis process:

Who will be directly and negatively affected by the project (including environmental, social, health, safety, economic or any other negative impact)?

Who will be indirectly and negatively affected by the project?

Who will be directly and positively affected by the project (including environmental, social, health, safety, economic or any other positive impact)?

Who will be indirectly and positively affected by the project?

Who's permission is required for access to project areas?

Whose cooperation, expertise or influence will be helpful to the success of the project?

Whose formal or official decisions may have an effect on the project?

Who has informal authority that might affect the project?

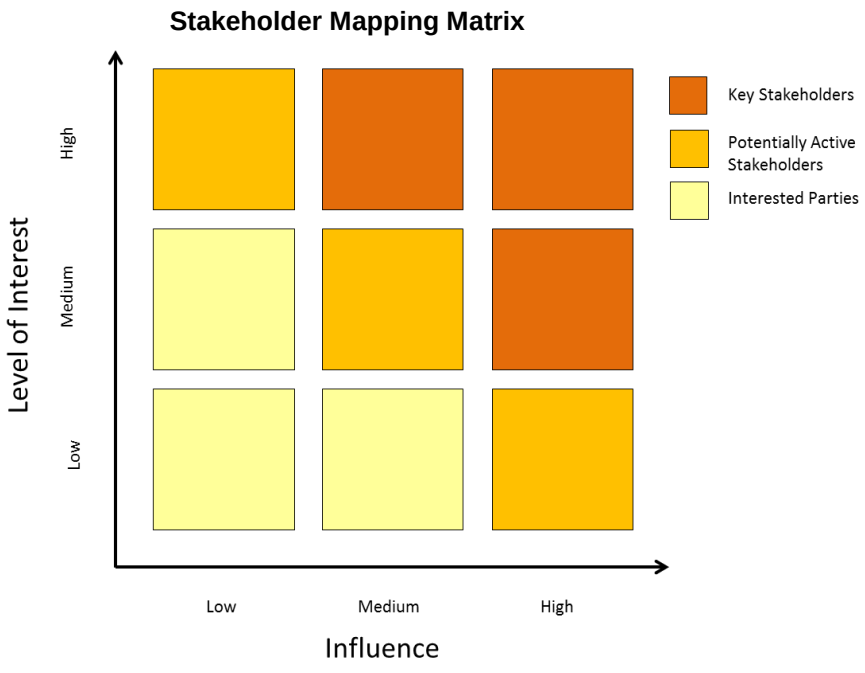
Whose opposition could be detrimental to the success of the project?

Who supports or opposes the changes that the project will create?

Who will be the most vulnerable, least visible and voiceless for whom special consultation efforts may have to be made?

Who will benefit from the project?

Based on the responses to the above questions, stakeholders will be mapped using the following matrix.



Stakeholder mapping is an on-going process with new stakeholders needing to be mapped as they are identified and other stakeholders needing to be re-evaluated as the project progresses. Mapping will take place during scoping and baseline activities as stakeholders are identified.

Stakeholder Engagement Plan

A Stakeholder Engagement Plan should also be drafted at this stage (see *Section 3.3.5*). This will be a 'live' document and should be updated regularly throughout the ESIA process

A Stakeholder Engagement Plan (SEP) is designed to demonstrate that a Project will undertake meaningful engagement with stakeholders in line with the requirements of Vedanta Technical Standard TS 05 – Stakeholder Engagement and the Vedanta Guidance Note GN29 on *Stakeholder Engagement.*

The SEP provides for the identification of stakeholders and sets out the planned programme for disclosure of Project information and engagement with stakeholders, and methods for handling stakeholders' complaints (or 'grievances') in case they arise.

The objectives of the SEP are to ensure that the Project:

- Properly informs potentially affected stakeholders about the proposed project.
- Actively listens to comments, ideas and concerns raised by stakeholders and records the same for follow up.
- Avoids conflict by addressing any impacts and issues raised by stakeholders promptly.
- Ensures that any fears and apprehensions about the nature, scale and impact of the operation have been properly considered in the development and management of the Project.
- Accesses and makes best use of existing local knowledge of the area.
- Avoids any misunderstandings about the project and properly manages expectations.
- Implements a viable grievance mechanism.

A Stakeholder Engagement Plan should include:

- Country and regional specific regulations and requirements for public consultation.
- An inventory of key stakeholders, their relationship to the project and potential/actual impact.
- A schedule for the disclosure of project information.
- A summary of the types of engagement methods to be used (e.g. formal and informal meetings, project posters, pamphlets, events, etc.).
- Prompts for review and evaluation of the Stakeholder Engagement Plan to incorporate project learning, any incident close-outs and feedback from stakeholders.
- Estimated budget for consultation activities (including resources, meetings, transportation, subsidies for poor and vulnerable groups to attend public meetings, distribution of materials etc.).
- Roles and responsibilities for carrying out engagement activities.

- Protocols for recording the minutes of meetings.
- Measures and timelines for reporting and recording any engagement activities.
- Key project messages which will be communicated to stakeholders.
- Common questions and answer briefing sheets to prepare communities and project employees for planned and unplanned stakeholder consultation.

This SEP for the ESIA should be broadly structured around the following activities:

- Engagement for project introduction and ESIA scoping;
- Engagement during IA baseline studies;
- Presentation of Draft ESIA & ESMP;
- Regulatory engagements;
- Local authority engagements; and
- Disclosure of final ESIA & ESHMS

There are a number of other consultation activities which will be complementary to an SEP but are not appropriate for detailed discussion within the plan such as project permitting, local content communication, procurement and contractor management, partner relations and media communication.

An example structure for a table of contents for a Stakeholder Engagement Plan for an ESIA is provided in *Annex E.*

Grievance Mechanism

As mentioned above, a Stakeholder Engagement Plan should include measures for implementation of a viable grievance mechanism. For further information on Grievance Mechanisms reference should be made to the Vedanta Technical Standard TS 04 – Grievance Mechanisms and related Guidance Note.

A grievance mechanism is designed to handle and resolve both employee and other external stakeholder grievances.

General requirements

Local concerns over the impact of a project can be expressed in the form of a complaint both formally or informally and can encompass relatively minor concerns as well as more entrenched, serious or long-term issues which may be described as grievances. In both cases it is important to have robust and credible local mechanisms to systematically handle and resolve any complaints that might arise from both real and perceived impacts in order that they do not escalate and present a risk to operations. If well-handled, an effective grievance mechanism can foster positive relationships and trust with employees and external stakeholders.

In order to manage internal and external grievances effectively, all Vedanta operations must comply with the following:

a) The grievance mechanism for employees shall remain separate from public grievance mechanisms;

b) In the first instance and in order to avoid, wherever possible, a situation where a grievance occurs, Vedanta shall ensure proactive stakeholder engagement practices as described in the *Stakeholder Engagement Technical Standard* and the *Employee Consultation and Participation Technical Standard;*

c) Grievance mechanisms shall acknowledge and address concerns over both real and perceived impacts in the same way and with the same level or care;

d) Grievance mechanisms shall address even minor complaints, both formal and informal to avoid escalation into serious grievances;

e) Grievance mechanisms shall be established as early as possible in the project cycle and at all Operations;

f) Grievance mechanisms shall follow a transparent and easily understandable process;

g) All grievance mechanisms shall be readily accessible, culturally appropriate and proactively communicated to employees and other external stakeholders as appropriate;

h) No grievance mechanisms shall impede access to or seek to take the place of legal remedies, should these be warranted;

i) The mechanism should not impede access to or substitute mechanisms provided through or rights to collective agreements;

j) The organisational structures and roles and responsibilities shall be established in order to resource and support grievance mechanisms for both employees and other external stakeholders;

k) Arrangements shall also be implemented to ensure conformance to the requirements of the *IFC Performance Standards; and*

l) The key IFC provisions are summarised as follows*:*

- *Performance Standard 1 – Assessment and Management of Social and Environmental Risks and Impacts*. This includes establishing a grievance mechanism directed to receive and facilitate resolution of Affected Communities concerns and grievances about Vedanta's environmental and social performance. The grievance mechanism should be scaled to the risks and adverse impacts of the project and have Affected Communities as its primary user. It should address concerns promptly, using an understandable and transparent process that is culturally appropriate and readily accessible, and at no cost and without retribution to the party that originated the issue or concern. The mechanism should not impede access to judicial or administrative remedies. Vedanta will inform the Affected Communities about the mechanism in the course of the stakeholder engagement process.

- *Performance Standard 2 – Labour and Working Conditions.* The relevant objectives of this standard are to ensure Vedanta provides a grievance mechanism for workers (and their organizations, where they exist) to raise reasonable workplace concerns, to respond to communities' concerns related to projects and where there are Affected Communities, establish a grievance mechanism directed to receive and facilitate resolution of the Affected Communities concerns and grievances about the clients environmental and social performance.

Resourcing

In order to accomplish the grievance mechanism elements described above Vedanta shall ensure the following resources are in place:

- internal organisational support and accountability for the mechanism, emphasising that concerns and grievances should be taken seriously and appropriate resolutions sought promptly;
- trained competent employees or failing that, external resources who are experienced in social and environmental management and in dealing with community concerns and complaints;
- an auditable system for receipt, recording and tracking of the process (for example a grievance log, tracking cards, database or other) shall be in place;
- a written procedure for handling grievances and conflict resolution with responsibilities assigned for each step as well as management oversight, and;
- a budget allocation to deal with grievance tracking and handling.

Reporting and recording

All grievances shall be received, registered, documented and tracked within a secure database or equivalent programme with controlled access. This will assist in tracking overall trends and patterns in concerns allowing emerging issues to be flagged and understood at an early stage.

As a minimum the following information shall be recorded:

- date;
- details of complaint;
- history of other complaints / queries / questions;
- prioritisation using a common scale to assist with timelines for resolution;
- resolutions agreed with the party(ies) in question, including formal sign off, and;
- actions implemented.

The scoping phase should end with a series of stakeholder meetings to present the project and gather feedback on the issues identified. Feedback should be considered in the final Scoping Report and subsequent ESIA process.

4. *Scoping Report*

The scoping phase should result in a Scoping Report that defines the project and main project activities and details; the project Area of Influence and associated Study Area for the remaining ESIA activities; details of the receptors that will potentially be affected by the project; justification of the receptors that have been ‘scoped out’ of the remainder of the ESIA process (where not obvious); key information gaps and the methods to be used to fill those gaps; the methods to be used to predict and evaluate impacts; and, the stakeholders to be consulted.

3.3.3 Stage 3 - Baseline Data Collection

It is important to understand the conditions that would prevail in the absence of the project. To do this, a baseline against which the impacts of a project can be assessed has to be created. The baseline conditions (i.e. pre-development) of the receptors 'scoped in' to the ESIA process should therefore be defined to support the further identification of the risks and impacts associated with the Project.

1. Baseline Data Requirements

Baseline data is required to:

- define the key environmental, socio-economic, cultural and health conditions in the Area of Influence;
- characterise these conditions using qualitative and quantitative data, describing both current and anticipated future conditions in the absence of the project. This should take into account evident changes such as coastal erosion, migration, depletion of fisheries etc. It should also take into account other developments in the area that are underway or certain to be initiated;
- provide data to aid the prediction and modelling of impacts and effects; and
- support informed judgement about the sensitivity, vulnerability and/or importance of receptors.

The baseline data required will be based on the results of the scoping exercise and should focus on describing the state of the resources and areas most likely to be significantly affected by project activities. This will vary according to project but the indicators listed in Table 3.2 above should be considered as a minimum.

The ESIA team should refer to the following sources for more detailed information about the data requirements for specific receptors:

- Technical Standard TS 1: Cultural Heritage
- Technical Standard TS 3: Land and Resettlement Management
- Technical Standard TS 7: Biodiversity Management
- Technical Standard TS 9: Resource Use and Waste Management
- Technical Standard TS 10: Safety Management
- Technical Standard TS 11: Environmental Management
- Technical Standard TS 12: Occupational Health Management
- Technical Standard TS 14: Water Management
- Technical Standard TS 16: Energy and Carbon Management
- Technical Standard TS 22: Vulnerable Social Groups

2. *Data collection methods*

Baseline data collection will normally involve a combination of literature review of publicly available technical reports, census data, and primary data collection through field investigations carried out by technical specialists, as well as stakeholder consultation.

Additional data may be available from government agencies, research organisations, publications, maps, satellite images and aerial photographs.

The methodology to be used for baseline data collection should be designed and implemented by subject matter experts with the requisite competency and experience. Field work should be facilitated by Vedanta employees including the Community Relations team, legal team and EHS professionals.

Specific issues to consider are land access; arranging and conducting community meetings in an appropriate and culturally sensitive manner; logistics; health and safety; and, ensuring all survey work complies with any necessary legal permits and other formal requirements.

3. *Baseline Report*

The Baseline Report should describe the methodologies, limitations and results of the data collection process, as well as a summary of the baseline conditions. Details of the sources of the data (including age and whether it is primary or secondary data) should also be disclosed. This can be presented by topic and receptor using relevant sub-divisions. An example of the structure for each section is provided in *Table 3.3*: An example of a full TOC for the Baseline Report is provided in Annex F. This information can be summarised in the ESIA report and the full Baseline Report can be appended to the ESIA document.

Table 3.3 – Example baseline chapter structure

Section	Title	Description
1.1	Introduction	• Establishes the scope and objectives of the topic specific baseline • Defines any key indicators used • References key data sources • Describes the structure of the baseline section
1.2	Study area	• Defines the topic specific national, regional and local study area with reference to the wider project Area of Influence • Provides maps where available to mark the study area • Identifies the affected receptors within the study area
1.3	National and regional summary	• Provides a summary of the national and regional topic specific conditions to allow for comparison to the study area.
Remaining sections	The remaining sections will be project specific and will be defined by the results of the scoping exercise in consultation with subject matter experts.	

3.3.4 Stage 4 - Impact Assessment

1. *Identifying Impacts*

The latest and most detailed project and social and environmental information collected during scoping and baseline studies should be used to reassess how the project will interact with baseline conditions and thus update and verify the impacts first identified at the scoping stage.

Reference should again be made to Table 3.2 above as a guide to the range of impacts that should be considered in the Impact Assessment process.

2. *Predicting the significance of impacts*

A range of quantitative, semi-quantitative and qualitative techniques should be used to predict and model impacts, depending on the indicator in question. The ESIA team should consist of relevant technical specialists capable of applying the appropriate techniques to adequately assess all impacts (See *Section 3.1*). Examples of common techniques for each baseline topic is provided in *Table 3.4*

Table 3.4 Common techniques used to assess impacts

Impact	Technique
Climate and weather patterns	• Computer modelling
Greenhouse gas emissions	• Calculation tools set out in World Business Council for Sustainable Development (WBCSD) /World Resources Institute (WRI) Greenhouse gas protocol [1]
Soils	• Laboratory tests • Field tests
Topography	• GIS
Visual	• GIS
Noise and vibration	• Computer modelling
Air quality	• Computer modelling
Water quality ad water flow	• Qualitative and quantitative analysis based on monitoring and field and laboratory studies
Biodiversity	• Qualitative and quantitative analysis based on field surveys and monitoring, mapping and secondary data
Socioeconomic	• Qualitative and quantitative analysis based on professional judgement and using data from social surveys and secondary literature
Health	• Qualitative and quantitative analysis based on professional judgement and using data from social surveys and secondary literature
Traffic	• Computer modelling based on data from traffic monitoring • Qualitative analysis based on social surveys

Stakeholder views as well as regulatory requirements and the Vedanta Technical Standards should be taken into consideration when predicting the significance of impacts.

Impact significance can be identified by an assessment of the impact in relation to:

- **Type:** Describes the relationship of the impacts to the project (i.e. whether the project causes the impact directly, indirectly or in an induced way).
- **Extent**: describes the geographical reach of the impact and size of the affected population.
- **Scale**: numerically describes the size of the impact (i.e. the area of forest damaged, the size of the population resettled).
- **Probability**: describes the likelihood that the impact will occur.
- **Duration**: describes the time period over which a receptor is affected. This could be permanent, long term, short term or temporary. Classification will depend on the receptor in question (e.g. 'short term' for a noise related impact will differ from 'short term' for a community related impact).
- **Frequency**: measures the constancy or periodicity of the impact

In addition, to the above, additional potential impacts associated with unplanned or emergency events (e.g. traffic accidents, chemical spills) should be included to facilitate emergency planning and the creation of an Emergency Preparedness and Response Plan.

[1] See http://www.ghgprotocol.org/feature/ghg-protocol-based-sector-guidance-product-rules-and-calculation-tools

Once the impact characteristics are understood based on the above assessment, the magnitude of the impacts on each receptor can be predicted. This describes the nature and degree of change that the impact is likely to have on the receptor and is ranked on a five point scale as follows:

- **Positive:** No magnitude is assigned
- **Low:** Change remains within the range commonly experienced by the resource / receptor.
- **Minor:** Perceptible difference from baseline conditions. Tendency is that impact is local, rare and affects a small proportion of a particular resource / receptor, with no loss of viability and few indirect impacts on other resources/receptors. The impact is of short duration.
- **Moderate:** Evident difference from baseline conditions. Tendency is that impact affects a substantial area, proportion and number of resources / receptors and/or is of medium duration. Frequency may be occasional and impact may be regional in scale.
- **Major:** Significant difference from baseline conditions. Affects the majority of the area or population in the Area of Influence and/or persists over many years. Frequency is high or constant and the change may be experienced over a regional or national area.
- **Critical:** Irreversible change that dominates over baseline conditions and poses a significant threat to the long term viability of the resource/receptor. Affects the entire area or population in the Area of Influence, leads to significant indirect impacts and the change may be experienced over a regional or national area.

Certain resources/receptors will have applicable regulatory requirements that should be referred to when defining the magnitude of an impact e.g. limitations on air or noise emission levels, where the Vedanta Standards or the IFC guidelines should also be applied.

The final step in determining the significance of an impact is to define the sensitivity/vulnerability/importance of the impacted receptor. This is based on a resource / receptor's ability to adapt to Project impacts. It should take into account a range of physical, biological, cultural or human factors e.g. the importance of the receptor to the local community, its sensitivity to change, its quality and abundance. Sensitivity / vulnerability / importance is ranked on a five point scale as follows:

- **Rare**: The resource / receptor has no special designation or sensitivity.
- **Unlikely**: Resources / receptors are unlikely to have any difficulty adapting to the project and/or benefiting from any opportunities associated with it.
- **Possible**: There are some but few areas of vulnerability; still retaining an ability to at least in part adapt to change brought by the Project and opportunities associated with it.
- **Likely:** Likely to experience some difficulty in adapting to change or benefiting from opportunities brought about by the Project. Resources / receptors may be nationally designated as protected or recognised as being of significant important.
- **Almost certain:** Profound or multiple levels of vulnerability that undermine the ability to adapt to changes brought by the Project and opportunities associated with it. Highly threatened and/or unique resources/receptors designated as nationally and/or internationally protected.

Based on the assessed magnitude and sensitivity/vulnerability/importance of the impact, the impact's significance can be predicted. Table 3.5 below provides an example of a matrix used to predict the significance of impacts.

Table 3.5 Impact Significance

	Sensitivity/Vulnerability/Importance of Resource/Receptor				
Magnitude of Impact	**Rare**	**Unlikely**	**Possible**	**Likely**	**Almost Certain**
Critical	Medium	High	High	Very high	Very high
Major	Low	Medium	High	High	Very high
Moderate	Low	Medium	Medium	Medium	High
Minor	Low	Low	Medium	Medium	Medium
Low	Low	Low	Low	Low	Medium

3.3.4.1 *Identifying mitigation and enhancement measures*

Mitigation and enhancement measures should be applied to reduce or prevent negative impacts identified and maximise positive impacts. Best practice for managing environmental and social risks and impacts is to adopt a mitigation hierarchy. At the first instance a project will aim to anticipate and avoid impacts to communities or the environment. Where avoidance is not possible, impacts must be minimised or compensated / offset. The earlier in the project lifecycle that the impacts are assessed the easier it is to make changes, usually at the lowest cost to avoid, mitigate or enhance the impacts.

The mitigation hierarchy is as follows:

Avoid: identify and, where available and technically and financially feasible, make changes to the project's design (or potential location) to avoid adverse risks and impacts on social and/or environmental features. Avoidance is considered to be the most acceptable form of mitigation.

Minimisation: where avoidance is not possible, adverse impacts and risks can be minimized through environmental and social measures/treatments/design. Acceptable options to minimize will vary and include: abate, rectify, repair, and/or restore impacts, as appropriate.

Compensation/Offset: where avoidance or minimization measures are not available, it may be appropriate to design and implement measures that compensate/offset for residual risks and impacts. It should be noted that these measures do not eliminate the identified adverse risks and impacts, but they seek to offset it with an (at least) comparable positive one. Compensation against negative social impacts is normally offered in the form of replacing lost resources or facilities in kind, or as a last resort offering a financial compensation. Biodiversity offsets need to be created in the form of replacing lost resources in a new location. The goal is to achieve no net loss to biodiversity.

The significance of impacts should be reassessed after the mitigation and enhancement measures have been identified to determine the 'residual' impact of the project. This should be done using the same method as for the initial impact assessment. The residual impact assessment should demonstrate the extent to which it is anticipated that impact significance has been affected through management action to modify the project.

The mitigation and enhancement measures identified during impact assessment must be included in the ESIA's Environmental and Social Management Plans as clear and unambiguous commitments. (See section 3.4)

3.3.4.2 *Impact Assessment Chapter*

The impact assessment chapter should document: the project description and Area of Influence; relevant regulatory requirements and evidence of compliance with these; a detailed description of the predicted impacts and their significance along with an explanation of the methodology used to define these; proposed mitigation and enhancement measures; a description of residual impacts; and, details of the proposed stakeholder consultation programme.

3.3.4.3 Consideration and assessment of cumulative impacts

Where project activities effect a receptor that is has/is already being affected by another activity, an assessment of the additional or combined impacts on this receptor should be made. This should be based on consideration of the status of other developments in the project Area of Influence (i.e. whether they are already underway or certain to be initiated in the near future), as well as the availability of data to characterise the magnitude of their impacts.

3.3.5 Stage 5 - ESIA Outputs

1. Environmental and Social Management System

A set of management plans should be developed into an Environmental and Social Management System that controls the implementation of the mitigation and enhancement measures identified during impact assessment. The Management Plans, which may or may not be required depending on the outputs of the ESIA and the potential impacts that need to be managed, should outline how the mitigation measures committed to by Vedanta will be effectively implemented throughout the project lifecycle. Examples of such plans that may be required are outlined below.

The ESMS will provide processes for on-going refinement and modification of mitigation measures as necessary based on actual field conditions and circumstances that may not have been anticipated when the ESIA was prepared.

The final ESIA report along with a commitments register outlining what will be included in the ESMS should be disclosed to Affected Communities and other project stakeholders for comment (see *Section 3.4*). Any feedback should be taken into account and where necessary changes to the ESMS should be made in approval with the management of the Vedanta Operation.

A contractor management system should be included in the set of ESMS to assure that all contractors and subcontractors are informed of and aware of the ESMS and incentivised to comply with it.

2. Project Stakeholder Engagement Plan

An updated Stakeholder Engagement Plan (SEP) should be included in the final ESIA report. This should provide details of how the project will continue to engage with stakeholders during development and operation and should include differentiated measures for the effective participation of those identified as disadvantaged or vulnerable.

Vedanta Operators should ensure that the SEP complies with Technical Standard TS 05 Stakeholder Engagement.

A template table of contents for the project SEP is provided in Annex G.

3. Biodiversity Management Plan (BMP) (if required)

A Biodiversity Management Plan (BMP) may be required to manage the biodiversity risks that have been identified form the ESIA or impact assessment. The purpose of the BMP is to define specific biodiversity management objectives and the specific biodiversity risk management measures required to achieve these objectives. BMPs are required for low, medium and High Risk sites, though the content and level of detail will vary according to the risk status determined in Stages 1 and 2 of a Biodiversity impact assessment. See also Vedanta Guidance Note GN04 on *Biodiversity Management*.

4. Vulnerable Social Group Development Plan (VSGDP) (if required)

Where alternatives have been explored and adverse impacts to Affected Communities of Vulnerable Social Groups are unavoidable, the project will minimize, restore, and/or compensate for these impacts. The proposed actions will be developed with the ICP of the Affected Communities and contained in a time-bound Vulnerable Social group Development Plan (VSGDP). A VSGDP will detail the impact management arrangements (where impact cannot be avoided), an action plan for implementing the mitigation and management arrangements and any necessary monitoring requirements. The VSGDP shall detail arrangements for the periodic internal and external reporting (as required) of the impact management activities. Compliance with the VSGDP and the development of additional sub-plans and procedures shall be a project commitment of Vedanta, its contractors and their subcontractors. See also Vedanta Technical Standard TS22 on *Vulnerable Social Groups*.

5. Contractor Management Plan (if required)

A contractor management plan may need to be developed to ensure contractors are managed in an effective manner. The plan may include consideration of the arrangements (pre-qualification and selection, roles, responsibilities, schedule) for managing contractors; mitigation measures, as detailed in contractor contracts, for managing positive and negative impacts associated with contractor activities; provision of induction and training requirements and worker accommodation and potential influx of contractors; permit to work requirements; and mechanisms for monitoring, reporting on and reviewing contractor performance and management.

The construction of contractors' accommodation and its potential impacts on the environment and communities should be managed in the same way as for construction of the rest of the Vedanta operation. This may include health and safety issues, disturbance caused by construction, including traffic (dust, noise and vibration), and involuntary resettlement (including physical and economic displacement) in the case where land acquisition is necessary for construction of the workers' accommodation. A Worker accommodation plan will outline the requirements that should be adhered to in order to provide the workforce with adequate living conditions, which provide safety, security and comfort, as well as including sufficient recreational and entertainment facilities. See also Vedanta Guidance Note GN14 on *Worker Accommodation* and Technical Standard TS 06 on *Supplier and Contractor Management*.

6. Emergency Preparedness and Response Plan

Emergency Preparedness and Response Plans may need to be developed and implemented and this will usually form the basis of the primary response to an incident, emergency or crisis. In most cases this should be able to effectively manage the emergency through to closure at the site level. Each Emergency Preparedness and Response Plan would need to set out the procedures in place for

identification, notification and escalation of incidents, emergencies and crisis situations; emergency response procedures to be undertaken, including how best to prevent / mitigate illnesses and injuries arising from emergency situations; clearly defined management structures, roles and responsibilities for handling an emergency or crisis situations including required training to be given in advance for each role; the resource requirements, including equipment, human and financial, and how and from where these will be provided; organisation of emergency areas (e.g. assembly points, incident rooms/command centres, medical stations); arrangements for provision of emergency medical treatment and, if necessary, medical evacuation; the communication plan, and communication systems in place including provision for a call centre and the notification of fatalities to the closest relative/family member; and a process should be in place to handle incoming calls from government representatives, family members, local, national and international journalists etc. See also Vedanta Technical Standard TS 13 on *Crisis and Emergency Management*.

7. Waste Management Plan (WMP) (if required)

A Waste Management Plan (WMP) may be required to outline how wastes generated will be managed in order to optimise the use of materials and ensure all wastes are managed effectively. The scale and detail of the WMP will be dependent on the type of operation, the type and quantity of waste generated and the relative availability of local waste management facilities. The table below outlines the contents and detail that should be included under each section of a WMP for a typical operation. Given that site preparation, extraction and restoration phases may overlap at any one operation, it will be usual for the Waste Management Plan to cover all the different stages of an operation's development even though each phase will generate different types and quantities of waste. See also Vedanta Guidance Note GN14 on *Waste Management*.

8. Site Closure Plan (if required)

A site closure plan may need to be developed which consists of, as a minimum, the closure planning steps and activities required; assignment of roles and responsibilities for each action; schedules and timeframes for each action; the resources required and where these will come from; a list of 'success criteria' which will be used to demonstrate to stakeholders that the closure plan has been successful; and communication plans for internal and external stakeholders. The closure plan and associated financial cost estimating will need to be refined and updated on a regular basis, to meet changing circumstances in Operation development and operational planning, changes to the environmental and social conditions, changing stakeholder expectations, and to take account of new techniques / technologies made available. See also Vedanta Technical Standard TS17 on *Site Closure*.

3.4 *Stage 6* - Public Consultation, Reporting, Disclosure and Approval of the ESIA

Vedanta Technical Standard – TS 08 – Conducting ESIA to International Standards states that a final draft of the ESIA must be subject to public disclosure before final approval.

Public disclosure refers to the act of making information or data readily accessible and available to all interested individuals and institutions. For Category A projects the disclosure period should run for a minimum of 60 days from the date of submission of the ESIA report. For all other projects the disclosure period is 30 days. The aim of this process is to provide directly affected communities and other project stakeholders with an opportunity to understand and comment on the results of the impact assessment process and the proposed mitigation measures.

Public disclosure may include the following activities:

- Publication of the ESIA report and accompanying leaflets providing non-technical summaries of the ESIA report on the Project website;
- Hard copies of the ESIA report available for inspection in relevant locations;
- Media announcements about the publication of the ESIA report;
- Local, regional and national public conferences. These conferences should be open to all, widely advertised and invitations to relevant stakeholders should be sent;
- Direct correspondence should be made with relevant government departments and non-governmental organisations inviting comment on the ESIA report.

Further specific arrangements may have to be made to allow all project affected communities to participate in disclosure activities, for example, hosting a series of village level meetings.

A potential structure for a final ESIA report is provided in Table 3.5 below. This structure will be the same for both Category A and Category B projects. The precise contents for any project will be defined during the scoping exercise. As discussed under *Categorisation of Project* under *Section 3.3.1* a Category C Project is unlikely to require a full ESIA and a screening report for such projects is usually sufficient.

Table 3.6 ESIA report structure

Chapter	Title	Description
0	Executive Summary	Summary of the report written in non-technical language.
1	Introduction	Introduction to the project; overview of stakeholder engagement activities; and names and qualification of members of the ESIA team.
2	Project Description	Technical description of the project infrastructure and activities.
3	ESIA Methodology	Description of the ESIA approach and methodology.
4	Policy, Institutional and Legal Framework	Description of legislative framework and standards.
5	Baseline	Description of the existing social-economic and environmental conditions.
6	Impact Assessment and Mitigation and Enhancement Measures	Additional description of methodology and baseline conditions; potential impacts; Summary of mitigation measures to reduce, remove or avoid negative impacts and enhancement measures to promote and improve positive outcomes; identification of residual impacts.
8	Stakeholder Engagement	Summary of the stakeholder engagement undertaken for ESIA, including any stakeholder engagement requirements.
9	Social Management Plan, including Monitoring Plan	Outline of the Environmental and Social Management Plans taking into account identified impacts and planned mitigation and enhancement measures and monitoring requirements.
10	Conclusions	Conclusions to ESIA.
Refs	References	A list of references and websites cited in the text.
Annex A	Consultation Report	A summary of the consultations undertaken during the ESIA as well as a list of stakeholders, meeting minutes, attendance records and photos.
Annex B	Specialist Reports	Detailed specialist reports undertaken during the ESIA.

4 REVIEWING, IMPLEMENTING AND MONITORING ESIA

4.1 ESIA review

It is vital that the ESIA process is part of the overall management process of the project and not seen as additional work just to get “the Environmental Licence“ The ESIA review should be an iterative process between the Vedanta Project Team and the ESIA consultants. Alternative Project design options can be considered based on preliminary ESIA findings. The scope and assessment of impacts in the final ESIA report should then take into account any such changes to Project design.

Operations should review all final draft ESIA deliverables prior to disclosure to the public or submission to regulatory bodies. They should provide comment and feedback on clarity, technical robustness, suitability to the project, and design, applicability and quality of the mitigation measures proposed. Technical teams within Vedanta may be required to review relevant sections of the ESIA report to ensure accuracy of finding and feasibility of proposed avoidance, mitigation or enhancement measures. The legal team should review all commitments made as they will become legally binding.

4.2 Implementing ESIA recommendations

All mitigation and enhancement measures identified in the ESIA report must be incorporated into project planning and design. This may include changes to engineering designs, management or policy decisions and plans and will therefore require the involvement of several elements of the project (e.g. engineering team, HR, community relations, supply chain management).

4.3 Monitoring and Auditing

Regular monitoring of the implementation of the ESIA recommendations is required. Issue specific monitoring programs will be established in the relevant Management Plan and will include recording relevant information daily or weekly to track performance (e.g. tracking complaints received via the grievance mechanism, recording results of water quality monitoring) and periodically reviewing this information against the benchmarks or targets established in the relevant management plan. The indicators to be tracked and their frequency of review will be outlined in individual management plans. It is good practice for senior management to then conduct performance reviews of the overall effectiveness of the ESMS, based on a combined analysis of the monitoring results from specific management plans. The scope and frequency of such reporting will depend on the nature and scope of activities identified in the ESMS and other project applicable requirements but good practice would be to conduct a performance review at least every six months during construction and annually during operations and for the life time of the Project.

Where mitigation strategies are not providing the expected outcomes, corrective measures should be identified that will ensure effective management of impacts in line with stakeholder expectations and contractual or legal obligations.

Auditing of the implementation of the ESIA commitments and the effectiveness of the ESMPs should be undertaken by external consultants. The frequency of audits will vary according to project but good practice would be to undertake an audit at least annually during construction and operations for a period of up to five years after the start of operations.

DEFINITIONS

Definitions of terms used in this document are shown in the following table.

Term	Definition
Action Plan	A formalised and documented set of actions necessary to implement and maintain mitigation measures required to address the impacts identified and assessed in the ESIA.
Affected Communities	Local communities directly affected by the new or existing project.
Area of Influence (AoI)	The area of influence comprises the physical project footprint including: assets and facilities directly owned by Vedanta that relate to project activities; supporting facilities and assets contracted to Vedanta for project activities; and, associated facilities or assets not owned or contracted by Vedanta but upon which the project depends or whose viability depends on the existence of the project. The area of influence varies depending on the type of impact being considered but should be defined to include any area within which it is likely that a significant impact could occur, including direct, indirect and cumulative impacts as well as impacts from unplanned but predictable developments caused by the project.
Baseline Data Collection	One of the earliest stages in the ESIA process during which baseline data is collected on current (i.e. pre-development) environmental and social conditions.
Cumulative Impact	A combination of individual impacts which may present more significant positive or negative impacts than any of the individual potential impacts if considered in isolation.
Environmental and Social Management System (ESMS)	The structured framework that provides the arrangements for managing the environmental and social aspects throughout the lifetime of the project to ensure compliance with the Vedanta Sustainability Framework. The ESMS consists of a system of management and action plans based on mitigation measures identified during the ESIA process.
Environmental and Social Impact Assessment (ESIA)	Environmental and Social Impact Assessment – a formalised process designed to identify, assess and document environmental and social impacts associated with a project, along with the mitigation measures and management arrangements for ensuring such measures are implemented.
ESIA team	A team of internal and/or external technical experts qualified to undertake the ESIA process, The ESIA team is responsible for scoping, baseline data collection, impact assessment, developing mitigation measures and the ESMS and ESIA stakeholder engagement activities.
Grievance	A concern or complaint raised by any stakeholder either affected or interested in company operations. Both concerns and complaints can result from either real or perceived impacts of a company's operations.
Grievance Mechanism Procedure	System for logging, responding to and monitoring all grievances received, including any records of communication/consultation and details of grievance settlement.

Term	Definition
ICMM (International Council on Mining and Metals)	The International Council on Mining and Metals (ICMM) was established in 2001 and seeks to drive performance improvement through its members which comprise 20 mining and metals companies as well as 30 national and regional mining associations and global commodity associations.
IFC (International Finance Corporation)	Member of the World Bank that finances and provides advice to private sector ventures and projects in developing countries.
Impact	Environmental and social impacts refer to any potential change to the physical, natural, or cultural environment, surrounding community, or health and safety of the community.
Impact Assessment	The stage in the ESIA in which the potential positive and negative impacts on the various environmental and social receptors identified during the baseline data collection phase are assessed to determine their significance.
Informed Consultation and Participation	An in-depth exchange of views and information and an organised and iterative consultation that leads Operations to incorporate the views of Affected Communities, on matters that affect them directly (such as proposed mitigation measures, the sharing of development benefits and opportunities, and implementation issues), into their decision-making process.
Operation(s)	A location or activity that is operated by a Vedanta Company and is part of the Vedanta Group. Locations could include mines, refineries, ports or transportation activities, wind farms, oil and gas development sites, offices including corporate head offices and research and development facilities.
Project Footprint	The area that may reasonably be expected to be physically touched by Project activities, across all phases. The Project Footprint includes land used on a temporary basis such as construction lay down areas or construction haul roads, as well as disturbed areas in transport corridors, both public and private.
Receptor	A resource or entity that may be subject to either adverse or positive impact arising from the project. In the context of this document the receptor may be either environmental or social in nature.
Residual Impacts	The remaining positive and negative impacts on environmental / social receptors following implementation of mitigation / reduction measures.
Scoping Exercise	This is the initial phase of an ESIA and comprises the identification of the key potential significant impacts of the project that will require further investigation and assessment. The Scoping Exercise will define and justify what will and will not be covered in the later stages of the ESIA.
Social Conditions	This includes, but is not limited to, community, health, safety and security, human rights, labour and working conditions associated with a proposed project.
Stakeholder	Persons or groups that are directly or indirectly affected by a project as well as those that may have interests in a project and/or the ability to influence its outcome, either positively or negatively. This can refer to

Term	Definition
	shareholders, lenders, employees, communities, industry, governments and international third parties.
Stakeholder Engagement	An umbrella term encompassing a range of activities and interactions between Vedanta and its stakeholders over the life of a project that are designated to promote transparent, accountable, positive, and mutually beneficial working relationships. Stakeholder engagement includes stakeholder identification and analysis, information disclosure, problem/conflict anticipation and prevention, ongoing consultation, formation of partnerships, construction of grievance resolution mechanisms, negotiated problem solving, employee involvement in project monitoring, regular reporting forums and procedures, and other related management activities.
Stakeholder Engagement Plan	A document that guides stakeholder consultations and communications during the period of the main ESIA studies and other aspects of the project analysis and design. It should also be updated toward the end of the ESIA studies to provide a roadmap for engagement in monitoring the effectiveness of impact mitigation measures.
Vedanta Company	A subsidiary of Vedanta Group either fully or majority owned that has its own management structure (e.g. Hindustan Zinc Limited, Vedanta Aluminium Limited, Sterlite Industries limited, etc.)

RELATED DOCUMENTATION

A summary of the references and supporting documents relevant to this document is provided in the following table.

Doc. Ref.	Document name
POL 06	HSE Policy
MS 09	New Projects, Planning Processes and Site Closure
TS 01	Cultural Heritage
TS 03	Land and Resettlement Management
TS 04	Grievance Mechanisms
TS 05	Stakeholder Engagement
TS 07	Biodiversity Management
TS 08	Conducting ESIA's to International Standards
TS 09	Resource Use and Waste Management
TS 10	Safety Management
TS 11	Environmental Management
TS 12	Occupational Health Management
TS 14	Water Management
TS 16	Energy and Carbon Management
TS 19	Social Investment Management
GN 29	Stakeholder Engagement

Annex A: ESIA Screening Checklist

A desk-based screening exercise is undertaken to determine whether or not the proposed project is likely to have significant social and environmental impacts that will require further investigation and assessment through an ESIA. The following checklist provides a list of the minimum information that must be reviewed and completed for the proposed project/operation and should be used as a starting point for the ESIA screening exercise.

Subject	***Criteria/Material/Significant Issues***	***Yes***	***No***	***Explanation***
Locality	*Will construction, operation or decommissioning involve actions which will cause physical changes in the locality (topography, land use, changes in water bodies etc.)?*			
Natural Resources	*Will construction or operation use natural resources such as land, water, materials or energy, especially any resources which are non-renewable or in short supply?*			
Substances/Materials	*Will the project/operation involve the use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?*			
Wastes	*Will the project/operation produce solid wastes during construction, operation of decommissioning?*			
Pollutants	*Will pollutants or any other hazardous, toxic or noxious substances to air be released?*			
Noise/vibration	*Will the project/operation cause noise or vibration?*			
Light/heat/radiation	*Will the project/operation cause release of light, heat energy or electromagnetic radiation?*			
Contamination	*Will the project/operation lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal waters or the sea?*			
Accidents	*Will there be any risk of accidents during construction or operation which could affect human health or the environment?*			
Social changes	*Will the project/operation result in social changes e.g. in demography, traditional lifestyles, employment?*			
Political changes	*Does the project/operation have the potential to cause any political tension or conflict? Will there be any increased security risks?*			
Vulnerable Groups	*Will there be any adverse impacts on vulnerable groups, particularly Indigenous People?*			
Protected areas	*Are there any areas on or around the proposed location which are protected under international, national or local*			

	legislation for their ecological, landscape, cultural or other value which could be affected?			
Sensitive areas	*Are there any other areas on or around the location which are important or sensitive for reasons of their ecology e.g. wetlands, watercourses/water bodies, coastal zone, mountains, forests or woodlands, which could be affected?*			
Fauna and Flora	*Are there any areas on or around the location which are used by protected, important or sensitive species of flora or fauna e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected?*			
Water	*Are there any inland, coastal, marine or underground waters on or around the location which could be affected?*			
Scenic value	*Are there any areas or features of high landscape or scenic value on or around the location which could be affected?*			
Recreation/amenity	*Are there any routes or facilities on or around the location which are used by the public/communities for access to recreation or other facilities which could be affected?*			
Transport	*Are there any transport routes on or around the location which are susceptible to congestion or which could cause environmental problems which could be affected?*			
Visibility	*Is the proposed project/operation in a location which is likely to be highly visible to many people?*			
Cultural heritage	*Are there any areas or features of historic, religious or cultural importance on or around the location which could be affected?*			
Loss of land	*Is the project/operation located in a previously undeveloped area where there will be loss of greenfield land?*			
Existing land use and resettlement	*Are there existing land uses on or around the location (e.g. homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture, forestry, tourism, mining or quarrying) which could be affected? Will the project/operation require temporary or permanent economic or physical human resettlement?*			
Future land use	*Are there any plans for future land uses on or around the location which could be affected?*			
Built up areas	*Are there any areas on or around the location which are densely populated or built-up, which could be affected?*			
Sensitive land uses	*Are there any areas on or around the location which are occupied by sensitive*			

	land uses e.g. hospitals, schools, places of worship, community facilities which could be affected?			
Important Resources	*Are there any areas on or around the location which contain important, high quality or scarce resources e.g. groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, which could be affected?*			
Environmental damage	*Are there any areas on or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded which could be affected?*			
Environmental conditions	*Is the project/operation location susceptible to earthquakes, subsidence, landslides, erosion, flooding, or extreme or adverse climatic conditions (e.g. fog, severe winds, temperature inversions)?*			
Cumulative impacts	*Is there a risk of cumulative impact on areas or resources used or directly impacted by the project, or from other existing, planned or reasonably defined developments?*			
Project Categorisation	*Does the Project fall under Category A or Category B according to the Project Categorisation decision tree?*			

Annex B: Data Collection for the Screening Exercise

The lists below detail the project information and environmental and social data required to complete the ESIA screening exercise.

Project Characteristics:

- Project size
- Project duration
- Water use
- Production of waste
- Use of hazardous materials
- Habitat alteration
- Airborne emissions including dust and gaseous emissions
- Noise emissions
- Energy Use
- Visual changes to surrounding landscape
- Project transport requirements
- Labour requirements
- Changes to Land Use

Local, Regional and National Environmental and Social Data:

- Size and location of nearby human settlements
- Presence of vulnerable groups, particularly indigenous people
- Cultural heritage
- Existing land use
- Social and health community infrastructure and services
- Political profile and history of relations between communities and the mining sector
- Traffic patterns
- Air quality
- Sensitive habitats and presence of rare, threatened or endangered species
- Geology and Soils Natural hazards
- Availability, quality and regenerative capacity of natural resources
- The absorption capacity of the natural environment, paying particular attention to the following areas:
    - wetlands;
    - coastal zones;
    - mountain and forest areas;
    - nature reserves and parks;
    - areas classified or protected under legislation;
    - special protection areas
    - areas in which the environmental quality standards laid down in Community legislation have already been exceeded;
    - densely populated areas; and
    - landscapes of historical, cultural or archaeological significance.

Annex C : Request for Tender template

The following can be used as a template for a request for proposals for an ESIA. This should be amended according to project specific details and requirements.

1. Objectives of the Study

The main objectives of this study are to carry out a full ESIA study that shall be in compliance with Vedanta Technical Standard TS 08 Conducting ESIA to international standards. This shall include scoping the ESIA, collecting baseline environmental, health, social and economic data, prediction and assessment of the impact of the proposed project on the surrounding environment and population, and preparation of mitigation measures.

The specific objectives are to:

- define the project's Area of Influence (AoI);
- provide baseline information about the environmental, social and health conditions within the project's (AoI);
- undertake an assessment of project alternatives;
- identify the potential impact(s) of the project;
- identify viable enhancement and mitigation measures;
- develop full environmental, social and health management plans for the project; and
- manage ESIA stakeholder engagement for the project.

2. Description of the project

This section should include a description of the project including:

- project size;
- presence of other projects nearby;
- use of water and natural resources;
- production of waste;
- use of hazardous materials;
- habitat alteration;
- airborne emissions including dust and gaseous emissions;
- noise emissions;
- labour requirements;
- energy use;
- supply chain;
- transport corridors;
- maps and engineering diagrams;
- schedule for construction / operation etc; and

- risk of accidents, with particular consideration of substances or technologies used.

3. Scope of Work

Vedanta is commencing the xx project and requires and ESIA for the following facilities;

- Xxx
- Xxx
- Xxx

A consultant is required to perform the following tasks:

- ESIA Project management

  a) In-country coordination

  Provide in-country support to ensure that stakeholder negotiations and the facilitation of the approval process is completed in accordance with the work plan.

  b) Cartographic Services

  Provide GIS data management and cartographic support. Provide cartographic services in support of the tasks listed below.

  c) Coordination of the ESIA
- ESIA
- Supporting Stakeholder Engagement

4. Specific Questions or details to address in the proposal

- Is the sampling methodology for the environmental baseline appropriate to the project?
- How shall stakeholder perceptions be assessed?
- How shall potential vulnerable or marginalised people be engaged?
- Inclusion of local experts and partners?
- Engagement with civil society and NGOs?
- Project Area of Influence – methodology for the definition of the area of influence
- Methodology for the scoping of impacts?
- Definition of potential sampling and surveying tools and methodologies for baseline data collection?
- Integration of teams to improve outputs?
- Methodology for assessment of sensitivity, vulnerability, magnitude and significance?
- Description of the approach for management plans, contractor control plans etc?
- Outline of required input from Operations?
- Background information on the proposing firm including years in business, project experience etc.

5. Expected Outputs

Vedanta would expect the submission of the following distinct reports / outputs as required;

- Draft and Final Scoping Report
- ESIA Stakeholder Engagement Plan (updated and amended throughout the ESIA process)
- Draft and Final ESIA Report including:
    - Non -Technical Summary
    - Introduction
    - Project description
    - ESIA Methodology
    - Baseline
    - Impact Assessment
    - Mitigation and Management
    - Recommendations
    - Environmental and Social Management Plans
    - Appendices as required (including raw data)
    - Maps as relevant and required
    - As required or relevant Issue Papers in certain Technical Topics
- ESIA Commitment Register including all mitigation and enhancement measures.
- Stakeholder Engagement Outputs including flyers, presentations, information documents etc.
- Monthly Progress Reports

6. Duration of Services and Level of Effort

The study is expected to be finalized over a period of XX months. The level of personnel required is estimated at XX persons for the field surveys. Data collection shall commence in XX, and the final report must be delivered by XX.

7. Expertise Required

The consultants (organisation) shall have wide experience, at least ten years, in conducting environmental, social and health surveys. Consultants should be able to demonstrate a track record of ESIAs using personnel having sufficient field experience and knowledge of the specific geography. Experts for each component of the ESIA should be defined for example water, soil, air quality, ecology, social, health etc.

8. Reporting Requirements

The consultants shall report to Vedanta via a designated ESIA Manager, to whom all products shall be delivered. XX hard copies of the final report, as well as XX electronic copies of the entire document (including all raw data and appendices) should be delivered on CD. An electronic copy

should be delivered in a bookmarked, write-protected format such as Pdf, which shall represent the final digital deliverable for the work. The other complete digital version should be delivered in an executable format, for which the consultant may elect to remove its name and logos due to the uncontrolled nature of the deliverable.

A monthly progress report should be delivered to Vedanta at the end of each calendar month to accompany the consultant's monthly invoice. The monthly report should include a summary of work accomplished during the invoice period, relevant timesheets, the work envisioned to be completed in the next month, a reconciliation of the work accomplished relative to the authorized schedule and budget, and any issues or concerns that may be appropriate to convey to Vedanta.

9. Administrative and Financial Details

   Include details of the date and time when the proposal deliverable is due, the number of copies to be presented, to whom the proposal should be submitted, whether or not the budget component should be included in the same package as the approach, qualifications, and scope of work. The following should be provided:

   - Deadline and means of proposal delivery – e.g. electronic, hard copy only, separate financial and contractual proposals or combined.
   - Details for acceptance of proposal related queries i.e. deadlines and if responses shall be shared with all consultants tendering or kept confidential
   - Currency and format for submission of financial proposal (e.g. lump sum, expenses etc.)
   - Decline / Approval to Respond - Contractor notification. The Contractor is requested to inform Vedanta if they plan to respond to or decline the invitation to tender by sending an email by a certain date.

10. Legal Requirements and Terms and Conditions

    Any legal or contractual requirements required should be inserted here. For example, the use of Vedanta's Terms and Conditions or whether Vedanta is willing to accept the consultant's Terms and Conditions.

Annex D: ESIA Stakeholder Engagement Plan Table of Contents

This Table of Contents can be used as a template when writing the SEP for the ESIA. The scope and level of detail of the plan should be scaled to fit the needs of the project.

Table 0.1 Example of ESIA Stakeholder Engagement Plan table of contents

Chapter	Title	Description
1	Introduction	Provide an overview of the SEP including • Overview of stakeholder engagement and consultation • The applicability of the SEP (e.g. that the SEP forms part of the ESIA and is structured around the key ESIA stages) • The objectives of the SEP • Frequency of review
2	Project information	Briefly describes the project including design elements and potential social and environmental issues. Where possible include maps of the project site and surrounding area.
3	Regulations and Requirements	Summarize any legal, regulatory, lender, or company requirements pertaining to stakeholder engagement requirements for the public consultation and disclosure for the social and environmental assessment process.
4	Stakeholder Identification	List the key stakeholder groups who will be informed and consulted about the project and the methods that will be used to identify and assess these groups. Stakeholders include persons or groups who: • Are directly and/or indirectly affected by the project • Have “interests” in the project that determine them as stakeholders Have the potential to influence project outcomes or company operations
5	Stakeholder engagement program	Briefly describe what information will be disclosed, in what formats, when and the types of methods that will be used to communicate this information to each of the stakeholders identified in section 4 above. Describe how the views of women and other relevant sub-groups (e.g. minorities, elderly, youth etc) will be taken into account during the process. Sub-sections for this chapter should be based around the following activities: • The Engagement for project introduction and ESIA scoping; • Engagement during IA baseline studies; • Presentation of Draft ESIA & ESHMS; • Regulatory engagements; • Local authority engagements; and • Disclosure of final ESIA & ESHMS • On-going engagement for long term relationships • Development and maintenance of communications tools • Monitoring and reporting
8	Grievance Mechanism	Describe the process by which people affected by the project can bring their grievances to Operations for consideration and redress. Who will receive public grievances, how and by whom will they be resolved, and how will the response be communicated back to the complainant?
Annex A	Stakeholder profiles	Details of key stakeholder groups including their interest in and/or ability to influence the project.
Annex B	Stakeholder engagement tracking tools	Provide templates for meeting minutes, stakeholder engagement log and issues tracker, calendar of activities
Annex C	Communications tools	Provide examples of communications tools used during the stakeholder engagement process e.g. posters, flyers, newspaper announcements, brochures etc.

Annex E: Baseline report Table of Contents

This Table of Contents can be used as a template when writing the Baseline report. Section and sub-sections should be added or removed as relevant depending on project specific details.

Table 0.2 Baseline report Table of Contents

Section	Heading
1.1	Introduction
1.2	Physical Environment
1.2.1	Climate and Meteorology
1.2.2	Geology and soils
1.2.3	Natural hazards
1.2.3	Groundwater
1.2.4	Surface water
1.2.5	Air quality and greenhouse gases
1.2.6	Noise and vibration
1.3	Biological Environment
1.3.1	Ecology and habitats
1.3.2	Flora
1.3.3	Fauna
1.3.4	Protected areas
1.4	Social and socioeconomic conditions
1.4.1	Administrative structure / socio-cultural institutions
1.4.2	Demographics
1.4.3	Land use and ownership
1.4.4	Economy and livelihoods
1.4.5	Education and skills
1.4.6	Health profile
1.4.6	Social infrastructure, resources and services
1.4.7	Cultural heritage
1.4.8	Human rights and vulnerability
1.4.9	Stakeholder views and perceptions

Annex F: Project Stakeholder Engagement Plan Table of Contents (1)

This table can be used as a template when writing the SEP for the project. The scope and level of detail of the plan should be scaled to fit the needs of the project.

Table 0.3 Project SEP Table of Contents template

Chapter	Title	Description
1	Introduction	Briefly describe the project (or the company's operations) including design elements and potential social and environmental issues. Where possible, include maps of the project site and surrounding area.
2	Regulations and Requirements	Summarize any legal, regulatory, lender, or company requirements pertaining to stakeholder engagement applicable to the project. This may involve public consultation and disclosure requirements related to the social and environmental assessment process.
3	Summary of any previous Stakeholder Engagement activities	If Operations has undertaken any activities to date, including information disclosure and/or consultation, provide the following details: • Type of information disclosed, in what forms (e.g. oral, brochure, reports, posters, radio, etc.), and how it was disseminated • The locations and dates of any meetings undertaken to date • Individuals, groups, and/or organizations that have been consulted • Key issues discussed and key concerns raised • Company response to issues raised, including any commitments or follow-up actions • Process undertaken for documenting these activities and reporting back to stakeholders
4	Project stakeholders	List the key stakeholder groups who will be informed and consulted about the project (or the company's operations). These should include persons or groups who: • are directly and/or indirectly affected by the project (or the company's operations) • have "interests" in the project or parent company that determine them as stakeholders • have the potential to influence project outcomes or company operations

(1) See IFC Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets, IFC 2007 http://www.ifc.org/ifcext/enviro.nsf/attachmentsbytitle/p_stakeholderengagement_full/$file/ifc_stakeholderengagement.pdf

5	Stakeholder engagement program	Summarize the purpose and goals of the program (either project specific or corporate). • Briefly describe what information will be disclosed, in what formats, and the types of methods that will be used to communicate this information to each of the stakeholder groups identified in section 4 above. Methods used may vary according to target audience, for example: - *Newspapers, posters, radio, television* - *Information centres and exhibitions or other visual displays* - *Brochures, leaflets, posters, non-technical summary documents and reports* • Briefly describe the methods that will be used to consult with each of the stakeholder groups identified in section 4. Methods used may vary according to target audience, for example: - *Interviews with stakeholder representatives and key informants* - *Surveys, polls, and questionnaires* - *Public meetings, workshops, and/or focus groups with specific groups* - *Participatory methods* - *Other traditional mechanisms for consultation and decision-making* • Describe how the views of women and other relevant sub-groups (e.g. minorities, elderly, youth etc.) will be taken into account during the process. • Describe any other engagement activities that will be undertaken, including participatory processes, joint decision-making, and/or partnerships undertaken with local communities, NGOs, or other project stakeholders. Examples include benefit-sharing programs, community development initiatives, resettlement and development programs, and/or training and micro-finance programs.
6	Timetable	Provide a schedule outlining dates and locations when various stakeholder engagement activities, including consultation, disclosure, and partnerships will take place and the date by which such activities will be incorporated into the project's management system.
7	Resources and responsibilities	Indicate what staff and resources will be devoted to managing and implementing the projects' Stakeholder Engagement Program. Who within the company will be responsible for carrying out these activities? What budget has been allocated toward these activities?
8	Grievance Mechanism	Describe the process by which people affected by the project (or company's operations) can bring their grievances to the company for consideration and redress. Who will receive public grievances, how and by whom will they be resolved, and how will the response be communicated back to the complainant?
9	Monitoring and reporting	Describe any plans to involve project stakeholders (including affected communities) or third-party monitors in the monitoring of project impacts and mitigation programs. Describe how and when the results of stakeholder engagement activities will be reported back to affected stakeholders as well as broader stakeholder groups. Examples include social and environmental assessment reports; company newsletters; annual monitoring reports submitted to lenders; Vedanta annual report; project or corporate sustainability report.

10	Management functions	How will stakeholder engagement activities be integrated into the the project's environmental and social management system and with other core business functions? • Who will have management oversight for the program? • What are the plans for hiring, training, and deploying staff to undertake stakeholder engagement work? • What will be the reporting lines between community liaison staff and senior management? • How will the project's stakeholder engagement strategy be communicated internally? • What management tools will be used to document, track, and manage the process? (e.g. stakeholder database, commitments register, etc.) • For projects involving contractors, how will the interaction between contractors and local stakeholders be managed to ensure good relations?