



# **IGO GROUP ENVIRONMENT STANDARD 2**

## **SOCIAL & ENVIRONMENTAL IMPACT ASSESSMENT**

**INDEPENDENCE GROUP**

Three thick, wavy lines in dark blue, grey, and orange sweep across the lower half of the page, creating a dynamic, flowing background element.



## DOCUMENT APPROVAL FOR USE

Reviewed by	Changes	Approved by	Date Effective
Keith Ashby	<b>Version 1</b>	HSEC Committee	16/03/2018
Feed back from sites	<b>Version 2:</b> Updated definition of biodiversity values	Keith Ashby	5/06/2018



## CONTENTS

1.	PURPOSE.....	3
2.	APPLICATION .....	3
3.	BASELINE IMPACT ASESMENT .....	3
4.	ONGOING IMPACT MONITORING & RESPONSE .....	3
5.	REPORTING .....	4
6.	RESPONSIBILITIES .....	4
7.	DATA MANAGEMENT .....	4
8.	RELATED DOCUMENTS .....	4
	APPENDIX A: IMPACT ASSESSMENT REQUIREMENTS .....	5
	APPENDIX B: GENERAL PRINCIPLES OF IMPACT ASSESSMENT.....	7
	APPENDIX C: DEFINITIONS .....	9

## 1. PURPOSE

IGO is committed to understanding the impacts that our activities have on our host communities and the environments in which we operate. Further, we are committed to ensuring this knowledge informs decision-making processes such that we minimise or mitigate any negative impacts. This standard details IGO’s requirements for the completion of baseline environmental and socio-economic impact assessments, and ongoing impact monitoring, review and reporting.

## 2. APPLICATION

This standard shall apply to all IGO exploration activities, projects and operations.

To the extent that a law may contradict this standard or specify other requirements, the law shall prevail. However, this document defines the minimum standard required and as such may impose a higher standard than may be required in some jurisdictions.

## 3. BASELINE IMPACT ASSESSMENT

A socio-economic and environmental impact assessment (SEIA) must be completed prior to any activity by IGO, or completed on IGO’s behalf, that:

- results in ground disturbance or land clearing,
- is on, or requires passage through, land with shared tenure or non-IGO tenure, or
- is within proximity to a neighbour or host community.

Impact assessments must be reviewed and updated at each stage of the project development cycle: Exploration, Mining Pre-feasibility, Mining feasibility, Mining, Care & Maintenance and Closure.

An impact assessment must also be completed when a project is acquired.

The scale and rigour of the impact assessment shall be relevant to both the stage in the development cycle and the potential scale of the impact. Appendix A sets out the process for selecting the type of impact assessment to be completed. Appendix B sets out the general principles that guide the preparation of these assessments.

The results of impact assessments must be considered as part of the AFE process. Specifically, the impacts must be either a) determined to be acceptable and or b) adequately mitigated, minimised or offset by actions provided for in the AFE.

Impact assessments shall identify the key environmental receptors and or socio-economic parameters that must be subject to ongoing impact monitoring (specifically including that monitoring required to assess the efficacy of the impact controls).

## 4. ONGOING IMPACT MONITORING & RESPONSE

As a matter of normal operations, IGO will complete ongoing impact monitoring at our operational mines, at mines in care & maintenance, and thereafter at closed mines for a designated period as prescribed in the mine closure plan.

At a minimum, monitoring must be completed such that IGO understands:

- The total area of land disturbed or otherwise impacted upon by activities;

- Changes to ecosystem function, and the composition of flora and fauna present within the area potentially impacted upon by IGO's activities;
- Changes to the socio-economic circumstances of our host communities; and
- The adequacy of our impact controls or mitigation activities.

In the event of adverse changes, IGO shall take reasonable steps to engage relevant expertise to advise how best to mitigate, minimise or offset any adverse changes, and then complete mitigation activities.

## 5. REPORTING

IGO will publish and make publicly available all Detailed Social & Environmental Reviews, Social and Environmental Impact Assessment (SEIA) Scoping Studies and SEIA's, and the results of ongoing impact monitoring.

## 6. RESPONSIBILITIES

It is the responsibility of the:

- Project Manager to ensure a SEIA has been completed as part of the AFE process.
- The senior site or exploration Environmental Advisor to ensure that baseline studies and impact monitoring is completed and reported
- Project Manager to ensure that in the event of adverse changes, IGO seeks to mitigate, minimise or offset the impacts.

## 7. DATA MANAGEMENT

IGO will maintain a database where all available environmental and social information should be collated, reviewed and stored, with the objective of building a base of information. This information may include but is not limited to, spatial datasets and databases, design and construction information, operation and monitoring information, or other information that meets a specific purpose (e.g. maps, area statistics or modelled environmental impacts). All technical reports should be referenced and included in the database.

## 8. RELATED DOCUMENTS

This standard shall be viewed with reference to the following IGO documentation where relevant:

- Desktop Social & Environmental Review Form
- Limited Social & Environmental Review Form
- IGO Group Environmental Guideline 1 – Impact Assessment & Monitoring
- IGO Group Safety Standard 3 – Operational and Project Risk Management

## APPENDIX A: IMPACT ASSESSMENT REQUIREMENTS

At IGO, the type of impact assessment to be completed is dependent on the Project Phase and the project’s Potential Level of Impact.

### Step 1: Project Phase

All projects shall be deemed to fall into one of the following Project Phases: Exploration, Mining Pre-feasibility, Mining Feasibility, Mining, Care & Maintenance, or Closure.

### Step 2: Potential Level of Impact

An activity shall be attributed a Potential Impact Category. As general guidance, IGO’s Potential Impact Categories are defined below. In the event of uncertainty, advice should be sought from one of IGO’s environmental professionals.

Potential Impact Category	Types of impact
Low	< 10 hectares of land clearing or disturbance
Medium	any clearing or land disturbance that: <ul style="list-style-type: none"> <li>• &gt; 10 hectares of land clearing or disturbance, or</li> <li>• Results in disturbance of water ways, drainage channels, heritage sites, private infrastructure or is within 5km of a private dwelling.</li> </ul>
High	any clearing or land disturbance that: <ul style="list-style-type: none"> <li>• impacts on ecosystems or species designated in law or international treaty as having any statutory conservation status,</li> <li>• impacts on private property, public roads or infrastructure, or</li> <li>• is within 10km of any gazetted residential area.</li> </ul>

### Step 3: Type of Impact Assessment required

IGO has five levels of Impact Assessment, the simplest of which is a simple form (Basic Desktop Social & Environmental Review) to the most comprehensive being a Socio-economic Environmental Impact Assessment (SEIA).

1. Desktop Social & Environmental Review
2. Limited Social & Environmental Review
3. Detailed Social & Environmental Review
4. SEIA Scoping Study
5. SEIA

Based on the Project Phase, and the Anticipated Level of Impact, the matrix presented in Table 1 must then be used to define the type of impact assessment required.

**Table 1 – Type of Impact Assessment required**

Project Phases	Potential Level of Impact		
	Low	Medium	High
<b>Exploration</b>	Desktop Social & Environmental Review	Limited Social & Environmental Review	Detailed Social & Environmental Review
<b>Mining Pre-feasibility</b>	Limited Social & Environmental Review	Detailed Social & Environmental Review	SEIA Scoping Study
<b>Mining feasibility</b>	SEIA	SEIA	SEIA
<b>Mining</b>	Desktop Social & Environmental Review	Limited Social & Environmental Review	Detailed Social & Environmental Review
<b>Care &amp; Maintenance</b>	Desktop Social & Environmental Review	Limited Social & Environmental Review	Detailed Social & Environmental Review
<b>Closure.</b>	Desktop Social & Environmental Review	Limited Social & Environmental Review	Detailed Social & Environmental Review

A Desktop Social & Environmental Review or Limited Social & Environmental Review can be completed by filling out the relevant pro-forma form of the same name as found in the IGO DMS. Guidance on form completion is provided in IGO Group Environmental Guideline – Impact Assessment & Monitoring. It is anticipated that the completion of a Desktop Social & Environmental Review or a Limited Social & Environmental Review will generally be completed as part of the JSEA process.

Guidance on the structure and content of a Detailed Social & Environmental Review, SEIA Scoping Study and SEIA's is provided in IGO Group Environmental Guideline 1 – Impact Assessment & Monitoring.

**Note: Many jurisdictions provide statutory specifications for the structure and content of SEIA Scoping Studies and SEIAs.**

## APPENDIX B: GENERAL PRINCIPLES OF IMPACT ASSESSMENT

### B.1. Key Considerations for Impact assessments

Impact assessments must consider:

- The nature of the activity (including ‘Project Phase’ – Appendix A)
- Location, scale and duration of activities;
- The identification of statutory obligations (approvals and permits etc) and other commitments
- The identification of stakeholders and their likely material concerns
- The identification of ‘biodiversity values’ (ie the things that can be harmed or impacted upon)(see B.2.)
- The maximum credible physical and temporal extent or scale of any potential impacts (Potential Level of Impact).

In preparing Detailed Social & Environmental Reviews, SEIA Scoping Studies and SEIA’s, IGO will adhere to the following general principles:

### B.2. Biodiversity Values

As general guidance, impact assessment must consider the following categories of biodiversity values:

Economic and Consumptive values	This is related to natural products that are used directly for food, fodder, timber, fuel wood etc.
Productive use values	This is assigned to products that are commercially harvested and marketed. Almost all the present date agricultural crops have originated from wild varieties.
Socio-cultural values	The social value of biodiversity includes aesthetic, recreational, cultural and spiritual values. To this can be added health benefits resulting from recreational and other activities.
Ethical values	Biodiversity conservation are based on the importance of protecting all forms of life.
Aesthetic values	The beauty of our planet is because of biodiversity, which otherwise would have resembled other barren planets dotted around the universe. Biological diversity adds to the quality of life and provides some of the most beautiful aspects of our existence.
Environmental service values	The environmental value of biodiversity can be found by examining each ecosystem process and identifying the ecosystem services that result. For individual species this includes habitat and niche. These services also support human needs and activities such as intensely managed production ecosystems.



### B.3. Stakeholder Engagement

Central to any impact assessment process is external stakeholder identification (if any) and engagement. Stakeholder engagement must occur prior to, during, and as a follow-up to activities:

- causing ground disturbance or land clearing activities,
- on, or requiring passage through, land with shared tenure or non-IGO tenure, or
- within proximity to a neighbour or host community.

All stakeholder engagement must be documented and recorded via a project specific stakeholder engagement register, including date, time, issues, comments and outcomes.

### B.4. Engagement of suitably qualified and experienced persons

A Basic Desktop Social & Environmental Review can be completed by any work team as part of the IGO JSEA process.

Typically, a Limited Social & Environmental Review is prepared in-house by an IGO environmental professional.

The preparation of a Detailed field-based Social & Environmental Review, SEIA Scoping Study or SEIA must be completed by suitably qualified and experienced persons. Typically, external third-party expertise should be engaged.

### B.5. Risk Assessment

All environmental and socio-economic impact assessments are fundamentally risk assessments.

As with any risk assessment, environmental and socio-economic impact assessments are frequently predicated on qualitative information. Given this, IGO will seek out expert advice to inform risk assessment decisions and advise of the reasonable application of the 'precautionary principle'.

All risk identified through SEIA process should be captured in project/site risk registers as per Group Safety Standard 3 – Operational and Project Risk Management.

### B.6. Impact monitoring

Impact assessments shall identify the key environmental receptors and or socio-economic parameters that must be subject to impact monitoring. This must include monitoring the efficacy of impact control or mitigation actions.

### B.7. Consideration of alternatives and cumulative impacts

IGO will examine alternative options for projects and document reasons for selecting the preferred option. Impact assessments shall include consideration of cumulative impacts.

### B.8. Commitment to harm minimisation and ongoing monitoring

In designing projects, IGO will adhere to a mitigation hierarchy. In order of preference IGO shall seek to:

- Avoid impacts;
- Minimise impacts;
- Restore and rehabilitate; and failing the above

- Provide Offsets.

## APPENDIX C: DEFINITIONS

The following definitions apply to this standard.

**Engagement** refers to the process of interaction with stakeholders to discuss decisions and facilitate outcomes. This may include informing stakeholders, consulting, involving, collaborating and/or empowering.

**Impact refers to** any change (beneficial or adverse) in the environment as a result of human activity.

- Direct impacts: impacts that are caused directly by the project.
- Indirect impacts: impacts that follow on from the direct impacts.
- Cumulative impacts: impacts due to the project adding to the impacts due to other developments.

**Mitigation** refers to measures to prevent, eliminate, reduce, minimise, remediate, repair or compensate adverse impacts.

**Mitigation hierarchy** refers to a set of steps taken to address or alleviate impact to the environment from a proposal or a project. The steps include avoidance, minimisation, rehabilitation and offsetting.

**Precautionary Principle** refers to an action not being undertaken if the consequences are uncertain and/or potentially dangerous

**Project Manager** refers to any individual that is responsible for a project or operation that requires an SEIA to be completed including, Exploration Manager, General (or Resident) Manager, Feasibility Study Manager, etc.

**Significance** refers to consideration of the following matters likely to result from the implementation of the proposal or project;

- Values, sensitivity and quality of the environment likely to be impacted;
- Extent of the likely impact (intensity, duration, magnitude and geographic footprint);
- Consequence of the likely impact;
- Resilience of the environment to cope with the impacts or change;
- Cumulative impact from other projects in the region;
- Connections and interactions between parts of the environment to inform a holistic view of impacts to the environment as a whole; and
- Level of public interest about the likely effects of the proposal or project, should it be implemented, including information from the public.

**Stakeholders** refers to interested or affected parties including communities, businesses, local, state and federal government agencies, employees, contractors, suppliers, Nongovernmental organisations (NGOs), community-based organisations, media groups, investors, research organisations and other IGO operations.