



Executive Summary

# Sustainability Management: Environmental Aspects Guide

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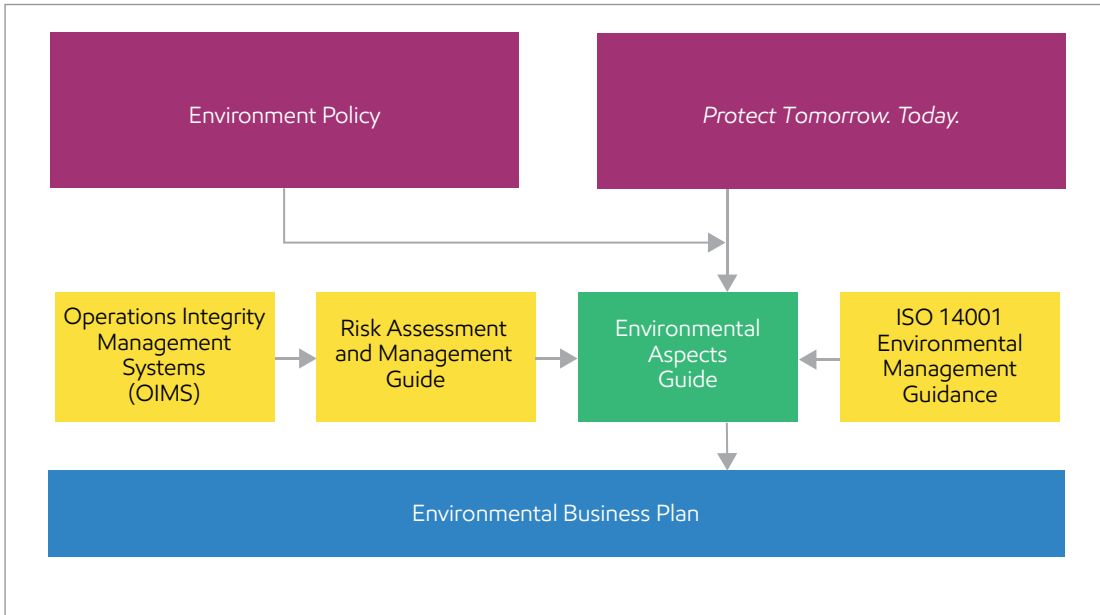
**ExxonMobil**

# Purpose

ExxonMobil is committed to operating in an environmentally responsible manner everywhere we do business. ExxonMobil's Environment Policy and *Protect Tomorrow. Today.* serve as the foundation of our efforts, which are guided by a scientific understanding of the environmental impact of our operations as well as by the social and economic needs of the communities in which we operate. This Environmental Aspects Guide (EAG) addresses identification and assessment of significant environmental aspects consistent with the Environment Policy and *Protect Tomorrow. Today.* The guiding principles of *Protect Tomorrow. Today.* are namely:

- Deliver superior environmental performance;
- Drive environmental incidents with real impact to zero, through a process of continuous improvement; and
- Achieve industry leadership in focus areas that are valuable to the business.





**Figure 1**  
EAA relationship to integrated environmental management approach

The EAG is also consistent with ExxonMobil's Operations Integrity Management System (OIMS) requirements and performance expectations, particularly:

- Management commitment and leadership;
- Identification and mitigation of environmental risk;
- Identification and management of community impacts and concerns; and
- Integration of Environmental Business Planning (EBP) into base business.

OIMS references the EAG and the Environmental Aspects Assessment (EAA) process to systematically identify, assess, manage and monitor environmental and social risks. The EAA process is applied across ExxonMobil globally as a key part of our commitment to develop, construct, maintain and operate projects and facilities responsibly. The EAG is also consistent with ISO 14001 Environmental Management System.

The EAG establishes a consistent, comprehensive approach for identifying environmental aspects and for determining which of those aspects may be significant, where environmental aspects include activities that can interact with the human (or socioeconomic) environment. The outputs from the EAA process are central to the EBP process where measures to address environmental and socioeconomic risk are integrated into business planning.

## Scope

The EAG details the implementation and expectations for carrying out the EAA process. Environmental aspects are activities, products or services that can interact with the environment, including activities that primarily interact with the socioeconomic environment. In this guide, the term activities will be used broadly to encompass ExxonMobil field activities, projects, operations and services.

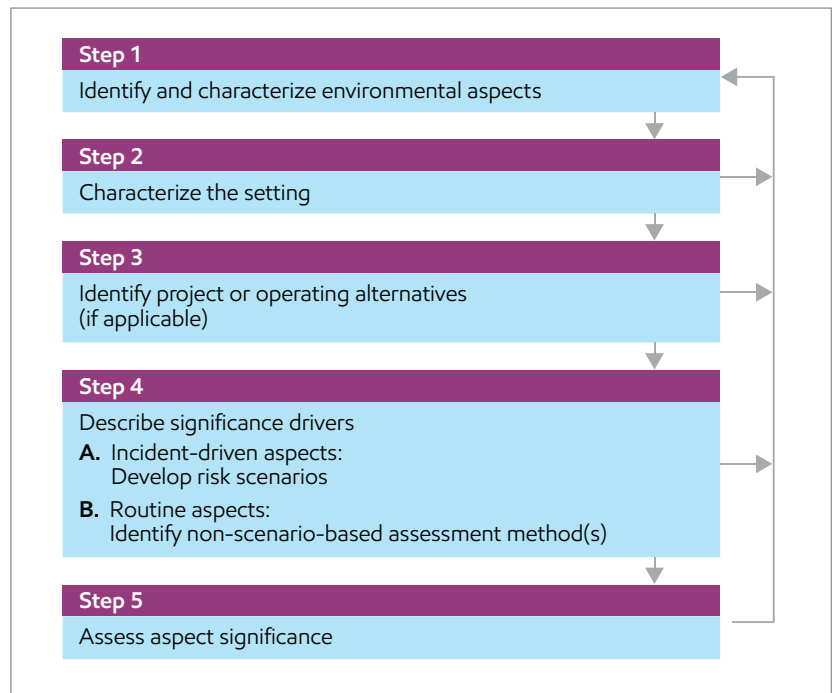
This EAA process can be summarized as:

- Identifying environmental aspects resulting from ExxonMobil activities, and for which the operation has direct control or influence;
- Understanding the setting in which our activities interact with the environment (natural, regulatory, and socioeconomic);
- Assessing potential environmental impacts and risks, and taking into account the interests of or importance to interested parties; and
- Prioritizing environmental aspects to identify those that may result in significant impact or risk. These aspects are referred to as significant environmental aspects.

Assessments are completed by a qualified multi-disciplinary team, typically including environmental, technical, operations, socioeconomic, public and government affairs and risk management expertise. Environmental aspects of products in commerce are not within the scope of the EAG and are assessed as part of separate review processes for existing and new products.

## Process for identification and assessment of significant environmental aspects

EAA is undertaken for a range of activities that have the potential for significant impacts or risks. For large projects, EAAs are conducted at various times during the asset evaluation and development phases. Once in the operation phase, periodic updates are undertaken consistent with the operational complexity and environmental and socioeconomic sensitivities. At each stage, ExxonMobil performs the evaluation of aspects and communicates potential risks to operational management where they are stewarded at appropriate levels. Identification and assessment of environmental aspects is an iterative process that consists of five steps:



**Figure 2**  
5-Step Environmental Aspect Assessment process



### Step 1: Identify and characterize environmental aspects

The process begins by broadly considering the interaction between the activities and the natural or human environment to identify environmental aspects. An environmental aspect is an activity that can impact the environment directly, or indirectly in which the activity causes follow-on activities by others, or triggers a series of subsequent events, which in turn may result in an impact.

Once aspects are identified and catalogued, they are characterized so they can be screened for their significance. Aspect characteristics may be qualitative or quantitative and may include information such as scope, scale, size, duration, intensity or frequency.

### Step 2: Characterize the setting

Characterizing the setting includes a detailed description of the surrounding environment that could affect or be affected by our activities. The setting includes the environmental, regulatory

and socioeconomic components, as well as considerations related to other interested parties. External events and potential changes to the surrounding setting over time should also be taken into account.

The immediate (directly affected) and broader (indirectly affected or future) setting are equally important to consider.

- The immediate setting is or can be affected by activities through primary or direct interaction. Immediate is not limited to close physical vicinity and may include long-distance settings.
- The broader setting is outside the immediate reach but may still be affected indirectly or in the future through impacts triggered by activities. Reasonably anticipated conditions that may become relevant in the future are also considered.





### Step 3: Identify project and operating alternatives

When assessing environmental aspects for new activities, alternatives to project design and operational strategies / implementation are considered to identify options where potential impacts or risks may be mitigated. These alternatives are a discrete set of possible choices for managing potential impacts or risks while attaining business goals. Alternatives are examined early and the results used to identify preferred courses of action.

Alternatives may include different technology, routing, siting, timing or duration, equipment and materials selection. Alternatives selected for risk screening should be scientifically sound, economically and technically feasible and balance business, environmental and socioeconomic needs.

### Step 4: Describe significance drivers

#### A. Incident-driven aspects

For some potential impacts or risks, traditional scenario-based risk assessment techniques using a risk matrix can be used to establish significance. This method entails the development of at least one credible sequence of events or conditions leading to a potential consequence for each aspect assessed. The scenario forms the foundation for the interpretation of potential consequence severity and probability that will determine aspect significance.

#### B. Routine aspects

For some potential impacts that may result from aspects that are continuous, or may result from normal operations which may lead to chronic or cumulative effects, using a scenario-based risk assessment approach may not be applicable.



This can include impacts where consequence or probability cannot be accurately quantified or assigned. This can also apply where an aspect is of specific concern to interested parties regardless of potential or severity of the impact or risk. In these cases, a spectrum of assessment methods is available, such as:

- Data benchmarking (e.g., performance benchmarking relative to other sites);
- Comparison to reference criteria (e.g., environmental standards, regulations or certification requirements by industry validation bodies), and
- Scientific methods (e.g., predictive impact models, in-situ measurements of environmental exposure).

#### **Step 5: Assess aspect significance**

In assessing the significance of an aspect, the analysis focuses on the aspects most likely to result in significant impacts or risks. The significance of an aspect can be characterized based on potential impacts or risks to the environment, local community or on their importance to other interested parties even if impacts or risks are not demonstrable.

For aspects described by scenario based approaches, the significance of an aspect is defined by a matrix with defined criteria for probability and consequence levels, and risk significance assigned for various combinations of these factors. Where multiple scenarios act on the same receptor(s), the cumulative impacts or risks are considered to estimate a combined risk. For aspects where scenarios cannot be mapped on the risk matrix, a range of tools can be applied to assess significance.

As the significance of an aspect is not necessarily equivalent to the significance of the impact or risk, this screening process does not require quantification or documentation of all aspects or all potential impacts or risks. Also in some cases, potential significant impacts or risks may be



identified where significance cannot be determined due to a lack of information or where a more formal risk assessment may be appropriate. These latter cases should be communicated, as appropriate, in the output from this process.

#### **EAA Output**

As discussed, the EAA process is a component of a larger risk management system and integrated with overall business planning. The EAA process is designed to screen aspects associated with activities or operations in a consistent, comprehensive approach. The assessment findings are communicated to project or operations management to be addressed through appropriate actions that may include various functional groups (e.g., Environmental and Socioeconomic Management teams, Engineering teams, Public and Government Affairs). As part of OIMS, responsible operations address follow-up actions for significant environmental aspects through other existing management programs. Ongoing monitoring and assessment undertaken through other environmental and socioeconomic management processes and activities also provide opportunities to confirm that potentially significant aspects are identified, understood, and managed effectively.



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This Executive Summary is aligned with the Sustainability Management: Environmental Aspects Guide dated December 2019