



**IPIECA**



## Managing Biodiversity & Ecosystem Services (BES) issues along the asset lifecycle in any environment:

### 10 Tips for Success in the Oil and Gas Industry



1. **Begin yesterday:** Allow time for undertaking scoping surveys, planning of multi-season data collection, and potentially developing strategic collaborations to ensure early integration of BES issues in the asset life-cycle. Start to build the capacity to provide BES-related value by ensuring the early identification of risks as well as opportunities.
2. **Follow the Mitigation Hierarchy:** Systematically apply the Mitigation Hierarchy throughout the asset life-cycle to follow an effective order of preference in addressing all potential impacts on BES of oil and gas operations. The order of preference is: Avoid; Reduce; Restore, and, in cases where significant residual biodiversity impacts remain, Offset.
3. **Consider the big picture:** Understand the big picture and gain a full appreciation of risks and opportunities of operating in a certain area. Recognize the contribution of climate change, external resource exploitation, and other natural and anthropogenic stressors upon BES; these are important background considerations for the assessment of operational impacts and opportunities.
4. **Locate and assess sensitive areas:** Map the location and assess the significance of protected areas, RTE (rare, threatened or endangered) species, sensitive habitats, key natural resources and priority ecosystem services. This is critical to the early selection of facility locations and linear infrastructure routing, and an asset's overall BES action planning. This will help identify areas associated with higher BES values and conservation priorities.
5. **Consult openly and in a participative manner:** Engage in open and participative dialogue with relevant stakeholders throughout the life of oil and gas operations. This is an effective means of leveraging local ecological knowledge, understanding the value of traditional ecosystems, learning how natural resources are used and avoiding potential resource conflicts.
6. **Think about whole landscape:** Understand the scale at which different ecosystem processes occur in order to design and undertake effective impact assessments, monitoring programmes and mitigation measures. For large projects, assuming a landscape perspective assures that area-demanding species and broad-scale ecological processes are adequately considered.
7. **Say "no" to "hitchhikers":** Prevent the introduction and spread of Alien Invasive Species (AIS) based on a robust understanding of the pre-existing ecological conditions. This can avoid large-scale economic consequences, and the need for expensive eradication programmes.
8. **Understand interdependence:** Conduct early, high level screening of project dependencies to identify risks and potential opportunities related to resource competition. Ecosystem services are relevant both ecologically and socially; for example resources such as land and water may be critical to the operation of oil and gas facilities in addition to their contribution to habitat and community needs.
9. **Make BES benefits mutual:** Understand social and economic challenges and potential opportunities to find sustainable solutions that integrate ecosystem health with human well-being and economic progress. This will reduce non-technical risks and strengthen the relationship between socioeconomic development and conservation goals.
10. **Monitor, adapt and improve:** Integrate BES considerations into management systems and operational practices to ensure the "plan-do-check-act" cycle is complete and that BES risks are addressed throughout the asset life cycle and across company operations. Respond to learnings and insights from monitoring and reporting activities, adapting and continuously improving BES risk management approaches..

## Resources

### TIP RESOURCES:

- 1** IPIECA-OGP, *BES Fundamentals* (Pending);  
Cross Sector Biodiversity Initiative (CSBI), *Timeline tool* (2013)  
IPIECA-OGP, *A guide to developing biodiversity action plans for the oil and gas sector* (2005)
- 2** CSBI, *Guidance on the mitigation hierarchy*, (pending)  
CSBI, *Charter* (2013)  
IPIECA-OGP, *A guide to developing biodiversity action plans for the oil and gas sector* (2005)
- 3** IPIECA, *Water Management Framework for onshore oil and gas activities* (2013)  
IPIECA, *Making the connection: oil and gas management of natural resources* (2013)  
Energy & Biodiversity Initiative (EBI), *Integrating biodiversity into environmental and social impact assessment processes* (2006)
- 4** UNEP-WCMC, *A-Z areas of biodiversity importance* ([www.biodiversitya-z.org](http://www.biodiversitya-z.org))  
IPIECA, *Marine Geospatial Bibliography* (2013) ([www.mgb.ipieca.org](http://www.mgb.ipieca.org))  
UNEP-WCMC, *World Data Base on Protected Areas*; EBI, *A framework for integrating biodiversity into the site selection process* (2003)
- 5** IPIECA, *Indigenous Peoples and the oil and gas industry: context, issues and emerging good practice* (2012)  
IPIECA, *Guide to successful, sustainable social investment for the oil and gas industry* (2008)
- 6** IPIECA-OGP, *Managing oil and gas activities in coastal areas* (2012)  
IPIECA, *Making the connection: oil and gas management of natural resources* (2013)  
IPIECA-OGP, *An ecosystem approach to oil and gas industry biodiversity conservation* (2007)
- 7** IPIECA-OGP, *Alien invasive species in oil and gas activities* (2010)
- 8** IPIECA-OGP, *Ecosystem services checklist and guidance – linking ecosystem services to oil and gas activities* (2011)
- 9** IPIECA-OGP, *Ecosystem services checklist and guidance – linking ecosystem services to oil and gas activities* (2011)  
IPIECA, *Indigenous peoples and the oil and gas industry: context, issues and emerging good practice* (2012)
- 10** IPIECA-OGP, *Making the connection: oil and gas management of natural resources* (2013)  
EBI, *Integrating biodiversity into environmental management systems* (2003)