

# Conservation news

## Launch of innovative guidance to protect marine biodiversity and ecosystem services

Fauna & Flora International (FFI) has developed guidance for the oil and gas sector to protect marine biodiversity and ecosystem services. The guidance is designed to help operators identify and prioritize marine biodiversity and ecosystem services, determine impacts from their activities, and select suitable measures to avoid, minimize, restore and, where appropriate, offset these impacts. This guidance is the first to address oil and gas in the marine environment and will be officially launched at the IUCN World Conservation Congress in September 2016.

Oceans produce more than half of the oxygen in the atmosphere and absorb carbon. The coastal environment provides food for over 3 billion people and supports the livelihoods of over 200 million people. Awareness of the importance of marine habitats for biodiversity and ecosystem services is growing, yet the oceans are under threat from pollution, overfishing and degradation.

It is within this context that the extractive energy sector is increasingly turning to oil and gas reserves offshore to meet rising energy demands; currently over a third of oil and gas is extracted from offshore sources and this is expected to increase. Marine oil and gas developments and their effects on marine biodiversity and ecosystem services are subject to increasing scrutiny at local, national and international levels, and operations face reputational, operational and financial risks. National policy and legislation, lender safeguards, and company commitments are further driving improvements in the mitigation and management of impacts. However, little guidance exists on how to apply, monitor and enforce existing standards and policies in a marine context.

FFI's good practice guidance provides pragmatic advice for identifying, mitigating and managing risks and impacts on marine biodiversity and ecosystem services for oil and gas developments. The mitigation hierarchy is central to the application of this guidance, which describes potential impacts and preventative mitigations (avoidance and minimization) at each phase in the oil and gas project cycle. Supporting activities such as shipping are also assessed. For each phase of the project cycle a table identifying activities, potential impacts, and known avoidance and minimization measures is presented.

Remedial mitigations, in the form of restoration and offsetting, are presented in dedicated sections. The challenges and opportunities for marine ecosystem restoration are discussed in the context of recent progress in ecological restoration research. Restoration case studies for a range of high value habitats, including mangrove, sea grass and coral reefs, are drawn upon.

Policy and legislation increasingly incorporate commitments to no net loss of biodiversity, and require or allow biodiversity offsets and/or compensation. The guidance considers the potential for marine biodiversity offsetting or compensation to address the residual impacts of project development after all avoidance, minimization and restoration measures have been applied. Specific considerations for the marine environment are considered and a selection of case studies illustrate current opportunities and challenges in marine biodiversity offsetting.

This good practice guidance is evidence-based and draws on the best available science and practice from leading oil and gas companies, impact assessment practitioners, research organizations, finance sector experts and marine biodiversity and ecosystem service specialists. Current good practice approaches are explored alongside new and innovative opportunities for impact mitigation.

This guidance is an essential reference for oil and gas operators, particularly those located in marine environments with high biodiversity value and/or where there are operational and stakeholder dependencies on ecosystem services, and where measures to avoid, minimize, restore and offset impacts on marine biodiversity and ecosystem services are being applied to achieve no net loss or a net gain. It is also a valuable resource for impact assessment practitioners, marine biodiversity and ecosystem service specialists, lender banks and auditors, policy makers and regulatory agencies involved with oil and gas sector interests in the marine environment.

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## Good management of biodiversity and ecosystem services makes economic sense for farmers and agricultural supply chains

A growing body of research and practice from Brazil and elsewhere demonstrates that many components of biodiversity benefit agricultural production and also generate benefits for wider society. Well-planned management of biodiversity both within and beyond the farm makes farming landscapes more resilient, more cost effective, more sustainable and more productive.

The Atlantic rainforest of eastern Brazil has exceptional levels of diversity and endemism but less than 15% of its original extent remains. Most of the remaining, highly fragmented forest is on privately owned land, much of which is on smallholder family farms. These farms, which are