

Total's approach to tackling biodiversity challenges

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Back in 2005, Total introduced an ambitious biodiversity protection programme. Today, the Group is committed to protecting the environment at both local level («biodiversity action plans» for new projects, for example) and global level (helping to prepare a Global Biodiversity Plan). Total sees this commitment as an opportunity and an essential investment in its own future.

Total's biodiversity journey began in 1992 with the creation of the Total Foundation and its philanthropic initiatives to protect marine ecosystems. This environmental focus culminated in the Group's biodiversity policy in 2005. In 2016, Total pledged its commitment to the UN Sustainable Development Goals (SDGs) and in 2018 it signed up to the "Act4nature" initiative backed by the French Association of businesses for the environment (*Association française des entreprises pour l'environnement*). Most recently, in 2020, the Group helped to prepare a Global Biodiversity Plan as part of the UN Convention on Biological Diversity (CBD) at COP15.

This unstinting and longstanding commitment to protecting biodiversity means that Total can now draw upon its extensive experience both in terms of local biodiversity management initiatives and its global CSR strategy. It has also provided new opportunities for growth and helped prepare the Group to meet future challenges.

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BUSINESSES THAT IMPACT BIODIVERSITY

By their very nature, Total's activities may be located in sensitive natural environments. They sometimes have a negative impact on local biodiversity and may jeopardize certain ecosystem services¹ provided by these natural environments.

These undesirable impacts, of varying nature and extent, are primarily due to changes in the way in which environments are used, for example when an industrial facility and related infrastructure are located in a natural area. However, chronic pressure may also be exerted on biodiversity. This could take the form of gaseous and liquid discharges or noise pollution. And while they are rare, accidents may also harm the environment.

Renewable energy generating facilities may put pressure on biodiversity. For example, solar farms may lead to a partial conversion of a natural habitat or wind turbine rotor blades can be dangerous for avifauna.

Therefore, curtailing the negative environmental impacts of Total's activities first involves recognising and identifying such impacts.

These local issues are compounded by the overriding urgency of climate change and its impact on biodiversity. Here, Total is aiming to achieve carbon neutrality by 2050 along with a number of key milestones, including the production of 35 GW of electricity from renewable sources by 2025.

SOLUTIONS TAILORED TO PROTECTING BIODIVERSITY

To tackle all of these local and global challenges, Total has had a specific biodiversity management and protection policy since 2005. In particular, it introduced a mitigation hierarchy ("avoid, minimize, offset")². Biodiversity was mainstreamed into the environmental management system at Group sites and subsidiaries: initial studies, impact studies and tracking of biodiversity management initiatives during operations all became systematic.

In 2020, Total made "biodiversity action plans" compulsory for all projects located in the most sensitive areas³ (there have been around 10 such projects up to the present — see Insert). For sites located in priority areas⁴, these action plans must generate a "net biodiversity gain"⁵ certified by a third party, as will be the case for the Tilenga oil exploration project in Uganda. But this measure does not just apply to new projects. Certain longstanding sites located in highly industrialised regions are also deploying an environmental approach. This is happening at the Feyzin refinery in France where the site's plant population has been carefully mapped and differentiated management strategies have been deployed (especially with regard to mowing). Around a quarter of the site has now been made available for developing local biodiversity. From now on, the company will systematically perform "biodiversity diagnostics" in and around its sites that are important for the environment, i.e. sites that have been certified ISO 14001. The first diagnostics will be performed in 2021 and, depending on the results, they may culminate in new pro-biodiversity initiatives.

The commitments and processes that underpin this improvement drive are reflected in a major effort to mainstream pro-biodiversity initiatives into the Group's internal rules. For example, biodiversity is mainstreamed into the Group's risk assessment process (known as "CORISK") whose criteria — which are evolving by nature — were updated in 2020 with the publication of the Group's Biodiversity Ambition. Manuals explaining biodiversity management methods and decision-making applications are also available to provide concrete solutions to the project teams in charge of these matters out in the field. Biodiversity mainstreaming is rounded out by a biodiversity training

program for Group employees that covers awareness-raising (provided by the French Natural History Museum) through to best current practices (in particular those defined by the World Bank Group's International Finance Corporation).

Finally, the Group has also decided to avoid certain highly environmentally sensitive areas altogether. For example, in 2012 Total ceased all oil exploration activity in Arctic Sea ice zones. These are highly sensitive natural areas in which it would be very difficult to deal with an accidental oil spill. Total is currently the only energy major to have made this commitment. This was followed in 2013 by a decision to ban all exploration and production activities at UNESCO World Natural Heritage Sites⁶ in recognition of their universal heritage value.



The Yemen LNG biodiversity action plan

The Yemen LNG liquefied natural gas project – a venture in which Total has a 39.6% stake – has given rise to a highly ambitious biodiversity action plan. The initial project layout was fine-tuned to avoid large swathes of coral reef as much as possible. For the remaining blocks of reef affected by the construction of the port, the biodiversity plan included a major coral reef translocation program, the first time this has been done anywhere in the world on this scale. All work was overseen by an independent scientific committee that included the International Union for the Conservation of Nature (IUCN) in an advisory and verification role. The idea of an independent scientific committee was subsequently taken up and applied to other Group projects as a means of providing both internal and external stakeholders with a greatly appreciated form of assurance.

NEW OPPORTUNITIES

Total's mainstreaming of biodiversity has generated a number of partnership opportunities, notably with certain international NGOs⁷. This commitment has also enabled Total to influence the entire sector: other energy majors such as BP and ENI have agreed to steer clear of UNESCO heritage sites, for example. Moreover, Total has been named oil sector representative for the UN Convention on Biological Diversity's Extended Consultative Network to prepare support documents⁸ for the Global Biodiversity Plan that include sector best practices. Total was also able to provide input on "biodiversity approaches" for organisations in the new AFNOR NF X32-001 standard.

The Group participates in scientific research, especially by sharing the data collected in the course of its studies and for monitoring biodiversity at its sites – this data is made available on the Global Biodiversity Information Facility, the international platform of reference in this domain.

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There is no doubt that protecting the environment represents a source of opportunities for Total Group. A Nature-Based Solutions business unit was set up in 2019 to finance, develop and manage carbon sequestration operations using natural carbon sinks (i.e., forests, mangroves, wetlands, peat bogs, agro-ecology zones, agricultural land, etc.). These operations could also deliver biodiversity dividends by protecting or restoring targeted ecosystems.

CONCLUSION

Total's businesses are undergoing wholesale changes, especially with the rapid development of renewable energies, for which biodiversity mainstreaming is eagerly awaited. An internal "Renewable energies and biodiversity" workgroup has been created with the support of the Group's research and development teams.

Total is also conducting forward-looking studies on indicators to measure its "biodiversity footprint" and considering how best to factor in the effects of climate change on biodiversity. All of this research and reflection helps prepare the Group for the future.

1. Ecosystems provide many services, known as ecological or ecosystem services, some of which are vital for many species or groups of species (pollinisation for example). These are generally classified as global commons and/or public goods (source: https://en.wikipedia.org/wiki/Ecosystem_service).
2. "Avoid, minimize, offset" is an underlying sustainable development principle aimed at ensuring that projects do not have a negative impact on the It is enshrined in the EU's biodiversity strategy (source: <https://fr.wikipedia.org/wiki/%C3%89viter-r%C3%A9duire-compenser>).
3. IUCN areas I to IV and Ramsar
4. IUCN areas I to II and Ramsar
5. Enhanced biodiversity in a defied zone in the wake of human intervention can constitute a "net biodiversity gain".
6. Inspired by the commitments made by Shell and the ICMM (International Council on Mining & Metals) in the early 2000s
7. Such as the Wildlife Conservation Society (WCS).
8. Long Term Approach to [Biodiversity] Mainstreaming (LTAM)