Biodiversity Strategy

This strategy guides OX2 in how to enhance biodiversity in its renewable energy projects and how to ensure progress towards our target to develop solar and wind farms with net positive impact on biodiversity by 2030. Enhancing biodiversity refers to both remediating negative impacts and finding ways to contribute to nature's recovery.

The strategy encompasses three goal areas:

- Follow the mitigation hierarchy
- Create awareness, credibility and transparency
- Collaborate for knowledge, action and impact

Cover image
As part of developing the Möckelö Energy Park we are testing wooden structures, as an alternative to steel, and different kinds of soils to investigate different conditions for the local fauna and flora.

Table of contents

Biodiversity – a prerequisite for sustainable development

The world is experiencing interconnected challenges that are threatening the current and future generation's ability to thrive. The universal agenda to achieve a sustainable future, the 2030 Agenda, provides the foundation for a holistic approach to address the global challenges we face today. Biodiversity is a key component of the 2030 agenda, reflected in several goals and associated targets[1]. Actions contributing to enhanced biodiversity therefore contribute to sustainable development.

The 17 Sustainable Development Goals defined by the 2030 Agenda.

[1] Convention of Biological Diversity, Biodiversity and the 2030 Agenda for Sustainable Development Technical Note

On Björkskär, a small island in the Åland archipelago in the middle of the Baltic Sea, OX2 are developing and testing methods to increase biodiversity in relation to offshore wind. The desired outcomes of this work is to find ways to attract key species, protect endangered species, and combine large-scale seaweed farming with offshore structures.

In line with science and international frameworks

Science is clear: climate change and biodiversity loss are two intrinsically linked global crises that must be addressed jointly.

A changing climate exacerbates biodiversity loss, as habitats are lost and degraded due to warmer temperatures and its effects, and biodiversity loss intensifies climate change by weakening nature's ability to absorb and store carbon. This means that to overcome one of these challenges, we must overcome both.

Renewable energy enables the avoidance of greenhouse gas emissions stemming from fossil sources of energy. Therefore, the expansion of renewable energy is required to mitigate climate change[2]. Considering the interconnectedness of climate change and biodiversity loss, renewable energy must not come at the expense of nature.

The Paris Agreements and the Kunming-Montreal Agreement provide the framework for how humanity is to overcome climate change and biodiversity loss. OX2's approach is to act in line with these international agreements and the science in which they are anchored.

Climate action in line with the Paris Agreement

The average increase of global surface temperature, climate change, is a result of human activities. The drivers of climate change could be described within two categories:

- Increasing emissions
- Reducing sinks

As defined by the Paris Agreement, the global goal is to limit climate change to 1.5°C above pre-industrial levels. It stresses the need to reduce greenhouse gas emissions and the need to conserve and enhance sinks.

The heating stripes (top right) visualizes climate change. The colors, blue and red, represents the global average temperatures between 1850 and 2024[3].

Enhancing nature in line the Kunming-Montreal Agreement

The loss of diversity of and within living organisms, biodiversity loss, is a result of human use of and interactions with nature. The main drivers of biodiversity loss are [4]:

- Change in land and sea use
- Direct exploitation of natural resources
- Pollution
- Climate change
- Invasive alien species

As defined by the Kunming-Montreal Agreement, the global goal is to reverse biodiversity loss and restore nature. It consists of the vision to reverse biodiversity loss by 2030 from a 2020 baseline and the mission to restore harmony with nature by 2050.

Frameworks

Frameworks guides us in how to act in line with science. The following frameworks influence OX2's biodiversity strategy:

- Global Biodiversity Framework (GBF))
- Task Force on Nature-related Financial Disclosures (TNFD)
- Business for Nature's ACT-D (Assess, Commit, Transform and Disclose)
- Science Based Targets for Nature's AR3T (Avoid, Reduce, Restore, Regenerate and Transform)

The frameworks work together to support an ambitious, effective, and transparent approach to biodiversity, with the potential for far-reaching impacts on nature.

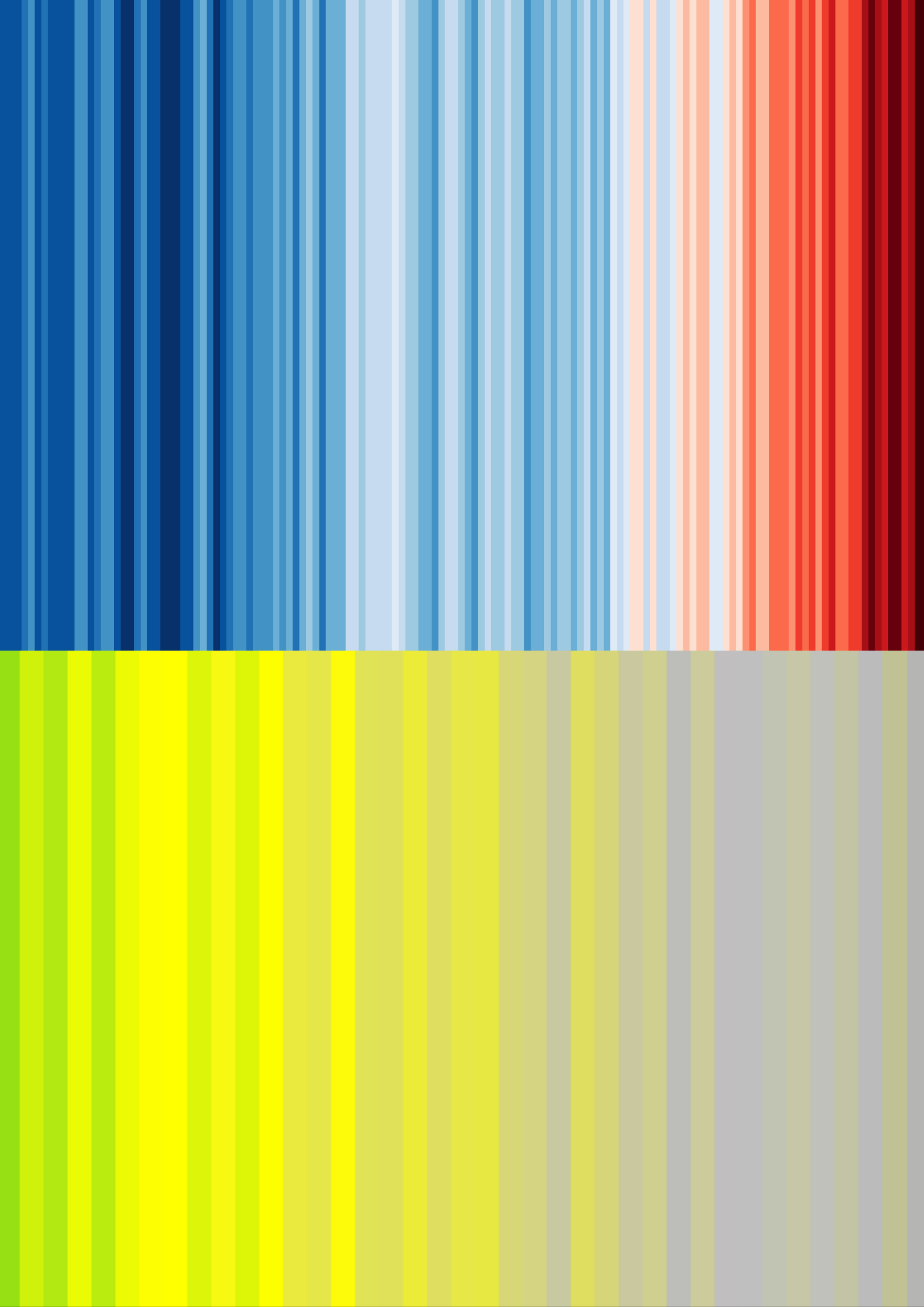
The biodiversity stripes (bottom right) visualizes biodiversity loss. The colors, green, yellow and grey, represents the Living Planet Index between 1970-2020[5].

[2] Intergovernmental Panel on Climate Change (IPCC)

[3] Note that some earlier years are not visible due to cropping. Source: Ed Hawkins, University of Reading.

[4] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)

[5] Note that some earlier years are not visible due to cropping. Link: https//biodiversitystripes.info/global



Develop solar and wind farms with a net positive impact on biodiversity by 2030

OX2 aims to develop solar and wind farms with a net positive impact on biodiversity by 2030, contributing to a nature positive future. This means that nature is in a better condition with our projects than without.

The global ambition is to halt and reverse biodiversity loss by 2030, with 2020 as a reference, and achieve full recovery by 2050. Our target, to develop solar and wind farms with a net positive impact on biodiversity by 2030, is our way of contributing to the joint global vision of living in harmony with nature.

When projects within scope are commissioned, methods are used to determine whether the project has residual impacts, has achieved no net loss, or has a net positive impact on biodiversity. The target is for all solar and wind farms to deliver a net positive impact on biodiversity. Metrics used–regardless of the methodology applied–serve as proxies for biodiversity and indicate progress toward the target.

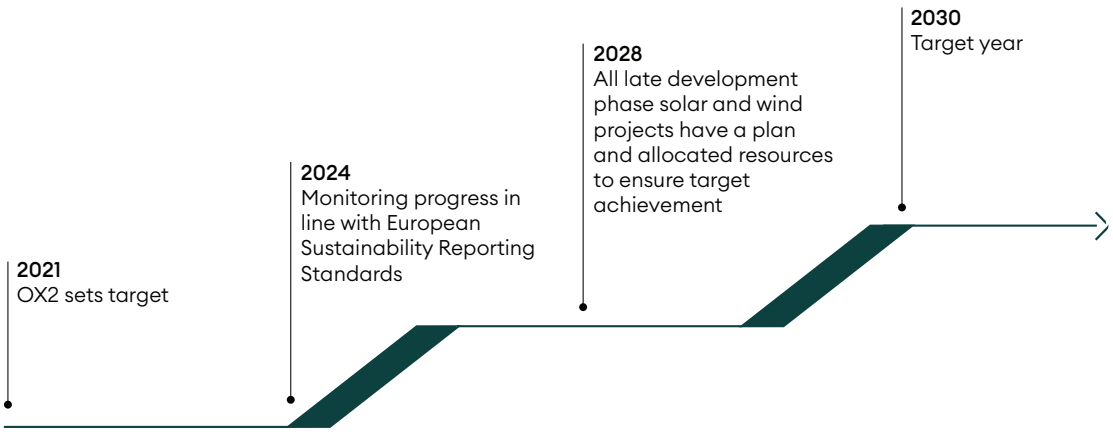
OX2's journey towards achieving its target is characterized by collaboration, responsibility, and exploration. Target milestones support progress monitoring and resource allocation. These milestones are based on the time required to develop a project.

The scope of our target is based on a materiality assessment, where the significance of impacts associated with solar and wind farms are assessed, as well as how we can influence the impact.

The scope of the target:

- Geographical: All markets where OX2 operates
- Product: Projects rights or turnkey solar and wind farms
- Standardization: Externally developed methodology is required
- Spatial: Within and in the proximity to our physical project sites
- Causality: We only account for the impacts attributable to the solar or wind farms
- Temporal: The baseline represents the project area before the project and result is determined when OX2 sells or commissions the project
- Monitoring: Respective projects' monitoring plan defines monitoring activities, but there is no guarantee of desired and anticipated effects
- Verification: External verification is encouraged but not required
- Funding: Target achievement must not depend on external funding
- Control: Projects where OX2 is the developer, holds the control, and has full ownership

Full definition can be found in the Appendix.



In connection with OX2's construction of the Klevberget wind farm in Ånge municipality in Sweden, OX2 has taken the initiative to increase the biodiversity by re-establishing the freshwater pearl mussel.

Goal area 1: Follow the mitigation hierarchy

Following the mitigation hierarchy implies working with remediating negative impacts on nature and contributing to enhancing biodiversity values in the area.

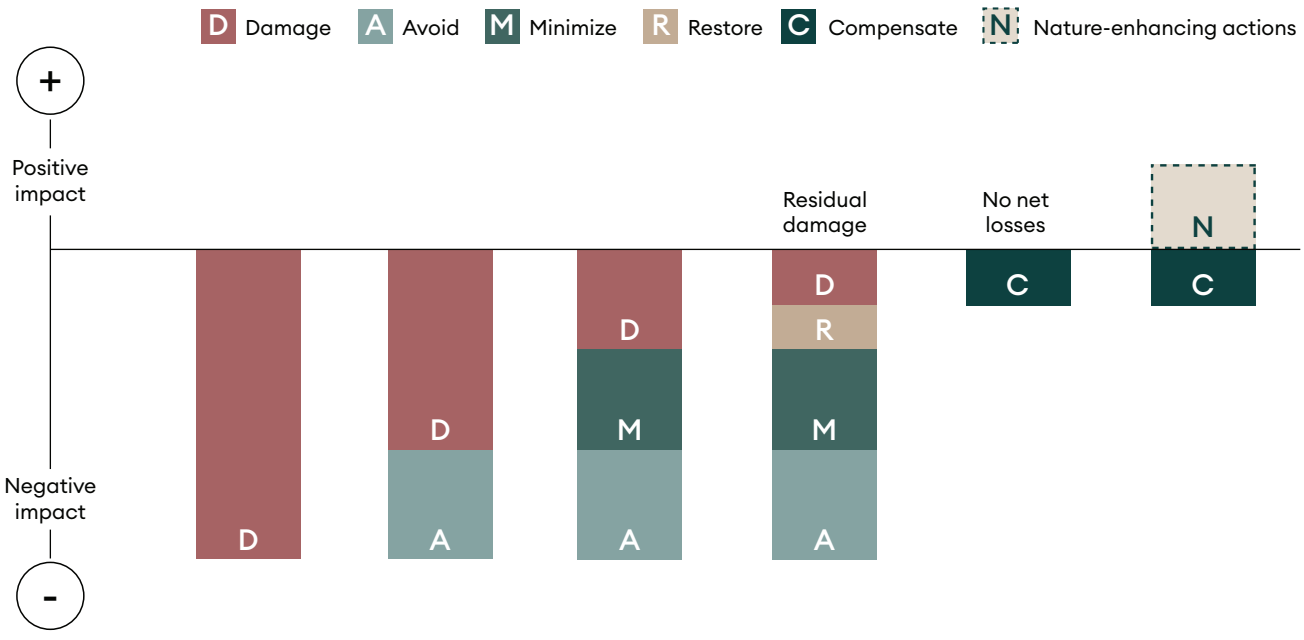
The guiding principle in any renewable energy project development is the mitigation hierarchy. This means that in addition to avoiding, minimizing, and restoring impacts on nature, we shall also compensate for negative impacts on biodiversity values. To contribute to nature's recovery, OX2 intends to go beyond the mitigation hierarchy by enhancing nature through biodiversity initiatives.

To meet our target to develop solar and wind farms with a net positive impact on biodiversity by 2030, the damage must be quantified and the mitigation hierarchy steps must be proportionally applied. Following the mitigation hierarchy may imply identifying and implementing additional biodiversity measures beyond what is required of OX2 as defined by environmental permit, land/sea agreement and legislation.

The mitigation hierarchy steps:

- Ensure that all projects undergo adequate nature assessments and inventories to define a **baseline**.
- Select suitable project locations, **avoiding** biodiversity-sensitive areas and biodiversity values.
- Consciously plan and design the project considering layout, design, and scheduling to **minimize** negative impacts on biodiversity.
- **Restore** temporary negative impacts on biodiversity.
- Consider how lost or weakened biodiversity values can be **compensated** in the ecosystem, within or in the proximity of the project site.
- Implement **nature-enhancing** measures beyond the mitigation hierarchy.

The mitigation hierarchy



In connection with OX2's construction of the Karskruv wind farm in Uppvidinge municipality in Sweden, OX2 has taken the initiative to increase the biodiversity by restoring natural pastures.

Goal area 2: Create awareness, credibility and transparency

Understanding what biodiversity is and how our business interacts with nature is key to improving and scaling our biodiversity efforts.

We strive to raise awareness of biodiversity within the company and among our stakeholders. This is essential for implementing our strategy and contributing to broader societal change.

Recognized frameworks and storytelling complement each other and support meaningful action for nature. Through our biodiversity reporting and communication, we disclose the initiatives we conduct in our projects and how they relate to the broader topic of nature.

What is measured matters, which is why we aim to choose methods and metrics based on purpose. Metrics indicate impact and change over time, while storytelling provides context.

On a project level, the focus lies on the impacts, which includes both the impact our projects have on nature and the effects of our biodiversity initiatives. On a corporate level, the focus lies on action and progress toward our target.

Using wood from felled trees from the Wysoka wind farm in Poland, a local carpenter constructed huts for birds, hedgehogs and bats, that were used in awareness campaigns focusing on biodiversity.

Goal area 3: Collaborate for knowledge, action and impact

Reversing biodiversity loss and restoring nature is bigger than us and our business. Partnerships enable us to achieve more together than we can separately

The more we know about nature and the interaction between renewable energy and biodiversity, the better we can integrate it into our projects. We encourage and, where possible, contribute to research – but not at the expense of action. When suitable, we will share data from investigations and studies for research.

Collaborating with others is key to accelerating action and impact. It involves both identifying initiatives that can be scaled and achieving synergies.

On a market or regional level we focus on collaborations that benefit multiple projects within that area, addressing local nature and biodiversity challenges.

On a project level we focus on how to safeguard, enhance, and revive biodiversity values locally and how the ecosystem services associated with these values benefit the local community. Biodiversity is site-specific, which is why local knowledge is essential for the success of biodiversity activities.

By participating in research looking into management methods, effective synergies between biodiversity and carbon sequestration can be scaled across projects in agricultural landcapes.

Revision of biodiversity strategy and target

Revision index	Description	Date
0	First issue based on the Science Based Targets for Nature's initial guidance for businesses and the global goal for nature as defined by the Nature Positive Initiative.	2021
1	Revision to align with new standards and frameworks (Global Biodiversity Framework, the first three steps (out of five) of the SBTN along with implementation guidance, the Task Force on Nature-related Financial Disclosures, the Corporate Sustainability Reporting Directive (CSRD) and European Sustainability Reporting Standards (ESRS).	2024
2	Revision to adapt terminology to common practice and new business model. Simplifications are made to enable wider understanding.	2025

Felled trees in Riberget wind farm in Sweden create habitats for insects, which are valueable for the ecosystem.

Appendix

Glossary

OX2 adheres to established definitions of terms relating to biodiversity. Terms listed in the glossary are defined by the ESRS (Directive 2022/2464) Annex 2, Acronyms and glossary of terms, if not stated otherwise.

Biodiversity: The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part. This includes variation in genetic, phenotypic, phylogenetic, and functional attributes, as well as changes in abundance and distribution over time and space within and among species, biological communities and ecosystems.

Biodiversity net gain: Same meaning as 'net positive impact on biodiversity'. Often referred to as BNG.

Ecosystem services: The contributions of ecosystems to the benefits that are used in economic and other human activity, respectively the benefits people obtain from ecosystems. In the Millennium Ecosystem Assessment, ecosystem services can be divided into supporting, regulating, provisioning and cultural. The Common International Classification of Ecosystem Services (CICES) classifies types of ecosystems services.

Impacts: The effect the undertaking has or could have on the environment and people, including effects on their human rights, connected with its own operations and upstream and downstream value chain, including through its products and services, as well as through its business relationships. The impacts can be actual or potential, negative or positive, intended or unintended, and reversible or irreversible. They can arise over the short-, medium-, or long-term. Impacts indicate the undertaking's contribution, negative or positive, to sustainable development.

Nature-positive: Nature Positive is a global societal goal defined as 'Halt and Reverse Nature Loss by 2030 on a 2020 baseline, and achieve full recovery by 2050'. To put this more simply, it means ensuring more nature in the world in 2030 than in 2020 and continued recovery after that. (Nature Positive Initiative)

Net positive impact on biodiversity: Where the negative impacts on biodiversity caused by the project are outweighed by measures with positive impact on biodiversity. Essentially this is no net loss with further enhancing measures. Often abbreviated at NPI.

No net loss: The impacts on biodiversity caused by the project are balanced by measures taken to avoid and minimise the project's impacts, to undertake on-site restoration and finally to offset the residual impacts, so that no loss remains. (IUCN Review Protocol for Biodiversity Net Gain)

Sustainable development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (Our Common Future/Brundtland Report, 1987)

Frameworks

Frameworks focusing on biodiversity overlap and complement each other. Below is an overview of how frameworks are reflected in the biodiversity strategy goal areas.

Biodiversity strategy goal areas	Frameworks			
	AR3T	ACT-D	TNFD	GBF
1: Follow the mitigation hierarchy				
2: Create awareness, credibility and transparency				
3: Collaboration for knowledge, action and impac6t				

Scale:

- Strong – our goal area is a clear connection to our way of adhering to the framework
- Medium – noticeable links between the framework and the work encompassed by the goal area
- Weak – to a certain extent the framework encompasses the work we do in that goal area

Impact and influence

The strategy focuses on managing the impacts over which we have direct control, while contributing to change at a systemic level. This means that we consider impacts that occur throughout our value chain, and value chain-adjacent areas, but acknowledge that our approach must adapt to our influence.

Direct operations

Direct operations include OX2's business, encompassing what technologies are applied in our projects and what projects are developed. The scope of OX2's projects is defined by the project area, contracts, and permits. Engagement with the local community also influences how OX2 approaches activities within its projects.

- **Stakeholders:** employees, contractors, sub-contractors, landowners, and local community
- **Governance:** strategy, project steering model, and policies

Value chain and value chain-adjacent areas

The value chain includes our upstream and downstream activities. Within the value chain, OX2 must adapt to what suppliers can provide and what customers demand. OX2 influences value chain activities through one-to-one stakeholder dialogues with suppliers and customers, as well as through criteria and options.

- **Stakeholders:** suppliers, sub-suppliers, potential suppliers, customers, and potential customers
- **Governance:** due diligence, supplier criteria, customer selection and review process, and terms for technical and commercial management

System

System refers to the most far-reaching impact that a company can have, where the company in question has the least amount of influence. For OX2, system refers to the energy system and everything that comes with it.

- **Stakeholders:** investors, industry organizations, researchers, and energy consumers (e.g., industrial activities and transportation)
- **Governance:** industry organization and forums

Scope of target to develop solar and wind farms with a net positive impact on biodiversity

Geographical: All markets that OX2 operates in are within the scope of the target. This means that solar and wind farms developed within OX2's geographical presence in 2030, are to have a net positive impact on biodiversity.

Product: All developed solar and wind farms, with or without construction included, are within the scope of the target. Projects can be owned by OX2 or sold in the form of turnkey projects or project rights. When OX2 constructs grid beyond the project area to enable grid connection for OX2's wind and solar farms, it is outside of the target scope. Technical and commercial management services provided by OX2 include monitoring and management of biodiversity activities as defined by the monitoring plan but are not responsible for the impacts of implemented biodiversity activities. OX2's technical and commercial management are not responsible for implementing biodiversity activities in solar and wind farms already in operation, developed prior to target year 2030, but have the possibility to identify and implement biodiversity activities in older projects if requested and financed by the owner. For more information about OX2's technical and commercial management, see the heading 'temporal scope'.

Standardization: All solar and wind farms require a methodology to identify and measure biodiversity values and impacts to work towards and showcase target achievement. We do not require a specific method as we see a variety of methods utilized in different markets and technologies. We do, however, encourage harmonization between markets and technologies.

Spatial: The activities associated with our projects occur within our project area, as defined by our land/sea agreements and permits. Implemented compensation measures and nature-enhancing measures, however, may occur outside of the project area. We do not limit how far away from the project site that these measures can be since this is highly dependent on the ecological system. This, however, can vary between methodologies, which would then apply for those projects using that method. Some methodologies limit distance or take the distance into account by weighing impact. We strive to adapt the distance relevant for the local ecosystem and that the biodiversity activities are noticeable for the local community.

Causality: In the solar and wind farms that we develop, we only account for the impacts associated with the solar and wind farm. We do, however, recognize that biodiversity values in the project area evolves over time – for the better or for worse – regardless of the establishment of our projects.

Temporal: The target refers to the development of solar and wind farms with a net positive impact on biodiversity and is therefore measured when the development is completed. For turnkey projects we assess impacts on biodiversity when the project is commissioned, and then include all impacts associated with that project – past, present, and future. For project rights (ready to build) we assess anticipated impacts based on planned activities when the project is handed over to the customer. Projects rights that require further development by another actor fall outside of the project scope.

Monitoring: How we monitor the effects is steered by the monitoring plan for respective project. Any requirements relating to how the impacts on biodiversity measures are monitored as defined by the methodology used is to be included in the monitoring plan. We strive to ensure a proper handover of the projects, including management plan for biodiversity, but cannot guarantee the desired and anticipated effects.

Verification: We encourage external recognition and verification of the biodiversity measures we do in our projects to achieve a net positive impact on biodiversity, but do not require this. We believe that this is most likely defined by the chosen method (see standardization).

Funding: We do not define what kind of funding is allowed to implement biodiversity measures in our projects. Target achievement, however, is not to be dependent on external funding. We see that external funding has a role within biodiversity measures, in particular public funding as a driver for research. We are also open to partaking in multi-stakeholder projects that are fully or partly publicly funded to scale biodiversity our biodiversity efforts.

Control: Projects where OX2 is the developer, holds the control, and has full ownership.

Impact on biodiversity values that are not included in our target are still applicable for the biodiversity strategy and could be included in other ways, for example through due diligence.

Materiality assessment

The biodiversity strategy and target to develop solar and wind farms with a net positive impact on biodiversity is based on several underlying reports and assessments.

- Proposal for a strategy that OX2 can implement in their wind power projects to increase biodiversity and climate benefit (Ecogain, 2021) [Internal]
- Value chain environmental risk assessments for wind, solar, and batteries (Trossa, 2021) [Internal]
- ENCORE explore tool focusing on solar energy and wind energy provision (retrieved 2024)
- WBCSD Roadmap to Nature Positive: Foundations for the energy system (2023) focusing on renewable energy production (retrieved 2024)
- SBTN pilot project with Swedish Wind Association and Trossa focusing on onshore wind in Sweden (2024)
- High impact commodity list (HICL) (SBTN, 2023)
- TNFD additional sector guidance: Electric utilities and power generators (2024)

Impacts in the supply chain consider what materials are used in our technologies, where they are generally sourced and refined (based on percentage by mass in 2022), as well as the state of nature in those areas. Direct and downstream impact is project-specific and therefore varies between technology and location. Impacts on the project sites (direct and downstream) are the assessed residual impacts considering policies and processes as of 2024. The materiality assessment is to be updated with increased knowledge and technological development.

Impacts of the identified value chain stages for wind, solar and energy storage[1]

IPBES driver of change	Impact drivers	Mining[2]	Supply chain[2]	Construction	Operation	Decommissioning
Land-/water-/sea-use change	Terrestrial ecosystem use	VH	M	M/L[4]	L[4]	M/L[4]
	Freshwater ecosystem use	H	M	L	L	L
	Marine ecosystem use	H	M	M/L[3]	L[3]	M/L[3]
Resource exploatation	Water use	VH	H	M/L	L	L
Climate change	GHG emissions	H	VH	M/L	L	M/L
Pollution	Non-GHG air pollutants	H	M	ND	ND	ND
	Soil and water pollutants	H	H	L	L	L
	Solid waste	H	M	L	L	H/M/L
Invasive species and others	Disturbances (e.g noise)	H	M	M/L	L	M/L
	Biologicla alterations/in-teferences	M	L	M/L	L	M/L

1. Data derives from ENCORE impact assessment for solar and wind provision, applied to OX2's business.
2. Assessment refers to the entire utilities sector and therefore includes mining of coal and consumable fuels.
3. Applies to offshore only.
4. Only applies to onshore technologies for direct and downstream impact.
5. Applies to onshore only.

Scale

- VH = Very high
- H = High
- M = Medium
- L = Low

Timeframe for impacts is based on projects phases:

- Short term: 0-1 years
- Medium-term: 1-3 years
- Long-term: 3-45 years

Dependencies

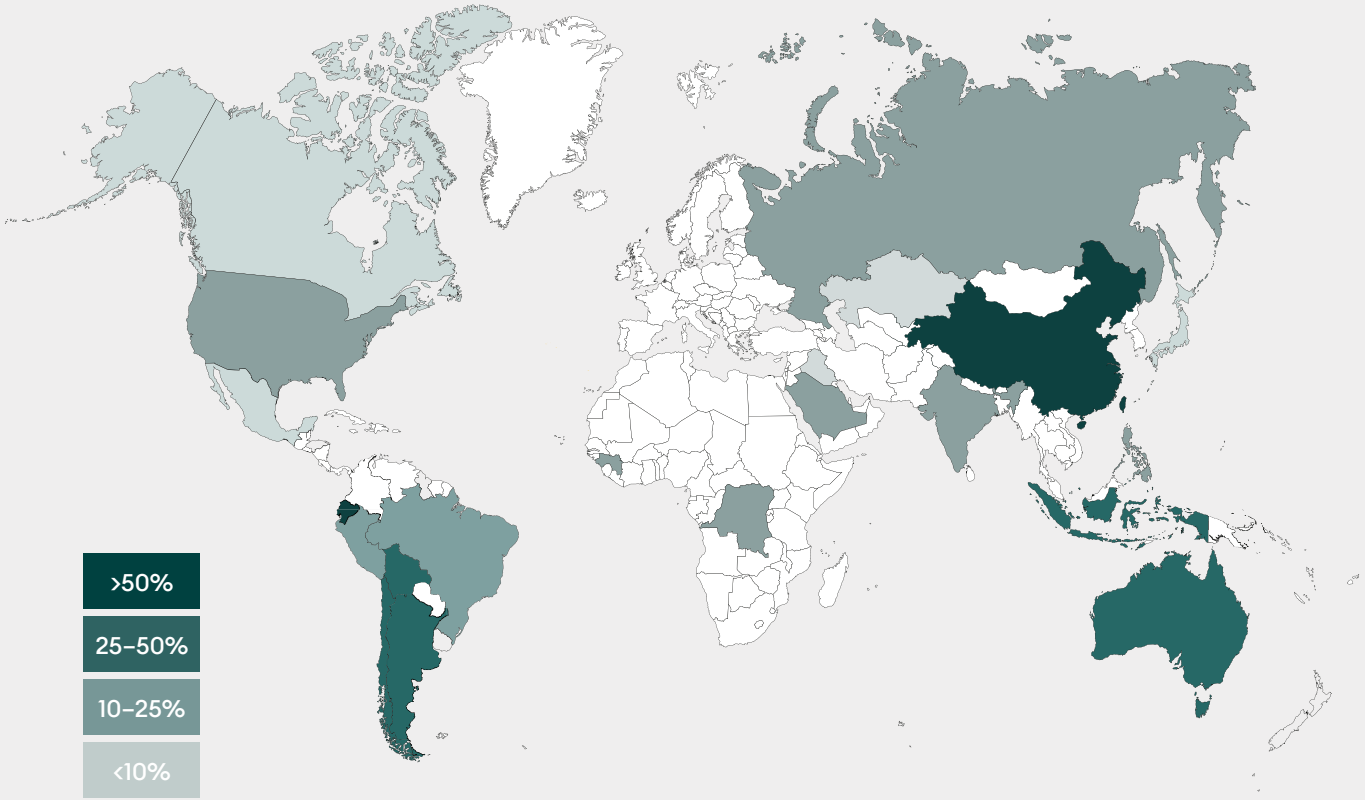
The technologies that OX2 works with are dependent on ecosystem services in various ways. Biodiversity loss and its impact on ecosystem services isntherefore a risk. Risk is managed by examining dependencies on ecosystem services and considering the condition of ecosystems in project development.

The summary of renewable energy's dependence on ecosystem services presented in the following table is based on an assessment made using the ENCORE tool (Exploring Natural Capital Opportunities, Risks and Exposure) which encompasses wind- and solar power.

Ecosystem service	Why significant for renewable energy
Access to groundwater and surface water	Groundwater and surface water are required during various project phases, for example in order to cast the concrete foundations for wind turbines, to clean solar panels and to water access roads so as to prevent dust.
Climate regulation	Climate regulation is important for managing physical climate risks such as ice formation and heat loss.
Flood protection	Flooding can damage the technology or make it inaccessible for maintenance and repair.
Soil stabilization and erosion prevention	Unstable soil and erosion can damage the technology or make it inaccessible for maintenance and repair.

Source of materials

The probable origin of materials used in our technologies (wind, photovoltaic and batteries) are marked on the map. The color used refers to the percentage by mass of respective material's sourcing or refinery location in the year 2022. The materials assessed are those on the HICL where steel, aluminum, copper, zinc, wood, gold, crude oil, lithium, and nickel are included, and bauxite, cement, and LNG are excluded. Note that some countries may be the source of several materials, which cannot be noted from the visualization.



OX2 AB
Lilla Nygatan 1
Box 2299
103 17 Stockholm

08 559 310 00
info@OX2.com

OX2.com