Rio Tinto

The Jadar Project
Biodiversity factsheet

The impacts of climate change and biodiversity loss pose significant threat to people and the environment Rio Tinto recognises our responsibility to effectively mitigate the impact of our operations on nature and we are mindful of ensuring healthy ecosystems in the communities where we operate. Our goal is to protect and restore biodiversity with the ambition of achieving No Net Loss (NNL). This means effectively predicting and mitigating the negative impacts of our activities on biodiversity through avoiding, minimising, and restoring impacts to flora and fauna.

Biodiversity Management Standards

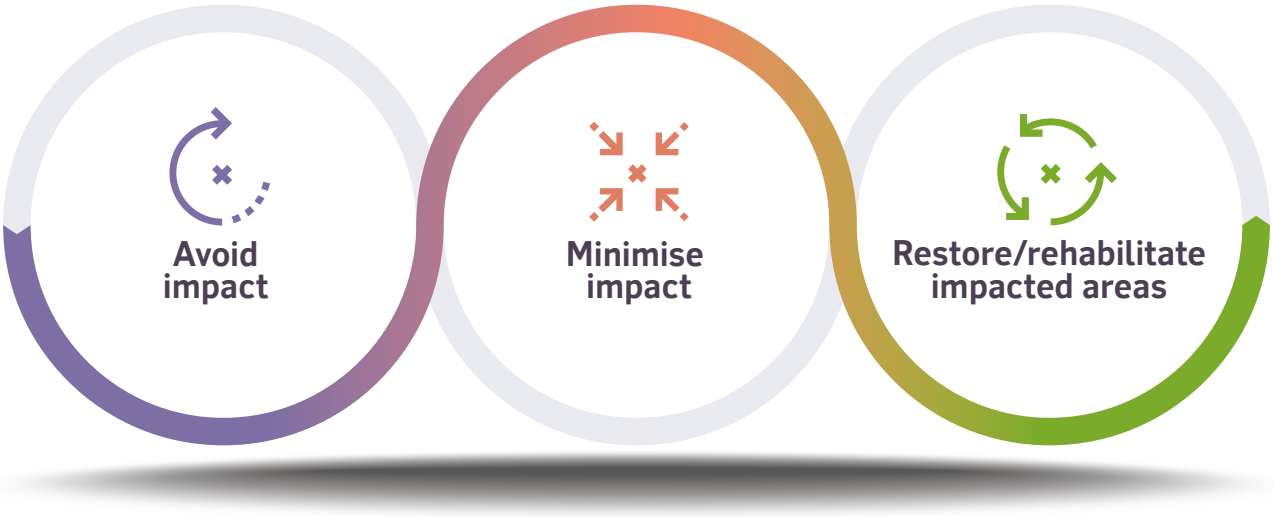
- The Jadar Project would be designed to meet European Union environmental principles, practices, and standards. If country regulations differ from the European environmental standards, the project designs would be developed to meet the more stringent requirements.
- There is an obligation for projects to assess and manage risks caused by climate change and to implement climate mitigation measures.
- Projects must include actions to safeguard and, where feasible, enhance ecosystems and the biodiversity they support to achieve no net loss of biodiversity, and to sustainably manage and use natural resources.
- Projects must demonstrate commitment to the principles of transparency, accountability, and stakeholder engagement and are required to comply with the applicable requirements of national laws concerning public information and consultation.

During development and operation, the Jadar Project would be strictly governed by Serbia's nature protection laws and regulations, as well as internal Rio Tinto standards, which are aligned to industry good practice, and benchmarks set by independent organisations, such as the European Bank of Reconstruction and Development (EBRD). The standards set by the EBRD, on specific requirements, exceed Serbian laws and legislation.

How Rio Tinto approaches biodiversity
Mitigation hierarchy

Mitigation hierarchy is a set of sequential steps to moderate the impact of developments on biodiversity. It forms the foundations of International Finance Corporation Standard (Performance Standard 6 (PS6)).

The PS6 standard recognises that conserving biodiversity, maintaining ecosystem services, and managing living natural resources adequately are fundamental to sustainable development. It is also designed to help development projects prepare for impacts and achieve an outcome of No Net Loss to biodiversity.



Avoid impact → Minimise impact → Restore/ rehabilitate impacted areas

In some cases, even after following these three steps, there is still residual impacts. In these cases, and only after all other steps in the mitigation hierarchy have been fully exhausted, can projects implement what are known as offsets, which reduce the residual impact to zero and achieve No Net Loss of biodiversity.

Biodiversity Offsets

Offsets are considered a last resort and require special approval within Rio Tinto. They are defined as "measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development after appropriate prevention and mitigation measures have been taken" (UN Environment Programme – World Conservation Monitoring Centre, 2022).

The Jadar Project would adhere to the mitigation hierarchy, as well as the conditions issued by the Institute for Nature Protection of Serbia. All activities are and will be in accordance with the law on nature protection of Serbia and the internal Rio Tinto standard governing biodiversity (E-16) and restoration/ rehabilitation (E-14). Active involvement of environmental professionals in all the stages of project development is prescribed under E-16, which aligns with Serbian legislation.

Dedicated to No Net Loss

The Jadar Project would be committed to achieving No Net Loss throughout the mine life-cycle. Significant funding has been committed for research into enhancing or creating alternative habitats for any species that are displaced by the project and prioritised for protection. Preliminary estimates indicate this measure may be needed for some rare and strictly protected species from Štavice Valley. Implementing the goal of No Net Loss would be undertaken in collaboration with environmental consultants and where necessary, subject matter experts. For example, early estimates indicate a total of 145 hectares of forest would be removed for the Jadar Project. According to the regulation on compensatory measures, 300 hectares of new forest plantations would be planted, ensuring a sustainable and high-quality forest ecosystem. Our aim is to form a committee of independent international civil society and academic experts, alongside Serbian specialists, and institutions, to inform the environmental management of the Jadar Project.

Hoopoe, (Upupa epops), Štavice valley.

Jadar Project Site Summary

The Jadar Project's underground mine access and process plant area would cover a total of 220 hectares. Including the development of the Štavice Valley residue disposal site, Jadar's total project area would reach 390 hectares over the life of mine. More than 80% percent the Jadar Project's 220-hectare site consists of agricultural crop land, among hedgerows, and isolated patches of deciduous and woodland alongside waterways. The proposed project area is inhabited by a variety of flora and fauna that are common in the Jadar Valley area. The area supports a moderately moist/wet habitat, typical in Serbia's sub-mountain regions. The area is not a protected natural site.

No endemic species in Jadar Project area

No endemic species have been registered in the Jadar Project area and 98% of all currently identified species belong to the least concern (LC) category of the International Union for Conservation of Nature (IUCN) Red List of Threatened Species. Least Concern species are those that have a stable population and are not Endangered, Threatened or Near Threatened. About 2% of species that are categorized at a higher status would be protected to avoid further impact on populations and a possible change in their ecological status.

What Rio Tinto has done so far to assess biodiversity

Two major independent studies on biodiversity have been completed over the last five years. The findings from those two studies would be used in the Jadar Project's Environment Impact Assessment's (EIA's). The first biodiversity study was completed by an international environmental resources management company, from 2016 to 2020. Four continuous seasons of field work were carried out by a research team of local and international biodiversity experts, focusing on aquatic and terrestrial ecosystems. The study assessed the project and surrounding area, identifying species, creating an inventory of invertebrates, amphibians, reptiles, birds, mammals and flora in the Jadar Valley.

The second biodiversity study was completed in 2020 by a consortium from several local institutes and faculties from Serbia. These studies investigated the different habitats in the project area, understanding the impacts, and identifying plants and further studying species that may require additional management.

Pioneering methods
eDNA

Environmental DNA (eDNA) is a sampling and analysis technique that determines whether there is any DNA from specific aquatic animals present in a water body. This method allows a non-invasive approach to evaluating the presence of certain species, comparing the DNA found to known verified DNA samples of specific species. This technique can also be utilised in terrestrial environments.

In 2018, eDNA water samples were collected to identify species of crayfish and fish that are present in watercourses, potentially connected to the project. In September 2020 this study was repeated and expanded to identify vertebrate and crayfish species in watercourses, linked to the revised project design.

Land visual impact assessment (LVIA)

Another study that includes aspects of biodiversity protection is the Land Visual Impact Assessment (LVIA) study, which is the first known study of its kind for an industrial complex in Serbia. This study would assess the impact of potential visual amenity, biodiversity and landscape changes, on nearby communities, informing management measures.

Environmental Lighting Impact Assessment (ELIA)

An Environmental Lighting Impact Assessment (ELIA) would assess the impact of lighting from the proposed operation. This study would inform management measures, to limit potential lighting impacts on the surrounding community, local nocturnal birds, bats, and insects. When conducting experiments, biologists will use remote monitoring techniques and tagging devices, to identify areas that require light management.

Monitor & report on biodiversity

The Jadar Project would establish community-based monitoring either through a dedicated program or through open-access biodiversity data. The intent of these initiatives would be to encourage community involvement in biodiversity monitoring initiatives and support the awareness of biodiversity and environmental value in the community.

Marsh frog (Pelophylax ridibundus), project area.

Muška paprat (Dryopteris borreri), dolina Štavice

Ongoing monitoring

Ongoing monitoring would aim to record changes in the Jadar Valley's biodiversity, before, during and after project closure. Diagnostic species (bioindicators) would be monitored across a range geographical locations. This information would inform adaptive management measures and how to close the site, at the end of the operation, in a sustainable way.

Significant changes to the design of operations, would be subject to an environmental risk assessment, additional stakeholder consultation, the requirements of Serbian nature protection laws and EBRD requirements.

The results of the above studies would be published in compliance with Serbian regulations.

What Rio Tinto proposes to do in the future

Managing Jadar environmental footprint

We understand the potential impacts to biodiversity beyond our project footprint. To mitigate those impacts, we would undertake the following initiatives:

- Contributing to protecting nationally-recorgnised sites and reserves close to the project footprint, and assisting to restore and improve areas with significant biodiversity value, offsetting the impacts of our project within the operating area.
- Restoring and improving critical flora and fauna habitats.
- Contributing to improving the ecological health of bees and wild pollinators in the Jadar Valley and surrounds.

Rio Tinto

Jadar Project

The Jadar Project in Serbia is one of the largest greenfield lithium projects in the world. Jadar has the potential to produce battery-grade lithium carbonate, a critical mineral used in batteries for electric vehicles and storing renewable energy. In addition, Jadar would produce borates, which are needed for the development of renewable energy equipment such as solar panels and wind turbines.

For more information, please contact:

Rio Sava Exploration d.o.o.

Navigator 2
Bulevar Milutina Milankovića 1i
11070 Beograd
Srbija
T: (+381) 11 4041 430

Rio Tinto Informational Centre

Gimnazijska 4
15300 Loznica
Srbija
T: (+381) 15 872 834

Rio Tinto Informational Centre

Stevana Sinđelića 9
15309 Brezjak
Srbija
T: (+381) 15 610 223

riotinto.com/jadar | riotintoserbia.com | facebook.com/JadarProjekat