



# **KNAUF**

## **Progress Report Knauf for "Biodiversity in Good Company"**

*Proof of continuous efforts to promote biodiversity 2023/24*

**Build on us.**

## 1. Environmental impacts by the company and dependence on biodiversity

The Global Assessment Report on Biodiversity and Ecosystem Services (IPBES) effectively shows that land-use change in particular seems to be one of the most impactful drivers of biodiversity loss. Such changes are caused by agriculture, urbanization, and infrastructure development, as well as by mining activities. Especially mining can negatively affect specific biodiversity hotspots and – especially outside of Europe – cause massive damage to the environment. A typical example would be gold mining in the Amazon, which affects only a relatively small area yet can cause massive environmental destruction. In regions where there is still intact wilderness, mining can also function as a precursor to harmful subsequent use like deforestation and unsustainable agricultural and forestry practices.

The extraction of gypsum is hardly comparable to other mining processes for ores and fossil fuels, as gypsum quarries are palpably smaller and do not rely on using dangerous chemicals. Still, as with other mining projects, gypsum quarries can cause significant environmental damage at the sites where the ground must be disturbed. Thus, it is essential to exactly know the local flora and fauna and based on this knowledge, to implement preventive measures and minimize the impact on nature. For this, biotypes must be monitored, and endangered species need to be taken into account. Being extremely valuable or rare, some habitats need to be excluded from mining, while the impact on neighbouring habitats around mining areas has to be reduced to a minimum. By realistically ecologically restoring the mining area after the gypsum has been extracted, mining can even benefit nature in the long run. To achieve such a benefit, conflicts of interest have to be tackled early on and defused. Additionally, long-term care of anthropogenic ecosystems such as semi-dry grasslands and orchards poses a challenge itself.

In the course of implementing standards for the Corporate Sustainability Reporting Directive (CSRD), which also affects Knauf Gips KG, an extensive Double Materiality Assessment (DMA) has been carried out. Thus, both the negative and the positive impacts on the environment caused by gypsum mining, as well as the dependencies on the environment, have been assessed.

As a result, the impacts of mining activity on biodiversity and ecosystems have been classified as materially. Additionally, an indirect dependency of business activity on an intact environment has been identified. This dependency is based on nature and species conservation legislation, protected-area designations, and public opinion. Thus, Knauf Gips KG will report the impact of its raw material extraction on the environment in accordance with the EU standard ESRS E4.

## 2. Protection of biodiversity, their sustainable use as well as a fair distribution of the benefits resulting from using biodiversity

In order to fulfill the reporting obligations imposed by the EU and to support quarry managers in their work, a biodiversity database has been under development since 2023. Such a database makes it possible to collect data from mining areas worldwide and to provide our biodiversity experts with organized evaluations of these areas, enabling them to easily further process the data. Our goal is to create Biodiversity Management Plans (BMPs) for all quarries over the globe.

In addition, the analysis-tool Nala Earth ([Nala Earth | Nature & Biodiversity Management Platform for Business](#)) has been used to get a grasp of the environmental impacts of Knauf factories worldwide and identify factories with an especially high impact on nature (Fig 1.). These factories will be the focus of deeper analysis in the coming years and will receive management plans as well. Furthermore, an internal global standard for biodiversity management and restoration for quarries has been under development since 2024.

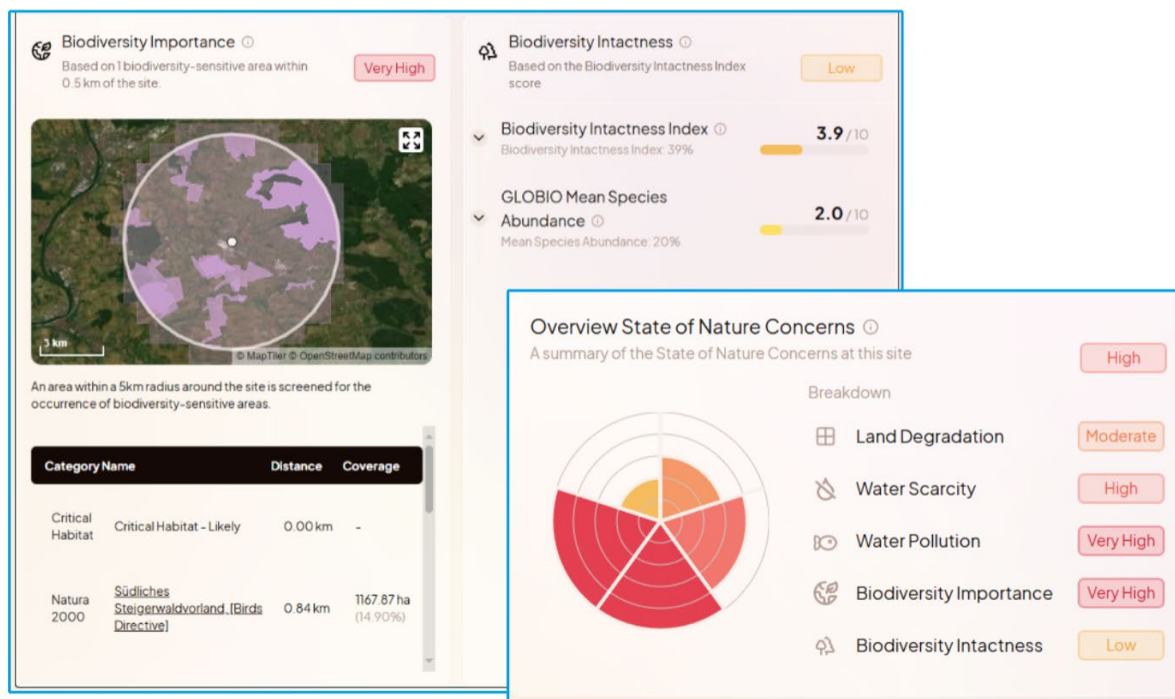


Figure 1: Example screenshots of the analysis-tool by Nala Earth.

### 3. Embedding biodiversity within a responsible department in the company

Originally, the topic of biodiversity was embedded in the department responsible for securing raw materials. In this department, a geologist with a special focus on nature conservation and biodiversity management has been working on the topic since 2013. From 2014 to 2015, this geologist received additional training in this field.

In 2021, corporate management decided to restructure the department. In 2022, a new Competence Center for Raw Materials (CCRM) was established. This competence center consists of the departments of Geology & Environment, Mining, Synthetic Gypsum & Logistics, as well as Analysis & Simulation. The topic of biodiversity management is now

part of the Geology & Environment department and has received support from a biologist since 2023. The tasks of this new employee include developing the biodiversity database, acquiring data, and supporting the quarry managers. Since 2024 a university student has been assisting the team.



#### ***Excursus: Eco-friendly factory premises***

In Uehrde (Lower Saxony) a new factory was built in 2023. In addition to a sustainable energy supply via solar panels on the roof and walls as well as above the carport, biodiversity has been taken into account as well. Surrounding the factory, grassland with native vegetation has been planted, bordered by hedges. A pond, deadwood piles and stone walls complement the grassland, thus creating a heterogeneous ecosystem.

#### 4. Verifiable and realistic goals for improving nature protection, which can be checked very two to three years and adjusted to challenges

As mentioned previously, Knauf's main focus in biodiversity lies in the implementation of a global biodiversity management framework. Especially considering CSRD reporting, the quality and quantity of the underlying data must be improved to better direct biodiversity efforts in the future. To this end, a digitization strategy must be implemented, as reflected in the biodiversity database.

In the context of creating an internal global standard for biodiversity management and restoration, goals have been set. Together with other companies under the umbrella of the industrial association Baustoff Steine-Erden (bbs), a scientific project was initiated in 2023 to identify the most useful indicators. The [final report](#) and [manual](#) were released in 2024 and will be incorporated into the internal standard.

An important part of nature conservation through ecological restoration in Europe is the implementation and standardization of nature conservation laws. Key concepts such as temporary habitats are necessary for the sustainable protection of biodiversity. As part of scientific projects and lobbying initiatives, Knauf is working to anchor temporary habitats in nature conservation law, especially through Section 54(10a). Nevertheless, despite major efforts and support from NGOs such as NABU and LBV, there is no progress in sight.



##### **Excursus:** **Successful Eurasian eagle-owl breeding**

The rock niches created in spring 2022 in the active Uehrde quarry (Lower Saxony) already led to breeding success the following year. In 2023, two Eurasian eagle-owl chicks were reared by the mother.

Going forward, successful raccoon management will likely be crucial, as observations show that this invasive species also raids eagle-owl nests.

## 5. Publishing activities and successes concerning biodiversity

As an owner-managed family business, Knauf Gips KG is not required to release a sustainability report. The last voluntary sustainability report was published in 2016. Therefore, information about sustainability progress has been published through reports as part of its membership in Biodiversity in Good Company.

In 2024, the pamphlet „What follows Mining Activity“ was developed, which shows examples of how gypsum quarries are being restored (Fig. 2). This pamphlet is set to release in 2025. At the same time, information boards are gradually being set up in restored quarries to convey their ecological value to the public. This project is being carried out in cooperation with the nature conservation NGO LBV.



Figure 2: Frontpage of the new pamphlet about the subsequent use of quarries. This pamphlet is set to release in 2025.

## 6. Informing and involving suppliers about biodiversity

As part of Knauf's sustainability measures, suppliers are involved in ensuring a sustainable supply chain. Since 2023, Knauf has implemented the "Supplier Sustainability Initiative," a strategic approach to develop and implement relevant sustainability topics in the supply chain. Initially, a central part of the initiative is to communicate Knauf's vision, set out concrete expectations for suppliers, and clarify the relevance of the topic for future cooperation.

Based on the current status, opportunities for improvement will be identified. Depending on strategic relevance, level of development, and potential, measures ranging from general exchanges to strategic collaborations and innovations are implemented. For biodiversity, this usually entails exchanges with strategic partners that are also in the mining business. In particular, establishing global programs and exchanging information about challenges and regulatory requirements are the main components of such dialogues.



### ***Excursus: Apprentice-Sustainability-Day***

In winter 2022, apprentices at Knauf participated in an event centred on sustainability for a full day. As part of this, there was a practical session in which trees and hedges were planted in a restored quarry in Hellmitzheim: [https://youtu.be/10-mmsz\\_5MI](https://youtu.be/10-mmsz_5MI)

## 7. Cooperations with potential partners such as NGOs, scientific or governmental institutions to deepen expertise and developing the management system



Figure 3: Monitoring conducted by the university of Bayreuth in a renaturated quarry in Markbergl (Bavaria). (Picture by Knauf)

In 2022, a research project with the University of Bayreuth was commissioned by the German gypsum industry association (Fig. 3). In this project, eight quarries belonging to Knauf Gips KG were monitored to collect data on habitat and plant diversity. The results were published in the German journal „Naturschutz und Landschaftsplanung“ ([Heßberg, A.v. et al \(2023\): Zur Bedeutung von Gipsabbau-Folgelandschaften für den Arten- und Biotopschutz. Ausg: 55 \(09\)](#)). This paper is set to be published in the English journal „Restoration Ecology“ as well. The results of this research show that gypsum quarries have a notable impact on promoting biodiversity as long as nutrient-poor soil is kept intact and no backfilling occurs.

As part of the GiBBS research project ([Ganzheitliches Biodiversitätsmanagement in der Baustoffindustrie](#)) conducted by the Institute for Ecological Economy Research (IÖW) in 2023, two additional Knauf quarries were monitored. The examination showed that the restored areas had high biodiversity and an unusually high species turnover compared to the surrounding area. This supports the assumption that quarries provide rare ecological niches and serve as a refugium, particularly for rare species.

Based on the data from this research project, a number of papers have been published. A particularly notable paper is Schwesig, K. et al (2025): [Pioneer habitats drive high plant beta diversity and conservation value of mineral extraction sites in the Journal of Applied Ecology Vol. 62 \(10\)](#).

The project initiated a dialogue in the mining sector, which also involved authorities and NGOs. Knauf itself was a crucial part of this exchange. (Fig. 5)



Figure 4: Species monitoring in the renaturated part of the quarry in Markt Nordheim (Bavaria). The two students at the university of Münster are examining the density and species composition of grasshoppers surrounding pioneer vegetation. (Picture by Knauf)

One result of the research data and the mentioned dialog is the manual Biodiversität in Gewinnungsstätten - Management und Monitoring der Artenvielfalt ([Biodiversity at Extraction Sites](#)), which not only shows how companies in the mining industry can integrate nature conservation into their daily business, but also gives valuable further information as well as case studies.

As part of the GiBBS project, multiple citizen-science monitoring projects were conducted in Knauf quarries together with the LBV. In collaboration with other companies, a citizen-science learning module was created and is available on the NABU Naturgucker Akademie. [Biodiversität in der Baustoffindustrie Grundwissen.](#)

This trusted collaboration with LBV also led to an agreement to donate one of our renatured gypsum quarries to LBV in 2025.

Under the umbrella of the Industrial Association for Building Materials, Stones, and Earths (bbs), a research project was initiated in 2023 to develop a set of biodiversity indicators compatible with CSRD reporting. The final report was published in 2024, and an explanatory manual will follow in 2025. Knauf Gips KG has been closely involved in this project and plans to implement the results in its own standards (see Chapter 4).



Figure 5: The dialog concluded in 2024 with a closing event in the museum Koenig in Bonn. The Knauf Gips KG took part in this event with a table at the “Markt der Möglichkeiten”. Here the Knauf Biodiversity manager Pascal Bunk is in a conversation with an agent of the building material retailer. (Picture by IÖW 2024)



Figure 6: The steering committee for the project biodiversity indicators has met by Knauf's invitation in August 2023 in the company headquarters in Iphofen. (Picture by bbs)



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