

Europe's Green Deal: what winners and losers outside the EU?

11/06/2023

Confidential

Executive summary

The European Union has adopted the "Green Deal", a set of 14 laws aimed at reducing net greenhouse gas emissions by 55% by 2030 and achieving carbon neutrality by 2050. The Pact actually comprises several types of measures affecting different sectors of activity. Three of them could have significant effects on several countries exporting to the EU:

- 1) The Border Carbon Adjustment Mechanism (BCAM), which affects 7 products: aluminum, cement, hydrogen, fertilizers, electricity, iron and steel. From 2026, imports of these raw materials will be taxed according to their carbon emissions. The main countries at risk following implementation of the MACF are Montenegro, Ukraine and Mozambique. They are followed by Turkey, Switzerland, Egypt, Serbia and Morocco.
 - 2) The Green Deal also provides for an EU ban on imports of products derived from deforestation (such as cocoa and palm oil). Côte d'Ivoire stands out as by far the country most exposed to this risk (even though it has already implemented measures to limit deforestation), followed by Ghana, Uganda, Burundi, Ethiopia, Honduras, Guatemala and Brazil.
 - 3) And finally, the Green Deal offers opportunities for countries trading heavily with the EU, notably under the Critical Raw Materials Act. This EU plan, published in March 2023, aims to ensure a secure and sustainable supply of strategic raw materials to meet the Green Deal's objectives. Madagascar, Mozambique and Morocco now seem well positioned to benefit from the coming increase in demand from Europe, particularly for cobalt and graphite, the two metals that will contribute most to this expected growth.
-

1. The European Green Deal: a broad, multi-sector ambition

In December 2019, the EU adopted the **Green Deal for Europe**, including a package of 14 laws known as Fit for 55, which aims to **reduce greenhouse gas (GHG) emissions by at least 55% by 2030**. *Ultimately, the longer-term objective is to achieve EU-wide carbon neutrality by 2050. Its implementation was initiated in July 2021 with the "Fit for 55" package.* Since then, the legislative process has continued, with final votes in **March** on the development of a **low-carbon industry** and in **April** on the introduction of the border carbon adjustment mechanism (**MACF**). To achieve its ambitions, the Green Deal includes **legislation in a number of areas: climate** (revision of the Emissions Trading Scheme (**ETS**) and start of its extension to maritime transport), **energy** (revision of directives on renewable energies and energy efficiency), **transport** (use of sustainable fuels in aviation) and **industry** (modification of CO₂ emission standards for cars and vans).

The aim of the Green Deal is to make the **EU a dominant market for strategic technologies for the ecological transition**. The International Energy Agency (IEA) estimates its size at around **\$124 billion a year by 2030** for Europe (\$650 billion for the global market¹). **By 2022, China will account for 60% of the mass**

¹ Source: 'Energy Technology Perspectives 2023 - Analysis', IEA, 2023

production of key strategic low-carbon technologies, and will control the supply chain for certain materials essential to the transition, in particular rare earths: **25% of batteries and electric vehicles in Europe and over 90% of solar panels come from China²** .

In March 2023, the EU strengthened the **industrial pillar** of the Green Deal, which aims to stimulate **the use of low-carbon technologies (through the "Net-Zero Industry Act")** and **reduce its dependence on critical raw materials (via the "Critical Raw Materials Act")**. Presented in parallel, these two proposals aim to respond to the **progressive monopolization of third-party countries (notably China)** to facilitate the **development and insertion of European low-carbon industry in international trade**. The European Green Deal is therefore a solution that must simultaneously address the multiple crises facing Europe, including economic recovery from the pandemic, **climate change**, heavy **energy dependence on Russia**, and **competition from China and the USA for low-carbon technologies**.

2. The Border Carbon Adjustment Mechanism, a risk for some of the EU's trading partners

2.1 A wide range of targeted products and limited compliance options

The MACF, an integral part of the Green Deal, has been designed to **align the carbon price paid for EU products falling within the scope of the Emissions Trading Scheme (ETS) with that paid for goods imported from countries outside the EU**. This European mechanism will be set up to **equalize the carbon price paid for EU products operating under the ETS and that paid for imported products**, by purchasing MACF certificates to pay the difference between the carbon price paid in the country of production and the price of carbon allowances.

The **MACF will apply from October 1^{er} 2023**, but with a **three-year transitional phase**. During this phase, importers will only be required to file quarterly declarations on imported products and their integrated emissions. The first quarterly declaration will have to be filed at the beginning of 2024 for imports carried out in the last quarter of 2023. **The purchase of certificates will be mandatory from January 1^{er} 2026**. From this date, importers will have to declare annually the **quantity of goods imported into the EU the previous year, and their integrated GHGs**. The price of certificates will be calculated on the basis of the average weekly auction price of **EU EES allowances expressed in €/tonne of CO₂ emitted**. The phasing-out of free allocation under the EU ETS will take place in parallel with the phasing-in of the MACF over the period 2026-2034.

While the MACF's ambition is strong in its long-term approach, the scope of products concerned remains relatively limited at this stage (see box below). **In France, for example, in 2019, of the 575 billion euros worth of imported goods, 27 billion are on the MACF product list, of which 20 billion come from intra-European trade³** .

² Source: *Ibid.*

³ Source: Rexecode, June 2023

2.2 The mechanism will mainly affect developing countries with relatively undiversified economies.

Methodology for identifying countries exposed to MACF outside the EU

A total of 6 product groups are covered by the MACF: **aluminum, cement, hydrogen, fertilizers, electricity, iron and steel** (the latter two being considered under a single HS code⁴, "Iron and Steel (72)"). **We have deliberately excluded from the analysis the hydrogen market**, where intra-European trade represents almost 98% of the total market.

For the other 5 products, our approach to identifying non-European countries at risk following the introduction of the MACF is as follows:

- Extraction via Eurostat of **data on EU imports from the rest of the world for the 5 products concerned**.
- List of the EU's main partners for each of its products, with a **minimum threshold of 1% of the partner's share of total EU imports**.
- Finally, to determine **the weight of the EU in total exports of these products from the countries** on this list, we have taken into account the total exports of these products by country of destination in the UN Comtrade database. We have also taken into account **the weight of exports of each of these products in the country's total exports**.

These two indicators can be used to determine a relative level of sensitivity for each country to the MACF Green Deal package.

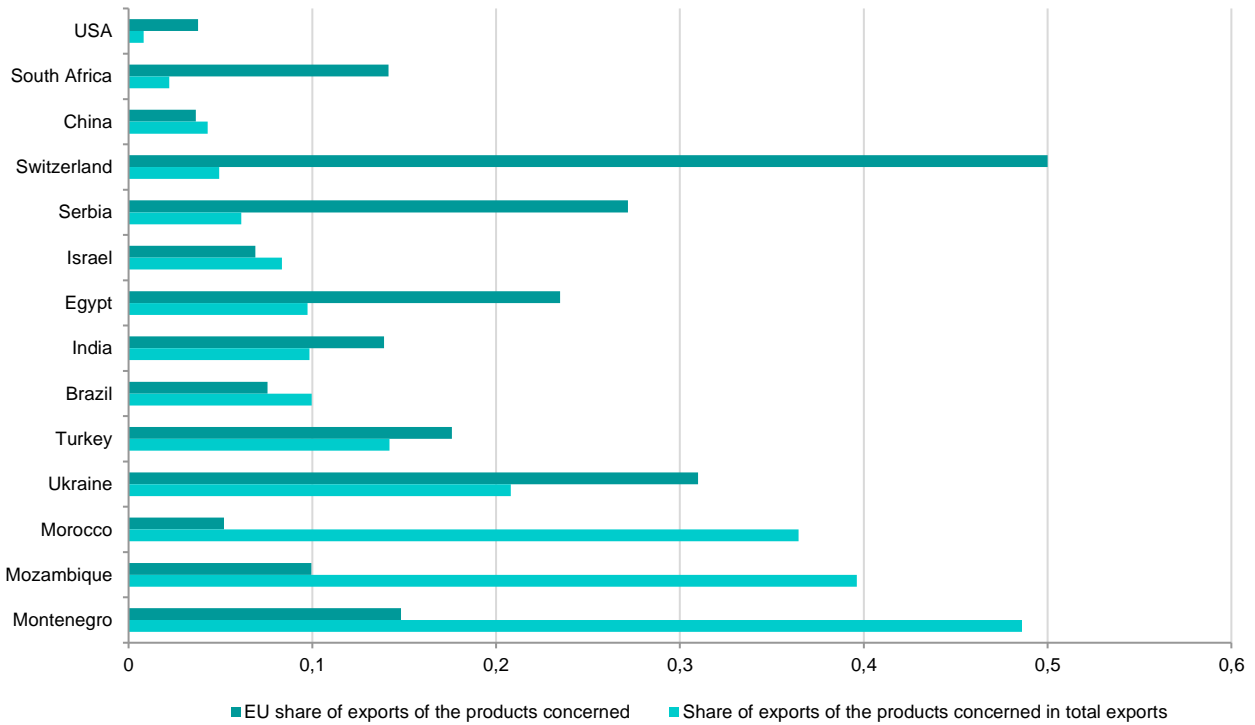
This analysis shows that the main countries at risk following the implementation of MACF are **Montenegro, Ukraine and Mozambique**. They are followed by **Turkey, Switzerland, Egypt, Serbia and Morocco** (see graphs 1 and 2). In the case of **Morocco**, the **importance of the phosphate industry** in the country's total exports is one of the reasons why the country is exposed to MACF. Plans to transition to a low-carbon production model, such as **OCP's 2023-2027 investment program** and its "**2040 Zero Carbon Vision**", could enable the industry to maintain its competitive edge following application of the mechanism.

Against this backdrop, several emerging economies have also opposed the implementation of the MACF, seeing it as protectionism in disguise. This is particularly true of **China** and the **BRICS** in general, who believe that this mechanism constitutes a frontal obstacle to liberalism, and that it will lead to **discriminatory distortions of market conditions**.

Other emerging economies such as **Turkey** tend to see the MACF as a **policy in line with commitments to combat global warming**. In October 2021, for example, Mehmet Emin Birpinar, Turkey's climate envoy, said that the EU's MACF threat had helped push the country to ratify the Paris climate agreement. So, **since Turkey had announced that it would aim for carbon neutrality by 2053**, its adaptation to the mechanism was a way of getting closer to its goal while aligning itself politically with the issues championed by the EU.

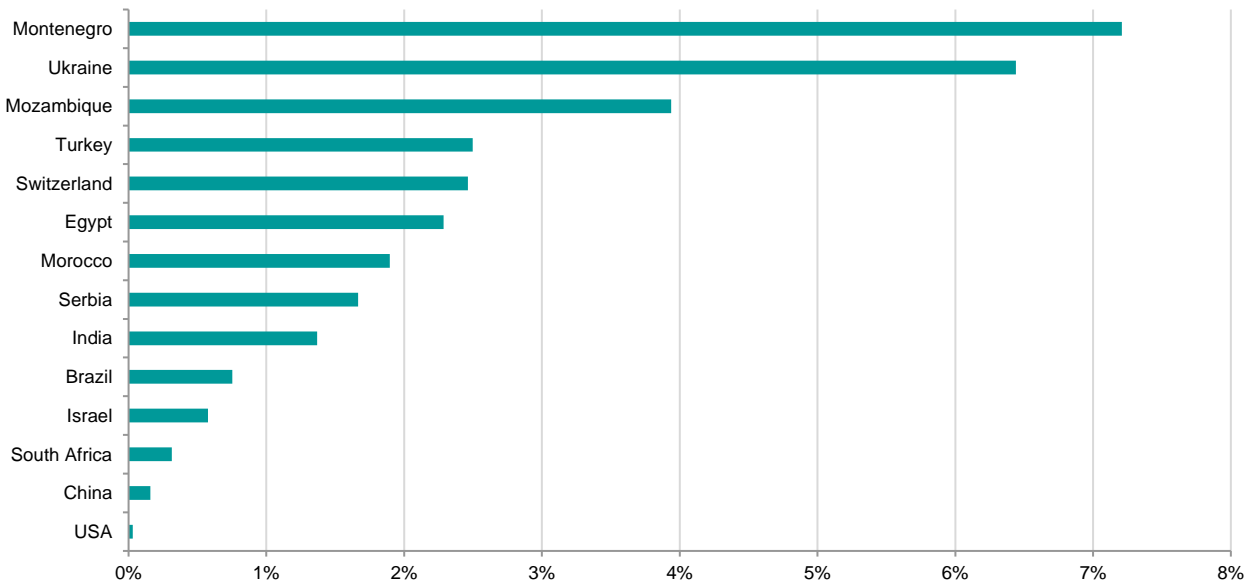
⁴ Note: The HS provides a single, methodical classification of internationally-traded goods for the countries that use it, enabling them to compare their trade flows.

Figure 1: EU share of exports of products covered by the MACF and share of exports of products covered by the MACF in total exports to the EU's main partner countries in 2022



Source: Eurostat, UN Comtrade

Figure 2: Impacts of the Green Deal measured as the product of the EU's share of exports of the products concerned multiplied by the share of exports of the products concerned in total exports in 2022.



Source: Eurostat, UN Comtrade

3. Regulation of deforestation products will have repercussions in Africa, South America and Asia

3.1 A wide range of targeted products and limited compliance possibilities

As we wrote in a previous study, as part of the Green Deal, the EU has introduced a measure aimed at banning the marketing of products that have involved deforestation on its territory. The products targeted are **palm oil, beef, coffee, cocoa, soy, wood and rubber**. The aim is to eventually have only "zero deforestation" products on the European market. **Companies will have between 18 and 24 months to comply with the regulation** (18 months for large and medium-sized companies and 24 months for small and micro businesses).

The regulation will mean that companies (European and non-European) will only be allowed to sell their products in the EU **if suppliers publish a declaration confirming that they do not come from deforested land and have not caused forest degradation** after December 31, 2020. The European Commission will classify countries (or some of their sub-regions) within 18 months of the law coming into force. This classification will determine the **amount of controls that** will be carried out by the EU to ensure compliance by its partners: **9% for high-risk countries, 3% for medium-risk countries and 1% for low-risk countries**.

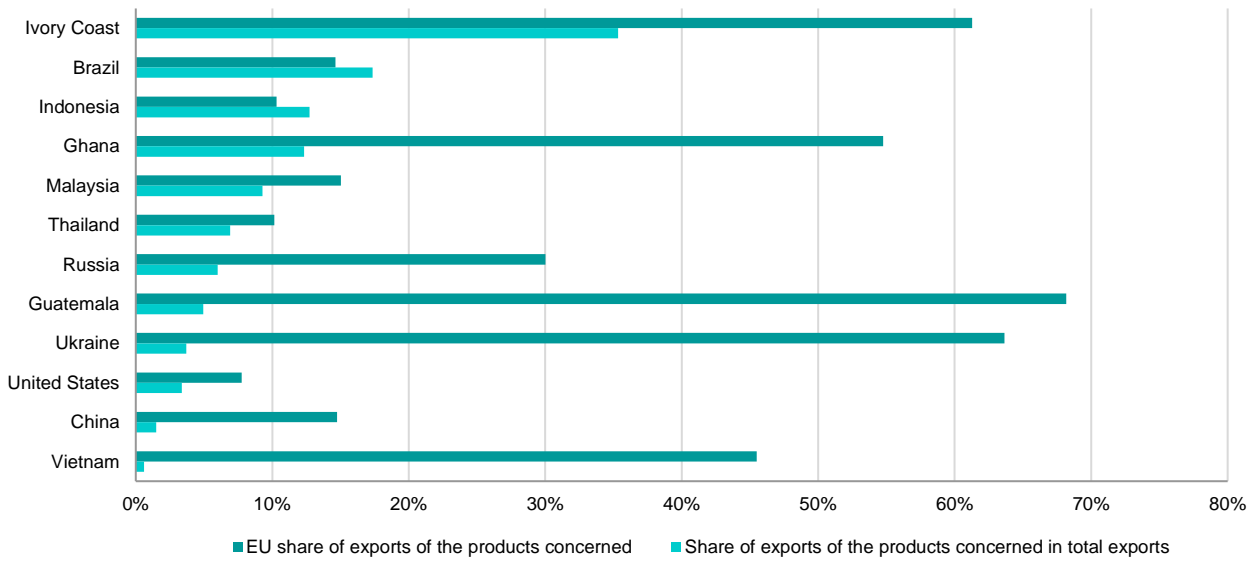
3.2 The level of diversification of the economy and the importance of the EU as a partner are the two exposure factors for exporting countries.

As with the "carbon tax", a non-EU country's exposure to this new rule will depend on **two factors** (see graph 3):

- **The share of the product targeted by the reform in the country's total exports** measures the importance of the product in the country's export capacity: a diversified economy will supposedly be less weakened by the reform.
- **The EU's share of that country's total exports of the product** will determine whether or not it is important to develop new partnerships, or to deepen existing ones. **Three regions stand out for their weight in European supplies of these commodities: Latin America, Southeast Asia and West Africa**.

The product of these two indicators can be used to rank countries according to their exposure to this new rule, as it measures the share of exports of the targeted product to the EU in the country's total exports (all products combined). **Côte d'Ivoire is by far the most exposed country, followed by Ghana, Uganda, Burundi, Ethiopia, Honduras, Guatemala and Brazil** (see graph 4).

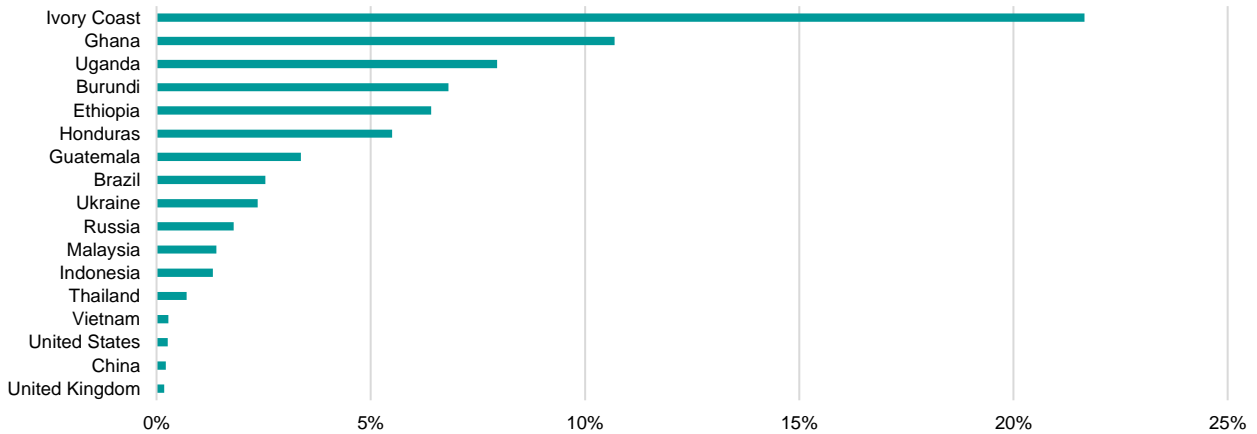
Figure 3: Comparison of the EU's share of exports of the products concerned and the share of exports of the products concerned in total exports to the EU's main partner countries in 2021



Source: UN Comtrade, Global Sovereign Advisory

Note: The countries included in the sample are the main partner countries shown in Chart 3.

Figure 4: Impact of the reform measured as the product of the EU's share of exports of the products concerned multiplied by the share of exports of the products concerned in total exports in 2021.



Source: UN Comtrade, Global Sovereign Advisory

Note: Only the 6 countries most affected by the reform and the EU's main trading partners are shown in this chart.

4. The Green Deal also offers opportunities for non-EU countries, particularly through critical materials.

4.1 Following on from the Green Deal, the CRM Act targets strategic raw materials to strengthen European industrial sovereignty

The Critical Raw Materials Act (CRM Act), an EU plan published in March 2023, ensures a secure and sustainable supply of strategic raw materials to meet Green Deal targets. It **emphasizes that the transition to a more sustainable industry relies on an increase in the need for critical materials**. Although the plan for a "zero-carbon industry" suggests **the reopening of certain mines within its territory, local production would cover only 20 to 30% of the EU's needs**.

Methodology for identifying countries exposed to the Critical Raw Materials Act outside the EU

According to projections in the OECD report on critical raw materials published in April 2023, 9 of these will see their production increase sharply by 2040, with, in descending order, **lithium, graphite, cobalt, magnesium, nickel, rare earths, borate, copper and germanium**. **A 40-fold increase in demand is expected for lithium, and more than a 20-fold increase for graphite and cobalt by 2040**.

We then took the following approach to identifying the countries capable of benefiting from these greater export opportunities:

- The UN Comtrade database identifies **exporters of each of these critical materials to the EU**.
- We then listed those **exporters whose exports to the EU in 2022 would represent more than \$800 million for at least one of these critical materials**. Based on this criterion, we selected **28 countries**.
- For each country, we then compared the **sum of exports of the main critical materials to the EU with total world exports over 2022**.

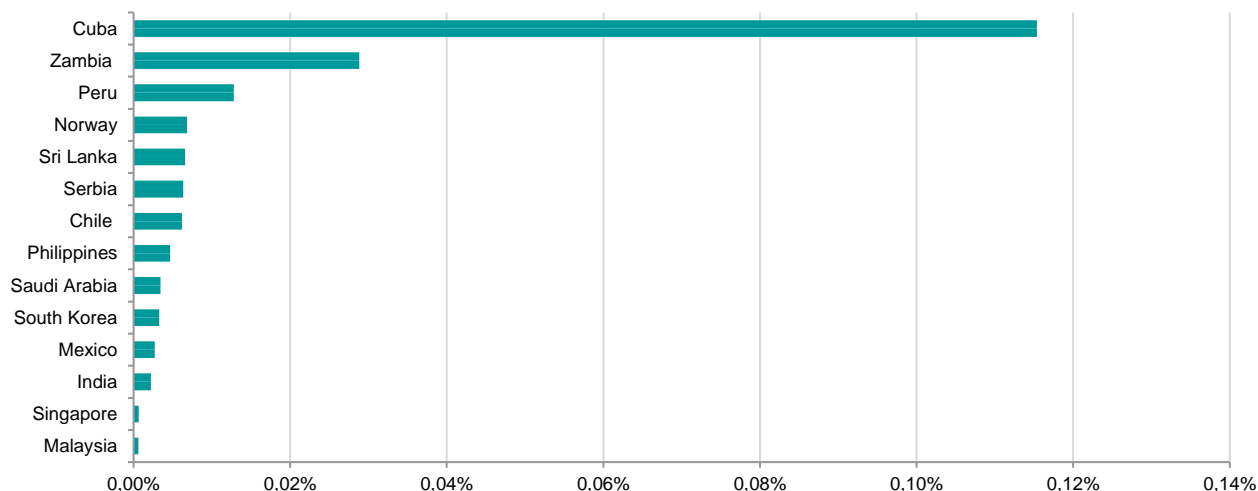
The 14 countries shown in graph 5 are those for which the sensitivity of the economy to the export of critical materials is greatest. This sensitivity has been determined by multiplying total world exports by exports of the critical materials concerned to the EU.⁵

The share of critical materials exports to the EU is highest in **Madagascar, Mozambique and Morocco**. These countries are therefore well positioned to benefit from future growth in demand from Europe.

According to these calculations, cobalt and graphite are the two metals that will contribute most to this expected increase in demand. The electric car sector accounts for 89% of the increase in global cobalt demand. Madagascar is the 4^{ème} largest exporter of cobalt and graphite to the EU, and ores (**such as nickel, the country's leading export**) play an important role in the Malagasy economy. The Ambatovy mining complex concentrates the country's nickel and cobalt production. **Morocco has just one cobalt production mine**, the Bou Azzer mine, which has nonetheless enabled the country to become one of the world's leading exporters, especially as it is **one of the few countries on the continent capable of refining the ore**.

⁵ Note: The chart for the remaining 14 countries can be found in the appendix.

Figure 5: Share of exports of critical metals to the EU in total exports to the EU's main partner countries in 2022



Source: UN Comtrade

The resources of Morocco and Madagascar are minimal compared with those of **the Democratic Republic of Congo, which accounts for over 70% of the world's cobalt supply**⁶. But the DRC appears much further down the ranking. In fact, **almost 90% of the DRC's cobalt resources are sent to China**⁷, which has a **monopoly on the refining of several critical materials**. At a time when Morocco's reserves are dwindling, the country is betting on the **production of cobalt from recycled materials with the signing of a partnership with Anglo-Swiss Glencore PLC and Moroccan company Managem**. The 5-year partnership could be extended to recycled nickel and lithium.

The main exporters of graphite to the EU are also the world's leading exporters. After China, which accounts for 80% of graphite production, **Mozambique and Madagascar share the podium in global exports of the mineral. But by 2026, Africa could become the world's leading graphite exporter and producer**⁸. In Madagascar, the Evion Group is still carrying out feasibility studies for its graphite mining project and sees the island as an alternative to China. **The British company Tirupati Graphite, based in Madagascar, has multiplied its production by 10 in the space of 3 years**. The same trend can be observed in Mozambique, where the country is betting on graphite production for the future: at the end of December 2021, **an operating agreement was signed with the American giant Tesla**, and in October 2022, it was the turn of the **Korean lithium battery manufacturer LG Energy Solution**, this time for Mozambican graphite refined in the USA. However, the sharp increase in production risks undermining local populations and ecosystems.

⁶ Source: Cobalt Institute, *Cobalt Market Report*, 2021

⁷ Source: Cobalt Institute, *Cobalt Market Report*, 2021

⁸ Source: Benchmark Minerals, "Flake graphite production in Africa set to overtake China this decade", August 2022