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UN highlights urgent need to tackle impact of likely electric car battery production boom

Agência Brasil/José Cruz | Brazilian mine (file)

28 June 2020 | Climate Change (/en/news/topic/climate-change)

Demand for raw materials used in the production of electric car batteries is set to soar, prompting the UN trade body, UNCTAD, to call for the social and environmental impacts of the extraction of raw materials, which include human rights abuses, to be urgently addressed.

Electric cars are rapidly becoming more popular amongst consumers, and UNCTAD (http://unctad.org/en/Pages/Home.aspx) predicts that some 23 million will be sold over the coming decade: the market for rechargeable car batteries, currently estimated at $7 billion, is forecast to rise to $58 billion by 2024 .

The shift to electric mobility is in line with ongoing efforts to reduce the world's dependence on fossil fuels, and reduce harmful greenhouse gas emissions responsible for climate change, but a new report (https://unctad.org/en/PublicationsLibrary/ditccom2019d5_en.pdf) from UNCTAD, warns that the raw materials used in electric car batteries, are highly concentrated in a small number of countries, which raises a number of concerns.

Drilling down in DRC, Chile

For example, two-thirds of all cobalt production happens in the Democratic Republic of the Congo (DRC). According the UN Children's Fund (UNICEF (https://www.unicef.org/)), about 20 per cent of cobalt supplied from the DRC comes from artisanal mines, where human rights abuses have been reported, and up to 40,000 children work in extremely dangerous conditions in the mines for meagre income.

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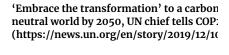

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And in Chile, lithium mining uses nearly 65% of the water in the country's Salar de Atamaca region, one of the driest desert areas in the world, to pump out brines from drilled wells. This has forced local quinoa farmers and llama herders to migrate and abandon ancestral settlements. It has also contributed to environment degradation, landscape damage and soil contamination, groundwater depletion and pollution.

. | Electric cars at UN Headquarters, New York (file)

Climb the value chain

Noting that "the rise in demand for the strategic raw materials used to manufacture electric car batteries will open more trade opportunities for the countries that supply these materials", UNCTAD's director of international trade, Pamela Coke-Hamilton, emphasised the importance, for these countries, to "develop their capacity to move up the value chain".

In the DRC, this would mean building processing plants and refineries that would add value and, potentially, jobs within the country. However, for various reasons (including limited infrastructure, financing and a lack of appropriate policies), refining takes place in other countries, mainly Belgium, China, Finland, Norway and Zambia, which reap the economic benefit.

The report recommends that countries such as DRC provide "conducive environment to attract investment to establish new mines or expand existing ones".

Diversify and thrive

UNCTAD also recommends that the industry find ways to reduce its dependence on critical raw materials. For example, scientists are researching the possibility of using widely-available silicon, instead of graphite (80% of natural graphite reserves are in China, Brazil and Turkey).

If the industry manages to become less reliant on materials concentrated in a small number of countries, says UNCTAD, there is more chance that prices of batteries will drop, leading to greater take-up of electric cars, and a shift away from fossil-fuel powered transport.

As for the environmental consequences of the batteries themselves, the report recommends the development of improved, more sustainable mining techniques, and the recycling of the raw materials used in spent Lithium-Ion batteries, a measure that would help deal with the expected increase in demand, and also create new business opportunities.

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UN chief António Guterres (https://www.un.org/sg/en), has warned of an "unparalleled economic shock", as a result of the COVID-19 crisis. So, going forward, can the private sector "build back better" to reorder the post-pandemic world, or, might the UN's vision of a sustainable future be relegated to a low-priority aspiration? We put these questions to the CEO of one of the world's largest conglomerates, who is working with the Organization, towards a better future.

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Throughout COVID-19 recovery, 'plummeting' clean energy costs can help climate action (/en/story/2020/06/1066082)

10 June 2020 | **Climate Change (/en/news/topic/climate-change)**

As COVID-19 hits the fossil fuel industry, a new UN report published on Wednesday shows that renewable energy is more cost-effective than ever – providing an opportunity to prioritize clean energy in national economic recovery packages and bring the world closer to meeting the goals of the Paris Agreement (http://newsroom.unfccc.int/unfccc-newsroom/finale-cop21/).