Cambridge Assessment International Education

Cambridge International AS & A Level

GLOBAL PERSPECTIVES & RESEARCH **9239/13**

Paper 1 Written Exam **May/June 2025**

INSERT **1 hour 30 minutes**

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INFORMATION

- This insert contains all the resources referred to in the questions.
- You may annotate this insert and use the blank spaces for planning. **Do not write your answers** on the insert.

This document has **4** pages. Any blank pages are indicated.

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The following documents consider issues related to energy. Read them **both** in order to answer **all** the questions on the paper.

Document A: adapted from *The Green Revolution Could Make Cornwall a Mining Capital Again*, an article written by Lucie Akerman, published in 'Novara Media' (UK) in 2022. The author is a freelance journalist living in Cornwall (UK). Novara Media is an independent media organisation.

Lithium is classified as a 'critical mineral'; it's rare and in high demand. Lithium is used to make batteries and is currently mainly produced in Chile, Argentina, and China. It powers your smartphone and laptop. Crucially, it's also vital for the production of electric cars.

The discovery of lithium in Cornwall could help to drive the UK's green energy revolution. Cornwall could provide enough lithium to meet two-thirds of predicted UK demand and it would certainly be great for the UK. But what about Cornwall? Could lithium revive this deprived region? Or will it see the riches redistributed elsewhere, while the land itself is ruined?

Two companies – British Lithium and Cornish Lithium – are at the forefront of lithium extraction in Cornwall. The size of their planned operations is staggering – and long term. Within three to five years, British Lithium expects to begin commercial operations and is planning to produce 21,000 tonnes of lithium every year, for 25 years. Cornish Lithium plans to produce 20,000–30,000 tonnes per year from water and rock and expects its first site to open in 2026.

The mining of tin and silver is part of the history and culture of Cornwall – as is the memory of what happens when the extraction stops. "Cornish lads are fishermen and Cornish lads are miners too. But when the fish and tin are gone, what are the Cornish boys to do?" sang folk musician Roger Bryant. In the gap left by mining came tourism. This provides desperately-needed income for some, but tourism has led to seasonal work and low-waged employment. The average Cornish salary is £10,000 (USD 12,000) lower than the national average.

Lithium companies are already promising to address these problems. It's an opportunity to revive the mining industry in Cornwall, "bringing good, long-term, well-paid jobs to areas that ultimately need them," Neil Elliot, from Cornish Lithium, told me.

Community renewal has also been promised as a result of finding lithium. But not all residents are hopeful. I spoke with one Cornish climate activist, who didn't want to be named. They said unless locals have some control, lithium mining "will be yet another thing that ruins our countryside and that we don't see any of the benefits from".

Dr Loveday Jenkin, a local councillor, is both cautious and optimistic about the prospect of lithium mining. Lithium could fuel the development of green technology projects. But Jenkin says community involvement must come first: "It's not about how much money you're generating, it's how that money is used and whether it circulates in the local economy."

If Cornwall negotiated 'funds' from the prospective mining projects as a region, investing in long-term renewable energy could balance out any environmental impact of short-term extraction.

At the time of writing, there seems to be no working group or strategic plan for lithium extraction in Cornwall and there is fear about the risks. However, many local people believe it's worth pursuing. "If residents want more than tourism and retirement, we need something to happen here," says Jenkin.

Ultimately, it's residents' involvement that will make sure extraction doesn't mean exploitation.

Document B: adapted from *Lithium Mining Is Leaving Chile's Indigenous Communities High and Dry*, an article written by Nicole Greenfield, published in 'Natural Resources Defense Council' (NRDC) (US) in 2022. NRDC is a non-profit international environmental organisation. The author is a writer in the NRDC communications department. She received an MA in Religious Studies and Journalism from New York University (US).

The South American country Chile is the second-largest producer of lithium, a critical component of the batteries that are helping the world transition away from fossil fuels. The metal can be extracted in three ways: from hard rock, which is common in Australia; from sedimentary rock, a process currently under development in the US, and through the evaporation of brines found beneath salt flats on South America's Atacama Plateau.

The method used in the Atacama Plateau is by far the most water-intensive. Miners pump salty lithium-containing water, called brine, into massive ponds. It can take years for the evaporation process to separate the lithium. The technique drains already scarce water resources, damages wetlands, and harms communities.

Elena Rivera says, "Chile is going through a tremendous water crisis." Rivera is the president of the indigenous community of the Copiapó commune in northern Chile. Rivera and her daughter, Lesley Muñoz, know that their ancient culture and traditions will be damaged if the waterways in their Andean homelands dry up. At the heart of the crisis is lithium mining.

Not only indigenous communities are concerned. James J.A. Blair is an assistant professor at a US university and a co-author of a new NRDC report on lithium mining in South America. He says, "Communities are suffering." Blair argues that the brine evaporation method is "senseless" and will lead to ecological destruction.

In Chile, the privatization of minerals and water gives companies ownership of those resources. Mining operations squeeze this already dry region even drier. Communities lose their access to water, so they rely on tankers to deliver it. "We used to have a river before that now doesn't exist. There isn't a drop of water," says Rivera. All because a company has more right to water than the citizens of Chile.

So far, the majority of Chile's lithium extraction has taken place on the Atacama desert salt flat, but its resources are dwindling. Global demand for lithium continues to skyrocket. So, mining companies want to exploit the much smaller Maricunga salt flat close to the Copiapó commune. Rivera and Muñoz are also members of the OPSAL network. OPSAL is an environmental conservation organization dedicated to the protection of the Andean Salt Flats. They are determined to stop this development.

Though the people living around the Maricunga salt flat have been able to delay lithium mining, at least six mining companies are currently exploring the area. Last year, the government approved a project but the companies behind it violated the indigenous community's rights. They failed to obtain "free, prior, and informed consent" to operate on their ancestral land. This right is established in the United Nations Declaration on the Rights of Indigenous Peoples. So, activists took legal action which has delayed the start of any mining.

In the NRDC report, Blair and his co-authors recognize the urgent need for clean tech. However, the report proposes investing in alternative ways to meet lithium needs, such as making lithium-ion batteries longer-lasting and recycling the metal in used batteries. The report would also like to see a complete ban on the evaporation method of extracting lithium.

Rivera and Muñoz certainly see the value in fighting for the Maricunga salt flat. "Water moves everything in life," Muñoz says. "If we don't have water to make a life in the mountains, we're going to be just another one of the many Indigenous cultures in Chile that have been exterminated."

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