

## Jordan's electric car users battle with batteries

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Owners of these cars in Jordan are grappling with the question of battery disposal. Credit: <u>FirstEnergy Corp.</u>. CC license: <u>(CC BY-ND 2.0)</u>

Electric car early adopters in oil-poor Jordan are now having to grapple with the thorny question of battery disposal, as demand for the technology accelerates across the region.

It's eight years since Jordan first began to import <u>electric cars</u>—the first



country in the Middle East to do so—meaning battery warranties are now starting to expire.

"Failure to comply with international standards for the proper disposal of electric vehicle batteries leads to serious environmental impacts, such as their vulnerability to spontaneous ignition or the release of harmful chemicals," says Mohamad Khawaja, head of the department of energy engineering at the German Jordanian University.

Jordan was an early adopter of <u>electric vehicles</u> as, unlike its neighbors, the country is not an oil producer.

The country first started importing electric cars in 2015 and its National Green Growth Plan approved in 2017 aimed to promote their use.

As a result, electric cars represent at least 5% of all cars on the road in Jordan, with sharp rises in petrol prices driving up demand among the population of 11 million.

However, many owners still lack awareness of how to dispose of the battery packs.

Khawaja was one of the researchers involved in a study published in the *Journal of Energy Storage*, on the environmental impacts of energy storage waste and regional legislation to mitigate against these.

"Policies in Jordan are not completely clear on how to dispose of electric vehicle batteries," he told SciDev.Net.

## **MENA region**

These concerns come as the region as a whole witnesses rising demand.



Sales of electric vehicles across the Middle East and North Africa jumped from about 1,300 cars in 2017 to around 19,000 in 2021.

By 2026, sales in the region are expected to double to 45,000, in line with the global trend towards <u>clean energy</u>, and efforts to reduce carbon emissions.

In December, Saudi Arabia's Ministry of Industry and Mineral Resources signed a memorandum of understanding with the Hyundai Motor Company to build an electric car plant, in line with the kingdom's goals to reduce carbon emissions.

A year earlier, Emirates Transport, the UAE's government-owned public transport provider, signed a memorandum of understanding with the China Machinery Engineering Corporation to produce electric vehicles locally, looking to achieve carbon neutrality by 2050.

Rusul Al Shihab, director for the environmental movement Earth Day in the Middle East and North Africa, says that the trend towards electric cars has proven effective in reducing emissions, though "still in its infancy in the region."

Al Shihab believes that more studies will be needed to find out the true environmental impact of electric vehicles, "and to look at the experience of the countries that preceded us in producing and deploying them."

Provided by SciDev.Net

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