



UN sets out Latin America's lithium agenda

Recommendations from the UN's Latin American lithium summit reiterate the importance of socio-economic awareness, but more significantly, regional co-operation

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Key questions the lithium industry faces are: Will supplies be sufficient to meet projected lithium demand growth in the electronic and automotive industries? What technology options are available? And how can local communities benefit from mining development?

The UN's Senior Group Meeting in Santiago, Chile, discussed and addressed these themes during its November 2010 summit on sustainable development of lithium resources in Latin America. Co-organised by the UN Department of Economic and Social Affairs (DESA) and the UN Economic Commission for Latin America and the Caribbean (ECLAC/CEPAL), the meeting brought together 55 delegates from the region and representatives from international governments, the private sector, and academia, among others.

The international selection of attendees was

united by one theme: sustainable development of Latin America's lithium resources. Throughout two days, 21 presentations were delivered addressing themes such as lithium carbonate supply-demand trends (in the battery sector and others), international co-operation in lithium development, and socio-economic consequences of lithium industry progress.

The delegation also heard from experts on lithium resources in Argentina, Bolivia, Chile and Mexico, who provided country profiles and shared the numerous experiences those countries had gathered during their own policy making.

A number of Latin American governments are keen to further explore their lithium resources, but sustainable development of a mineral that is continuously under the spotlight presents a number of challenges. For these governments, balancing an exciting economic opportunity with socio-economic and environmental factors is a delicate task.

Most lithium resources, as with many mineral deposits, are located in remote and mountainous areas. Many of these locations lack the necessary basic infrastructure in terms of roads or water and electricity supply. Additionally, much of the technology required to develop these remote resources is held in the hands of just a few producers.

Regional opportunities

The number of lithium explorers has topped 100. Less than three years ago, this figure stood at just 10. The top three lithium producers – SQM SA, Chemetall GmbH, and FMC Lithium – find themselves joined by a growing number of exploration companies hoping to cash in on the Li-ion battery buzz.

Significantly, last month Argentina-based Rincon Lithium became the first new non-Chinese lithium producer for 13 years, after it shipped the first batch of lithium carbonate from its project in the Salar del Rincon, Salta province (*see p.45*).

But it is expected that Rincon will be the first of a small advanced group to harvest the fruits of Latin America's lithium bounty.

As the delegates in Santiago discussed, several of the salt flats in the Andean mountain region contain large amounts of lithium which can be extracted from brines in commercially viable and environmentally conscious ways. The lithium triangle that includes Argentina, Bolivia and Chile holds the world's largest proven reserves of lithium.

This region also boasts a technical advantage, in that lithium carbonate production based on the extraction of lithium chloride brine from salt flats tends to be more economical and less environmentally damaging than lithium extracted from hard rock sources. But is the development of these resources viable?

Lithium market monitor

Although Li-ion batteries are already a common sight in portable electronic devices, such as laptops and music players, it is the electronic vehicle segment that is driving exploration, and potentially, markets.

But automobile production figures for 2009 show that only four of the world's top 15 auto-producing countries posted annual growth figures: China (+48.3%), India (+12.9%), Iran (+9.5%) and the Czech Republic (+3.0%). Total world production of automobiles declined 12.8% to 61,714,689 units, with the largest producers being China, Japan, the USA and Germany.

According to statistics released by the International Organization of Motor Vehicle Manufacturers (OICA), China is by far the largest auto producer, accounting for 13,790,994 units in 2009, followed by Japan with 7,934,516 units. Motor vehicle manufacturing is being increasingly dominated by Asia, as domestic populations increase their wealth – notably China and India.