Can India and Myanmar Build a Rare Earth Supply Chain Independent of China?

written by Jack Lifton | July 27, 2026

It cannot be overemphasized that the greatest value in the rare earth supply chain does not lie in commodity chemicals, but in the accumulated capability to transform those chemicals into reliable industrial production. This is the key factor to understand when addressing the question, “Can India supplant China as the main customer for Myanmar’s ionic adsorption clay derived rare earths?

The question is often asked this way: *Can India become a customer for Myanmar’s rare earth production as long as China controls the critical reagents used to extract rare earths from ionic adsorption clays? Could India simply manufacture those reagents itself?*

The question is an important one—but it is too narrowly framed. The real issue is not whether India can manufacture the necessary chemicals. It almost certainly can. India possesses one of the world’s largest and most sophisticated chemical industries. It already produces virtually every bulk chemical used in ionic adsorption clay processing, including ammonium salts, mineral acids, alkalis, oxalic acid, and a host of specialty reagents. From a purely chemical manufacturing standpoint, India has the industrial capacity to replace China.

But chemistry is only one component of a much larger industrial system. The true strategic question is this: **Can India replace China’s capability, rather than merely its chemicals?** That distinction is critical.

The extraction of rare earths from ionic adsorption clays appears deceptively simple. Unlike hard-rock deposits, the rare earths are only weakly adsorbed onto clay particles and can be removed through ion-exchange leaching under relatively mild conditions. This simplicity has led many outside observers to conclude that the process is easily replicated.

Commercial reality is far different. Successful production depends upon a complex sequence of operations: selecting the appropriate leaching chemistry; controlling pH, temperature, and residence time; removing impurities; precipitating mixed rare earth compounds; separating individual rare earth elements by solvent extraction; maintaining rigorous analytical quality control; and managing environmental compliance and waste treatment. Every one of these steps has been refined through decades of commercial operating experience.

China’s advantage is therefore not simply that it manufactures the chemicals. China possesses the operating knowledge accumulated through forty years of continuous commercial production. This distinction has become even more important following Beijing’s recent export controls. Those measures increasingly extend beyond physical products to encompass process technology, engineering services, specialized equipment, software, technical documentation, and experienced personnel. In other words, China appears less concerned about exporting a truckload of ammonium sulfate than about exporting the operating manual—and the engineers who know how to use it.

Viewed from this perspective, India’s prospects become clearer. India already possesses many of the ingredients required to become an alternative processing partner for Myanmar. It has a sophisticated chemical industry, experienced hydrometallurgical engineers, government-backed rare earth organizations, and decades of experience processing monazite. Unlike many Western

countries attempting to build rare earth industries almost from scratch, India already understands much of the underlying chemistry.

What India has not yet accumulated is extensive commercial experience processing ionic adsorption clays. That experience cannot simply be purchased. It must be developed.

Fortunately, capability can be built. Given access to Myanmar feedstock and sufficient investment in pilot plants and demonstration facilities, India could almost certainly develop competitive ionic clay processing technology over time. The challenge is not scientific understanding but operational experience. Commercial solvent extraction plants are not mastered from textbooks; they are mastered by operators who have learned how real systems behave after thousands of hours of production.

This leads to a broader conclusion. A future India–Myanmar partnership need not resemble today's China–Myanmar relationship. Myanmar's comparative advantage lies in its exceptional heavy rare earth resources. India's comparative advantage lies in its industrial base, engineering capability, financial institutions, and chemical manufacturing sector. Myanmar could supply ionic adsorption clays or mixed rare earth intermediates, while India develops increasingly sophisticated downstream capabilities in separation, metal making, alloy production, and eventually permanent magnet manufacture.

Such a relationship would benefit both nations while reducing dependence upon China. But achieving that objective will require more than building chemical plants. It will require building industrial capability.

This observation illustrates a broader lesson that extends far beyond Myanmar or India. Throughout the critical minerals

industry, governments frequently celebrate announcements of new processing capacity, new refineries, or new factories. Capacity, however, is only physical infrastructure. Capability is something entirely different. Capability consists of experienced people, qualified operating procedures, institutional knowledge, customer confidence, and the ability to produce consistently, economically, and at commercial scale.

Factories can be financed. Capability must be earned. That distinction explains why China’s position remains so formidable. Its greatest asset is not ownership of rare earth deposits, nor even its chemical industry. Its greatest asset is the accumulated industrial experience embedded in thousands of engineers, operators, managers, and technicians who have spent decades perfecting every stage of the rare earth value chain.

The future competition in rare earths, therefore, will not be won by the country that first replaces Chinese reagents. It will be won by the country that first replaces Chinese capability. And that is a far more difficult—but ultimately far more valuable—achievement.