## Why Jet-Setting Billionaires Should Defer to the Scientists in Determining the Critical Minerals List

written by Jack Lifton | October 4, 2024

It seems that former Vice President and now billionaire Al Gore played a significant role in setting the U.S. on its current path by coining the term "settled science," a phrase used to deflect criticism of the environmental warnings he issued. Gore prophesized a looming environmental disaster resulting from unchecked consumption, all while maintaining a lavish lifestyle, living in an energy-consuming mansion, and flying on private jets. Today, the approach to selecting critical minerals by experts, politicians, and investment advisers is both misguided and misplaced-ultimately missing the mark entirely. These groups remain fixated on determining which minerals, metals, and materials are "critical," overlooking the fact that such definitions are inherently dependent on time, place, and culture.

Science is disinterested in outcomes. The only bias allowed in science is the belief that contemporary theory is a plausible description of nature. Scientists are always looking to verify these beliefs through careful experimentation, but real scientists are always prepared for experimental evidence to prove that current descriptions of nature are wrong. When theory predicts one outcome and reproducible experiment finds another it is the theory that is wrong. There is no "settled science."

Today, there are two approaches to economics globally: the mostly free markets of the Euro-centric states other than Russia

and the mostly government-controlled markets of the rest. Both groups constantly denounce one another and adopt the mechanics of the other economic philosophy in part, and this never ends well.

My favorite is "Capitalism with Chinese Characteristics." A runner-up is the American political mantra that the United States does not have a peacetime industrial policy while adopting subsidies and tariffs to favor and support industries, the only value of which is that a lot of voters depend on them for their livelihood.

Profits long ago replaced prophets.

Well-meaning "experts" overwhelmingly misunderstand the difference between science and technology. Technology is the engineering of science for commercial or military purposes. The driver of one is profit, and of the other, security. The scope of the military's needs is a very small subset of the needs of the civilian consumer economy.

One of the most serious impediments to the commercial scale-up of laboratory discoveries that, if commercial, would reduce costs and/or increase the efficiency of a lifestyle technology is the limitation of the ultimate availability of raw materials critical for the process. Although always cast as a cost problem, the main factors for that cost, availability, accessibility, and process-ability into commercial preforms are usually ignored by subject matter illiterates cast as "experts" by intelligence and benchmarking hucksters.

Economists are increasingly saying that China needs a transition to greater reliance on domestic consumption and on the production of goods and services to supply those new demands.

The United States needs to return to the market-driven economy

that functioned pre-climate crisis. This requires an understanding of the need for specific critical minerals and the capability and capacity to process them into end-user forms.

The current U.S. Government policy of destroying the lowest cost energy-based economy that once made America the envy of the world and replacing it with expensive, intermittent, unreliable, and expensive sources of energy is suicidal to manufacturing growth, the driver of fairly distributed wealth creation. A ferociously greedy, self-serving, savvy generation of financial engineers has captured ( and perhaps encouraged) this theft of prosperity to churn long-established industries into extinction, destroying jobs and communities with reckless disregard for the sole purpose of individual wealth accumulation.

I completely agree that the United States needs and practices an industrial policy to supply the physical needs for its warfighting capabilities and capacities. I agree that the DoD must spend whatever it takes to ensure the secure supply in sufficient quantities of the critical minerals necessary for the domestic production of the technology metal-enabled components of modern war-fighting machines and armaments. This has been DoD policy since World War II. Still, a belief in (this time the outcome will be different) permanent globalization of natural resource acquisition led the DoDs sourcing managers astray.

Chinese industrial policy has by contrast covered that country's entire economy, civilian and military, and has been wildly successful in securing, for China, a secure and sufficient supply of the minerals necessary to support its total industrial and military economies.

The current U.S. Government is "studying" and making policy announcements about a critical minerals "crisis" that it does not understand. Policies formed in ignorance cannot succeed in solving a problem.

The United States needs to secure its domestic supply of minerals critical for the civilian consumer economy. To do this the focus must be on exploration, mining, refining, and processing into end-user products for consumer goods manufacturing.

American mining companies must go into the increasingly hostile resource world and secure the necessary critical minerals for our economy.

We must applaud those of our mining managers who are already or always have done this.

It is critical that we replace our current political and profit driven policy makers with informed and well advised statesmen, before we lose the ability to recover.