Sustainable Development & Mining: Not Necessarily an Oxymoron[1]

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In the first edition of this new series we explored the definition of sustainability and how that might be applied in a mining context. One working definition for mining's contribution to sustainable development might be:

"Using the economic engine created by mining to build an economy that survives and is better off after the end of the mining."

That this is a reasonable goal is rarely disputed. That mining has accomplished this spontaneously in the past can be proven by simple observation. That we are less than perfect in this area is demonstrated by outstanding examples of our failure in places such as Potosí, Bolivia, the Yukon, Canada and numerous other places where the vestiges of one-time mining wealth can be seen amidst current and deeply entrenched poverty. Thus, the starting point for understanding mining's role in sustainable development might be to understand how mining contributed in the past, and how to plan so as to avoid failures today.

Mining Success Stories

Historically, mining has at times spontaneously led to the development of economies which have persisted beyond the mine: economies which have grown, diversified, and provided - in the longer term - for the growth and well-being of their communities. How and why did this happen? Most of us would agree on a number of success stories. They are part of the fabric of how we have always understood our business and its role in economic growth.

Mining as an Engine for SD: Success Stories

The State of California	Gold
The Republic of Chile	Nitrates then copper
The State of Nevada	Silver then gold
Mexico	Silver

Can we expect the same results today from 'business as usual', or is the contribution of mining to development required to be done differently now in order to achieve a similar contribution to social and economic well-being? Aren't we doing enough simply by providing employment, paying taxes and being good stewards of the land, then leaving the place relatively safe and clean when we're done? Is the "do no harm" model of the last twenty years no long good enough?

[1] Published in The Latin American Mining Record, Sept./Oct. 2003

Certainly this was enough until recently, but a quick glance at the list of Projects at Risk suggests no longer. When asked why they voted against Meridian Gold's project in Argentina, one of the residents of Esquel said simply "*they didn't give us a reason to vote yes*[2]." Even the stock market, the last bastion of unbridled capitalism, is measuring companies using a sustainability yardstick. Since 1999 the Dow Jones Sustainability Index (DJSI) has been used as part of company rankings; the current industry leaders are Rio Tinto, Anglo American, WMC Resources and BHP Billiton.

Projects at Risk

Meridian's Esquel Project, Argentina, 2003	81% of local residents vote against the mine. Stock plummets from \$20 to \$9 per share, losing \$1.2 billion in market capital.
Camisea Gas Field, Peru, 2003	Ex-Im Bank rejects \$214 million in funding, causing rift with IDB. Project valued at \$2.8 billion. *(In September the IDB approved project funding; the US abstained in the final vote.)*
Manhattan's Tambo Grande, Peru, 2002	With loss of community and government support and a 2-year delay, stock falls from \$8 to a low of \$0.31 per share, losing \$300 million in market capital.
Gabriel's Rosia Montana Project, Romania, 2003	IFC rejects \$250 million in funding for what would be the largest open pit gold mine in Europe. Stock falls from \$5 to \$2, losing \$300 million in market capital.
Chevron-Texaco, Ecuador, 2003	A class-action suit for \$4.5 billion is filed on behalf of 30,000 indigenous people in Ecuador for alleged environmental damage and human rights violations.

Beyond the obvious pitfalls of blindly ignoring our changing society, there are some powerful reasons to embrace sustainable development. Perhaps the best is this: Opponents of the industry use issues like sustainability to hinder development of new mines. But when viewed objectively, mining's track record is not bad, having been the foundation for some of the biggest sustainable economies on Earth. This new challenge can in fact be our ally – mining's belief in its contribution to economic development is a truth that shines well on the industry. Not flawlessly, but well.

Why Was California Sustainable?

Although there are many contributing factors to the success of the California economy, there is no doubt that it got off to a dramatic and powerful start with the gold rush. Mining created the economic engine which opened up a distant and isolated region with lots of other potential – and for which the US had just finished fighting a war with Mexico. Mining jump-started a process which otherwise would likely have taken decades, through a massive in-migration of population, development of a diverse and thriving economy, and the creation of wealth. The population of San Francisco went

[2]Report prepared by Business for Social Responsibility, under contract to Meridian Gold, August 2003.

from 600 in 1848 to 25,000 in 1849. There were 100,000 new arrivals to California in 1850, and a peak in foreign immigration in 1852 of 62,000[3]. Without mining wealth, California may never have achieved the economic, political and social prominence that it has today (not to mention the recent contributions to political humor.)

A striking factor in reviewing this generation of wealth is that the biggest winners, those who became household names, were not the miners but the suppliers. Studebaker started by making wheel barrows. The founder of the Armour meatpacking dynasty started his fortune by feeding the miners. Levi Strauss made pants for the miners from material he originally bought to make tents. Two of the great transcontinental railroad barons started out in gold boom town Sacramento as hardware merchants. The creation of wealth obviously spread far beyond these noteworthy cases.

This happened spontaneously in 1849. Why do we now have to consciously and actively plan to create these conditions?

The California Gold Rush

Wealth	30 million ounces of gold were mined by 1860, resulting in a phenomenal increase in capital, purchasing power, and economic circulation in a short period of time.
Innovation	Lack of basic materials as well as the machinery and skilled labor spurred inventiveness. Levi Strauss started as a tent maker for the gold camps.
Industrialization	The remoteness of the mining camps required local production of nearly everything required by the mines. The result was the development of a strong industrial base.
Economic Diversity	Rich agricultural land, vast water supplies, port access and strategic importance both during and after the Civil War brought national attention – as well as a railroad.
Government	California established the rule of law early, by Western US standards, and entered the Union before most of the other Western states. Once the real "value" of California became apparent, the federal government focused on law enforcement and protection of the boarders, providing a relatively safe and secure environment.

Why is it Different Today?

Because there have been more failures than successes, and the successes came at costs we now consider unacceptable. When sustainable economic development occurred in the past from mining, as it did in California, it was blind luck – the preconditions for success if and when they existed, did so by accident or good fortune. We can no longer rely on

[3] http://www.californiahistory.net/text_only/6_3_1.htm

luck to determine whether or not sustainable development will take hold. Nor are we willing to pay the same social costs: the Native American population in California dropped from 150,000 in 1846 to 30,000 by 1870[4]. Racism in the diggings made it increasingly hard for Native, Chinese, Black or Latino miners to participate in the boom. The environmental damage wrought by hydraulic mining was the impetus for the first water quality legislation in US history and the resulting siltation is still clogging northern California's navigatable waterways. Competing land claims caused by the haphazard mapping of mining claims are winding their way through the courts to this very day. Finally, mining often brings the classic boom-bust cycle that leaves a wake of poverty and, too frequently, environmental liabilities.

We have - for the most part - accepted responsibility for mitigation of negative impacts. However, given that we live in the information age, in which NGOs are often better connected - and interconnected - than our permitting teams, no community is going to embrace a mine that merely promises to do no harm. We need to be actively involved in creating an environment supportive of sustainability, especially for those directly affected – those living in and around the project site. In terms of how to do this, we are now getting some strong messages about understanding and managing the negative impacts on traditional cultures. We also need to actively work to create economic linkages between our activities and the national and local economies, linkages that will help to create some of the successes that occurred in California.

Given what mining has accomplished spontaneously, one can only imagine the possibilities that exist with a little planning. This is a process, however, not a destination, and it is perhaps unfortunate that the catch phrase is a noun rather than verb.

[4] http://www.californiahistory.net/text_only/6_3_1.htm