



Mining in Central America

by Dan Oancea

In pre-Columbian times, Gold-rich [Mesoamerica](#) was a place where fierce warriors fought bloody wars. Peasants clearcut the jungle to make room for their crops. Roads and cities were built, and amazing temples were erected. No other metal could please the [Mayan](#) or [Aztec](#) Gods and kings more than gold, even though it did not carry an intrinsic material value but, rather, had a religious and cultural significance.

In the early [16th Century](#), the victorious Spaniards proved to be extremely interested in gold. Concerned about the lack of trade between the Indians and Spain, as well as the fact that the locals intended to pay tribute in corn and blankets and not in silver, gold or any other kind of convertible currency, the [King of Spain, Phillip II](#), decided to "...give orders for money to be coined there, though only of silver and vellon for the present." The [Caribbean nations](#) needed a local currency backed by a precious metal, which would provide a means to collect taxes.

In Mexico, many of the native silver veins outcropped on top of the hills. A work force of enslaved natives was also readily available. Thus, mining of the extremely rich silver veins started in the early 1500s. Some 500 years later, [Mexico](#) still ranks amongst the world's largest metal producers and it represents a favourite exploration ground for primary silver deposits.

The existence - or lack - of railways and road networks is a significant factor for companies considering the feasibility of setting up mining operations, particularly in Central America, where dense jungles and rugged mountains make the transportation of raw materials and equipment difficult. The dense jungles, high mountains and raging rivers made it more difficult, too, for the Spaniards to conquer the rest of Mesoamerica. Thus, even though geologically similar to each other, each of the [Central American countries](#) has developed different laws and attitudes related to mining.

Nicaragua, which is considered to be the [second poorest country](#) in the Western Hemisphere, has no operating railroads.

Several governments have tried to boost mining and mineral exploration in the country, but Nicaragua's recent history has been stained by a long civil war. [Daniel Ortega](#), leader of the [Sandinista National Liberation Front](#), was [re-elected](#) in 2006. His left-wing policies and rhetoric against the U.S. and capitalism, his decision to support Iran and Cuba, as well as the corruption and nepotism that thrive in the Nicaraguan business environment and the country's weak legal system all contribute to a general negative image that has deterred investment.

As a result of Ortega's [policies of expropriating and re-distributing](#) land in the 1980s, the task of establishing title to a property can be very difficult. Property litigations, the flawed decisions of a corrupt court system and illegal property seizures by political parties are rife.

The Canadian company, [Central Sun Mining Inc.](#), operates the country's most important gold mine, the [El Limon](#). Open pit and underground mining operations are supposed to end in the fourth quarter of 2011, but the company is trying to restart the past producing [Orosi / La Libertad](#) gold mine and convert it to a conventional milling operation.

Gold exploration properties are also held by [First Point Minerals](#), [Fortress Minerals Corp.](#) and [Radius Gold Inc.](#) However, legal system uncertainties have recently influenced the decision of some of these companies to put their projects on hold and focus on other countries and regions.

Guatemala boasts the [largest economy in Central America](#) and, at the same time, one of the most unequal income distributions in the Western Hemisphere. The top 20% of the population makes two thirds of the country's income, while 32% live on less than \$2 per day. Agriculture accounts for 24% of the exports. Narrow gauge railroads operate between Guatemala City and Puerto Barrios.

Also discouraging to mining companies and investors is the fact that democratic institutions are plagued by intimidation,

corruption and inefficiency. Violent criminal activities and vigilante justice are commonly carried out in Guatemala.

The country has a diverse geology, comprising oil and minerals, gold and industrial minerals such as feldspar, barite, clays, gypsum, lime and marble.

[El Sastre](#) is a small open pit truck and shovel heap leach gold mine owned by [Castle Gold Corporation](#).

[Marlin](#) is an open pit/underground gold and silver mine owned by [Goldcorp Inc.](#) The mine is expected to produce approximately 250,000 ounces of gold per year and approximately 4 million ounces of silver per year over its mine life. However, the mine site has experienced power interruptions because its power lines have been tampered with. This has resulted in intermittent idling of the mill facility.

[Torton](#) is a zinc oxide exploration project owned by [Firestone Ventures](#). It is located in the western highland of Guatemala.

[Fenix](#) is a nickel, cobalt laterite project that is undergoing development and is owned by [Hudbay Minerals Inc.](#) It is located in the [Izabal Department](#) of eastern Guatemala. The project has been put on hold because of tight credit market conditions.

Honduras is one of the [poorest countries](#) in the Western Hemisphere. Its economy is based on agriculture, textiles and manufacturing. Widespread slash and burn agricultural methods and illegal logging take a heavy toll on the forests. Narrow gauge railroads, built by banana growers, are operational in Honduras.

[San Andres/Christo mine](#), located in the interior highlands of western Honduras, is an open pit heap leach mine owned by [Yamana Gold](#).

Another established producer is [Breakwater Resources'](#) [El Mochito](#) lead, zinc and silver underground mine located in northwest Honduras, near the town of Las Vegas.

A number of past producing mines - [San Martin](#), [Vueltas del Rio](#), [Zopilote](#) – also riddle the landscape.

[Cacamuya](#), owned by [Breakwater Resources Ltd](#) and [First Point Minerals Corp.](#) is a gold and silver exploration stage property that has been on care and maintenance for several years now due to the continuing moratorium imposed by the Honduran government several years ago on the transfer of title to mineral concessions.

The country also produces export industrial minerals – gypsum, marble and salt.

Costa Rica is a fertile land occupied by a well-educated population largely of European descent. The agricultural land is divided and owned by small autonomous landowners. Bananas, pineapples and coffee are the main export products.

A quarter of the land is protected as national forests. The country is a popular destination for tourists. Narrow gauge railroads operate in [Costa Rica](#).

In the Atlantic, offshore oil deposits are known to exist but have not yet been developed. Costa Rica's hydropower potential is great and hydro power plants provide for most of the country's electricity needs.

[Bellavista](#) is a past gold producer located in the [Province of Puntarenas](#) near the town of Miramar. In 2007, heavy rainfall caused ground movement and landslides, thus imperilling the cyanide leach pads. Mining operations were subsequently suspended.



Woman weaving on a traditional backstrap loom in a village in Guatemala.

[Ariel Resources](#) discontinued its gold and silver operations at San Martin and El Rocio mines in 2001.

Industrial minerals production includes lime, pumice, cement, clays, diatomite, salt and gravel.

El Salvador's economy is also driven by agriculture and, recently, by the textile and apparel industries. Services have shown a huge growth; they employ almost 50% of the labour force. There are no operating railroads in [El Salvador](#).

Because of its location, Salvador is constantly hit by hurricanes and earthquakes. Volcanic eruptions and large floods are also to be taken into account when companies are planning investment in mining or mineral exploration. Favourable geology has enabled precious metals deposits to form.

In the past the country produced gold and silver and producing mines include [El Potosi](#) and [San Sebastian](#). More recently mineral exploration has been carried out by several juniors.

In July 2008, [Pacific Rim Mining Corporation](#) announced that it is reducing its exploration and investment activity on its [El Dorado](#), [Santa Rita](#) and [Zamora](#) - Cerro Colorado gold projects. This reduction in exploration activity will continue until the company's long sought mining permit for the El Dorado project is granted.

Panama stretches over the isthmus that separates North and South America.

In 1513, [Vasco Nunez de Balboa's](#) journey of discovery resulted in the establishment of a land connection between the Pacific and Atlantic oceans. The route became known as Camino Real (the Royal Road) because gold and silver from South America was brought by ships to its Pacific end, carried by caravans over the isthmus and then loaded on other Spanish ships on the Atlantic coast.

The 83 km [Panama Canal](#) was completed in 1914. The country has a single railway that is also intercontinental.

Panama's economy is based on the services sector. Nevertheless, its favourable geology has attracted junior companies trying to unlock its mineral potential.

In the early 1990s, several groups, mostly Canadian, obtained concessions to exploit mineral deposits in the [Panama](#). None of them were put into operation in a significant manner for economic reasons; because of the price of gold, silver, copper and other minerals, it did not make sense to invest in the infrastructure required to extract the minerals lying under Panama's soil.

In early 2008, [Inmet Mining Corporation](#) and [Teck](#) agreed to [develop Petaquilla](#), a copper and gold project located 120 km west of Panama City and 10 km from the Caribbean coast.

[Belize](#) is the most [sparsely populated nation](#) in Central America and is the only one that has English as its official language – an inheritance from its colonial past.

Other than logging and agriculture, the only viable industry is tourism, which is enhanced by an excellent natural setting and the presence of numerous [Mayan ruins](#).

Industrial minerals for domestic use - sand, gravel, marble, limestone and clays - have been produced in Belize. Gold is known to be produced in small quantities by stream panning.

There are no operational railroads in Belize. This and the lack of roads prevents inland development. The country has the region's most expensive electricity.

Mining in Central America, though difficult, could be extremely rewarding but there are legal challenges that need to be overcome.

One pitfall is the difficulty of working on a property that has outstanding debts/unpaid taxes. The company has to pay the debt or forfeit the title to the property. Another difficulty arises when companies fail to understand that artisan miners on the recently acquired mineral property have the legal right to mine there. The junior must buy it again from them. Also, the company must ascertain in advance that the mineral title to a property does include title to all minerals, because, in many cases, some minerals are excluded. Furthermore, surface rights have to be negotiated separately with local communities.

Many of these problems can be solved if the purchasing company enters into a partnership with a knowledgeable local company, or secures the services of a local law and accounting firm.

The role of mining in Central America is not of significance. Favourable geology could convince investors to spend money on exploration and on developing mineral projects. Impoverished local communities would definitely benefit from infrastructure development such as roads, railroads, services, electricity, hospitals and employment by responsible 21st Century mining companies. ■

Links and References

- [Ariel Resources](#)
- [Aztec Empire](#)
- [Bellavista Project](#)
- [Belize](#)
- [Belize Mining and Energy](#)
- [Breakwater Resources](#)
- [Cacamuya Project](#)
- [Caribbean Culture: Into the Mix](#)
- [Castle Gold Corporation](#)
- [Central American Mining Reviewed by Oxfam](#)
- [Central Sun Mining Inc.](#)
- [Costa Rica: Open Air Mine Ecological?](#)
- [Costa Rica's Bellavista Mine Update on Heap Failure](#)
- [Current Investment Climate Statement - Guatemala](#)
- [Current Investment Climate Statement - Nicaragua](#)
- [Effect of Gold Mining and the Use of Mercury by Gold Miners in Las Juntas de Abangares, Costa Rica](#)
- [El Dorado](#)
- [El Limon Mine](#)
- [El Mochito](#)
- [El Potosi](#)
- [El Salvador](#)
- [El Sastre](#)
- [Fenix Project](#)
- [Firestone Ventures](#)
- [First Point Minerals Corp.](#)
- [Foundation for the Advancement of Mesoamerican Studies](#)
- [Fortress Minerals Corp](#)
- [Goldcorp Inc.](#)
- [Gold Mining and Mineral Exploitation in Panama](#)
- [History of Nicaragua's FSLN](#)
- [Honduras: Cyanide Pools in the Desert](#)
- [Honduras Poverty Assessment: Attaining Poverty Reduction](#)
- [Hudbay Minerals Inc.](#)
- [Inmet Mining Corporation](#)
- [Izabal Department](#)
- [La Libertad](#)
- [Marlin Mine](#)
- [Mayan Empire](#)
- [Mayan Ruins](#)
- [Mesoweb](#)
- [Mining in Costa Rica](#)
- [Mining in Guatemala](#)
- [Mining in Honduras](#)
- [MiningWatch: El Salvador](#)
- [Mining in Mexico](#)
- [Orosi Mine](#)
- [Pacific Rim Mining Corporation](#)
- [Panama Canal](#)
- [Panama: Gold](#)
- [Panama: Mining, Forests and Indigenous Peoples' Rights](#)
- [Petaquilla Project](#)
- [Phillip II of Spain](#)
- [Province of Puntarenas](#)
- [Radius Gold Inc.](#)
- [San Andres/Christo Mine](#)
- [San Martin](#)
- [Santa Rita](#)
- [San Sebastian](#)
- [Teck](#)
- [The "Golden Century" for Spaniards](#)
- [The Mining Industry in Nicaragua \(Spanish\)](#)
- [Turlon Hill Zinc Project](#)
- [Vasco Nunez de Balboa](#)
- [Vueltas del Rio](#)
- [Yamana Gold](#)
- [Zamora](#)
- [Zopilote](#)

Click here for full list of links: <http://go.mining.com/jan09-a3>



Ask Golder about Mine Life Cycle Solutions.

Exploration
Pre-feasibility
Feasibility
Design
Construction
Operation
Closure
Reclamation

© 2008, GAC

**We bring engineering
and science solutions
to business**

From project inception to mine closure and post-closure operations Golder Associates is recognised for quality consulting. For over 45 years we have been providing our clients with integrated engineering and environmental services for immediate and long term solutions. Our strengths include the global network of specialist expertise, offices located in key mining centres, and ability to help our clients balance profitable mine operations with care for the environment, and commitment to communities around the world.

Golder now employs over 6,500 people operating from 150 offices located throughout Africa, Asia, Australasia, Europe, North America and South America. **A world of capabilities delivered locally.**



Africa + 27 11 254 4800
Asia + 62 21 252 1975
Australasia + 61 7 3721 5400

Europe + 356 21 42 30 20
North America + 1 800 275 3281
South America + 55 21 3095 9500

solutions@golder.com www.golder.com/mining