



**Asia-Pacific
Economic Cooperation**

2016/SOM2/MTF/020

Agenda Item: 6

Annual Mining Report – Chile

Purpose: Information
Submitted by: Chile



**10th Mining Task Force Meeting
Arequipa, Peru
9-10 May 2016**

Annual Mining Report

CHILEAN MINING STATUS

May 2016

Production

In 2015, Chilean copper mining reached 5,764 thousand MT of fine copper, placing it bigger than registered in 2014 with a 14 thousand MT increase (+0.3%). In regard to other metals in 2015, molybdenum totaled 52,579 MT, 7.8% above 2014, gold diminished 7%, and silver increased 4%.

Investments

The investment portfolio for 2016-2025 corresponds to 35 initiatives valued in US \$50,217 million, broken down into 26 copper mining projects (89.3%), and 9 pertaining to gold, silver, iron and industrial mineral mining (10.7%). This portfolio presents a decrease of 35% in respects to the portfolio presented in 2015. This decrease is a product not only of fewer initiatives, but also to the materializing of 4 projects for US \$6,449 million.

Of this total, the projects with the highest probability of being carried out within the timeframes indicated by the mining companies, which correspond to the projects in base condition and are probable, are 21 initiatives valued in US \$25,184 million: 11 in base condition (60.4%) and 10 in probable condition (39.6%, mostly copper mining). There is a second group of initiatives with less probabilities of being carried out in the time frames defined by the owners, as well as those more likely to be affected by changes in market conditions, equaling 14 initiatives valued at US \$ 25,033 million: 12 in possible condition (69.3%), 2 in potential condition (30.7%)

Energy Consumption¹

In 2014 the national consumption of energy was reported at 161,716 tera joules (TJ) in copper mining, divided in electricity consumption (51.5%) plus fuel consumption (48.5%). This represents a 4.4% increase with respects to 2013; 2.7% in electricity and 6.4% in fuel. The mining process with the highest fuel consumption is pit mining with 76%, and with the highest electricity consumption is the concentrator with 52%. The processing of oxides (LxSxEw) gets the second place with 25% of electrical consumption in mining.

The unitary coefficient of energy consumption increased from 26.8 GJ/MTF in 2013 to 28.8 GJ/MTF in 2014 which reflects a 7% increase. This variation is determined by the copper grades of the treated minerals. Increased electrical consumption is led by the concentration process which rises proportionally to the increase in ore processed, while a greatest fuel consumption is due, principally,

¹This information is provided to COCHILCO by the mining sites of the medium and large sized private mines, ENAMI and CODELCO, totaling 98% representation of fine copper production.

to an increase of ore transported, as well as marginal increases due to longer hauling distances and relative depth of the exploited deposits.

Water Consumption

In 2014 freshwater consumption reached 12.7 m³/s, increasing by 1.9% over the previous year. Of total consumption, 70% was destined to generate copper concentrate, whereas 14% was for cathode generation through hydrometallurgy.

In terms of consumption efficiency, the decline in the unitary rate of processed ores was seen through a 0.53 m³/t decrease in the case of concentration plants (6.9% less than 2013), and 0.08 m³/t in the case of hydrometallurgy processing (13.7% less than 2013).

Competitiveness

Competitiveness in mining is based on the analysis of two pillars: geologic potential and investment climate. First, the volume and quality (mineral content) of the copper reserves are considered. Then, geologic potential indicators are created to measure the life expectancy of the area, considering current capacity and projected production. Second, for the investment climate analysis, six key components are considered: production costs, currency variation, political stability, legal frameworks, labor force, and tributary system.

Starting from 2015, with the aim of having information on industry performance, Cochilco initiated a quarterly costs monitoring of 19 large-scale mining operations, which represents 90% of Chile's copper production. In September 2015, eleven mining operations had reduced their accrued direct operating costs (cash cost) over the same period of 2014.



Chilean mining status 2016

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April, 2016

Production and Investment

Metals production variation (2014-2015)

Metal	Variation (%)
Copper	0.3%
Moly	7.8%
Gold	-7.0%
Silver	4.0%

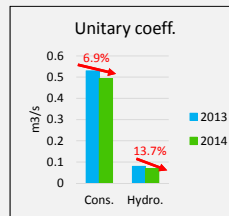
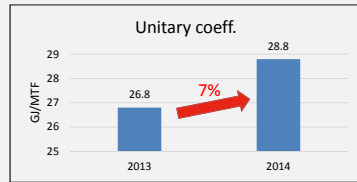
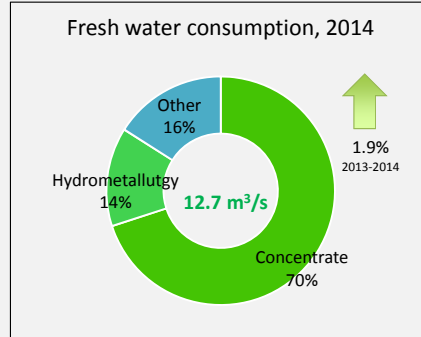
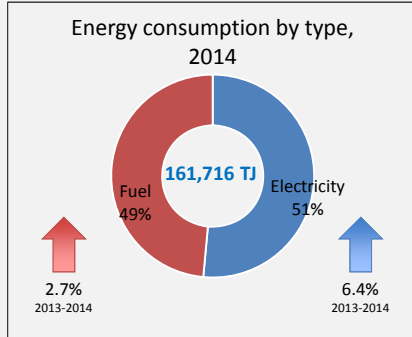
Investments 2016-2025

Category	Percentage
Potential	15%
Base	30%
Probable	20%
Possible	35%

→ 35 initiatives (-35%)
 → Total: US \$50,217 million

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