

Section B. Monetizing CO₂ Emissions Impacts on the Economy

Emitting a carbon into the atmosphere adds to climate change-related impacts such as changes to net agricultural productivity, human health, and property damages from increased flood risk. This impact is referred to as the “social cost of carbon”, and the U.S. Environmental Protection Agency has estimated that every ton of CO₂ emitted results in approximately \$57.30 in damages (in 2013 dollars). Table 16 compares the annual social cost of carbon emitted due to the Solwara 1 project and the three comparison mines, as well as the cost per ton of copper produced. Results indicate that Solwara 1 results in significantly lower impacts per ton of carbon

▼ **Table 16.**
Present Value of Ecosystem
Service Impacts to Solwara
1 and Comparison Mines

Mine	Annual Copper Production (metric tons per year)	Annual CO ₂ Emissions (metric tons per year)	Social Cost of CO ₂ Emissions (\$ per ton)	Annual Value of CO ₂ Impacts (\$ per year)	Relative Impact of CO ₂ Emissions per Ton of Copper Produced
Solwara 1 (proposed)	77,760	346,051*	\$57.30	\$19,828,722	1.0
Prominent Hill	73,362	396,513	\$57.30	\$22,720,195	1.2
Bingham Canyon	194,000	1,490,000	\$57.30	\$85,377,000	1.7
Intag (proposed)	484,437	Unknown	\$57.30	Unknown	Unknown

