

**LUISE HARBOR, PAPUA NEW GUINEA**



THE LIHIR GOLD MINE on the island of Aniolum has operated since 1997 and dumps over 5 million tonnes of tailings per year 1.5 kilometers offshore into the Luise Harbor and the South

Pacific Ocean at a depth of approximately 120 meters.<sup>49</sup> The acidic, warm tailings (pH 1-2.3) include zinc, copper, arsenic, cadmium, mercury, lead, and cyanide.<sup>50</sup> The dumping has caused high concentrations of lead, copper, vanadium, and arsenic in the bottom sediment, and toxic levels of arsenic occur in suspended matter in the water column.<sup>51</sup>

The tailings appear to have a serious negative impact on marine life. Corals and other bottom-dwelling ocean life are less common and less diverse in tailings dumping areas even at great depths, and bottom dwellers are more contaminated with mercury and arsenic.<sup>52</sup> Corals in the dumping area died off in far greater numbers than in other areas after a coral bleaching event in 2006.<sup>53</sup> Fish diversity and abundance is also lower, apparently because of

the tailings dumping, and arsenic and mercury concentrations in several fish species are at higher concentrations closer to the mine.<sup>54</sup>

In spite of the demonstrated contamination and provincial government calls for regulation of the dumping, the mine – which is owned by Australia’s Newcrest Mining Ltd. – is upgrading its processing plant to produce more gold and tailings in 2013.<sup>55</sup> The mine displaced a number of people in order to begin its operations; however, as of 2007, some Kapit people still resisted relocation. Furthermore, local communities have refused to allow mining of the Ailaya sacred site, jeopardized by the mine.<sup>56</sup>

The mine project began with financing and risk guarantees from the Australian Export Finance and Insurance Corporation, Union Bank Switzerland and a political risk guarantee from the World Bank’s Multilateral Investment Guarantee Agency (MIGA).<sup>57</sup>

**BELOW:** The Lihir mine site, with the sacred Ailaya site (center), dumps tailings into Luise harbor and the South Pacific (left).



PHOTO: GLENN BANKS