

# Social-economic contribution of the Amulsar Gold Project

Prepared for Lydian International



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This report assesses the projected social-economic contribution of Lydian International's<sup>1</sup> proposed Amulsar Gold Project ("Project") to the Armenian economy, including its impact on GDP, tax revenues, exports and employment. The Amulsar Gold Project includes mining of the Tigranes, Artavazdes, and Erato deposits at Amulsar. It plans to extract 2.1 mln ounces over a 11 year mine life.

According to the findings of the analysis, the Project is going to have tangible impacts both directly and through indirect and induced<sup>2</sup> economic activity. More than USD 426 million of capital investment is planned to be spent on Amulsar Gold Project during the first two years (2015-2017)<sup>3</sup>. Over the life of the mine, it is expected to contribute directly approximately USD 488 million to the state budget through taxes and royalties (including employees' income tax payments), whereas taxes derived from indirect and induced activities related to the mine in other sectors of the economy are estimated to be around an additional USD 156 million. According to its forecasted cash flow plan, Amulsar Gold Project will pay to its employees and the contractors' staff around USD 230 million over the life of the project, including wages paid during the construction phase. The Project will provide jobs for approximately 1,300 workers during the construction period and about 770 during the operational phase. In addition, considerable number of jobs will be generated in other sectors of the economy (in particular in supply chain and services and through SMEs development).

Specific contributions and findings of the report worth highlighting include:

- The Amulsar Gold Project's direct contribution to Armenian GDP is expected to be USD 120 mln annually or almost 1% of total GDP (average for 11 years life of mine<sup>4</sup>). The estimated GDP multiplier<sup>5</sup> for the mining sector is 1.55 (1.00 – direct effect, 0.22 – indirect effect and 0.33 – induced effect), which means that additional USD 65 mln will be the indirect and induced contribution to other sectors of the economy annually. The total (direct, indirect and induced) contribution to GDP will be on average around USD

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<sup>1</sup> Lydian International Limited, registered in the UK, is an emerging gold developer. The shares of Lydian International are listed on Toronto Stock Exchange (TSX:LYD)

<sup>2</sup> Direct effects refer to immediate project outcomes, whereas indirect and induced effects are concerned with increase in output in other sectors of the Armenian economy due to implementation of the project. In general 'indirect' contribution term is used to indicate additional economic activity arising because of purchases of goods and services from the supply chain by the project. Induced contribution term usually refers to effects obtained from government expenditures of taxes received from the Project and employee spending (employees of the Project and all the other employees indirectly affected by Project).

<sup>3</sup> As of current schedule, construction will start in mid-2015 and continue until mid-2017 with an overall duration of around two years. While the cash flow forecasts, which serve as reference to calculate economic contributions are estimated based on calendar years, construction phase contributions are calculated with respect to calendar years 2015 and 2016. No material change in economic contributions at the construction change would occur mid years were used instead of calendar years.

<sup>4</sup> At USD 1,250 per ounce of gold

<sup>5</sup> In economics, the multiplier is equal to the total economic impact per unit of direct impact.

185 mln or 1.4% of GDP.

- The Amulsar Gold Project is projected to be among the top 5 corporate taxpayers in Armenia, generating annually on average approximately USD 50 mln of taxes and additional USD 17 mln will be generated by indirect and induced economic activity. The total taxes directly generated by the Project, together with its induced and indirect effects, will represent around 2.1% of total taxes collected in the country.
- The Amulsar Gold Project will export on average USD 286 mln worth of gold annually, which will account for around 6.5% of total exports from Armenia (10% of merchandise exports).
- The construction stage of the Amulsar Gold Project will increase the output of the economy's construction sector by around USD 120 mln annually. Respective annual contribution for two years of construction to overall GDP will be 1.0% or USD 102 mln out of which 40 mln is attributable to indirect and induced effects. The GDP multiplier for the construction sector according to the model applied is equal to 1.70 (1.00 – direct effect, 0.28 – indirect effect and 0.42 – induced effect).
- The Project is going to create relatively skilled and highly paid jobs with approximately 95% of employees being Armenian nationals. Typical wages paid will be somewhat higher than mining sector average, so as to enable the Project to attract and retain experienced specialists.
- The Amulsar Gold Project will involve around 1,300 workers for construction in the first 2 years of the Project. During the 11 years of the Project's production or operational stage, it will provide around 770 jobs at the mine, processing facilities, laboratory and the administration. Compared to 2013 employment in the mining sector this corresponds to an increase of almost 10%. According to the recruitment policy during the hiring process, priority will be given to the residents of affected and nearby communities, as well as to specialists from Vayots Dzor and Syunik Marzes.
- The employment multiplier for operations stage will be around 11, which means that 1 job in the mine during the project duration is going to create 10 jobs in other parts of the economy via indirect and induced effects. Thus, around 3,300 jobs will be created via indirect effects and 4,400 additional jobs through induced effects of the project. The corresponding multiplier for the construction stage of the project will be around 4.3.
- Long-term employment opportunities for the residents of the affected communities of Gndevaz, Saravan, Gorayk and Jermuk/Kechut are anticipated to have a positive impact in the sense of reducing outward migration. An econometric study conducted for reference in Syunik Marz suggests that possibilities of employment in mining sector have a statistically significant impact on decreasing the number of outgoing migrants in the rural communities.

- According to Amulsar’s long-term financial plan, community social investment will be undertaken in each year the Project operates and will be between USD 400,000 and USD 700,000 each year.