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**Spatio-Temporal Controls on Gold Mineralization in
Masara, Compostela Valley, Philippines**

GRANTEE: University of the Philippines–Diliman (UPD)

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INDUSTRY PARTNER: APEX Mining Company Inc. (AMCI)

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Mineralization model for mining

The Philippines is considered to be one of the most mineralized areas in the world. The country's copper, gold, and chromite deposits are among the world's largest. With a growing population of over 100 million as of July 2014, and over a quarter of the population living below the poverty line, tapping resources like gold can promote sustainable development and uplift Filipinos' quality of life. However, looking for gold deposits in concentrations that would make their extraction economically viable has remained a constant challenge to geologists and engineers.



Geologic field mapping and sampling of the different rocks were conducted in the Masara Gold District, Compostela Valley, Philippines to identify the different host rocks and their relationship to mineralization

To address this concern, UPD, with support from USAID STRIDE, introduced the formulation of the mineralization model for mining in Masara, Compostela Valley. The mineralization model was provided to AMCI-operated mines areas. By understanding the spatial and temporal controls on the study area's gold

deposition through the mineralization model, the study identified possible extensions of known gold veins. The project was able to come up with 8 prospective areas that could possibly host extensions of ore-bearing veins. Within the duration of the project, AMCI was able to confirm the presence of gold-bearing veins in 3 out of the 8 suggested areas.

Moving forward

The implementation of the project in Masara, Compostela Valley, especially the geophysical surveys, was indeed challenging due to obstacles encountered during fieldwork, such as rainfall and difficult terrain. Increased logistical support and effective planning were indispensable to overcome the hurdles.

With additional sites for mining, more job opportunities can be offered by AMCI to the local communities in Masara, Compostela Valley. Aside from this, the same methods used in establishing a mineralization model for this known deposit can also be utilized to guide exploration for new deposits in nearby areas.

The Philippines still has many unexplored mineralized regions. Therefore, the adoption of the mineralization model may be an effective and cost-efficient approach that will benefit both the local community, and in the long run, the entire country.



Dr. Dimalanta delivers a lecture on Exploration Geophysics to junior and senior college students of the University of Southeastern Philippines in Davao City. This is part of the information and education campaigns conducted by the project team