IM4DC

# Action Research Report

SUMMARY

Researchers:
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School/Centre:
* Centre for Exploration Targeting
** Sustainable Minerals Institute

University/Institutions:
* The University of Western Australia
** The University of Queensland

Key themes:
Governance and Regulation
Community and Environmental Sustainability

Key countries:
Indonesia

Completion:
January 2015

Research aims:
This research sought to provide:

- mineral prospectivity maps for an area of South East Sulawesi
- maps combining mineral prospectivity with factors relating to sustainability
- recommendations on future needs for improvements in analysis

For further information on this action research:
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## A GIS-Based Exploration Initiative to Help Steer Sustainable Development: a Pilot Project for Indonesia

In Australia, mineral exploration opportunities have been enhanced by (1) the release of pre-competitive data in the form of Geographic Information System (GIS) databases, and (2) analysis of that data in the form of prospectivity maps. Such maps may be used to attract investment dollars into the region from exploration companies and also assist in providing advice for government agencies in terms of where to focus future budgets.

The aim of this pilot project, focussed on South East Sulawesi, was to build on these examples of pre-competitive data releases, to not only provide new geoscience products but also, for the first time, to integrate data relevant to environmental, community and infrastructure development. This would allow mineral prospectivity maps to be generated that highlight target areas based on both geology and factors relating to sustainability, which ultimately have a significant impact on the ability of mining companies to explore and operate within a region (e.g. the social license to operate).

Specific deliverables from the project were:

1. an assessment of the quality of the existing geoscientific data
2. the generation of mineral prospectivity maps for South East Sulawesi, Indonesia. These aimed to include aluminium, nickel, copper, and gold
3. the generation of 'sustainable mineral prospectivity maps' sensitive to local environment, community and infrastructure information, for South East Sulawesi, Indonesia
4. a report on key areas for sustainable mineral potential and recommendations on critical data required to advance the analysis
5. the release of new maps via the IM4DC server
6. a visit to South East Sulawesi and Pusdiklat Geologi, Bandung, to communicate project results and the methodology with key stakeholders

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