



GOVERNMENT OF PNG



EUROPEAN UNION

## **EUROPEAN UNION SUPPORT TO THE PNG MINING INDUSTRY SYSMIN PROJECT - MINING SECTOR SUPPORT PROGRAMME**

The European Union funded mining sector support programme (SYSMIN project) in Papua New Guinea is now in its 5<sup>th</sup> year of implementation and is progressing well with some of the projects having already been completed. The most visible and also the first to be completed is the Mining House and also the headquarters of the Mineral Resources Authority. Situated at the site of the former colonial administration headquarters in Konedobu in Port Moresby, the Mining house was constructed at a total cost of twenty four million kina and was completed in May 2007 and handed over to the Mineral Resources Authority in June 2007.

It was the severe drop in earnings from PNG's mineral exports in 1997 that triggered the country's eligibility for EU-SYSMIN funding. A comprehensive eligibility study was conducted in 2000-2001, and concluded that PNG met all the eligibility criteria laid out in the Lome IV Convention. The eligibility study also outlined a 50 million Euro dollars 6 year Mining Sector Support Programme (MSSP) consisting of ten projects. The financing agreement to implement this programme was signed on July 10, 2002.

The design of the MSSP is very much relevant to the needs of the mining industry of PNG and reflects a close consultation between all the stakeholders. The concept covers all the major aspects relating to the development of an investor friendly environment on the one hand and the provision of support to small scale gold mining on the other.

The overall objectives of the MSSP are to sustain the country's economic performances through mineral production and exports and to alleviate poverty, increase employment opportunities and mitigate the mines environmental impacts. It is also aimed at increasing foreign investment in PNG's mineral sector, with special emphasis on mineral exploration expenditures.

### **MSSP PROJECTS**

The ten projects implemented under the Mining Sector Support Programme are :

- PROJECT A : Formulation of a mining waste management policy
- PROJECT B : Independent evaluation of deep sea mine tailings placement (DSTP) in PNG
- PROJECT C : Construction of the mining house to house the Mineral Resources Authority
- PROJECT D : Small scale mining vocational training centers (SSM-VTC) and Woman's training and development centre (WTDC)
- PROJECT E : Airborne geophysical survey of the PNG highlands and Papuan peninsula
- PROJECT F : Geological mapping and mineral potential assessment of the PNG highlands
- PROJECT G : Geological and mineral resources information system (GMRIS)
- PROJECT H : Hardware procurement
- PROJECT I : Promotion of PNG's mineral sector
- PROJECT J : Technical assistance to the program management unit

The ten MSSP projects cover a variety of fields like mining and marine environment, small-scale mining, geophysics, geochemistry, geology, mineral exploration, database design and management, geographical information system, website design, computer hardware installation, architecture, marketing and communication. The training and transfer of skills and knowledge is also an important factor in all projects of the MSS programme.

The two main projects are project E, the Airborne Geophysical Survey and project F Geological Mapping and Mineral Potential Assessment. Together they account for 60 per cent of the total budget. The two projects are considered to be vital because of the anticipation that their outcomes will result in unprecedented mining exploration activity in PNG. Both projects are expected to provide basic geology and scientific information that will enable private exploration companies to identify opportunities for further exploration.

## **PROJECT E - AIRBORNE GEOPHYSICAL SURVEY OF THE PNG HIGHLANDS AND THE PAPUAN PENINSULAR**

The airborne geophysical survey project is intended to provide the Mineral Resources Authority with robust airborne magnetic and radiometric databases that will be promoted and made available to the private sector in the form of both digital data archives and paper maps.

The contract to undertake the airborne geophysical survey was awarded to Fugro Airborne Surveys with Hevi Lift (PNG) as subcontractor. The airborne geophysical survey is the biggest helicopter-borne aerogeophysical survey ever undertaken in the world, and obviously the biggest that Fugro has ever undertaken. Under the contract, Fugro Airborne Surveys will acquire approximately 210,000 line km of radiometric and aeromagnetic coverage. The project will continue for 48 months until 30<sup>th</sup> June 2009.

The data and products derived from Project E will be incorporated into the GMRIS databases of parallel Project G. The availability of these data in both digital and paper-map formats are expected to encourage and facilitate exploration in PNG by international mining companies.

## **AIRBORNE GEOPHYSICAL AREA COVERAGE**

Two large blocks have been selected for airborne geophysical coverage. Area 1 incorporates approximately 62,000 sq km of the Central Highlands region and occupies portions of six 1:250k scale map sheets. Area 2 is approximately 29,000 sq. km in size and also falls within six 1:250k scale map sheets. The project has completed Area 1 and is now acquiring data in Area 2. The project is ahead of schedule and completion of the data acquisition is expected for the end of the dry season in September/October 2008.

As part of this contract, Fugro has been providing training for national geophysicists and post graduate students in aspects of the performance of airborne geophysical surveys, data processing, data management and map production. Training of national mining geophysicists and university of PNG graduate students by Fugro in the state of the art airborne geophysics technology will ensure that these skills are retained by the Mineral Resources Authority.

## **PROJECT F - GEOLOGICAL MAPPING AND MINERAL POTENTIAL ASSESSMENT OF THE PNG HIGHLANDS**

Project F involves follow-up survey of most of the areas covered by the airborne survey. The contract to undertake this project was awarded to a consortium of the British Geological Survey (Lead company), Deutsche Montan Consult of Germany and the Council of Geoscience of South Africa. Under the contract, the contractor will place seven geologists in the Geological Survey division of the Mineral Resources Authority for a period of five years. Project commencement is April 1, 2006 and is expected to end in March 2011.

Over a five period beginning in 2006, 24 new map sheets (1:100k scale) will be produced. The mapping will result in the first systematic update of the highlands geology since the early 1970's, and will probably lead to new interpretations of this prospective terrain.

### **PROGRESS OF OTHER PROJECTS**

Re-tendering for Project A, formulation of mine waste management policy has commenced in early 2008 with project commencement during 4<sup>th</sup> quarter of 2008. The activity involves assisting the Department of Environment (DEC) with the participation of all stakeholders to prepare a water quality management policy and mining waste management guidelines with the aim of providing investors with precise information about policy and regulations applicable to mining waste disposal.

Project B will involve an independent evaluation of the deep sea mine tailings placement (DSTP). The activity is to perform an independent assessment of the Misima and Lihir DSTP's by means of an analysis of existing data and by sea-borne investigations. The resulting evaluation will serve as a basis to amend existing regulation and train DEC staff in monitoring activities. The project scope has now been extended to cover a baseline study for the Ramu Nickle DSTP site. This baseline study will be available towards the end of 2008. The contract to undertake this project has been awarded to the Scottish Association for Marine Science (SAMS).

Project C involves the construction of the new mining house. The purpose of the project is to provide adequate physical infrastructure for the regulation and promotion of the sector. The Mining House was completed in May 2007 and was handed over to the Mineral Resources Authority in June 2007. The Mining House is part of a special initiative targeted at improving PNG's competitiveness in the mining sector, by modernizing the way the country does business, improving the facilities from which to do that business, and providing essential geological and physical information to potential investors in order to stimulate activity in the mining sector.

Project D involves the construction of small-scale mining training centers, training for small-scale miners and construction of a Women Training and Development center. The proposed project will build three Vocational Training Centers (VTC), in a phased manner, at Wau, Wewak and Porgera and a separate Women's Development Training Center at Porgera, as well as train local mining engineers in safer and more efficient mining practices. The latter will then train small-scale miners in these practices, including in the construction of equipment using locally available materials, for the safer use of mercury. The Wau small scale mine training center is now fully completed and operational.

Project G is aimed at developing a MapInfo-based Geological and Mineral Resources Information System (GMRIS), which will interface with the internet in order to obtain online access to geo scientific data. The installation of the GMRIS system and initial training was completed in November 2007. The GMRIS is now online ([www.mra-gmr.is.gov.pg](http://www.mra-gmr.is.gov.pg))

Project H involves the procuring of hardware for the mining house and small-scale mining training centers. The contract for this project has been concluded with the delivery of all hardware to the mining house.

Project I involves promotion of PNG's mineral sector. The original project design called for the creation of a website and for holding a symposium at the end of the program, to publish the new information gathering during the programme. With the extension of the Financing Agreement to 2012 this would mean the project would not start until 2011. However a continuous marketing and project promotion has been proposed instead.

The project is now being focused on the creation of a website that will be regularly updated to show where data has been acquired under SYSMIN- funded projects and the newsletter, as well as focusing on the representation of the MRA and the SYSMIN programme at major international mining conferences. The project commenced in early November 2007. The first two of 15 international investment events were attended in early March 2008 in Canada (PDAC 2008) and in Hong Kong in June. Two other representations will also be made at conferences in London and Sydney respectively later in the year. The promotional website is currently being constructed and is now online ([www.mra.gov.pg](http://www.mra.gov.pg)).

Project J is already up and running in the form of the Programme Management Unit of the Mining Sector Support Programme (MSSP-PMU), which accommodates the Chief Technical Advisor, the National Programme Director, Short Term Experts and counterpart national staff. MSSP-PMU is responsible for the coordination and implementation of the entire Programme.

The Technical Assistance contract was awarded to RE GmbH of Germany on November 20 2003. Project implementation commenced on 01<sup>st</sup> January 2004 and the period of performance of the contract is until December, 2008. This contract is now in the process of being extended for another two years to December 2010.

The PMU is fully staffed and will be supported for the whole duration of the SYSMIN Programme with permanent technical assistance and material support financed by the Programme's funds. Additionally short-term experts will provide formal training sessions to staff of the Mineral Resources Authority and the Department of Environment and Conservation. Each of the projects includes a component of on-the-job training, with additional formal training to be provided within the framework of some of the projects and by the Technical Assistant to the PMU.

The programme is on course to achieve its overall objectives of sustaining Papua New Guinea's economic performance through metal production and exports, increasing employment opportunities, alleviating poverty, and mitigating environment impacts from mining.

Mining sector contributes the biggest share of PNG's Gross Domestic Product (GDP) and is the country's substantial foreign exchange earner which the PNG Government through its overarching policy, the MTDS 2005-2010 has promoted and is committed to further strengthening this sector because of its financial capacity to deliver the essential development services.

For these contributions to be maintained PNG needs to ensure that it remains an attractive place to explore and invest, and that the technologies are available for efficient and effective exploration. As some of the existing mines in PNG are reaching maturity, it is important that new mineral deposits are discovered for the industry to remain competitive in today's global market-place. The SYSMIN project will certainly play an important role in achieving that.

Mineral exploration is critical to the sustainability of the mining industry. It is also a high-risk/high cost activity and whilst the potential rewards are great, the chances of discovering a major viable mineral deposit are very small. Nevertheless, there must be concentrated effort to find more economic mineral deposits and as well as maintaining a healthy investment to search for them. Achieving sustainable developments of this mineral resources, including attracting investment to the sector, is one key to continued strong economic growth in PNG.

### **Mining Sector Support Programme – Program Management Unit (MSSP-PMU) Staff Details**

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