



# Land tenure and artisanal miners in Papua New Guinea

by Bryan Land

**The Mining Act 1992 came into force in Papua New Guinea in August 1992 repealing the antiquated provisions of the Mining Act (Chapter 195 of the Revised Laws) 1977. Among its most interesting features are innovative provisions that establish special tenure arrangements for artisanal miners. This article describes these provisions and explain the rationale for their introduction. The Papua New Guinea experience may be instructive in relation to the kinds of problems faced by policy makers in many other developing countries.**

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Although small scale mining may only account for a tiny fraction of the total production of minerals in Papua New Guinea and is tainted by its association with illicit operations, smuggling, tax-evasion, land disputes and risks to health and safety, its potential in terms of rural cash incomes, employment and local economic development has increasingly been recognised. The difficult task for government policy makers has been to establish a legal and commercial framework within which efficient and vigorous small scale mining activity can take place.

The problems that governments in Papua New Guinea have had to contend with to attain this goal would be familiar to policy makers around the world. Small scale miners typically lack capital and know-how to apply the most appropriate technologies and have often to rely on inefficient and/or illegal marketing channels. The attempts of local people to assert mineral rights have too often been frustrated by inadequate tenure arrangements or resulted in disputes with large scale commercial mining interests.<sup>1</sup> Particular difficulties arise in Papua New Guinea because local people rely on traditional forms of land tenure based on Melanesian clan-based social structures to assert rights over alluvial minerals. Indeed, questions of land and minerals have become politically explosive issues in recent years.

## Small scale mining

A brief description of small scale mining activity in Papua New Guinea is appropriate before examining regulatory issues and the mining law reforms. Small scale mining activity has largely focused on alluvial and colluvial deposits of gold and silver, primarily in the vicinity of active and inactive stream beds.

Deposits of this kind are found in numerous locations in the central highlands, in coastal areas and on numerous island groups. Much of the early colonial

settlement and commercial development of the country was associated with alluvial gold prospecting.

Fully mechanised small scale mining operations have been rather unusual. Unlike several developing countries in Latin America and Asia there exists no indigenous tradition of mining nor the local capital base to support such activity. Instead, most small scale mining activity is conducted by individuals and informal groups employing no more than picks and shovels and the most rudimentary techniques of separation, often pans alone. Much of this artisanal activity is sporadic and typically conducted to provide a cash supplement to normal rural means of subsistence which are prevalent among 85 per cent of the population.

In most cases such activity has been conducted without formal rights. In the early 1980s the Department of Mining and Petroleum introduced a system of issuing miner's identity cards but the system was difficult to administer other than in a few areas where activity was less sporadic. From time to time news of a new gold find has prompted gold rushes reminiscent of the famous 19th century gold-rushes.

In a limited number of areas small-scale mining has been more systematic and organised. For example, in the gold-bearing Morobe area European settlers established a system of tribute mining under which Papua New Guineans worked designated plots on a contractual basis. In more recent years, there has been an increase in the number of landowners, individually or in groups, who have been able to fund mechanised alluvial operations, and in cases enter into agreements with expatriate contract miners. This is partly because aside from cash incomes from commercial activities, landowners in the vicinity of large scale mine projects receive compensation and royalty monies. The largest alluvial gold mining venture to date is the ill-fated joint venture formed between CRA of Australia and local landowner busi-

ness associations to exploit the deposits at Mt.Kare, of which more will be said later.

### Land ownership

To fully appreciate the context within which artisanal mining takes place in Papua New Guinea it is necessary to examine the economic and social role of traditional land tenure. Early on in PNG's colonial history laws were introduced that recognised long-established customary forms of land tenure and prohibited private dealing in land. At independence in 1975 the national constitution expressly recognised the authority of custom in relation to matters not addressed by national and provincial laws. National land laws concern the public acquisition and disposition of land, and land dispute settlement but do not directly address private land holding, which accounts for as much as 97 per cent of all land holding. Moreover, repeated attempts to introduce land registration have had to be aborted.

Customary tenure arrangements tend to be complex, are unwritten and do not conform to Western concepts of property in land. Generally, rights to land reside in clan lineages. Membership of a clan entitles certain individuals to exercise certain rights in respect of land which range from those that to some extent resemble proprietary rights to those permitting only particular uses of land. The system is deep-rooted in the culture of communities which had remained undisturbed for thousands of years until this century.

In the past, minerals other than some useful stones, coral and shells were not valued and consequently their exploitation did not begin until the arrival of European prospectors in the 1880s. Yet traditional custom is founded upon the intimate link between man, the environment and its natural resources. In these circumstances, the reception of Western concepts of distinct surface and sub-soil rights in relation to minerals has not been easy and has been challenged both for-

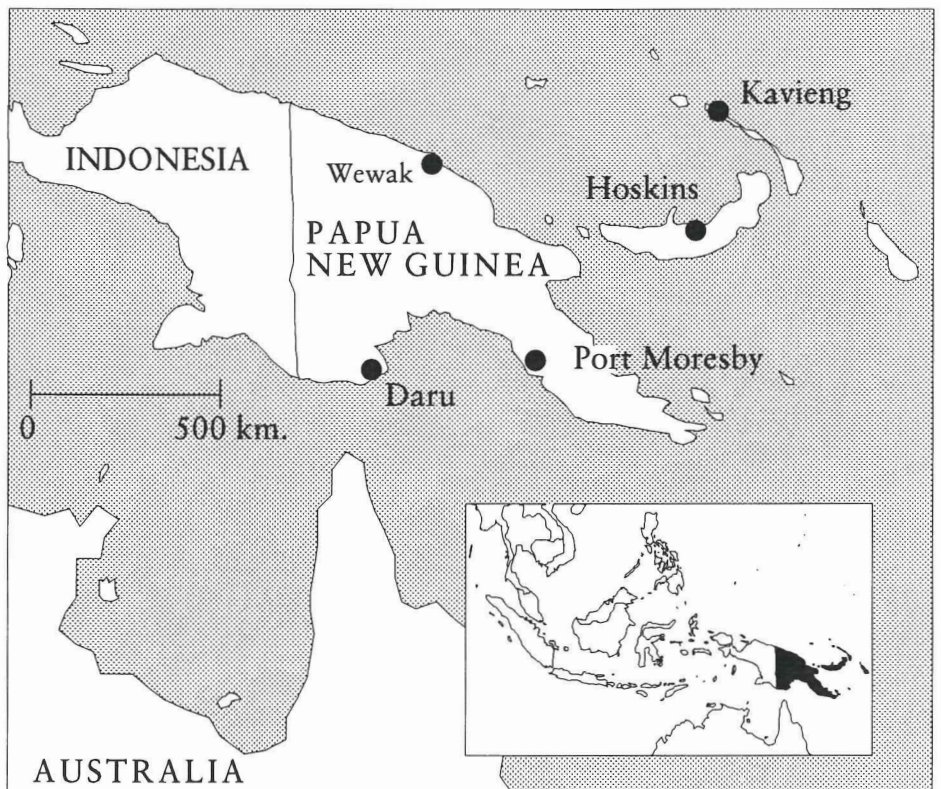
mally in the courts and in local action by landholders to assert a stake in minerals development. Various attempts have been made to seek rulings in the courts which might challenge the principles of State ownership of sub-soil minerals. Thus far, no court has been willing to directly entertain the notion and in passing the Mining Act 1992 the National Parliament effectively re-affirmed the status quo.

### Gold fever and the dilemmas of small scale mining policy

The appropriate form of minerals tenure for artisanal mining emerged as a central issue in PNG in the 1980s, at a time when there was a particularly strong focus among international mining companies on gold exploration. PNG became recognised as one of the most promising areas for gold mineralisation following world-class hard-rock discoveries at Porgera, Lihir and Misima. By 1987 there were

nearly one hundred companies, mainly foreign, holding exploration licences, primarily to search for gold.

In some areas companies followed up existing alluvial gold workings when conducting mapping and sampling but, equally, the systematic reconnaissance carried out by foreign explorers in hitherto uncharted areas yielded alluvial finds which sparked the interest of local villagers. The regulatory framework at the time was unsuited to dealing with the conflicts of interests that inevitably arose. This was most dramatically demonstrated in 1986 at Mt.Kare, when hard rock exploration by CRA Exploration confirmed the presence of a significant alluvial and colluvial gold resource. Almost overnight Mt.Kare became the focus of a massive gold rush during which, at its height, some 7 000 people were digging for gold using rudimentary techniques and enduring very poor health and safety conditions.<sup>2</sup> The gold rush pre-



vented hard rock exploration from proceeding and raised the prospect of landowners asserting pre-emptive rights over minerals development.

The Mt.Kare experience and others like it pointed to ambiguities in the existing legislation which could be interpreted to permit nationals to mine alluvials, provided non-mechanised means were employed, but did not establish clearly whether such rights extended to areas over which a valid tenement was already held. Moreover, the government's policy of registering artisanal miners and enforcing safety standards in relation to artisanal operations was openly being flouted. Also, disputes arose as to the rightful owners of the land in the Mt.Kare area and their claim to preferential rights over alluvial gold by virtue of customary land title.

Finally, in this, as in other areas of minerals policy, it had become quite clear that landowners sought to assert claims to participate more directly in mining development. By 1988 landowners' demands for increased compensation payments and a more direct say in the Panguna copper operations on Bougainville island were becoming increasingly militant. The following year dissatisfaction with the government and company response led to attacks on the mine which resulted in its indefinite closure. Politically it became increasingly difficult for any government to deny landowner claims in relation to small scale mining. The government was thus presented with the considerable dilemma of formulating small scale mining policies that would acknowledge the growing expectations of local people yet not undermine the enthusiasm of foreign mining investors who held the key to the development of PNG's world class mineral resources.

### **The objectives of small-scale mining policy reform**

In the late 1980s, in the course of negotiations for the development of the Misima and Porgera gold mines and

against a background of mounting difficulties on Bougainville, the government began to articulate a policy of creating opportunities for landowner participation in minerals sector development.

For large scale commercial projects, participation would take the form of spin-off business opportunities, an allocation of a share of the royalties collected by the government and the opportunity to acquire part of the state's own equity share in mining projects on concessional terms. In relation to small-scale mining, however, it was felt that in the light of the Mt.Kare experience land owner participation should take the form of direct access to mineral rights and, where necessary and possible, co-operative development with large scale commercial miners. In relation to Mt.Kare, the government and CRA reached broad agreement about the need to involve land owners directly in the mining of alluvials to enable hard rock exploration to be resumed.

Such an arrangement was eventually concluded in 1991 after a tortuous period of negotiations between all the parties. Land owner claimants organised themselves into business groups and eventually a joint-venture was formed between a CRA subsidiary (51 per cent) and an umbrella landowner group, Karepuga Development Company, to carry out mechanised alluvial mining.

The government had embarked upon a general revision of the mining laws as early as 1979 but this effort was stalled until 1987, when it began again in earnest. Although it had been possible to address the regulation of large-scale mining projects within the framework of the existing law by relying upon negotiated mining development contracts, the shortcomings of the existing law in relation to small scale mining were in need of urgent remedy.

### **Participation of nationals**

The underlying objective of government policy was to spur the development of an efficient and vigorous small scale mining

sector. It was, therefore, necessary, at the very least, to assure the rights of nationals to participate directly in small scale mining ventures. Since the opportunities for small scale mining were mostly associated with alluvial minerals it is this area that received the greatest attention in the course of designing and drafting new mining laws.

Early drafts included no specific restrictions on the rights of foreign companies to undertake alluvial mining operations, however, later reviews came to be dominated by the Mt.Kare affair. Indeed, in 1991 a private members bill was adopted by the national parliament which sought to reserve all alluvial and near-surface mineralisation from exploitation by foreigners. Although its legal effect was ambiguous and open to challenge it clearly represented a significant threat to the government's preferred approach. Thus, the Mining Act 1992 included provisions restricting foreign participation to a maximum of a 49 per cent interest in any mining lease granted for the purposes of mining alluvial minerals.

### **Formalisation of minerals tenure for landowners**

A key objective of the mining law reforms was to formalise the minerals claims of landowners in a way that would not undermine the principle of state ownership of mineral resources and its control over minerals licensing. To achieve this it was necessary to design a form of mineral tenement that would be available to landowners in respect of their own land but would not enable ground to be reserved de facto from hard rock exploration and exploitation by large scale commercial enterprises. As will be explained below an Alluvial Mining Lease was introduced for this purpose.

### **Access for foreign investors**

It was clearly necessary to design new tenure arrangements in a way that would preserve access to hard-rock mineral resources for large scale commercial min-

ers, especially foreign mining companies. Accordingly, the powers of the government to grant licences would have to be designed in a way that would limit the interference of artisanal alluvial mining with hard rock exploration, deter landowners from seeking to frustrate the licensing of hard rock activities and, wherever possible, facilitate co-operative arrangements between artisanal and large commercial miners.

### **Introduction of an alluvial mining lease**

The tenure arrangements under the Mining Act 1992 establish for the first time a right for landowners to apply for an exclusive tenement over land they own under customary land tenure specifically for the purpose of mining alluvial minerals by mechanised means. The novel feature of the arrangement is that the Alluvial Mining Lease, may be granted in respect of land already subject to an Exploration Licence. The effect of such a grant is to excise the area of the land granted from the Exploration Licence to a depth which is linked to mining safety considerations. Thereafter, the holder of the Exploration Licence may attain access to the surface for the purposes of conducting exploration only after consulting the holder of the Alluvial Mining Lease. To ensure that this arrangement of overlapping tenements is workable, a number of safeguards are established which are explained below.

The provisions of the Mining Act 1992 relating to small scale mining by national landowners are contained in Division 4 of the part of the Act dealing with tenements under the heading "Alluvial Mining Lease". However, before examining these in detail some basic features of the licensing system need to be described.

### **Mineral titles for hard rock activities**

The Mining Act 1992 provides for a single type of exploration title, called an Exploration Licence, which caters for all

stages of exploration from initial regional surveys to deposit specific appraisal and the evaluation of mining feasibility. In practice an Exploration Licence is primarily of benefit to explorers of hard rock minerals. Once exploration is completed successfully mining can be conducted under two types of tenement. A Mining Lease is available for mining of any mineral, except in circumstances when mining is to be conducted under the terms of a contractual arrangement with the State, in which case a Special Mining Lease is granted. In each case only the holder of an Exploration Licence can validly apply for such mining titles.

### **Grant of mineral titles**

The authority to grant all tenements other than a Special Mining Lease is held by the Minister for Mining and Petroleum. This power can be exercised only after the Minister has given consideration to the recommendations of the Mining Advisory Board, which is established under the Mining Act 1992. The procedures under which applications are lodged, registered and dealt with are in most respects the same for all classes of tenements, except that in the case of Alluvial Mining Leases there are special additional procedures, as we shall see.

### **Entitlement to an alluvial mining lease**

Only individual landowners or recognised land owning groups may apply for an Alluvial Mining Lease in respect of land that he/they own. An application may only be registered if the land which is the subject of the application is not already held under a Mining Lease, Special Mining Lease or other lease ancillary to mining activities. However, most importantly, an application is valid in respect of land already the subject of an Exploration Licence. In the latter case, the Mining Act contains a number of provisions to ensure that this right can be exercised in a manner which is least likely to compromise the interests of the holder of the Exploration Licence.

### **Rights of the holder**

The Alluvial Mining Lease entitles the holder to conduct the mining of alluvial minerals on an exclusive basis. Minerals won from alluvials (i.e. mainly gold, silver and PGMs) may be disposed of freely. The area covered by a lease may not exceed 5 hectares and its perimeter may not extend beyond a distance of 20 metres from a river bed defined as "any ground lying between the banks of any stream of water, whether perennial or intermittent, flowing in a natural channel". Finally, the term of an Alluvial Mining Lease may not exceed five years but the holder may seek an extension on lodging a formal application.

These restrictions were designed to be consistent with the kind of small-scale alluvial operations most likely to be feasible given geological conditions in prospective areas of the country. At the same time the restrictions serve to prevent title being sought indiscriminately over wide areas of the country in which surface and near-surface geology is alluvial or colluvial but is unlikely to be economic to exploit which might result in the frustration of hard rock exploration.

When an Alluvial Mining Lease is granted a depth limit will be specified based on the determination of the Mining Advisory Board of what constitutes a safe maximum working depth. This provision is designed to try to ensure that artisanal workings do not put lives at risk.

### **Obligations of the holder**

An Alluvial Mining Lease is granted subject to the condition that the holder complies with the approved proposals, being the plan of mining and other related activities which is submitted with the application. In the case of small-scale mining, the level of detail required in the development proposals is much less than would be required of larger scale mechanised mining project. However, the Mining Advisory Board would need to be satisfied that the proposals identify the re-

sources to be exploited and address mining and treatment methods and measures to be taken to mitigate environmental impacts. The Mining Advisory Board may require the applicant to consider amendments to the development proposals before making its recommendation to the Minister.

The financial obligations of the holder are intended to be light and easy to administer. They include an application fee of K50 and an annual rental of K2 per hectare (one Kina today is worth about USD 0.85). The holder is not required to lodge a security against the performance of his obligations under the lease. Under existing royalty provisions the holder is exempt from liability. Other obligations attaching to an Alluvial Mining Lease include the maintenance of monthly records of output quantity and value (available for inspection) and the submission of an annual summary of production.

Non-compliance with any of these obligations may result in forfeiture of the lease after the holder has had an opportunity to respond to a show cause notice.

### **Dealings in alluvial mining leases**

Unlike a normal mineral title an Alluvial Mining Lease can only be transferred between those with demonstrated ownership of the land. The landowner or land owning group may not negotiate the severance of their title with a non-landowner. Thus, the Alluvial Mining Lease is of relatively little commercial value and would be difficult, for example, as a security against which credit may be sought.

The holder of an Alluvial Mining Lease is not prevented, however, from entering into private contractual arrangements with a non-landowner relating to the conduct of mining and the allocation of costs and proceeds.

There are a number of important provisions which specify the procedures that must be followed before the Minister

may grant an Alluvial Mining Lease over an area already the subject of an Exploration Licence.

The Act expressly requires the Mining Advisory Board to recommend refusal of an application for an AML if, in its opinion, the activities of the holder would be of "material detriment" to the exploration activities of the Exploration Licence holder and any mining and related activities which may later be conducted by the latter. As drafted, this would probably be construed to refer only to actual proposals for mining that have been made as part of a lease application. This is a critical area in which the reasonable exercise of the Minister's discretion is required.

To increase the likelihood that the Mining Advisory Board's recommendations will be fair, the Act requires the holder of the Exploration Licence to be notified of an application for an AML and furnished with the application submissions. Moreover, the latter is entitled to both object formally to the grant of an AML and then to substantiate the grounds for objection before the Mining Advisory Board. These provisions were introduced to provide a measure of protection for hard rock explorers who might otherwise fall foul of a Minister or Mining Advisory Board under pressure to frustrate their activities.

Additional provisions were introduced to facilitate co-operative rather than competitive relations between landowners and hard rock explorers. The holder of an Exploration Licence may obtain a grace period after notification of the lodging of an application for an Alluvial Mining Lease in order to negotiate an agreement with the applicant relating to alluvial mining activities. The Act allows a six month period before the Mining Advisory Board is required to deal with an Alluvial Mining Lease application during which the Exploration Licence holder and the Alluvial Mining Lease applicant may agree terms contractually. This agreement may then be submitted to the

Mining Advisory Board. The provisions were designed to facilitate prior settlement of terms under which alluvial mining and hard rock exploration (and later mining) may proceed simultaneously, thereby relieving the government from the invidious position of having to decide between the merits of each party's case.

### **Other aspects**

The Act also provides for Exploration Licences to be granted over an existing Alluvial Mining Lease subject to the excision of the surface area and sub-soil to the depth specified in the lease document. Under such circumstances the holder of the Alluvial Mining Lease would be required to allow access to the holder of the Exploration Licence after consultation and provided that the activities of the latter did not interfere unreasonably with the alluvial mining activities.

### **Assessment of the reforms**

The new mining law has only been in force for two years. Accordingly, it is probably too early to fully evaluate its successes or failings with respect to small scale mining. Since September 1992 there have been only twelve applications registered of which just four have been granted. There is expected to be some increase in the number of applications arising from the conversion of a number of older tenements under the previous mining law but results so far would have to be considered disappointing. A complete assessment of the government's policies would also need to take into account a range of complementary regulatory, economic and administrative measures to promote small scale mining activity which is beyond the scope of this article. However, it is possible to highlight some of the important achievements of the mining law reforms and suggest some of the limitations and possible problem areas.

### **Compromise package**

In the first place, it is necessary to recognise the conflicting pressures upon the Government to provide preferential treatment for national mining interests represented by landowner groups and the desire to promote foreign investment in large scale mining activity by offering secure tenure and transparent investment terms. The measures introduced to address artisanal alluvial mining in 1992 inevitably represent a compromise package.

### **Formalisation of landowner mineral rights**

The new measures do, however, formalise for the first time mineral rights which may be enjoyed by landowners within the overall framework of the licensing system. The Alluvial Mining Lease creates a qualified right of first refusal for landowners to undertake mechanised small scale mining on their own land. The procedures for obtaining the lease have been made relatively simple, and in particular are much less onerous than those applicable for hard rock activities. An applicant is required to submit a diagram of sufficient detail to identify the area applied for, a declaration that the area has been marked out, a simple description of the proposed mining operations and a fee of K50. The State, however, retains the discretion necessary to ensure that only bona fide mining is permitted and that such mining shall not undermine hard rock exploration and development.

### **Resistance to demands for accession rights**

By selecting this approach, the government was able to resist and to some extent defuse the demands for a recognition of an unqualified entitlement to minerals by virtue of land ownership alone. To have moved towards a system of accession rights would undoubtedly have resulted in the unravelling of the whole

regulatory framework for minerals development and had a profound impact on PNG's investment image internationally.

### **Minimisation of risk to hard rock minerals development**

The new measures include several safeguards designed to minimise the risks of frustrating hard rock minerals development. Firstly, the Alluvial Mining Lease is available only for strictly defined purposes in strictly defined areas. Secondly, the granting procedures are arranged in such a way as to limit the likelihood that an Alluvial Mining Lease will be granted over an existing Exploration Licence without the holder's tacit approval.

### **Reliance on government discretion**

One of the main problems of the new measures is that, irrespective of these safeguards, the onus will be very much upon the Mining Advisory Board and the Minister to exercise their discretionary powers both reasonably and consistently. Inevitably pressures from landowners, mining companies and politicians will come into play.

### **Diminution of hard rock security of tenure**

The large scale mining industry (through the Chamber of Mines) endorsed the measures for small scale alluvial mining during consultation rounds prior to the new law's enactment. However, it is quite clear that the industry will regard the uncertainty associated with these measures as to some degree diminishing the security of tenure of hard rock minerals exploration. Such perceptions play an important role in the appraisal of investment opportunities and may consequently lead some foreign mining companies to downgrade their assessment of investment conditions in Papua New Guinea.

### **Notes**

1. A recent and very useful overview of these issues can be found in R. Kumar and D. Amaratunga, *Government policies towards small-scale mining*, Resources Policy, Vol. 20, No.1, 1994, pp. 15-22.

2. The story of the gold rush is vividly told in Ryan P., *Black Bonanza: A Landslide of Gold*, Hyland House, 1991. ■