Pacific 2020

BACKGROUND PAPER: MINING AND PETROLEUM

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Pacific 2020 Background Paper: Mining and petroleum

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This paper is one of a series of nine background papers written for the Pacific 2020 project, which was conducted by the Australian Agency for International Development (AusAID) in 2005. Pacific 2020 examines various components of the economies of the Pacific, Papua New Guinea and East Timor. It aims to generate practical policy options to contribute to stimulating sustainable, widely shared economic growth in these countries.

This paper is based on the discussion at a round table meeting of regional practitioners and experts, which occurred in July 2005. The findings, interpretations and conclusions expressed in this paper are based on the discussion at this round table, and from a subsequent peer review process. They are not necessarily the views of any single individual or organisation, including AusAID, the Pacific 2020 Steering Group, contributing authors, round table participants or the organisations they represent.

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SUMMARY

The mining and petroleum sectors in the Pacific islands region, as in other parts of the world, are characterised by uneven development. There are huge variations in how nations deal with the policy challenges associated with significant mining or petroleum reserves. This paper concentrates on issues in Papua New Guinea, East Timor and Solomon Islands because of their current and future dependence on exports and revenues from extractive industries. It also recognises that the challenges for a very small country such as Solomon Islands would be similar to those of other Pacific island nations which issue mineral exploration licences.

The challenges and opportunities for the next 15 years cannot be predicted from a survey of current developments. The best-case scenario would be for further expansion of investment to be matched by the development of better policy and management tools with reference to past experience. The worst-case scenario would be for higher levels of investment to have negative outcomes for nations and their people or for social, political and environmental risks to result in lower levels of investment and lost opportunities for economic growth. Some policy issues have specific national or regional significance, such as those connected with the power of customary landowners, and others have global significance which have led to the formation of global standards of best practice for governments, developers and financial institutions.

Papua New Guinea is the only country in the Pacific islands region to have featured extensively in debates surrounding these global policy initiatives. The Timor-Leste Petroleum Fund has been designed in accordance with the standards of the Extractive Industries Transparency Initiative. These and other standards endorsed by the World Bank can form the ingredients of a national policy for any country which has to deal with extractive industries. However, there are three areas where the adoption of best practice principles by national governments will not be sufficient to achieve sustainable development from investment in extractive industries. They are:

- the relationship between private investment, foreign aid and economic diversification
- the allocation and management of government revenues
- the matching of needs, capacities and responsibilities among stakeholders.

A consideration of risks, constraints, strategies and opportunities in each of these areas leads to several practical policy options for East Timor, Papua New Guinea, Solomon Islands and the other small island states of the region.

Most of the key options for East Timor have been canvassed in the recent debate on the Petroleum Fund Draft Act and there is consensus among commentators about ways to improve management of the fund. The window of opportunity for these issues to be resolved is during the four years in which the East Timor Government plans to rely on support from international donors to formulate and implement national economic policies. There are also specific issues on which dialogue between policymakers in East Timor and Papua New Guinea might have beneficial results for both countries in light of their different experiences and prospects in the management of oil and gas revenues. If this dialogue was institutionalised, policymakers from Pacific island nations could be invited to join such an organisation if they needed to deal with the development of significant hydrocarbon reserves.

One of the key problems facing the PNG Government is the need to decide on a medium-term strategy for developing the capacity of the two line agencies responsible for the mining and petroleum sectors in the absence of any further World Bank loans. Even if this issue is resolved, the much bigger question remains of how to relate the promotion and regulation of the extractive industry sector to the promotion and regulation of private sector investment. The donor community needs to play a proactive role in dealing with this problem. Further attention needs to be given to establishment of tri-sector partnerships to promote effective community engagement and sustainable community and business development in rural areas affected by extractive industries. Separate attention needs to focus on gender equity and women's empowerment issues in areas impacted by large resource projects. Finally, the PNG Government's mineral policy needs to be guided by reviewing operations of the various trust funds which have been established at sub-national levels as a result of project development or compensation agreements.

In Solomon Islands, given the current proposal to reopen the Gold Ridge mine and the size of the contribution it will make to the national economy, the capacity of the Solomon Islands Department of Mines and Energy will need to be bolstered. If Solomon Islands can establish and implement a new mineral policy appropriate to its size and circumstances, it could act as a model for other Pacific island countries where new mining operations are established. Solomon Islands could be a staging post for new regional policy options for the artisanal and small-scale mining sector that the donor community is currently supporting in Papua New Guinea.

The scope for a regional network that concentrates on policy options for extractive industries is limited by the uneven development of the sector and the varying level of interest from national policymakers.

The best option would be to include the sector in the wider debate about the promotion and regulation of private investment as has been suggested as a separate exercise in Papua New Guinea. Several small island states could benefit from the availability of information on the legitimacy and integrity of companies that are seeking mineral exploration licences or offering to develop resources that have already been discovered within their boundaries.

INTRODUCTION

How can the extraction of non-renewable resources contribute to sustainable development? This is a vital question for policymakers in any country where the mining and petroleum sectors account for a significant share of total economic activity. This paper will focus attention on countries in the Pacific islands region where the question needs to be addressed urgently. It will discuss the impacts, benefits and costs of large resource projects and show how regional policy options need to be framed by international standards of good practice. Three areas will be identified where regional decision makers need to work their way through specific policy options. In each case, an assessment will be made of the factors that might restrict or enhance these choices. Finally, a specific set of practical policy options will be canvassed for East Timor, Papua New Guinea and for the small island states of the region.

UNEVEN DEVELOPMENT

The number of big mining and petroleum projects in the region covered by this study is smaller than the number of independent countries in the same area, and more than half of those projects are in one country – Papua New Guinea. The projects are at different stages of development, ranging from new projects to those near closure. Some have closed within the past 15 years and others will open within the next 15 years, but it is unlikely that any project that was operational 15 years ago will still be so 15 years from now.

If a resource-dependent economy is defined as one in which extractive industries contribute more than 20 per cent of GDP and more than 50 per cent of export earnings, then:

- Papua New Guinea has had a resource-dependent economy since independence in 1975
- East Timor will probably have one for at least the first 15 years of its independence, and
- the tiny state of Nauru had a resource-dependent economy during the long decades of phosphate mining but now deals only with the legacy of closure.

Gold production from the Vatukoula mine in Fiji, which has operated for several decades, is not sufficient to meet the criteria for a resource-dependent economy. The Gold Ridge mine in Solomon Islands operated for a couple of years and will have a large impact on the national economy once it is reopened.[1]

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[1] The French territory of New Caledonia also has a mineral-dependent economy, but is not considered as part of this study.

BOX 1 THE COMPARATIVE ECONOMIC SIGNIFICANCE OF EXTRACTIVE INDUSTRIES

In 2004, the mining and petroleum sectors accounted for 73 per cent of Papua New Guinea's total exports. They have accounted for more than 50 per cent of export values in almost every year since independence in 1975, and more than 70 per cent in most years since 1990. Over the past decade the two sectors have formally accounted for 20 to 30 per cent of gross domestic product (GDP) in any one year. Taking into account linkages to the rest of the national economy, direct and indirect revenues from extractive industry have been estimated to account for 40 to 50 per cent of the national government's total revenues from domestic sources in any one year. However, even if the PNG gas project and the Ramu nickel/cobalt project come on stream within the next five years, the industry's contribution to GDP and government revenues could fall to less than half the current levels by 2015 because of the anticipated closure of the Ok Tedi and Porgera mines and declining output from other operations.

In East Timor, petroleum revenues accounted for 59 per cent of the national government's internal revenues in 2004, but this proportion was projected to rise to 88 per cent in 2005 and then stabilise at 82 per cent from 2006 to 2009. By the end of 2009, current forecasts indicate a net saving of US$534 million in the Timor-Leste Petroleum Fund, where a significant proportion of the revenues will have been invested. Under current treaty arrangements with Australia, the government is expected to receive at least US$5.8 billion in petroleum revenues over the next 20 years but this sum is expected to rise as a result of further negotiations, the discovery of new reserves, or the continued increase in the price of oil.

In Solomon Islands, the Gold Ridge mine accounted for 30 per cent of GDP at the time of its forced closure in 1999 and will make a similar contribution for several years if it is restored to former operating levels. In Fiji, the Vatukoula mine accounted for only 2 per cent of GDP in 2004 and its contribution is expected to decline.

Sources: World Bank, Bank of Papua New Guinea, PNG National Statistical Office, PNG Department of Mining.

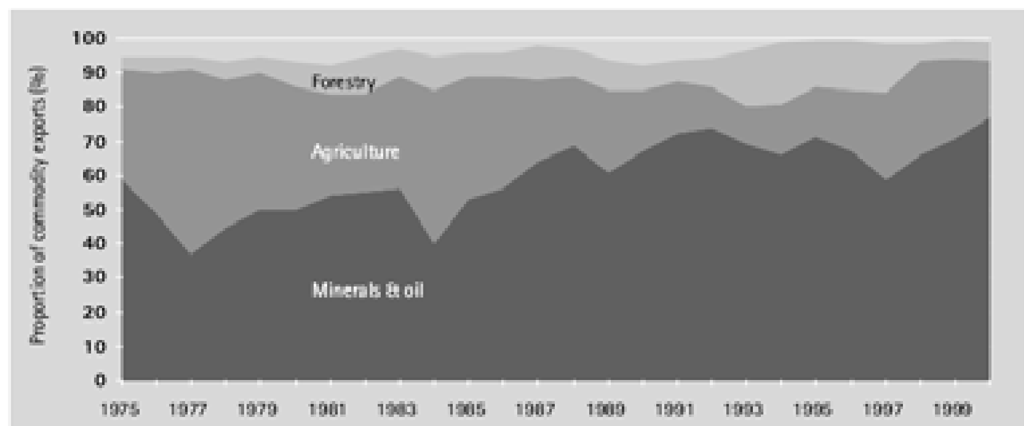
While it is possible to estimate future levels of output and income from existing projects or those for which feasibility studies have been done, it is much more difficult to predict how this pattern of regional variation might change over the next 15 years as a result of new discoveries.

The World Bank sees some potential for offshore oil and gas development in Fiji and Palau and further opportunities for mining development in Solomon Islands.

Its Country Assistance Strategy for the Pacific islands region is otherwise silent on the subject of extractive industry.[2]

This paper will concentrate on the challenges facing Papua New Guinea, East Timor, and Solomon Islands. However, the challenges for a very small country such as Solomon Islands would be comparable to those of any other Pacific island country that may issue mineral exploration licences. This paper will also emphasise the policy issues confronting Papua New Guinea because it has both forms of extractive industry, all its major projects and prospects are located onshore, and it has been dealing with these issues for more than 30 years. The main challenge for East Timor is the national government's management of an enormous revenue stream from the Timor Sea, which is not accompanied by any other significant economic, social or environmental impacts. The main issue for Solomon Islands is to learn from the hard lessons of experience in its larger Melanesian neighbour.

FIGURE 1 SECTORAL COMPOSITION OF PAPUA NEW GUINEA'S EXPORTS, 1975–2000



Source: Michael Baxter, 'Enclaves or Equity', AusAID, 2001.

IMPACTS, BENEFITS AND COSTS

In small countries every major resource project is likely to have a huge impact on national and local economies. Where a project is developed onshore, the local economic impact is normally accompanied by serious disturbance to the social environment, especially where there has not previously been any large economic enterprise. In big mining operations there will usually be serious disturbance to the physical environment.

[2] World Bank, *Regional Engagement Framework FY2006-2009 for Pacific Islands*, 2005.

The economic, social, political and environmental impacts of project closure can be as great as those of project development. The costs, benefits and impacts of large resource development therefore pose major challenges for decision makers in countries or areas where it happens.

The pattern of uneven development means there are huge regional variations in how nations and communities of the Pacific deal with these challenges.

One way to think about the economic impact of major resource projects is to work out the size of the benefit streams that they produce for different sections of the national population. Take the PNG mining sector for example. In the 20 years following the opening of the Ok Tedi mine in 1982, four large-scale mining projects (Ok Tedi, Misima, Porgera and Lihir) generated a national benefit stream estimated (in real terms) at 6.4 billion PNG kina – currently worth about US$2.9 billion. From this amount, the national government received K4.1 billion in duties, taxes and royalties. National employees received K1.9 billion in wages, superannuation and educational costs and K0.4 billion was received directly by institutions or landowners from the host provinces in the form of compensation, donations and community assistance. The national government returned 26 per cent of its share to the host provinces in the form of royalties, 'special support grants', other mining grants, the tax credit scheme and dividends on project equity. In addition, under the terms of the government's 'preferred area policy', workers from the host provinces received 28 per cent of the benefits obtained by national employees. The net result was that people and institutions in the four host provinces received 32 per cent of the total national benefit, while the remainder was divided among the rest of national population or allocated through the national budget.[3]

These calculations do not account for the benefit streams derived from the Panguna copper mine before its closure in 1989, nor those from small and medium-scale mining operations or from the oil export operations which began in 1992. They also underestimate the extent of backward linkages from extractive industry to the rest of the national economy. Mining and petroleum companies account for about 7 per cent of PNG's formal sector employment, but major resource projects create additional employment in the formal and informal sectors. For example, Ok Tedi Mining Ltd employs about 2000 people, but another 3500 are employed in the supply of goods and services to the mining company and an unknown number derive part of their income from the supply of goods and services to all these employees.[4]

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[3] Mike Finlayson, *Benefit Stream Analysis*, PNG Mining Sector Institutional Strengthening Project, 2002.

[4] Michael Baxter, *Enclaves or Equity*, AusAID, 2001.

When the Panguna mine was operating, Bougainville Copper Limited was recognised as a global industry leader for its training and localisation program and this investment in human capital has continued to benefit the national economy to the present day.

The economic benefits of a dominant extractive industry are offset by a range of economic, social, political and environmental risks and costs which are variously grouped together by the concept of a 'resource curse'. In the narrowest definition of what is sometimes known as the 'Dutch disease', a dominant extractive industry artificially inflates the value of a nation's currency and raises the cost of doing business in other sectors of a national economy.[5] But more attention has recently been directed to the political form of the curse, which involves intensified conflict between people competing for access to the resource rents generated by the industry.[6] The Dutch disease may have been a problem for PNG's national economy in the first 20 years of the country's independence when the high value of the kina seems to have discouraged growth of agricultural exports. However, this can hardly be compared with the economic, political and human consequences of the Bougainville rebellion that forced the closure of the Panguna copper mine.

One of the by-products of the Bougainville rebellion was a much higher level of political and scientific interest in the social and environmental impacts of major resource projects in Papua New Guinea, especially large mining operations. The environmental debate has mainly been about the practice of riverine or submarine disposal of mine wastes and tailings, with focus on the downstream impact of waste material from the Ok Tedi mine. The debate about social impacts has largely been concerned with the unequal distribution and wasteful consumption of mine-related benefits in mine-affected communities, with emphasis on inter-generational conflict and the marginalisation of women. A more recent and specific issue has been the possible link between HIV transmission, the practice of commuter mining, and the combination of economic affluence and social disorder in mine-affected areas. At the policy level, discussion of social and environmental risks is closely tied to the problem of 'landowner compensation'.[7] This is a major issue in many countries of the Pacific because of the power of customary landowners to decide what happens on their land.

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5 Richard Auty, *Sustaining Development in Mineral Economies: The Resource Curse Thesis*, Routledge, 1993.

6 Ian Bannon and Paul Collier (eds), *Natural Resources and Violent Conflict*, World Bank, 2003.

7 Colin Filer, David Henton and Richard Jackson, *Landowner Compensation in Papua New Guinea's Mining and Petroleum Sectors*, PNG Chamber of Mines and Petroleum, 2000.

SCENARIOS AND CHALLENGES

The challenges and opportunities of the next 15 years cannot be predicted from a survey of current developments. This is especially true of the mining and petroleum sectors because the process of exploration, discovery, investment, extraction and closure is full of uncertainties. In simple terms, the best-case scenario would be one in which further expansion of investment is matched by the development of better policy and management tools in light of past experience. The worst-case scenario would be if higher levels of investment have negative outcomes for countries and their people; or if social, political and environmental risks result in lower levels of investment and lost opportunities for economic growth. Policymakers need to think carefully about the negative outcomes associated with the resource curse and prepare for surprises which do not represent the continuation of current trends and are therefore not part of a 'business as usual' scenario. The examples of East Timor and Solomon Islands should act as a reminder that many of the unexpected events which are going to affect mineral policy over the next 15 years will have no connection to the internal dynamics of extractive industries but will be the result of broader changes in the political and economic landscape.

Although some policy issues have specific national or regional significance, such as those connected with the power of customary landowners, there are many which have global significance and have been debated around the world. For example, the Mining, Minerals and Sustainable Development (MMSD) project identified nine key challenges for the achievement of sustainable development in the mining sector and commissioned 221 reports on these challenges over two years, including a final synthesis published in 2002.[8] The task of converting the findings of this inquiry into an industry code of practice was then assumed by the International Council on Mining & Metals (ICMM), which has since produced a Sustainable Development Framework incorporating 10 basic principles. The World Bank is working in partnership with the ICMM to develop guidelines and manuals that will enable member companies to implement the Sustainable Development Framework in their operations. This engagement is consistent with the Bank's interest in the formation of tri-sector partnerships between companies, government agencies and civil society organisations in the extractive industry sector.[9]

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[8] Mining, Minerals, and Sustainable Development Project, *Breaking New Ground: Mining, Minerals, and Sustainable Development*, Earthscan Publications, 2002. See also www.iied.org/mmsd.

[9] Michael Warner and Rory Sullivan (eds), *Putting Partnerships to Work: Strategic Alliances for Development between Government, the Private Sector and Civil Society*, Greenleaf Publishing, 2004. See also www.bpd-naturalresources.org.

BOX 2 PRINCIPLES OF THE ICMM SUSTAINABLE DEVELOPMENT FRAMEWORK

1. Implement and maintain ethical business practices and sound systems of corporate governance.
2. Integrate sustainable development considerations within the corporate decision-making process.
3. Uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities.
4. Implement risk management strategies based on valid data and sound science.
5. Seek continual improvement of our health and safety performance.
6. Seek continual improvement of our environmental performance.
7. Contribute to conservation of biodiversity and integrated approaches to land use planning.
8. Facilitate and encourage responsible product design, use, re-use, recycling and disposal of our products.
9. Contribute to the social, economic and institutional development of the communities in which we operate.
10. Implement effective and transparent engagement, communication and independently verified reporting arrangements with our stakeholders.

Source: www.icmm.com/sd_framework.php.

The International Finance Corporation has recently established a set of Equator Principles dealing with the management of social and environmental risks.[10] These are meant to be standards of corporate social responsibility applied by financial institutions to development projects in all industry sectors with a capital cost of more than US$50 million. However, it is understandable that they would specifically apply to the financing of major resource projects in developing countries. That is the way many of the world's leading banks and insurance companies, including the World Bank group, understand them. The extractive industry sector is also the specific target of the World Bank program, the Extractive Industries Transparency Initiative, which invites the governments of developing countries to subscribe to a core set of principles for the management of mineral revenues.

[10] See www.ifc.org/equatorprinciples

BOX 3 CRITERIA FOR GOVERNMENT COMPLIANCE WITH THE EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVE

1. Regular publication of all material oil, gas and mining payments by companies to governments (payments) and all material revenues received by governments from oil, gas and mining companies (revenues) to a wide audience in a publicly accessible, comprehensive and comprehensible manner.
2. Where such audits do not already exist, payments and revenues are the subject of a credible, independent audit applying international auditing standards.
3. Payments and revenues are reconciled by a credible, independent administrator applying international auditing standards and with publication of the administrator's opinion regarding that reconciliation including discrepancies, should any be identified.
4. This approach is extended to all companies including state-owned enterprises.
5. Civil society is actively engaged as a participant in the design, monitoring and evaluation of this process and contributes towards public debate.
6. A public financially sustainable work plan for all the above is developed by the host government with assistance from the international financial institutions where required, including measurable targets, a timetable for implementation and an assessment of potential capacity constraints.

Source: http://eitransparency.myaiweb15.com/principlesandcriteria.htm.

Papua New Guinea is the only country in the Pacific islands region to have featured extensively in debates surrounding these global policy initiatives. Although the Bougainville and Ok Tedi mines were held up as examples of bad policy or practice in the final report of the MMSD project, the news has not all been bad. The same report featured PNG's Development Forum as a model process for the negotiation of integrated benefit packages involving local communities and different levels of government. When the World Bank asked a number of the world's leading oil and mining companies to nominate their examples of best practice in the management of social and environmental impacts,[11] two companies nominated their operations in Papua New Guinea. So Papua New Guinea has a global reputation in extractive industry circles as a country in which some very hard lessons have been learnt, and other stakeholders in the region might do well to think about them.

[11] Kathryn McPhail and Aidan Davy, *Integrating Social Concerns into Private Sector Decision Making*, World Bank Discussion Paper 384, 1998.

The findings of the MMSD project played an important part in framing the issues addressed in a green paper produced by the PNG Department of Mining in early 2003.[12] This attempt to establish a 'sustainable development policy and sustainability planning framework' for the mining sector was one component of an institutional strengthening project funded by the World Bank. That project, which is nearing completion, arose from a concern by the World Bank and some policymakers in Papua New Guinea that an observed decline in the levels of new investment in the mining sector could have serious economic and political effects within the next decade.[13] The green paper addressed a range of policy issues through an extensive process of consultation with stakeholders in the PNG mining sector. However, some doubts remain over the willingness and ability of the PNG Government to implement the proposals that came out of this process.

BOX 4 THE DEVELOPMENT FORUM IN PAPUA NEW GUINEA

It is sometimes thought that the second major phase in the development of PNG's mineral policy began in response to the outbreak of the Bougainville rebellion in 1988. This is only partly true. No less significant was the set of demands made in the same year by the political leaders of Enga Province, Porgera District and the Porgera Landowners Association as preconditions for development of the Porgera gold mine. At the core of these demands was a desire to increase the proportion of mine related benefits and revenues which would accrue to the provincial government and the local community and to establish the right of both parties to participate in the process of determining the terms and conditions of project development.

The response of the national government was to establish the Development Forum to negotiate a set of tripartite agreements about the distribution of benefits and revenues and to provide an undertaking that these would be consistent with the development agreements between the State of Papua New Guinea and the Porgera Joint Venture. The Development Forum was incorporated into the *Mining Act* (1992), the *Oil and Gas Act* (1998) and the *Organic Law on Provincial Governments and Local-level Governments* (1995). All major mining and petroleum projects, including those operating before the relevant laws were passed, have now been subject to these negotiations and the process has been expanded to include the developers and the representatives of local-level governments in affected areas.

12 See www.mineral.gov.pg

13 There has been a parallel exercise, also funded by the World Bank, to strengthen the capacity of the Department of Petroleum and Energy to manage the PNG gas project, but this has not involved any parallel attempt to produce a sustainable development policy for the oil and gas sector.

The governments of other Pacific island nations can learn some useful lessons from the way that Papua New Guinea has tried to deal with its policy challenges. They can also find the key ingredients of a good policy framework in the recent initiatives of the World Bank group. Not only can they hold developers accountable for standards of corporate social responsibility of the kind espoused by the ICMM, they can make them responsible for compliance with the Equator Principles and they can state their compliance with the Extractive Industries Transparency Initiative. This last action is precisely what the East Timor Government has used in its process of public consultation over the establishment of the Timor-Leste Petroleum Fund.[14]

However, there are three main areas where the promotion or adoption of best practice principles by national governments will not be sufficient to achieve sustainable development from investment in the extractive industry sector. They are:

> the relationship between private investment, foreign aid and economic diversification

> the allocation of government revenues and management of these revenues, and

> the matching of needs, capacities and responsibilities among stakeholders.

14 See www.mopf.gov.tp.

INVESTMENT, AID AND ECONOMIC DIVERSIFICATION

A handful of Pacific island nations have economies with a dominant extractive industry, but all of them, including those with resource-dependent economies, are also heavily dependent on foreign aid. By definition, large resource projects are not sustainable in the long term and the same may be true of the whole extractive industry within a national economy. The question then is whether and how the revenues and benefits derived from extractive industry can promote sustainable economic growth in other sectors of a national economy. Proponents of the resource curse theory might say that this is difficult or impossible, but opponents of the theory might say that aid dependency is as much a barrier to sustainable economic growth as resource dependency. The diversity of a national economy is primarily a function of a country's resource base, including its human resource base. The question then is whether and how the combination of large amounts of foreign aid and high levels of foreign investment in large resource projects can be applied to the sustainable development of a country's total resource base, including its stock of non-renewable resources.

RISKS AND CONSTRAINTS

The experience of Papua New Guinea over the past decade suggests that an unfriendly or unstable fiscal regime is the main domestic barrier to foreign investment in the mining and petroleum sectors.[15] That is because the recent upturn in exploration spending has followed a major overhaul of the fiscal regime and the introduction of financial stability clauses into development agreements. However, there are still numerous legal and bureaucratic barriers in the country's regulatory framework, some of which verge on the ridiculous. For example, delays in the issue of visas for a technical repair contractor recently caused multi-million dollar losses for the operators of the Lihir gold mine.

The removal of legal and bureaucratic impediments to private investment is a regular feature of advice from the World Bank and the Asian Development Bank.[16] The costs of doing business in most Pacific nations are still far too high. The political systems and cultures of countries in the region may not produce the political will to reduce or remove these obstacles. While corruption is often seen as a barrier to foreign investment, it is not necessarily moderated by a democratic political system because this may increase the number of people who can demand bribes or favours from private investors or political patrons.

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[15] Philip Daniel, Keith Palmer, Alistair Watson and Roland Brown, *Review of the Fiscal Regimes for Mining and Hydrocarbons, Asian Development Bank*, 2000.

[16] World Bank, *Doing Business in 2005: Removing Obstacles to Economic Growth,* as summarised at http://rru.worldbank.org/Documents/DoingBusiness/DB-2005-Overview.pdf

Corruption can be a problem in procurement of goods and services by mining and petroleum companies when local firms use political connections to win contracts or avoid their contractual obligations.

Governments create additional problems for the mining and petroleum sectors when officials in central agencies with financial, planning or personnel management functions focus more attention on expenditure in the budget than on revenue. These problems get worse if they assume that the promotion of foreign investment can be left to line agencies that are understaffed and underfunded. Major resource projects cannot be developed without significant inputs from several government agencies. These inputs need to be properly planned, funded and coordinated.

Some of the political and bureaucratic obstacles to foreign investment in the mining and petroleum sectors may be due to the desire of politicians and officials to avoid the 'resource curse' or oppose the policy prescriptions of the World Bank in the name of national sovereignty. But if there is a lack of investment in other sectors of a national economy, this may be due to the fact that big mining and oil companies have the capacity to climb over the barriers put in the way of all private investors.

Governments may think that they can play an active role in the diversification of resource-dependent economies by diverting a significant proportion of their mineral revenues to the operation of state owned enterprises. This was certainly the thinking of the PNG Government in the early years of independence, but experience suggests that government monopolies of all kinds are constraints to economic growth and economic diversification.

When foreign aid accounts for a significant proportion of public spending and much of it is on social service infrastructure, this can create long-term costs for governments. This can lead governments to impose excessive taxes on the private sector to maintain service delivery programs instead of adjusting their fiscal and spending policies to foster economic growth. The problem can be compounded when aid agencies get involved in the design of service delivery programs or in a government's planning and budgeting process in ways that lead to long-term dependency on donor support for program implementation. If bilateral aid is continually used to plug holes in the budget of a government which cannot deliver social services on its own, there may be less incentive for that government to make sensible and sustainable use of any revenue windfall derived from extractive industries.

Bilateral aid agencies are generally reluctant to engage with the extractive industry sector, even in countries where it dominates the national economy. This reluctance may be due partly to the sectoral priorities established by recipient governments, but it also has other motivations.

Firstly, there is a perception that resource developers already take responsibility for delivering a type of 'aid' to the people affected by their operations, so the donor community has reason to focus on the alleviation of poverty among the rest of the population. Secondly, public controversy over the industry's social and environmental 'licence to operate' in developing countries creates a risk that aid agencies will be criticised in their home countries if they are seen to support or subsidise the industry in any way.

The Extractive Industries Review showed that the World Bank is not immune from this kind of criticism.[17] However, if other members of the donor community leave international financial institutions to deal with the 'hard' sectors, such as mining and forestry, this can reduce the incentive for national governments to undertake significant policy reforms in these sectors.

STRATEGIES AND OPPORTUNITIES

If it is agreed that foreign investment is preferable to foreign aid as an engine of economic growth, then foreign aid programs should not have the effect of discouraging foreign investment, even if that is not the donor's intention. Instead, an emphasis on sustainable economic growth should be embedded in all parts of an aid agency's country strategy. In the extractive industry sector there is an opportunity for aid agencies to work with national governments to persuade foreign investors that the lessons of past mistakes have been learnt and remedies have been applied.

Fiscal regimes and regulatory frameworks need to be streamlined and stabilised across the region to promote investor confidence. This is not just a question of removing obstacles to foreign investment in extractive industries, but encouraging broad foreign and domestic investment. There is an opportunity for donors to fund expert policy advice to the governments of the region to achieve this outcome. In the extractive industry sector this could involve the development of models based on the long experience of what has and has not worked in specific countries. It could also involve the creation of regional capacity to provide technical assistance to governments with limited experience in this area.

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[17] See www.worldbank.org/ogmc.

Governments need to understand that the simultaneous promotion and regulation of any industry can be a source of conflict between different agencies, or even conflicts of interest within a single agency. Strategies need to be devised to resolve these conflicts and coordinate the exercise of both functions. There is an opportunity for donors to work with governments to achieve this goal by looking at revenue and expenditure planning as two sides of the same coin.

Investors in major resource projects should work more closely with their counterparts in other economic sectors to establish inter-sectoral synergies and lobby governments to remove obstacles to economic diversification in resource-dependent economies. This should be an issue for ongoing discussion between industry peak bodies and national or local chambers of commerce.

An economic diversification strategy supported by large mining and oil companies should recognise the importance of small and medium-scale enterprises in bridging the gap between the formal and informal sectors of the economy. There is an opportunity for major companies to share and apply the lessons learnt from their local business development programs in countries where these are mandated by government policy. They also have an opportunity to lobby for changes in government policies that would make these programs more effective in the long term. Aid agencies engaged in the promotion of small and medium-scale enterprises should also be involved in this learning process.

Industry, governments and aid agencies should offer greater recognition and support to artisanal and small mining operations as a component of rural livelihoods in countries where large operations are already significant. The promotion and formalisation of this sub-sector can help to break down the division that currently exists, in policy and practice, between a mineral enclave economy and the rest of the rural sector, where development strategies are often conceived on the assumption that agriculture is the only economic activity that really matters.

BOX 5 THE SMALL-SCALE MINING SECTOR IN PAPUA NEW GUINEA

It is estimated that there are up to 60 000 small-scale and artisanal gold miners in Papua New Guinea, although many of them work part-time. Between them they produce about 70 000 ounces of gold a year, which is exported through legitimate channels and perhaps half that amount which is exported without licence. At current prices, this means their production is worth more than the combined value of the copra, tea and rubber industries, or about half the value of the coffee industry. Their activities are known to pose a variety of environmental and physical hazards, most notably those arising from the use of mercury. However, while there is always room for improvement, this sub-sector is already managed and regulated more effectively in Papua New Guinea than in most other developing countries despite the limited amounts of revenue that it contributes to the government.

The government also continues to receive donor support for its management regime and is about to embark on a donor-funded program of environmental education for artisanal miners.

Source: PNG Department of Mining Green Paper, 2003.

ALLOCATION AND MANAGEMENT OF MINERAL REVENUES

A good mineral policy creates space for industry to implement its own standards of good practice. A better policy holds the industry accountable for those standards. The best policy obliges a government to make a distinctive contribution to the achievement of sustainable development in areas beyond the control of the private sector. This contribution needs to be made through the allocation and management of mineral revenues that pass through government accounts.

Proponents of the resource curse theory might say that this is difficult or impossible because of the rent-seeking opportunities presented by large revenue flows from extractive industries. Opponents of this might say that principles of equity, transparency and security can be applied to meet this challenge, and large flows of foreign aid present the same rent-seeking opportunities. The question then is how these principles should be applied to the allocation and the management of mineral revenues.

RISKS AND CONSTRAINTS

There are major constraints on the capacity of foreign investors, financial institutions and aid agencies to influence the allocation and management of mineral revenues by national governments. Whatever they might think about the best way to spend or invest the revenues for sustainable development, domestic politics can intervene, resulting in much of the money being wasted, mismanaged or misappropriated. When governments agree to borrow money from international financial institutions to promote or regulate the extractive industry sector, it may be possible to impose revenue management conditions on such loans.

However, loan conditionality has been found to be a blunt instrument for achieving long-term policy reform. Attaching conditions to grant aid is even more problematic, especially when the granting agencies do not wish to engage with the extractive industries. The resulting conflict or trade-off between sovereignty and sustainability is matched by a second conflict or trade-off between security and equity.

In countries such as those of Melanesia, where customary land rights are entrenched in national policy and practice, government claims to a monopoly of mineral resource rights and mineral revenues are the subject of endless political argument. Memories of the Bougainville rebellion are a reminder of this. The PNG Government has tried to take the heat out of the issue by conceding a greater proportion of its mineral revenues to the provincial governments and landowning communities who host the resource projects from which the revenues are derived. While this may be justified by the need to secure these projects against the threat of disruption or closure, the result can be a grossly inequitable distribution of benefits and revenues between different sections of the population.

As national politicians and government officials become aware of such inequities, they may seek to claw back some of the benefits and revenues they have promised to provinces or landowning communities. This action may be justified on grounds of efficiency and equity where provincial governments or local communities have failed to manage their mineral windfalls. But this provides an additional incentive for national governments to avoid transparency in the allocation of mineral revenues because transparency will fan the flames of domestic political conflict.

Nowhere is this more obvious than in PNG's Southern Highlands Province, which is home to most of the country's oil and gas reserves.[18]

BOX 6 DOWNSIDE OF THE DEVELOPMENT FORUM IN PAPUA NEW GUINEA

'The isolation of the Development Forum from the process of planning for sustainable development has encouraged all the participants to treat the mineral wealth derived from each new mining project as if it were a lottery prize. While they have argued over the immediate division of the spoils, they have neglected the question of how to create new incentives and opportunities for sustaining this benefit beyond the point of mine closure. The problem is not just to decide the right and proper way to divide up a large pile of money at one moment in time, but also to plan the distribution of benefits through the different stages of the project cycle in order to match the available resources with the needs and capacities of the recipients. This point applies no less to the different levels of government than it does to the members of landowning communities.'

Source: PNG Department of Mining Green Paper, 2003.

[18] Sam Koyama, *Black gold or excrement of the devil? The externalities of oil production in Papua New Guinea, Pacific Economic Bulletin* Vol. 20, 2005.

PNG's Development Forum has been widely hailed as a mechanism that enables stakeholders to negotiate through this minefield before projects are approved for development. Forum agreements include provision for their content to be regularly reviewed to sustain consultation.

However, the forum process has not been so effective at linking the distribution of mineral revenues to the establishment and maintenance of institutions that can plan and manage their expenditure. Instead, there is a tendency for national and provincial government agencies to treat forum agreements as an excuse for their own departure from areas directly affected by major resource projects, leaving developers and landowners to muddle along by themselves. Even if the principles of equity and security can be reconciled in the allocation of government mineral revenues, this does not resolve the twin problems of deciding how to stabilise these revenues amid fluctuating production levels and commodity prices, and deciding whether and how to invest a proportion of the revenues for future generations. The history of the Mineral Resources Stabilisation Fund and the Mineral Resources Development Corporation in Papua New Guinea show that institutions established for either purpose, at any level of political organisation, are difficult to protect against political interference if they remain within the government system.[19]

This problem has also been canvassed in recent debates about the design of the Timor-Leste Petroleum Fund.

BOX 7 THE GOVERNANCE OF PETROLEUM REVENUES IN EAST TIMOR

'As petroleum revenue comes on stream, governance may worsen and corruption may become endemic. East Timor's petroleum resources create huge governance risks, as can be seen from the experience of resource-rich countries across the globe. To date, the government has consistently followed a policy of transparency with regard to petroleum revenue management, adoption of a state-of-the-art petroleum revenue savings policy and fiscal regime and anticipation of [Extractive Industries Transparency Initiative] principles. Overall, it is recognised that the executive is so far the strongest branch of the state and that effective checks and balances are needed to create a fully democratic, pluralistic and accountable state. At the same time, the history of 24 years of Indonesian occupation implies that few people can refer to experience with a successful model of governance. With elections anticipated in 2006 or 2007, this may be exacerbated by populist pressure to relax fiscal discipline. East Timor is committed to ensuring that the oversight and accountability institutions laid down in the Constitution are put in place as fast as practically possible, and to creating an efficient and disciplined administration.'

Source: World Bank, Timor-Leste Country Assistance Strategy, 2005.

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[19] Allen Clark, *Resource Rent Extraction, Application, Consumption, Investment and Sustainability of Resource-Based Development in Resource-Rich Island Economies*, 2001. Available from: http://r0.unctad.org/infocomm/Diversification/nadi/mineralsClark.doc

STRATEGIES AND OPPORTUNITIES

Mineral policies should clearly identify the beneficiaries of a government's mineral revenues. They should incorporate principles that justify both the present distribution as well as the investment of some of the revenue for future generations. If these principles cannot be imposed by national governments they need to be negotiated and publicised in ways that do not threaten the integrity of the political system.

The effective management of mineral revenues at local levels should be constructed around 'community sustainable development plans' of the kind recommended in the final report of the MMSD project and in the PNG green paper. There is an opportunity for tri-sector partnerships between industry, governments and civil society to promote successful examples of such local planning across different economic sectors and between different countries of the region.

Trust funds established to save or invest mineral revenues for future generations should be structured for the worst-case scenario to guard against the risk of corruption or political interference.

Donors could support a study of trust funds in different countries that have been established for this purpose and recommend models for their governance.

East Timor and other countries could learn from Papua New Guinea about the establishment and protection of institutions for the stabilisation and investment of mineral revenues. Laws governing such institutions should be constitutional to guarantee against future political interference. Additional lessons can be learnt from the governance structure of PNG Sustainable Development Program Ltd, which holds the majority equity stake in the Ok Tedi mine.[20] The importance of independent audits and public reporting cannot be over-emphasised.

NEEDS, CAPACITIES AND RESPONSIBILITIES

It is one thing to establish policy principles saying who should get what from the development of large resource projects, or who should do what to ensure that the economic benefits are applied to sustainable development, or who should do what to ensure that the social and environmental costs are minimised. It is another thing to ensure that people and institutions have the capacity to meet their obligations and satisfy their needs. Proponents of the resource curse theory might say that big mining and petroleum companies will always tend to suck capacity out of national institutions and local communities in developing countries because they can monopolise the best human resources to meet their own needs.

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[20] See www.pngsdp.com.

Opponents of this might say that corporate self-interest dictates a different approach because multinational companies cannot meet their obligations if they are operating in a dysfunctional social and political environment. The question then is who can build the capacity of the other stakeholders who reap the benefits or bear the costs of large resource projects.

RISKS AND CONSTRAINTS

The high standards of corporate social responsibility currently promoted by industry peak bodies and financial institutions have a potential downside for small developing countries with low levels of government capacity because they can encourage other stakeholders to shirk their own responsibilities. Governments may encourage resource developers to assume some government responsibilities, as is the case with PNG's tax credit scheme, but there are key areas of government responsibility which foreign investors and lenders cannot influence. When governments and local communities place too much responsibility on foreign investors, corporate risk aversion may lead to reduced investment by companies with the highest standards. Their replacements may be investors who have less to lose by cutting corners because they have limited market exposure in their countries of origin.

BOX 8 THE LOSS OF GOVERNMENT CAPACITY IN PAPUA NEW GUINEA

For several years after independence, foreign mining companies were apparently keen to invest in Papua New Guinea because the country was known to possess a wealth of mineral resources, it had a stable and democratic political system and the government's policies were clear and consistent. The Project Coordination Branch in what was then the Department of Minerals and Energy played a key role in the development of new resource projects and new policy initiatives because its staff had the expertise and resources to mobilise the support of other national government agencies, provincial governments and local communities. Many senior staff at this time were expatriate contract officers who remained in their positions for many years, and the government could afford to employ them with Australian budget support. Once that support was withdrawn, the government became increasingly reliant on World Bank loans to provide the necessary technical assistance. However, the use of consultants by the two agencies now responsible for the mining and petroleum sectors has been met with massive cuts to their budgets and staffing levels. For example, staff numbers in the Department of Mining have fallen by two-thirds over four years while it has been the target of a World Bank institutional strengthening project. The cuts happened while mineral exploration and development expenditures were steadily rising.

Source: PNG Department of Mining.

Perhaps the decline of government capacity to regulate or promote the extractive industry sector is one instance of a general phenomenon in which a booming industry sucks capacity out of the public service by offering better salaries to experienced staff. In Papua New Guinea, the problem has as much to do with the refusal of central agencies to hire replacement staff and the unattractive working conditions of an old-fashioned bureaucracy. One response to this problem is evident in the PNG Government's proposal to establish a Mineral Resources Authority with independent hiring and firing powers and to earmark a proportion of the government's mineral revenues for the payment of staff. However, experience has shown that the corporatisation of line agencies does not necessarily raise their effectiveness or insulate them from political interference, nor does it remove the responsibilities of other government agencies to promote or regulate an industry.

The donor community may unwittingly reduce government capacity by overloading government agencies with consultants and advisers who have no line responsibilities but distract their national counterparts from their jobs.

This is a familiar problem in the design of capacity building or institutional strengthening projects and can result in a widening gap between the complexity of a government's policies and the capacity of public servants to implement them.[21]

Even before the Development Forum was established, the PNG Government had a 'preferred area' policy which made obligations on resource developers to give preference in training, employment and business development to the people of the immediate impact area, followed by people of the district or province in which their projects were located. This policy can be justified by the principle of project security, and if projects are located in remote areas, on grounds of equity. But it encourages developers to focus on building capacity within their immediate areas while limiting opportunities for the beneficiaries to apply their skills in other parts of the country when projects are closed.

Government agencies and local communities have a limited capacity to understand, let alone manage, the long-term social and environmental risks associated with major resource projects. The lessons learnt from one project may not readily be transferred to the planning and monitoring of another because of variations in project design and environmental context. In the absence of better scientific and technical training, domestic political debate about social and environmental impacts is prey to high levels of fear, anxiety, suspicion and manipulation.

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[21] Peter Morgan, *Technical Assistance: Correcting the Precedents*, Development Policy Journal Vol. 2, 2002 http://www.undp.org/dpa/publications/DPJ6.pdf.

Discussion of the needs, responsibilities and capacities of local communities affected by major projects can easily ignore the social and economic division between men and women or between different generations.

In many parts of the region, male chiefs or 'big men' have a traditional monopoly on positions of leadership, but the subordination of women and young people can be exaggerated by the impact of a modern industry that also has a strong male bias. The interests and concerns of women and young people may therefore be ignored, even when those of communities seem to be recognised.

STRATEGIES AND OPPORTUNITIES

Governments should not try and should not be expected to do more than they are capable of doing to promote and regulate the extractive industry sector. However, if the sector makes a significant contribution to the national economy, or is likely to do so in the future, additional action needs to be taken to boost government capacity, and that includes the ability to deal with unexpected events such as new discoveries or major disputes.

The capacity of government agencies should not be measured by the number of people employed in them. Small, smart agencies are better than big, bloated organisations.

One of the key ingredients of smartness is a public service culture that is sympathetic to the private sector. While donor support for line agencies may be desirable in the short term, it should not be seen as a substitute for wider reform of government policies.

Mining and oil companies are the main capacity builders in their industries and industry experience is a valuable asset for public servants. To avoid a brain drain from the public to the private sector, it is important to develop innovative training schemes that facilitate more two-way traffic between them. This could be achieved by a national or regional cadetship program, established with industry and donor support, which makes a long-term investment in training for government and private organisations.

Where major resource projects are forecast to last for many years and have a significant impact on national economies, as with oil and gas developments in Papua New Guinea and East Timor, a case can be made for twinning arrangements between the host governments and those of developed countries such as Australia that allow for the sharing of expertise and experience.

For these arrangements to be effective they need to involve the exchange of personnel in line positions, not only short-term training or advice.

An alternative way for donors to build public sector capacity is to supplement local salaries to a level that enables the recipient government to recruit its own expatriate expertise, as happened in Papua New Guinea in the days of Australian budget support.

Aside from the general need to build management capacity in relevant government agencies, there is a more specific need for governments to be provided with information about the bona fides of potential investors in extractive industries and for junior companies to adopt basic standards of corporate social responsibility. There is an opportunity for industry peak bodies and international financial institutions to take the lead in convening a regional workshop or establishing a regional database that would accomplish one or both of these objectives.

A focus on national government capacity should not detract from the need to build capacity at lower levels of government or in communities directly affected by major resource projects if the costs, benefits and revenues have to be managed at these lower levels. Given the difficulty of mobilising donor support for building capacity in areas that may seem to be privileged by their possession of a major resource project, the best way to secure an outcome is for government policies to provide additional incentives for developers or civil society organisations to do the job. However, these incentives need to be constructed in a way that accounts for the different capacity needs at different stages of the resource project cycle, from exploration to closure and beyond.[22]

All stakeholders in the extractive industry sector should accept some responsibility for ensuring that the needs of women and young people are incorporated into the planning for the sustainable development of communities affected by large resource projects. In Papua New Guinea, the World Bank has facilitated two conferences on 'women and mining' within the context of the Mining Sector Institutional Strengthening Project. These events have given rise to proposals that might allow PNG's mining sector to show that it is a pioneer in gender equity, just as the Development Forum showed it was a pioneer in community consultation.

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[22] Richard Jackson, *Capacity Building in Papua New Guinea for Community Maintenance During and After Mine Closure*, MMSD Working Paper 181, 2002.

PRACTICAL POLICY OPTIONS

It is not possible to convert key policy opportunities into practical policy options for all relevant decision makers in different countries because of the uneven development described at the start of this paper. Separate sets of options are therefore canvassed for East Timor, Papua New Guinea and for the small island states, with special reference to Solomon Islands.

EAST TIMOR

Most of the key options for East Timor have been outlined in a document containing 'Submissions to the Timor-Leste Petroleum Fund Draft Act'.[23] There is consensus among commentators about some measures that might be taken to improve management of the fund. For example:

> most have called for further clarification of the powers granted to the Investment Advisory Board, the Consultative Council and the independent auditor, as well as the mechanisms by which they are appointed

> most are also concerned about the mechanisms for deciding how much money can be sustainably withdrawn from the fund in a year, or over a period, and about the risk of such withdrawals being used to pay off 'unsustainable' levels of foreign debt, and

> some have suggested that the transparency of payments into the fund would be enhanced if the oil companies were obliged by government policy to publish their version of the relevant transactions under a system of 'double disclosure'.

The window of opportunity for these issues to be resolved is the four years during which the East Timor Government plans to continue to rely on support from international donors to form and implement national economic policies.

Three issues policymakers in East Timor might wish to discuss with their PNG counterparts are:

> the feasibility, costs and benefits of foreign investment in downstream processing facilities in the petroleum sector

> arguments for and against establishment of a national oil company or the acquisition of state equity in oil and gas operations, and

> the corporate governance structure and investment strategies of PNG Sustainable Development Program Ltd.

[23] See www.mopf.gov.tp

Policymakers responsible for the management of future revenues from the PNG gas project and existing oil projects could learn from the process by which the Timor-Leste Petroleum Fund has been designed to date, even if PNG's projected revenues do not warrant the same sort of institutional arrangement. The World Bank would be keen to facilitate this dialogue but it would be preferable for one of the two sovereign governments to initiate the process. If the dialogue could be institutionalised, policymakers from Pacific island nations could be invited to join such an organisation if they need to deal with the development of significant hydrocarbon reserves.

PAPUA NEW GUINEA

The World Bank should update its evaluation of the effectiveness of its attempts to strengthen the two line agencies responsible for the mining and petroleum sectors in Papua New Guinea.[24] It should try to ensure that the findings of this exercise make a genuine impact on national policy. The PNG Government needs to decide on a medium-term strategy for developing the capacity of these two agencies without any further loans from the Bank.

The first question to be resolved is whether the Mineral Resources Authority will be allowed to act as an independent statutory body and whether this corporate model should be applied to the petroleum sector as well as the mining sector.

If the process of corporatisation is partial or ineffective, a question remains about whether to connect line agency budgets to mineral revenue forecasts to sustain a minimal level of institutional capacity.

Finally, a decision needs to be made about the most effective way of engaging foreign technical expertise in the administration of both sectors and the role of donors in financing these arrangements.

Even if these issues are resolved, the much bigger question remains of how to relate the promotion and regulation of the extractive industry sector to the promotion and regulation of general private sector investment. While this is already a matter of major concern to the multilateral banks, it should also feature more prominently in the country strategies of bilateral aid agencies. Since Australia now adopts a 'whole-of-government' approach to its aid program, it should encourage the PNG Government to adopt a whole-of-government approach to the removal of unnecessary obstacles to investment, including those that afflict extractive industries.

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[24] Sunil Mathrani, *Evaluation of the World Bank Group's Activities in the Extractive Industries: Papua New Guinea Country Case Study,* World Bank Operations Evaluation Department, 2003.

While it may still be difficult for an agency such as AusAID to be directly involved with a body such as the PNG Chamber of Mines and Petroleum, engagement with the private sector can be done through an organisation such as the Consultative Implementation and Monitoring Council which already facilitates dialogue between the private sector and the PNG Government.

Whatever action is taken to improve the investment climate in Papua New Guinea, the government can play only a limited role in promoting effective community engagement and sustainable community and business development in rural areas affected by extractive industries. The problem here is the tendency of mining and oil companies to treat their community and business development programs as another cost of doing business. The government, civil society, and even the donor community also fail to include the industry in a broader search for models of best practice. This is an area where a new type of 'tri-sector partnership' needs to be established. Evidence of this would be the incorporation of the 'community affairs' meetings occasionally held under the auspices of the PNG Chamber of Mines and Petroleum into the sort of meeting recently held under the auspices of the Divine Word University to examine positive examples of rural community development outside the extractive industry sector.[25] The government's Department of Community Development should be part of this process and other stakeholders will need to be proactive in moving it forward.

The incorporation of gender equity principles into PNG's policies for the extractive industry sector should be treated as a separate initiative for the moment because the most recent national conference on 'women and mining' has led to specific proposals for the engagement of local women's associations in a sustainable development planning process endorsed by the government's Department of National Planning. This kind of initiative needs to be tested within the extractive industry sector before it is absorbed into a process of national community development or advertised as a model of best practice at regional or global levels.

There is a pressing need to review operations of trust funds that have been established at sub-national levels as the result of project development or

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[25] David Hegarty and Pamela Thomas (eds), *Effective Development in Papua New Guinea: Local Initiatives and Community Innovation*, Development Bulletin Vol. 67, 2005.

compensation agreements in the extractive industry sector. The focus of this review should be to ensure a combination of productive investment, transparent reporting and equitable distribution of benefits. This exercise cannot occur without government endorsement, but the PNG Government does not have the resources to carry it out and it may not be supported by donors. This activity might be worthy of support by PNG Sustainable Development Program Ltd, given its commitment to the investment of mineral revenues for the benefit of future generations. But it would still be important for the government to incorporate the findings into its mineral policy framework.

SOLOMON ISLANDS AND OTHER PACIFIC ISLAND STATES

Given the current proposal to reopen the Gold Ridge mine and the size of the contribution it would make to the national economy, the capacity of the Solomon Islands Department of Mines and Energy needs to be rebuilt. The department is already receiving technical assistance from the South Pacific Applied Geoscience Commission (SOPAC) under the Pacific Islands Energy Policy and Strategic Action Planning program and this includes a review of the country's *Petroleum Act*, but administration of the hard-rock mining sector needs more urgent attention. Solomon Islands could take advantage of lessons learnt from implementing the Mining Sector Institutional Strengthening Project in Papua New Guinea, without needing to borrow such a large sum from the World Bank for a project of its own. Some technical assistance is required but if Solomon Islands can implement a mineral policy appropriate to its size and circumstances,[26] a body such as SOPAC could function as the vehicle through which to advertise the transfer of this model to other Pacific island states if required.

The Solomon Islands Government might also consider a request to the European Union or the Japan Social Development Fund to extend their support for the promotion and regulation of the artisanal and small scale mining sector in Papua New Guinea to embrace this sub-sector in the Solomon Islands. Solomon Islands could become a staging post for the transfer of practical policy options from Papua New Guinea to the rest of the Pacific islands region once those options have been downsized to fit the needs of a small island state.

The scope for a regional network that concentrates on policy options for the extractive industry sector is limited by the uneven development of the sector and the varying level of interest from national policymakers. The best option would be to include the sector

[26] A good starting point would be the policy framework already adopted by the Government of Fiji www.mrd.gov.fj/gfiji/mining/minrlpol/index.html.

in the wider debate about the promotion and regulation of private investment, as has been suggested as a separate exercise in Papua New Guinea. This could provide an opportunity for the World Bank to familiarise regional policymakers with the Equator Principles and other global standards of best practice without necessarily having to link these to the formation of policies for the extractive industry sector. Global standards for sector-specific issues, such as mine closure, would still need to be canvassed by individual countries as the need arises.

Several small island states could benefit from the availability of information about the legitimacy and integrity of companies that are seeking mineral exploration licences or are offering to develop resources that have already been discovered in their countries. There is a potential role for peak bodies such as the PNG Chamber of Mines and Petroleum, the Minerals Council of Australia and financial institutions such as Australia's Export Finance and Insurance Corporation to work with a regional agency such as SOPAC to provide this advice.

Further advice could be sought from the Mining Certification Evaluation Project, which is a joint initiative of the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Australian branch of the Worldwide Fund for Nature.[27]

Papua New Guinea is experimenting with models for more effective community engagement and women's empowerment in managing the impacts and benefits of large resource projects. It therefore seems premature to propose a regional process for sharing the lessons learnt from these experiments. However, the time may soon come when it will make more sense to do so. If the World Bank retains its interest in the social sustainability of the extractive industry sector, it should take the lead in coordinating this process.

27 See www.minerals.csiro.au/certification.