The money pit: an analysis of Nauru’s phosphate mining policy

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Nauru’s current financial crisis is a direct result of its own mishandling of its mineral wealth. Nauru’s mineral trust funds are public (government-managed) property, rather than the subject of private property rights. Public officials have unsustainably and irresponsibly exploited Nauru’s trust funds for decades, denying future generations the benefit of the phosphate resource by subsidising public consumption instead of looking for long-term investment in human and physical capital. In contrast, the mineral trust funds of other countries, such as the Norwegian Petroleum Fund and the Alaskan Permanent Fund, have been successful in managing mineral wealth by maintaining clear rules regarding governance, and diverting dividends to individuals rather than to government bodies to manage. The sad history of Nauru’s phosphate is a timely warning to developing countries deciding how to maximise benefits from finite non-renewable resources.

Nauru has been in financial crisis for a substantial period. This paper presents Nauru’s financial crisis as a direct consequence of the mishandling of its mineral wealth since independence from Australian administration in 1968. If an independent Nauru had not invested its phosphate moneys speculatively but had, at the very least, invested those moneys in low-risk government bonds, the country would be in a favourable financial situation rather than one of financial collapse, in which the government is unable to provide essential public services.

Investing in low-risk bonds alone, however, would not have prevented Nauru’s current predicament. Nauru has relied too heavily on phosphate as the country’s sole income earner, it has not invested in sustainable capital, such as education, and it has relied too heavily on public institutions to manage the investment of phosphate revenues.

This paper analyses the economics of Nauru’s management of its mineral wealth and compares it with that of the Norwegian Petroleum Fund and, briefly, the Alaskan Permanent Fund. It is argued that these funds have more successfully managed mineral wealth by, in particular, establishing and following clear rules for the governance of the investment of revenues from non-renewable an investor by 1990, Nauru have return billion, of been the r bonds. Th about A$2 billion.

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Discovery
Nauru’s phosphates

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renewable resources. If Nauru had applied an investment policy similar to Norway's, by 1990, Nauru's phosphate operation could have returned to Nauru approximately A$1 billion, of which A$174 million would have been the return on long-term government bonds. This amount would have grown to about A$288 million by 1998.

The income from a country's mineral trust fund should be clearly distinguished from other forms of public revenue. These two streams have not been distinguished in Nauru. shortsighted spending of mineral revenue on politically expedient activities means that this important, non-renewable income is not saved. This paper argues that a successful public trust fund must quarantine at least some of this income from government control. The allocation of private property rights to the mineral income is one way of reducing government interference (this point is discussed later, particularly in the context of the Alaskan Permanent Fund).

The sad reality for Nauru is that phosphate is a non-renewable resource: it is too late for Nauru to start over. The story of Nauru is, however, a useful one for developing countries pinning their hopes on generating much-needed income from non-renewable resources. An example of such a country is Timor-Leste, which has just started down the road of developing a trust fund approach to managing its finite oil and gas resources in a way that will help it meet its urgent development needs.

Discovery and exploitation of Nauru's phosphate

In 1907 under the German administration, but after World War I, Nauru was given to Australia to administer (Howard 1991:9). In July 1919, the Nauru Island Agreement was signed by Britain, Australia and New Zealand, establishing the British Phosphate Commission (BPC), which held title to the deposits and set the price of phosphate. The BPC began mining in 1922. Phosphate exports were to be distributed at the rate of 42 per cent to Britain, 42 per cent to Australia and 16 per cent to New Zealand (Howard 1991:10).

The Nauruans were essentially left out of the Nauru Agreement. The objective of the newly formed BPC was to export 'the largest amount of phosphate available at the lowest possible price' (Williams and MacDonald 1985:150). The allotments to Britain, Australia and New Zealand were for home consumption and not for export.

Nauru's phosphate has supported the large-scale development of agricultural and pastoral industries in Australia and New Zealand. Because Australia has strongly leached, highly weathered, low-fertility soils, the yields of crops and pastures achieved could not have been realised without the addition of phosphate fertilisers.

Adding phosphate to Australian soils has also been essential to the growth of clover as a pasture legume. Clover growth remedies the nitrogen deficiency of Australian soils and helps maintain the soil's organic matter and structure. This was perhaps even more the case for New Zealand, where the use of sown pastures instead of native grasslands was the basis of the nation's export trade and domestic economy.

For the United Kingdom, being a party to the agreement was less about sourcing phosphate and more about gaining the leverage it provided to build its negotiating power with its closer suppliers in Morocco and Florida.
In 1967, a new Nauru Agreement was signed, granting Nauru control of the phosphate industry. In return, Nauru guaranteed an exclusive supply of phosphate to Australia and New Zealand at an annual rate of two million tonnes a year. Britain stopped buying Nauruan phosphate in 1966, when the price increased after the renegotiation of royalties.

When Nauru became an independent nation in January 1968, the Government of Nauru established the Nauru Phosphate Corporation (NPC) to replace the BPC. The price of Nauruan phosphate was no longer held below the world price. Interestingly, the level of Australian and New Zealand consumption of Nauruan phosphate remained steady, despite the countries having to pay the higher world price. This situation continued until more recent times, when Australia began to source most of its phosphate from new markets, such as Mt Isa in Queensland, as well as Indonesia and China.

Managing mineral wealth: a touch of the resource curse

The downward spiral from independence

When Nauru took control of the trust funds set up under the BPC, it also obtained a profitable mining operation that, according to the Centre for International Economics (CIE 1993:185), had a nominal value in 1968 of A$163 million. Several of the trust funds (the Nauru Royalty Trust Fund and the Long Term Investment Trust Fund) were designed to accumulate wealth. Other trust funds were designed for the administration of funds for immediate social needs, such as housing. The combined value of Nauru's trust funds at independence was A$111 million.3

Good management of the wealth accumulation funds (the Royalty and Long Term Investment Trust Funds) should have yielded a rate of interest at least equivalent to the short-term government bond rate. The CIE (1990) estimated that, from independence to 1990, the average short-term government bond rate was 10 per cent. Accumulating the funds at independence at this rate (assuming the interest was paid once a year at the end of the year) would have yielded a (1990) value of the trusts of about A$83 million (CIE 1990:186). In real terms, however, factoring in inflation and discounting by the real rate of interest (the market rate less the rate of inflation), the funds would have yielded A$12.6 million. This amount would have grown to about A$14 million by 1998.

The wealth of the mining boom of the 1970s is now a distant memory. A history of bad investments, financial mismanagement, overspending and corruption has depleted most of Nauru's phosphate wealth held in various trusts and fixed and current assets. In 2006, receivers began to seize the nation's property assets. Government departments—including the nation's consulate in Australia—were evicted from the top three floors of (the former) Nauru House in Collins Street, Melbourne, and Nauru defaulted on a $268 million loan from US General Electric Capital. Air Nauru's last Boeing 737-400 was repossessed in December 2005.

Nauru has been generally badly advised financially and has put money into impractical state-owned enterprises, both of which have resulted in negative returns on the phosphate income. Connell (1983:4) observed that 'Nauru had no development plan and possible strategies for the development of Nauru are rarely discussed in Parliament, or outside it'.

The government's annual recurrent expenditure is now far in excess of its sustainable ways, government revenue equivalent to 100% of product (GDP).

Cursed, or blessed?

Studies of the extractivism in the Pacific countries have described both countries in which extractive interests have provided a stable and independent economy and countries in which such expansion has damaged the economies and societies of the countries, and even led to civil conflict. Research has also shown that the use of the resource endowment by some countries in the Pacific has resulted in economic and social benefits, while in other countries, the resource curse has had adverse effects on economic growth, governance, and society. The resource curse is a term used to describe the phenomenon that countries rich in natural resources often have lower levels of economic development than countries with similar levels of human capital and education but with fewer natural resources.

Gelb (2003) argues that the resource curse is a complex phenomenon, and that it is not always the case that countries with abundant natural resources will suffer from the resource curse. However, Gelb (2003) also notes that when countries fail to manage their natural resources efficiently, the resource curse can become self-sustaining, leading to a decline in economic growth and development. The resource curse is a critical issue for policymakers in resource-rich countries, and it is essential to develop strategies to mitigate its negative effects. These strategies may include diversifying the economy, improving governance and transparency, and promoting private sector development to ensure that the benefits of natural resource exploitation are shared equitably and sustainably.
sustainable revenue (ADB 2007). In many ways, grant aid has replaced phosphate revenue; indeed, in 2006, aid was the equivalent of 89.4 per cent of gross domestic product (GDP).  

Cursed, diseased or a case of weak institutional capacity?

Studies of economic growth have suggested that an abundance of natural resources can hinder rather than help economic growth (Gylfason 1999; Sachs and Warner 1995). The term ‘resource curse’ has been used to describe the phenomenon of resource-rich countries performing worse economically than resource-poor countries (Auby 1993). Research has shown that the resource curse results from large revenue inflows that facilitate rent-seeking and wasteful public expenditure. Further, resource-rich countries can be subject to symptoms of ‘Dutch disease’ — a phenomenon whereby the rapid influx of revenues from the export of natural resources causes an appreciation of the domestic currency (Drysdale 2004). This is detrimental in that it reduces the competitiveness of the economy’s other export and import-competing industries. Dutch disease has not been the main cause of Nauru’s current predicament, because Nauru’s currency is the Australian dollar. Importantly, however, recent research has shown that the resource curse can also be the result of weak institutional capacity, with wasted expenditure and corruption depleting the stabilisation funds that are used to save revenues from the natural resource (Drysdale 2004).

Gelb (1988) argues that the resource curse results from inadequate savings and unsustainable patterns of consumption and investment. Sala-i-Martin and Subramanian (2003) suggest that poor growth is a result of institutional weakness in the face of resource wealth. This position is supported by recent World Bank research that shows the importance of institutional quality in managing natural resource wealth (World Bank 2003).

Howard (1991) claims that many of Nauru’s problems have resulted from weak institutional capacity to manage the rapid inflow of phosphate revenues. As noted above, resource rents from the exploitation of Nauru’s phosphate were invested in long-term trust funds, which were set up to ‘ensure the Nauruans received a return from mining and to provide for the current and future needs’ (CIE 1990:8). Today, Nauru continues to rely on interest from its remaining trust funds, but a large proportion of the funds has been squandered by mismanagement: ‘large public trust funds exposed Nauru to mismanagement and corruption — small fortunes have been made from depletions of the public purse’ (Hughes 2004:6).

The Nauru government used its trust funds in various ways. In the post-independence period, almost all Nauruans were employed by the public sector, either by the government directly or by the government-owned Phosphate Corporation. In 1998, for example, of the 3,561 employed people in Nauru, only 150 were employed in the private sector. There is little doubt that this number of public sector employees significantly exceeded the number required to administer government services for such a small island population (Hannesson 2001:51). A 2004 ABC-TV Four Corners presentation noted

Founding president Hammer DeRobert had formed a kind of capitalist welfare state. Servicing a population the size of Katoomba was a local council and a full parliament, employing 1,600 public servants. Phosphate revenue underwrote the wages. People got used to being paid for jobs they were under no pressure to attend. (www.abc.net.au, 27 September 2004)
The welfare state and rent-seeking behaviour

Nauru's phosphate wealth in many ways financed a welfare state (Connell 1983). 'Imagine an island nation where the typical family of five has an income of $100,000 a year without even working; where there are no taxes or duties; where all medical and dental care is free, and even medicine, band aids and aspirin are dispensed without charge' (Howard 1991:50).

This situation encouraged rent-seeking behaviour in Nauru: a situation in which individuals derive an income without improving productivity or even by lowering it (Prasad 2003:755). This situation is likely to lead to an eventual decline in social welfare, as an over-reliance on government handouts reduces incentives to embark on private and productive industries.

The situation was particularly dire in Nauru, considering its wealth was entirely reliant on a non-renewable resource. It was essential that some substitute for wealth generation be established. A lifestyle based on consumption of a limited resource is sustainable only if consumers consume only the return on permanent wealth and invest the remainder (McDaniel and Cowdy 2000).

Nauru had a steady source of income that could have been invested in productive capital. In Nauru now, however, there is no private sector to speak of. Fishing on the reef is rare and the pandanus and palms that used to be the major sources of food are left unattended. Little food is grown locally; virtually all food is imported. As Hannesson (2001:51) suggested, 'Private initiative, which under normal circumstances is the engine of growth and economic progress, is blunted.'

Mineral wealth investment: an example of what not to do

In line with the resource curse, Nauru was not backward in expending its income on risky ventures and investments. Money did seem to 'grow on trees' for a while. Drysdale (2004:7) notes that 'with an influx of natural resource wealth it is tempting to spend it, particularly when the amount is above and beyond annual budget requirements'.

Analysis of Nauru's investments should proceed cautiously, as limited data are available, due partly to the lack of transparency in government operations for most of Nauru's post-independence period. The most notorious example of bad investment was the Nauru government's funding of Air Nauru, which quickly became an enormous strain on government expenditure: it made losses averaging $20 million a year between 1975 and 1987 and, in 1983, Air Nauru reported an annual loss of A$45 million (about one-third of the country's phosphate export earnings). As Forbes (1990:50) put it: 'Air Nauru...might as well have been fuelled by burning $100 bills.' Air Nauru's last Boeing 737-400 was repossessed in December 2005 when the High Court of Australia upheld an earlier decision to allow the Export-Import Bank of the United States to take the aircraft because of the non-payment of lease rentals, leaving Nauru without air services.

Another poor investment has been the Nauru Pacific Line, a shipping operation with annual losses of $12–15 million. Currently, the Nauru Pacific Line has five of its own ships and two leased vessels, which service the Pacific states. The shipping line continues to make losses and receives subventions from the State.

Nauru also invested heavily in real estate. At the peak of its wealth, Nauru had property investments in Australia, the Philippines, Fiji, Guam, Samoa, the United States, the United Kingdom, among others. Pacific Hotel Nauru sold back a huge lot in the late 1990s to a British company for £500,000, while the Law firm of Clifford Chance, previously in charge of government affairs, was paid A$10 million for an extra lot.

A blueprint for the future

An example of a properly managed fund, established by the Norweigian government, is the Norway's Sovereign Wealth Fund. The fund is held in a portfolio of holdings that include stocks, bonds, real estate, and the like, and pays out interest to the government. The fund is invested abroad, but the returns are passed on to the government. In this way, the fund serves as a buffer for future generations, and ensures that the country's wealth is not lost in one generation. The fund is one of the largest in the world, and is one of the most successful. It is an example of how a country can invest its wealth in a way that is both safe and profitable.
United States, New Zealand and the United Kingdom. Many of these investments, however, were unsuccessful. The Grand Pacific Hotel in Suva was closed shortly after Nauru took ownership and was eventually sold back to the Fiji government in 2002 at a huge loss. Nauru lost almost A$3 million in the late 1980s by investing in a London musical based on the life of Leonardo da Vinci, which closed after several weeks. Law firm Allen, Allen and Hemsley advised Nauru to invest A$60 million in dubious bank instruments; A$6 million disappeared with one of the Allen partners and much of the remaining money was not recovered.

The value of Nauru's trust funds shrank from A$1.3 billion in 1991 to A$138 million in 2002. Currently, Nauru does not have the funds to provide many of the basic functions of government, and the national bank of Nauru is insolvent.

A blueprint: the Norwegian Petroleum Fund

An example of successful mineral wealth management is the Norwegian Petroleum Fund, established in 1990 after a decision by the Norwegian Parliament to manage on behalf of all Norwegians the revenue from the exploitation of Norway's oil reserves. The Norwegian Central Bank administers the fund and, as of 1 September 2007, it had a portfolio value of US$204.5 billion. The fund is currently the world's second-largest retirement fund, with only the Dutch pension fund ABP ahead of it in value. Since 1998, the fund has been allowed to invest up to 50 per cent of its portfolio in the international stockmarket. The revenues the government receives from petroleum activities are transferred to the Government Pension Fund and the day-to-day management of the fund has been delegated to Norges Bank.

It is likely that the Norwegian Petroleum Fund owes its success to clear rules regarding governance that are not easily amended by parliament. The fund has been successful because it keeps the money out of the hands of politicians (not necessarily because politicians are corrupt, but because they seek to be re-elected and so can spend according to short-term rather than long-term returns).

Norway's approach to managing its oil resource wealth provides a blueprint for Nauru: it prevents the government from being the primary decision maker about the investment of the country's resource wealth and, by distributing the returns from oil over many generations, the Norwegian approach benefits current and future generations and also avoids 'crowding out' private sector development.

If, for example, Nauru had adopted a similar approach to Norway—investing 50 per cent of its trust portfolio in the international stock-market—even with a conservative return rate equivalent to low-risk government bonds, Nauru could have generated sufficient income to maintain a much higher level of prosperity. For example, from independence to 1990, Nauru exported about 38.1 million tonnes of phosphate. In this period, the government generated after-tax profits of about A$860 million, which was available for investment (this figure is arrived at by subtracting the 45 per cent of revenue that was allocated to long-term trust funds and 20 per cent to cover the cost of government administration). Applying an average real long-term government bond rate of 1.38 per cent, which is at the modest end of investment opportunities, by 1990, Nauru's phosphate operation could have returned to Nauru approximately A$1 billion, of which A$174 million would have been returns on long-term government bonds. This amount would have grown to about A$288 million by 1998.

Channelling phosphate profits into long-term investment plans would have helped prevent Nauruan governments
spending too freely on public services (assuming fiscal policy was responsible). Avoiding ‘crowding out’ potential private sector development is an explicit objective of the Norwegian approach. In contrast, as noted above, in post-independent Nauru, almost all Nauruans were employed by the public sector—either directly by the government or by the government-owned Phosphate Corporation.

The need for investment in human capital
It seems that Nauru failed to invest enough of its resource rents in human capital: expenditure on items such as health and education were a relatively small component of total government expenditure. A 1994 commission of inquiry report found, for example, that Nauru’s ‘existing schools do not appear to have received either the required standard of education or the encouragement to enable students to proceed into skills training to become tradesman, technicians or specialist machine operators’ (Hunter et al. 1994:1166).

In short, non-renewable capital was not replaced by investment in alternative capital—and, when it was, it was invested badly. To make matters worse, bad government decision making regarding such investment, combined with unwise attempts to recoup funds once they had been wasted, accompanied insufficient investment in the basic structures and services of Nauru’s society. Immediate consumption and high resource rent flows appear to have blinded Nauru’s governments to the long-term needs of investing in social infrastructure and planning. Many resource-rich developing countries have been unable to transfer resource wealth into a sustained improvement in economic wealth. This is certainly the case for Nauru.

Nauru’s situation fits well with the results of a study by the World Bank of the effects of the windfalls made by selected oil-producing countries (Algeria, Ecuador, Venezuela, Trinidad and Tobago, Indonesia and Nigeria). In the wake of the two sharp oil price increases in the 1970s, these nations made no or little gain from the windfall (see Gelb 1988). The reason was not necessarily that too little oil money was saved and invested but that most of the investment by governments was in unproductive ‘steel mills or aluminum plants that never worked to capacity or never made a profit for other reasons, and investments in infrastructure or education that did not result in significant productivity gains’ (Gelb 1988:8).

Property rights
Hughes (2004:5) argues that Nauru’s current financial despair is a result of ‘paternal policies that replaced private property rights [with] communal funds that were mismanaged, wasted and became sources of corruption’. From the earliest days of colonisation, communal trust funds were imposed on Nauru. Under German administration, trust funds absorbed the bulk of Nauru’s earnings. Trust funds expanded after World War I and again after World War II. Paternal Australian officials thought individual Nauruans were incapable of looking after their own property, and did little to introduce the education that would have enabled them to manage their own affairs in an increasingly complex environment (Hughes 2004:5).

Pejovich (1990) has produced empirical evidence that countries that have shown respect for the right of private ownership and freedom of contract have done better than other countries, regardless of the availability of resources. In the case of Nauru, private property rights are likely to have played an important role in distinguishing government expenditure from trust fund wealth. Hughes (2004) concurs that if Nauru had distributed its mineral wealth according to individual property rights, some individual landowners might not have

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saved or planned their finances well, but it is likely that some would have managed their incomes well. Importantly, according to Hughes, the scale of mismanagement would have been less than that which occurred under the government’s management of public funds.

Nauru’s problems have largely been the result of inappropriate political institutions and policies. The Nauruan government kept information on the management of the resource wealth from the public, making it easier for those in power to ‘take’ from the public wealth for their own purposes. As the management of Nauru’s mineral wealth was largely a government responsibility, becoming a Member of Parliament became ‘the principal path to prestige and power because it led to financial opportunities’ (Hughes 2004:6).

Hughes (2004:6) argues that Nauru’s plight has been caused by ‘a disregard for basic economics and unsuitable political institutions and policies’. She states that Nauru’s problem ‘lay, and still lies, in the neglect of individual property rights’ (Hughes 2004:5). She suggests that the use of communal funds instead of private property rights has exposed Nauru to mismanagement and corruption that could have been avoided. Interestingly, communal trust funds were established despite the existence of traditional Nauruan property rights, which recognised rights to fertile land and ‘the individual ownership of coconut palms, wells, and pieces of reef for fishing’ (Hughes 2004:5). Indeed, in Nauru’s traditional society, property could be held by men and women and could be passed on within families through inheritance and gifting.

Property rights can promote responsible decision making: when resource owners have a greater level of security over a resource, they are empowered to decide how to spend their investment with security (Perman et al. 1999) and, consequently, wealth can be distributed over time in a more efficient manner. More broadly, North (1993:758) suggests that ‘the disparity of performance of economies might be better explained through the consideration of institutional factors such as the nature of property rights’.

Even disregarding the peculiar problems of a resource-rich nation such as Nauru, institutional weaknesses plague many Pacific countries. (This underlines the suggestion that Nauru’s situation is more appropriately described as a ‘resource curse’ situation than akin to ‘Dutch disease’: it is more about a government being unable to manage wealth generated by a valuable resource than a situation in which a massive increase in resource income crowds out other industries.)

A warning to others

In 2009, Norway is one of the world’s richest economies and a model of prudent economic management of resource wealth. Norway is the top non-Organisation of Petroleum Exporting Countries (OPEC) oil exporter and has a steady growth rate, almost no poverty and negligible unemployment. The most recent UN Human Development report ranks Norway the number one place in the world to live, based on health and wealth, among other indicators.

In contrast, Nauru’s unemployment rate is about 90 per cent (CIA 2007). Those who currently have a job are employed in mining phosphate, public administration, education and transportation. In recent years, the government has had to freeze wages and reduce overstuffed public sector departments. According to the most recent Asian Development Bank (ADB) Country Economic Report on Nauru, the unemployment situation in Nauru is ‘worse that it was in Western countries during the depression of the 1930s’. GDP per capita was
A$3,695 in 2006 (ADB 2007). 

Nauru is now heavily reliant on grant aid. Between 2001 and 2008, Nauru accepted aid valued about A$21 million. An important source of Australian aid was funding tied to the former Australian government’s ‘Pacific solution’. As part of its agreement with the Australian government, Nauru was obliged to accept a maximum of 1,200 people to be accommodated at two refugee-processing facilities at any one time. The detention centre was closed in March 2008 and the new Australian Labor government signed a memorandum of understanding with Nauru in July 2008 to provide up to A$29 million in official development assistance to Nauru. Despite Nauru’s aid funding, the ADB (2007) reported ‘there is little in the way of demand being generated for local private sector activity or employment’.

The sale of Nauru’s deep-sea fishing rights to Japan, South Korea, Taiwan and the United States could generate some revenue. Tourism is not a major contributor to Nauru’s economy, as there are few facilities for tourists; the Menen Hotel and OD-N-Aiwo Hotel are the only hotels on the island.

While most of Nauru’s phosphate is depleted, in 2005, Australian company Fertiliser Group Incitec Pivot entered into an agreement with Nauru to exploit the residual reserves. The agreement helped to refurbish Nauru’s phosphate rock mining and processing plant, which had fallen into disrepair. Incitec Pivot will recover its investment through the supply of rock over two years to manufacture fertiliser at its Australian plants. In 2007, therefore, Nauru began phosphate mining again. This could be simply a stay of execution. The ADB (2007) estimates that primary phosphate reserves could support up to five years of mining. After that, Nauru will have to rely on an untested method of secondary mining with a maximum functioning viability of 20–25 years. Unfortunately, Nauru continues to have almost no other industries. Nauru’s financial situation is still one of almost utter dependence on Australian aid.

The sad tale of Nauru should sound a warning to other developing nations endowed with profitable non-renewable resources and looking at options to fund rapid growth of their economies. This is the case for the world’s newest country: Timor-Leste. In 2005, just a few years after gaining its independence from Indonesia, Timor-Leste established a petroleum fund to manage the country’s oil wealth from the Australia–East Timor Joint Petroleum Development Area (JPDA). Under the 2002 Timor Sea Treaty, Australia agreed that Timor-Leste would receive 90 per cent of the petroleum revenues from the JPDA.

The East Timor Petroleum Fund is similar to Norway’s Petroleum Fund. The aim is to invest Timor-Leste’s expected resource revenues of approximately US$5 billion from its oil fields in the next 20 years. The funds will be invested according to a benchmark index of US Treasury Securities.

As with the Norwegian model, the government of Timor-Leste intends to use the interest earned on the fund for capital expenditure, with the intention of generating revenue decades after the oil has been exhausted. A strict governance regime has been put in place to prevent elected officials from ‘raiding’ the fund. For example, Timor-Leste legislation requires the fund to be deposited into a single account. It allows the government to spend only a small fraction of that revenue—an amount dependent on income from the fund’s investments. In addition, revenue from the fund spent by the government must be accounted for in the national budget and an independent external audit will be done annually by an internationally recognised accounting firm.

Conclusively, Nauru’s future is bleak: mon...
The Alaskan Permanent Fund also has several regulatory principles that appear highly relevant to the Nauru situation. First, the government is not permitted to spend the principal component (the amount earned directly from mining) without seeking a vote of approval from the community. Rather, the government can make decisions about only the income component of the fund (the money received from the investment of the principal and from the reinvestment of undistributed earnings). This approach keeps the majority of mineral revenue out of government hands, while providing the government with some discretionary spending power. The second important feature of the Alaskan Permanent Fund that sets it apart from Nauru’s experience is its dividend program. Under Alaska’s Constitution, an annual dividend from the fund must be paid to every Alaskan.16 From 1982 to 2005, about US$13.6 billion was paid out through the distribution of dividends, with an annual average dividend of US$1,057.17

The Alaskan approach clearly reduces government control over the use of the income generated by the fund. This is quite different from Nauru’s experience: the government controls all mining revenue, frequently making investment decisions that are not in the best interests of Nauru. The Alaskan approach allows individuals to choose how much of the income stream to save and how much to spend.

Conclusion

Nauru’s marketable phosphate resource has been almost totally depleted without the government establishing assets for generating future income streams and hence enhancing the well-being of its population. Nauru’s future at independence was not bleak: more than half the resource remained to be mined, the necessary capital to mine was in place and export markets were well established. Moreover, considerable wealth had been accumulated in the form of trust funds.

Nauru’s current economic and financial problems are the result of its mismanagement of the phosphate mineral wealth. In the simplest terms, Nauru pinned too much of its future on phosphate and failed to invest its income stream in sustainable capital to ensure future generations would also benefit from the mining operation.

Nauru’s institutions, charged with the responsibility of providing a sustainable basis for future generations to generate incomes, failed miserably. While there was an intention to set aside some of the benefits from mining for future generations, the system to implement this was flawed because the decisions about how to spend the huge amounts of money in Nauru’s trust funds were placed solely in the hands of public officials.

This article has shown that several factors affect the sustainable management of the income stream from a non-renewable resource. In Nauru’s case, the greatest impediment to successful investment of the revenue stream was that the government alone chose how to spend Nauru’s mineral wealth. Moreover, the allocation of the resource rents and the income generated from them was primarily to short-term consumables and high-risk ventures, instead of investment in self-perpetuating vehicles for the development of Nauru’s human capital.

Notes

1 It is noted that Nauru’s situation could have been just as disastrous had the government borrowed against the trust funds. This scenario is not discussed in detail in this paper.

2 Increased returns from the use of phosphate could also have contributed to the steady demand.
Money values in this section are in 1990 dollars.

The bulk of Nauru's grant aid in 2006 came from Australia under a memorandum of understanding in relation to the establishment of the Refugee Processing Centre. Importantly for Nauru, while the detention centre was closed in March 2008, the new Australian Labor government signed a memorandum of understanding with Nauru in July 2008, which will provide up to A$25 million in official development assistance.

At the same time, the large inflows of resource rents provide governments with the ability to subsidise non-performing sectors of the economy, thereby contributing to inefficiencies. As a result, non-mining sectors (such as agriculture and manufacturing) become less export competitive and more dependent on import protection and subsidies to maintain their importance in the economy (Drysdale 2004).

Even if Nauru's currency was not the Australian dollar, Nauru had no other productive industries. It could be argued, however, that, with sufficient education, alternative resources could have been developed and, if they had, Nauru could have suffered from the effects of Dutch disease.

Nauru received royalties from the BPC under the Australian administration. After independence, the Nauruan government invested the funds.

This view is consistent with Hartwick's Rule, which estimates the amount of capital investment required to offset a declining non-renewable stock. Hartwick suggested investing resource rents in alternative forms of capital—for example, human capital such as education and economic capital such as transport infrastructure—which would facilitate activities to generate revenue streams for future generations when the non-renewable resource ran out (Hartwick 1977).

Since January 2006, the fund has been called the Government Pension Fund.

Importantly, the government must still implement a responsible fiscal policy, including avoiding any borrowing against the fund, as is the case with Papua New Guinea's Mineral Resources Stabilisation Fund (see Davis et al. 2001).

Nauru is the only country to have experienced an increase in the crude death rate for the period 1976–81 (CIE 1990:190).

For reasons of efficiency and relevance to the thesis of this paper, the discussion focuses on the role property rights can play in managing the country's mineral wealth, rather than on environmental resource public access issues.

The ADB notes that many other Pacific countries have not succeeded in developing a strong and independent administrative arm of government and effective systems of accountability: 'often decisions are subsumed by the political process at considerable cost to growth and development prospects' (ADB Report 2004, http://www.adb.org/Documents/Policies/Pacific/stratref.asp).

This includes pending salaries for general government. GDP per capita, excluding pending salaries for general government, in 2006 was A$2,857 (ADB 2007).

In addition to JPDA oil revenue, Timor-Leste will earn about US$4 billion from the Greater Sunrise project, which lies outside the JPDA but falls within the Treaty on Certain Maritime Arrangements in the Timor Sea (CMATS), and in which Australia and Timor-Leste share equally in the upstream tax revenues from the resource.

The amount appropriated for dividends each year by the government is calculated by a formula designed to produce a stable flow of dividends from year to year, which involves adding together the fund's statutory net income for the previous five years, multiplying that number by 21 per cent and dividing it by two.

The 2008 dividend payment was US$2,069.

References


Hughes, H., 2004. ‘From riches to rags: what are Nauru’s options and how can Australia help?’, Issue Analysis, Centre for Independent Studies, St Leonards, New South Wales.


