

Chapter 1

Brunei Country Report

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CHAPTER 1

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Introduction: System of Government and Economy

Brunei Darussalam is a small sultanate situated on the northern coast of Borneo and surrounded on its landward side by the East Malaysian state of Sarawak. Its land area is the second smallest among the Association of Southeast Asian Nations (ASEAN) member states, comprising 5,765 sq. km, 70 percent of which is covered by rain forest. Its population, the smallest in ASEAN, comprises 418,780 residents who are scattered along or near the main roads and highways, and along the main river courses. They are chiefly composed of Malays (around 66%), the Chinese community and indigenous groups (together nearly 15%), and a large expatriate population (nearly 20% of the resident population, who are engaged in both professional and unskilled/semi-skilled occupations).

The system of government in Brunei is monarchical and statist. Executive power resides in the His Majesty the Sultan, who is supported by a Council of Ministers or Cabinet. To reinforce his executive authority, the Sultan is prime minister (as well as minister for finance and minister for defence) and so has overall responsibility for the affairs of state. Day-to-day executive power and policymaking are exercised by ministers. The main institution of government administration is the civil service, which consists of 13 ministries and employs just over 48,500 people. The civil service is supplemented by a few statutory authorities (Jones, 2012).

Brunei is a high-income economy although income per capita has fluctuated from just below to just above US\$50,000 at purchasing power parity (Figure 1.1; Table 1.1). This is the second highest in ASEAN and East Asia, below Singapore but above Hong Kong. Gross domestic product (GDP) growth rates have varied greatly over the last 10 years from a high of 4.4 percent in 2006 to a low of -1.9 percent in 2008, reflecting the influence of the fluctuating price of oil and gas in an oil-and-gas dependent economy (Figure 1.1; Table 1.1). Brunei's growth rate on average over the last 10 years is the slowest in ASEAN.

Figure 1.1: Brunei GDP Per Capita and Growth Rates, 2003-2011

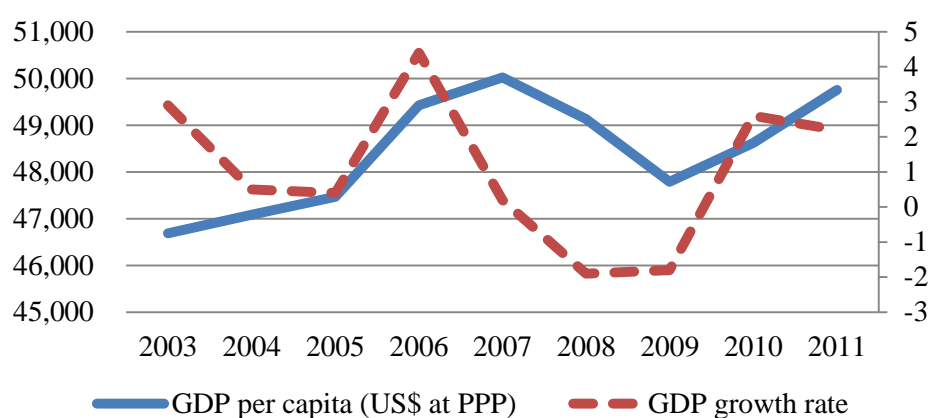


Table 1.1: Brunei: GDP Per Capita and GDP Growth Rates, 2003-2011

Year	GDP Per Capita in US\$ at purchasing power parity	Growth Rates Real GDP (%)
2003	46,685	2.9
2004	47,086	0.5
2005	47,465	0.4
2006	49,428	4.4
2007	50,026	0.2
2008	49,132	-1.9
2009	47,793	-1.8
2010	48,620	2.6
2011	49,757	2.2

Source: ADB, 2012.

The state plays a key role in the economy through the commercial functions exercised by ministries and state-owned enterprises, and through public-private partnerships (PPPs) in sectors such as oil and gas production, agriculture, and aquaculture. As indicated earlier, the economy is heavily reliant on oil and gas production. This sector (mainly based on various partnerships between oil companies and the government) comprises 62 percent of GDP, with government services comprising over 24 percent, and the private sector at just under 14 percent (Jones, 2012).

Public Finances

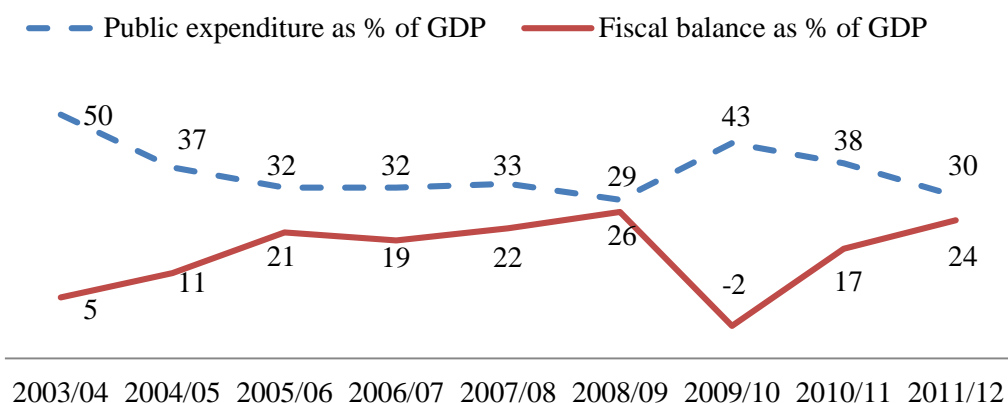
Overall government spending as a share of GDP between 2003 and 2011 has ranged from 29 percent to 50 percent, averaging 36 percent over the years (IMF, 2011a; ADB, 2011). In 2011, the figure was 30 percent. This is higher than in most other states in the ASEAN. Government revenue has averaged just over 50 percent of GDP from 2003 to 2011. In 2011, it was 48 percent (ADB, 2012). Most of the revenues are derived from the oil and gas sector in the form of taxes (a special corporate tax rate of 55 percent applies to this sector), royalties levied on oil and gas exploitation, and dividends earned by the government from its ownership stake in the oil and gas sector. The oil and gas sector accounted for 87.5 percent of government revenue in 2011 (IMF, 2012a; Jones, 2012). The dependence on oil and gas revenue gave rise to sharp annual fluctuations in the revenue flow to the government.

The flow of revenue from the oil and gas sector plus returns on overseas investments have enabled the government of Brunei to earn large budget surpluses. Between 2003 and 2011, the average surplus was 17.6 percent of GDP. However, due to fluctuations in oil and gas revenues, the fiscal balance fluctuated from -2 percent to 26 percent of GDP from 2003 to 2011; the surplus in 2011 was 24 percent, with the average over the period standing at 16 percent (Table 1.2; Figure 1.2).

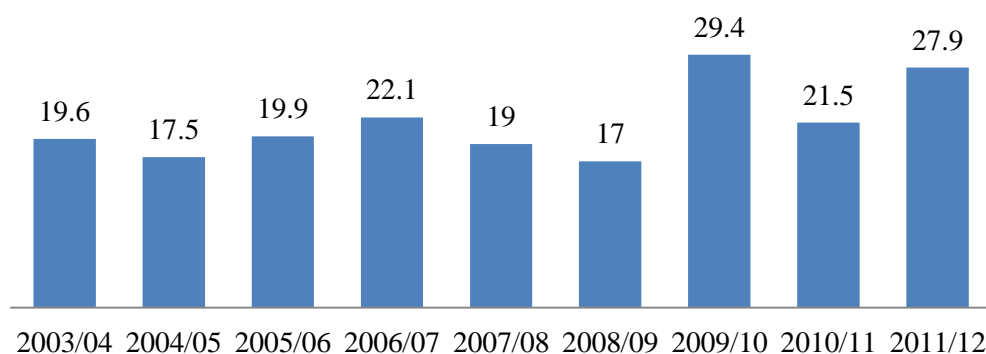
Table 1.2: Brunei Budget Expenditure, Fiscal Balance, and International Reserves, 2003/04 – 2011/12

Year	Total Expenditure (In millions of Brunei \$)	Total Expenditure as a Percentage of Nominal GDP	Fiscal Balance as a Percentage of Nominal GDP	International Reserves (US\$ million)
2003/04	5,747	50	+5	475
2004/05	4,937	37	+11	489
2005/06	5,153	32	+21	491
2006/07	5,770	32	+19	513
2007/08	6,020	33	+22	667
2008/09	5,975	29	+26	751
2009/10	6,639	43	-2	1,357
2010/11	6,351	38	+17	1,563
2011/12	5,800	30	+24	2,584

Source: IMF, 2012a; IMF, 2012b; ADB, 2012; World Bank, 2013.

Figure 1.2: Brunei Public Expenditure and Fiscal Balance, 2003-2012

With regular and substantial budget surpluses, the Brunei government has no external borrowings, and is thus not required to issue debt (except for short-dated *sukuk* issuances). Instead, it has accumulated significant international reserves and foreign equity holdings. Its international reserves have risen more than five-fold, from US\$475 million in 2003 to US\$2,584 million in 2011, which is 20 percent of GDP (Table 1.2; Figure 1.3) (Valev, 2013; World Bank, 2013). These figures include foreign exchange holdings of Autoriti Monetari Brunei Darussalam, monetary gold, special drawing rights holdings, International Monetary Fund (IMF) reserves and foreign bond holdings. The government's foreign equity holdings are extensive, valued at US\$30 billion in 2013 (more than twice the GDP), according to the Sovereign Wealth Fund Institute (SWFI). The portfolio includes a significant concentration of hotel investments (SWFI, 2013).

Figure 1.3: Brunei Foreign Reserves as % of GDP, 2003-2011

Brunei also practices multi-year sector budgeting under its National Development Plans (NDPs). It outlines authorisations for development spending over a five-year period, within the various sectors of government services and administration, including public infrastructure development. The 9th NDP extended from April 2007 to March 2012, while the current 10th NDP extends to over the next five-year period.

The Nature and Extent of the Infrastructure

The infrastructure covered in this report includes roads and bridges, water supply, drainage and sanitation, airport and maritime port facilities, electricity generation and supply, information and communications technology (ITC) and telephonic services, and industrial park facilities. Data provided by the Asian Development Bank (ADB) in its report *Key Indicators for Asia and the Pacific 2012* and by the World Economic Forum (WEF) in its *Global Competitiveness Report 2012-2013*, suggest that the infrastructure is moderately well developed in Brunei but has yet to reach the highest standards commensurate with its status as a high-income economy.

The ADB data covers road density, electricity consumption, and broadband usage. According to its figures, the road density in 2008 was 564 km per 1,000 sq. km, 81 percent of which is paved. The road density figure is the second highest in ASEAN and has increased since 2008 due to the building of new roads and highways and the extension of existing ones. This is sufficient to meet the needs of the population (although the car ownership rate at 100 vehicles per 1,000 residents is by far the highest in the region) (ADB, 2012). The road network is to be significantly enhanced with the building of a 30-km bridge across the estuary of the Brunei River, which is to be completed by 2018 (Borneo Bulletin, 2013a).

Electric power consumption, according to the ADB data, is the highest in ASEAN at 8,662 kilowatts per capita, marginally greater than in Singapore, and nearly three times greater than in Malaysia (ADB, 2012). However, the reliability of electricity generation and supply vary from one part of the country

to another.

Only moderate broadband penetration has been achieved. Fixed broadband subscription per 100 residents was only 5.5 in 2011. This is well below that of Singapore and slightly below Malaysia's, but marginally greater than that of Thailand (ADB, 2012).

The WEF's *Global Competitiveness Report* measured the quality of the roads, airports and maritime port infrastructure, electricity supply, and telecommunications in a sample of 144 countries. Measurements were based mainly on the perceptions of businesses, and specify for each country a ranking and, where relevant, an assessment score from 1 (unfavourable) to 7 (favourable). In the assessment of the road system, scores were based on a scale of 1 (extremely underdeveloped) to 7 (extensive and efficient by international standards), Brunei was ranked 39th with a score of 5.2. For its maritime port infrastructure, Brunei stood lower at 57th out of 144 nations with a score of 4.5. For airline infrastructure, it was ranked at 61st with a score of 4.9.

For the assessment of the quality of electricity supply based on a scale of 1 (insufficient and suffers frequent interruptions) to 7 (sufficient and reliable), Brunei was ranked 45th with a score of 5.5. In telephonic and ITC penetration as measured by mobile phone subscriptions and telephone lines, Brunei was placed respectfully at 62th (109.2 mobile phone subscriptions per 100 residents) and 67th (19.7 telephone lines per 100 residents) out of 144 nations. For its overall quality of infrastructure, Brunei was ranked 40th, with a score of 5.1 within the range of 1-7 (WEF, 2012).

Water supply and drainage have been significantly upgraded in recent years and continue to be so. A high rainfall and extensive catchment area has ensured that water remains plentiful in the various reservoirs, but ageing pipes and defective pumping equipment have occasionally lead to disruptions in supply to businesses and households. This has been worsened by damage to pipes caused by contractors excavating soil and rock in road and building projects. Although the upgrading work has increased the utility's reliability, the water supply is not always sufficient to meet the requirements of irrigation systems of rice-growing enterprises in the country. The drainage improvement works have reduced the incidence of severe flooding although it can still occur especially in the monsoon period.

Brunei has, in recent years, recognised the need to create high-end industrial parks with necessary infrastructure facilities to help businesses. The first initiative, which began in 2007, is the Sungai Liang Industrial Park (SPARK), a 271-ha site intended to be "a globally competitive industrial hub, with high-end facilities and a streamlined administrative hub, centred in a business-friendly environment". The park is in part geared towards creating facilities for high-end methanol production, and the chief user and tenant is now the Brunei Methanol Company Sdn Bhd (BMC) (Sungei Liang Authority, 2013; BMC, 2013). The building of infrastructure facilities for a second industrial complex has just begun in Pulau Muara, an island in the estuary of the Brunei River. The tender has been awarded to a Chinese Company, and the complex will house an integrated oil refinery and aromatics cracker plants (Borneo Bulletin, 2013b). However, in general, the development of industrial parks has been constrained by the slow rate of diversification of the Brunei economy, partly the result of conditions not conducive to foreign inward investment.

Institutional Framework for Developing and Managing the Infrastructure

The infrastructure in Brunei is owned, managed and operated for the most part by public authorities, viz. civil service departments, wholly owned government companies, and in one case, a statutory authority. The airport is managed by the Civil Aviation Department of the Ministry of Communications, which is responsible amongst other things for overseeing the facilities and services within the passenger terminal building of Brunei Airport, managing freight storage facilities, maintaining the runway network, conducting air traffic control at the airport, and providing aeronautical telecommunications. The main maritime port at Muara and two other small ports, are the responsibility of the Ports Department also in the Ministry of Communications, which manages berthing operations and terminal services and facilities, including cranes, warehousing, transshipments, and logistic schedules.

The maintenance, upgrading and extension of the road network, water supply, and drainage and sanitation systems mainly fall within the remit of the Public

Works Department (PWD). The initial planning is often undertaken by PWD in collaboration with the Town and Country Planning Department and the Municipal Department (for both layout and building plans). The construction plans are then evaluated and approved by the Authority for Building Control and Construction Industry. The PWD through its Roads, Water Services, Drainage and Sewerage Divisions is then responsible for overseeing project implementation after the tender award, and to undertake ongoing inspections and minor repairs of roads, drains, water supply facilities, and sewerage treatment and outlets.

Nearly all of the electricity is generated and supplied by either the Berakas Power Management Co Sdn Bhd (BPMC), or the Department of Electrical Services (DES). The DES is a civil service department whilst BPMC is a wholly government-owned company whose equity is held by Berakas Management Company, which itself is wholly owned by a so-called special investment vehicle, the Brunei Investment Agency (BIA). The BIA is an arm of the Ministry of Finance, and the main investment and holding entity of the Brunei government.

The BPMC's remit is to generate and supply electricity to some of the eastern and more populated areas of the country and to strategic locations such as hospitals, schools, and government buildings. It operates its own power plants (four of them) and maintains and upgrades cable lines, and transmission and distribution substations. Overall, it supplies 44 percent of the power needs of Brunei (Brunei Times, 2011).

In other areas of Brunei, generation and supply is undertaken by the DES. It, too, operates its own power plants and maintains and upgrades cables lines, and the transmission and distribution substations under its control. In certain areas, the two electricity entities collaborate: BPMC generates the electricity, while DES is responsible for transmission and distribution (Brunei Times, 2011).

The BPMC as a company operates along strictly business lines and makes a profit (albeit small), for which it pays a tax. The DES as a civil service department is managed like most other civil service departments—i.e., it is subject to administrative rules and regulations and multi-layered hierarchical controls, with a large complement of administrative and clerical staff. The BPMC cooperates with DES by undertaking much of the repair and upgrading

of its substations, cables and plant, and by providing training for DES personnel. For its part, DES collects payments for most of the electricity usage throughout the entire country (Brunei Times, 2011).

The telephonic and ITC services are now provided by Telekom Brunei Bhd (TelBru) and DataStream Technology Group (DST), which are 100-percent owned by government holding entities (or special investment vehicles), Darussalam Assets and Brooketon Sdn Bhd (for TelBru) and BIA (for DST). Together with their subsidiaries, they provide a whole range of ITC and media services, including telephony, internet, data transmission, mobile services, integrated IT networks for government agencies, large businesses, and satellite broadcasting companies. For the purposes of satellite communication and submarine cable usage, TelBru and DST collaborate with international IT engineering companies, as mentioned below. An important aspect of their work involves upgrading internet and data transmission services, such as the current project to install underground fibre optic cables.

The ownership and management of facilities in Sungei Liang (SPARK), the leading industrial park in Brunei, is vested in the Sungai Liang Authority (SLA), which is a statutory authority set up by HM the Sultan in 2007. The authority lets the land and facilities to private sector companies of which the largest by far, as mentioned above, is BMC (SLA, 2013). On the board of the Authority are several senior civil servants, reflecting the continuing influence of civil service control. It remains to be seen whether a similar arrangement will be implemented on the completion of the second industrial zone at Pulau Muara, mentioned above.

Whilst the private sector is involved in capital projects to upgrade and expand the infrastructure through the normal procurement process, it has only a marginal role in the management and operations of the facilities, as will be discussed below. The continued importance of the civil service and state companies in undertaking these functions reflects how far the Brunei economy is controlled by the state through the civil service.

Financing the Infrastructure

Infrastructure development (i.e., construction of new facilities and major repair, upgrading and extension of existing ones) may be financed from different sources. The most important source is the annual development budget of the government. To a lesser degree, funding may also be derived from revenue generated from the use of the infrastructure if charges are levied, and from capital injected from a government holding company/entity (if the facility is managed by a government infrastructure company).

1.1. Development Expenditure of Civil Service Departments and Statutory Authorities

The extent of budget funding for infrastructure can be gauged from government spending allocations under the headings "development expenditure" and "other charges special expenditure" published by the IMF. Whilst both types of expenditure include capital spending outside the infrastructure such as construction and upgrading of public buildings, hospitals and schools and the purchase of equipment, a large portion pertains to the development of infrastructure. The aggregate spending on both budget categories ranges from 17.5 percent to 29.4 percent of total government spending between 2003 and 2011, with significant fluctuations from one year to the next (Table 1.3; Figure 1.4). The lumpiness in capital spending reflects both the ongoing fluctuations in revenues as a result of the country's dependence on oil and gas, and the impact on the spending figures when every so many years a costly large-scale infrastructure project is implemented in contrast to regular small-scale projects.

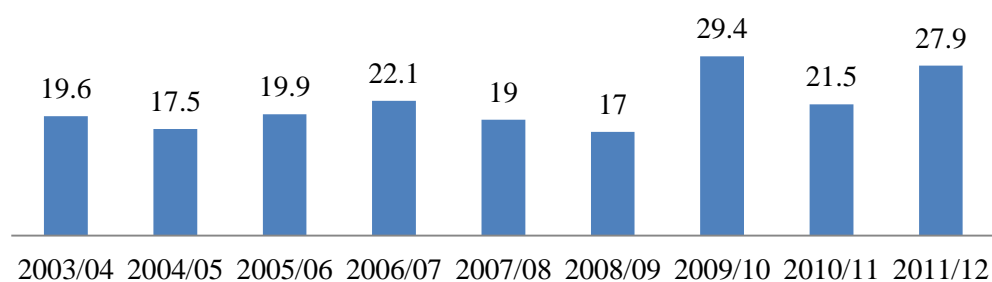
Table 1.3: Capital Expenditure in Brunei, 2003/04 to 2011/12

Year	Development Expenditure (B\$ million)	Other Capital Expenditure (B\$ million)	Capital Expenditure as % of Total Expenditure
2003/04	360	765	19.6
2004/05	355	509	17.5
2005/06	488	538	19.9
2006/07	671	602	22.1
2007/08	608	534	19.0
2008/09	595	423	17.0
2009/10	897	1,057	29.4
2010/11	871	496	21.5
2011/12	1,050	566	27.9

Note: Figures given are for the outturn except for 2011-2012.

Source: IMF, 2011a, p. 17.

Figure 1.4: Capital Expenditure as % of Total Expenditure



The development funding from the annual budget is in the main related to commitments to proposed projects authorised in the current NDP, although other capital projects (usually minor projects) not earmarked or anticipated in NDP may be included in the development budget.

In the ninth NDP (2007-2012), the total committed was B\$9.5 billion, a sizeable amount given the size of Brunei's economy. Such spending commitment is broken down by sector and programme, enabling those projects earmarked for expansion and improvement of infrastructure facilities to be identified (Table 1.4). This shows that infrastructure spending is by far the largest category, accounting for slightly lower than 40 percent of the proposed capital and development expenditure over the five-year ninth NDP.

The main item for infrastructure spending in the ninth NDP is utilities (electricity, water supply, drainage and sanitation), to which over 15 percent of the development budget was committed. The importance of financing the improvement of electricity generation and supply, applied to the power plants and the section of the grid under DES, is not surprising given that there is not enough generation capacity in Brunei to facilitate any major diversification and expansion of the economy. After utilities, it is telephony and ICT (especially the latter) that secure the biggest slice of the budget commitment, accounting for 13.3 percent of the proposed expenditure. Extension and upgrading of roads, and maritime and airport facilities, as well as industrial development (including the building of industrial parks and complexes) respectively comprise 7.5 percent and 7.3 percent of the development budget.

Table 1.4: Budget Expenditure Commitments to Infrastructure Development in Brunei 2007-2012

Sector	Infrastructure	Budget Commitment in B\$	Percentage of Total Budget Commitment to Development Projects
Transport and communications		950,521,300	10
	Roads	568,535,000	6.0
	Civil aviation	114,527,000	1.2
	Marine and ports	26,753,000	0.3
	Others	130,706,300	2.5
Telecommunications and ICT		1,262,204,800	13.3
	Telecoms	116,517,000	1.2
	ICT	1,145,687,800	12.1
Utilities		1,492,717,900	15.7
	Electricity	587,904,000	6.2
	Water Supply	524,573,900	5.5
	Drainage	202,227,000	2.1
	Sanitation	178,013,000	1.9
Industrial development		703,472,000	7.4

Source: Council for the Long-Term Development Plan, 2007: 2013.

1.2. Development Expenditure of Infrastructure Companies

If the infrastructure is owned and managed by a wholly owned government company and generates revenue, capital projects may be funded from one or more of three sources:

- Annual development budget through a capital grant;
- Capital reserve fund of the government-owned investment holding company or agency, usually the BIA;
- Capital reserve fund and retained earnings of the infrastructure company itself or its parent asset-owning company, with retained earnings derived from the profits generated from the charges levied.

Telephonic and ITC services provided by TelBru and the DST Group and their subsidiaries are funded by all three sources. By far, the most important source are capital grants from the government's development budget. A sizeable segment of the development expenditure commitments under the ninth NDP were earmarked as grants to TelBru and DST and their subsidiaries as indicated above. The ICT sector would be allotted a sum of B\$28.6 million dollars, or 2.7 percent of the development budget.

In some projects, financing is obtained from the holding agencies of TelBru and DST Group—viz. Darussalam Assets, Brooketon Sdn Bhd, and BIA—as well from the capital reserve and retained earnings of TelBru and DST. For example, the upgrading of Brunei's segment of the undersea cable link from Southeast Asia to the United States will involve a joint venture arrangement, with US\$30 million invested by Brooketon Sdn Bhd, US\$5 million by TelBru, and US\$5 million by DST Group.

By contrast, capital projects of BMPC, usually pertaining to the upgrade of equipment and cable lines, are financed not from the annual development budget of the government but from the capital injection from its owner, the BIA, and other reserves (including revenue reserves of retained earnings) of its parent company, Berakas Management Company, accumulated mainly but not exclusively from the profits earned from the electricity charges levied. To all intents and purposes, it remains independent of the annual budget.

1.3. Operating Expenditure

The operating costs of the non-revenue-generating infrastructure such as roads, tunnels, drainage and sanitation, and public buildings are of course financed

from the operating budget of the relevant civil service ministry or department. The budget is used to defray everyday expenditure for inspections and minor repair, ongoing administrative costs, procurement of small-value supplies and equipment, and costs of training programmes, as well as the salaries and wages of professional, supervisory, and clerical staff. It should be noted that in the case of roads, the revenue generated from duties on vehicle imports and annual road tax payments are treated as part of the general operating revenue of the government and not earmarked for road maintenance and expansion. This likewise applies to customs and excise duties and airport taxes.

The operating costs of civil service departments responsible for revenue-generating infrastructure such as the maritime port, airport, water supply, and the segment of electricity generation and supply under DES, may in part be discharged out of the revenues earned but to a significant extent, are met out of the budget. The charges levied are often below cost recovery; therefore, a budget subvention is required. For example, the price of water is below cost recovery, but the price of electricity, whilst cheap, still enables DES to meet a good portion of its operating cost due to the subsidised price of locally produced natural gas. The operating costs of infrastructure companies BPMC, TelBru and DST Group are met out of the charges levied. As with DES, BPMC benefits from the highly subsidised natural gas it uses, enabling it to levy low electricity charges and still make ends meet.

1.4. Absence of Debt Issue and Donor Aid

What is noticeable is that the capital funding of the infrastructure does not involve borrowing. The Brunei government and the companies involved in infrastructure do not issue bonds to finance capital projects (except for small scale and short-dated *sukuk* issues). Nor do the Brunei government, holding companies and infrastructure companies provide loans for infrastructure development. Not surprisingly, capital funding is not obtained from international donor agencies in the form of grants and loans, given the high standard of living in the country and substantial revenues from oil and gas.

1.5. Slow Rate of Spending and Implementation

A feature of the development and financing of Brunei's infrastructure is the slow rate of progress in implementation. Of the 251 projects listed in the five-year plan for 2007-2011, 185 were still in progress or had been completed beyond the schedule. Only 142 were completed by March 2013. Annual projected expenditure on the projects ranged from 8.01 percent to 12.17 percent of GDP (median: 9.80%) during the period 2007-2011, but actual expenditure ranged from 2.67 percent to 5.75 percent (median 3.48%) (Brunei Times, 2012).

In an internal informal survey amongst Ministry of Development officials to ascertain the reasons for the delays, 285 responses were elicited. The key factors mentioned in 60 percent of responses were the slow appointment of consultants (most serious), delays in developing a project or procurement plan (including objectives, work scope, design, and specifications), and delays in the conduct of land surveys. Other reasons were queries by tender boards to those officials/committees requesting the procurement, failure to secure the tender board or government's final approval of the tender, difficulties in securing permits to lease and occupy land, especially if compulsory acquisition was required, and lack of professional personnel to design and manage a project.

Private Sector Involvement and Public-Private Partnerships (PPPs)

Brunei depends on the private sector when it comes to developing infrastructure through conventional construction and engineering procurement. Here, firms are invited to submit bids in competitive tenders (or in requests for proposals). By contrast, private sector involvement in the operations and financing of the infrastructure in Brunei is limited.

1.6. Procurement

In developing the infrastructure at the procurement stage, a consultancy firm is hired through a competitive tender to determine the suitability of the land and location with reference to such variables as soil type, topography, liability to subsidence and movement, and drainage. Either the same firm or another firm may be hired to draft designs for the project, assess the environmental impact of the project, estimate costs, determine criteria to evaluate bids from construction contractors, and even to manage key stages of the construction work. The last mentioned, though, might be undertaken by PWD. The reliance on consultants is partly due to the country's lack of necessary expertise in such areas as quantity surveying, architectural and engineering services, and project management, in line ministries and departments. In consultancy tenders, bids are usually invited from local firms, or from joint ventures of local and foreign firms.

Private-sector construction companies are of course involved in the tender for the main building contract. Given the small size of Brunei's economy and especially the limited scope of the private sector, it is necessary in large infrastructure projects to invite tender submissions and proposals from overseas construction contractors. If, as is usually the case, a large project is awarded to a foreign contractor, two conditions may be stipulated. Firstly, the foreign contractor may be required to enter into a partnership or consortium with a locally owned business. The locally owned partner may contribute the working capital and technical input to the project. Alternatively, the foreign contractor may set up a local subsidiary with local equity participation. Here are examples of actual arrangements for recent and current projects:

- A contract to upgrade and extend Brunei's international airport was awarded to Trans Resources Corporation Sdn Bhd, a large Malaysian construction and engineering company, in partnership with a smaller Bruneian company JV Swee Sdn Bhd (Brunei Economic Development Board [BEDB], 2012a).
- The major extension of the main highway in Brunei was awarded to Third Harbor Engineering Co Ltd of China and Surati Construction Sdn Bhd of Brunei (BEDB, 2012b).
- The contract to provide consultancy services for the building of the new bridge that will connect Pulau Muara (where a large petro-chemical

complex is to be built) to the Brunei mainland, has been awarded to a consortium led by Korean bridge specialist Pyunghwa Engineering Consultant Ltd, and Bruneian consulting firm Jurutera OMC (BEDB, 2012c).

Secondly, the main contractor is, as much as possible, required to award sub-contracts to small building and engineering firms already existing in Brunei. This provides the means of generating business for them and creating local employment when such opportunities may not otherwise arise because of the limited scope of the private sector.

1.7. Management and Operations of the Infrastructure

In contrast, in the day-to-day management and operations of the infrastructure, the private sector plays a limited role only. Whilst the Brunei government is open to and indeed advocates PPPs, the progress in this regard has been slow.

One type of PPP is a joint venture between a public agency and the private sector in building and operating an infrastructure facility, although such an arrangement has still not been fully utilised in Brunei. The creation of joint ventures is most seen in the collaboration of Brunei's two ICT companies with private firms. An example is government-owned TelBru and two foreign companies' joint venture known as Network Integrity Assurance Technologies (with TelBru as the major equity holder), which was set up for a project that aimed to expand satellite connectivity networks in Brunei. Another IT joint venture known as Brunei International Gateway was set up in 2009 to develop and to manage Brunei's segment of an undersea fibre optic cable link between Southeast Asia and the United States. This joint venture involved TelBru, DST and Brooketon Sdn Bhd. (a holding company), all of which are state owned, although the project was announced as a PPP (Ministry of Communications, 2009).

Other PPP variants such as the Build-Operate-Transfer (BOT) or Build-Operate-Own (BOO) arrangements still have only limited scope in Brunei. Under these partnerships, the private sector companies, often in a consortium,

build a public facility by raising their own finance and then operate the project. The return will then provide the means to repay the borrowed capital that was used to finance the construction, discharge day-to-day operational expenses and gain the required net profit. However, such arrangements in Brunei have been confined to building and operating industrial complexes only, the most recent being the award of a contract to build facilities for a petro-chemical refinery complex to Hengyi Corporation of China at Pulau Muara Besar. The company will both build the refinery, and then own and operate it, and the construction that it will finance will cost B\$5.5 billion (Borneo Bulletin, 2013b).

The question now is: Why has the expansion of PPPs in infrastructure management been slow in Brunei. There are several reasons. One is the reluctance of the government to forego control of key national resources given its belief in a statist approach to the economy. Another is the ready availability of budget finance, which reduces the need to raise private finance. A further reason is the absence of a debt market in Brunei to enable companies to issue debt or acquire loans from financial institutions to finance construction projects guaranteed against the future revenue from the facility (provided by the government or by users). A fourth reason is the paucity of companies in Brunei to manage a large infrastructure facility, which can provide the security to raise finance and the expertise and resources to manage it.

Moreover, while foreign companies may have the capacity and wherewithal, and would be welcomed to participate in PPPs, they may be put off by the limitations of scale, which reduces returns. A small economy and a small population naturally affect how much return can be secured from building and operating an infrastructure facility. This is compounded by the extent of red tape and bureaucracy that businesses encounter in Brunei, well documented in the World Bank's *Ease of Doing Business* surveys. In these surveys (which measure red tape, unnecessary regulations and other impediments to business), Brunei is not awarded a high rating on most measures and has a low global ranking. Particularly troubling are the low scores and ranking for the "ease of starting a business". In fact, one report on economic diversification in Brunei noted that "the major reforms that need to be carried out in Brunei are to reduce bureaucracy and red tape as they affect private businesses, and in relation to this, to restructure the public sector so that the government gradually withdraws from parts of the economy that are best operated by the private sector" (Crosby,

2007). While foreign companies may be willing to tolerate red tape and intrusive bureaucracy if they are assured of a lucrative return on their investments within a large market, they may not be so if the returns are likely to be marginal in a small market (Crosby, 2007).

ASEAN Connectivity

So far, examples of Brunei's cooperation with other ASEAN states on infrastructure development have been few and far between. Given the financial resources available in Brunei and its commitment to cooperation and increased ASEAN connectivity, there is no reason why it could not contribute to infrastructure development in other states of the region. Brunei can contribute the most by way of capital funding and equity injection by the Brunei government, the Brunei Investment Agency and infrastructure companies themselves, that would help to provide a stronger funding base for infrastructure companies in other states in the region. In addition, the infrastructure companies can provide consultancy and technical advice to other states, although Brunei's own managers and employees themselves need further training to enhance their own professional and technical skills. Moreover, in light of the educational resources in Brunei and its commitment to expanding tertiary and professional training institutions, there is scope for Brunei to become a training hub to equip infrastructure managers and specialists from other ASEAN states with the skills to manage infrastructure development.

Conclusions

Funding the development and management of Brunei's infrastructure is not an issue given the sizeable budget allocations made possible by public revenues from the oil and gas sector. However, two key challenges remain.

One, the country still needs to involve the private sector more in managing and operating infrastructure facilities, and to move away from the present public sector monopoly through civil service departments, statutory authorities, and wholly government-owned companies. This will not be easy given the

impediments to private sector involvement mentioned above. The challenge here is to diversify the economy and to build a modern private sector and an independent and profitable corporate base (in addition to oil and gas)—an objective that has been much debated as well as supported for many years. Although limitations of scale remain, more progress can be made to attract both local and foreign investment by reducing intrusive bureaucracy and red tape, and creating for foreign investors more flexible requirements with respect to local partnerships.

Two, there is the need to increase technical and managerial skills across the board: within government agencies, consultancy firms, construction companies, and companies that could potentially be involved in managing infrastructure facilities. Currently, there is a shortfall of qualified engineers, technical specialists, and management professionals. The report on diversification as discussed by Crosby (2009) identified "the lack of citizens trained in...management, marketing, medicine, engineering and IT" as a major impediment to economic development and diversification. This is reflected too in the WEF's assessment of education and training in Brunei as contained in *The Global Competitiveness Report 2012-2013*. According to the WEF findings, only 17.2 percent of people who have reached the requisite age are enrolled in tertiary education (giving Brunei a global ranking of 98th out of 144). On a range of 1 to 7, business people rated Brunei only at 3.5 in terms of the availability of research and training services, giving Brunei a global ranking of 109th out of 144 countries). The extent of staff training was scored at 4.1 only (ranking Brunei at 52nd out of 144), while the assessment of the quality of management and business schools was rated at 4.3 (a ranking of 58th) (WEF, 2012).

If progress can be made in training engineers, technical specialists, management professionals, and accountants, this will enhance the capacity of government agencies, consultancy firms, and construction and other companies in developing and managing the infrastructure.

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