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The Contribution of Australian Aid to Papua New Guinea's Development 1975–2000

Provisional Conclusions from a
Rapid Assessment



The Australian Government's
Overseas Aid Program

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FOREWORD

As part of a broader focus on improved learning and accountability, AusAID is taking steps to improve our ability to measure the effectiveness of the aid program to PNG. This report was commissioned from Economic Insights, an independent consultancy firm, as a background document to inform that exercise. The final report represents the views of the consultants, not necessarily of AusAID or the Australian Government. The consultants also point out that the interpretations presented should be seen as tentative and requiring further assessment.

In looking at the report, the key findings appear to be that:

- PNG faces serious development challenges, most notably a weak institutional environment with poor control of government spending and a serious law and order problem
- However, when an appropriate historical perspective is taken, Papua New Guinea has made some development progress since independence. These achievements were reflected in improving social indicators, even in the face of stagnant per capita incomes
- Considering the evidence at the macro level and from an examination of individual aid activities, there is evidence that the aid program has contributed materially to development. For example, aid has been central to education reform (contributing to big gains in literacy and 50% to 90% increases in primary and secondary enrolments); prevented health system collapse; and maintained some essential road and air infrastructure
- Many questions remain to be answered, and our capacity to complete a rigorous assessment of the program needs to be improved

In 2003-04, we will undertake a significant evaluation of Australian aid in the governance and civil society sector, and will continue work to improve the quality of the data.

The report underwent extensive peer review, both internal and external to AusAID. Economic Insights studied the comments and made changes to their report as they saw fit. The report represents the authors' views, not a consensus.

The report does not aim to be a comprehensive evaluation of the effectiveness or efficiency of the aid program. Rather, it is a step forward in our understanding of the program's impact – its contribution to the development of PNG.

Importantly, the report deals with past performance, not future prospects. AusAID and the Australian Government have significant concerns about the current situation. The report is a useful reminder that PNG has achieved some improvement to date. However, this is not a basis for complacency.

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EXECUTIVE SUMMARY

Papua New Guinea is widely seen as a resource rich country that has made poor use of its opportunities. There has been no growth in real income per capita since independence, the level of development is comparable to low income countries and there are significant regional disparities in incomes and social indicators.

Under this negative view of Papua New Guinea's development, foreign aid appears to be guilty by association. A poor development record is seen by some as a sign of ineffectiveness in aid, an indicator that the opportunity presented by aid has been poorly used.

But the conventional view suffers from an important weakness. There have been substantial improvements since independence in key social indicators. For example, the World Development Indicators report a 20 to 50% improvement since independence in life expectancy, literacy levels, infant mortality rates and school participation rates. And the pace of improvement has been similar to that observed in other countries. The main aspect of socio-economic development where Papua New Guinea has lagged behind is in economic growth.

Despite the improvement in basic indicators there are reported to be concerns about quality, access and regional and gender inequities in the education sector. Similarly the improvement in the basic health indicators since independence masks many weaknesses at the provincial and district levels, reported deterioration in the availability, condition and performance of health facilities and rise in older and newer diseases and infection rates in recent years. However despite these qualifications it is reasonable to conclude that substantial progress has been made in relation to basic social indicators including the period since programmed assistance was introduced.

It is also important to keep in mind what Papua New Guinea has achieved on other fronts. Papua New Guinea has remained as a nation despite the pressures for separation, the police force has remained loyal to the state, hyper-inflation such as seen in South America has been avoided, Africa-type famines are not seen, the banking system has avoided the crisis-type conditions seen in Asia in the 1990s, ethnic tensions such as seen in the Solomon Islands or the Fiji Islands have been largely avoided and there is a free and active press and non-government organisation (NGO) movement.

This is not to suggest that Papua New Guinea is free of serious problems or does not have significant scope for development. Papua New Guinea is a young, poorly developed country facing major development challenges, perhaps most notably a weak institutional environment. This weak environment is readily evidenced by the poor control of government spending and the serious law and order problem.

Under such a weak institutional environment, achieving development is very difficult. Problems are almost inevitable in the operation of government and the delivery of foreign aid. It is unreasonable to expect that Papua New Guinea, after just 27 years of independence, could have quickly overcome the impediments to development and realised all its promise. It is even more unreasonable to have expected that foreign aid could have shortcut the development process and corrected Papua New Guinea's difficulties at a much faster rate than seen in most other countries.

Because the development gains observed since independence are to an extent dependent on the quality of public services, it appears reasonable to attribute at least some of the improvements to effective public programs. The steady gains in development have been achieved in the face of a stable level of real government expenditure, and this suggests that there have been good returns on public policy. In reaching this conclusion, it is important to recognise that credit for the gains in development should also be shared with the communities themselves and the NGO movement, and in particular the churches.

At an aggregate level, it is not really possible to separate out the effects of Government and donor-funded programs. For much of the period there was essentially no difference, with most donor funds provided by Australia as budget support. But even under program support there are insufficient data to distinguish the effect of government versus donor programs though aggregate analysis. But, by implication, it appears reasonable to conclude that aid, like government expenditure, has generated substantial development returns. It is also reasonable to conclude that aid has made a significant contribution to alleviating poverty over time.

Australia has consistently been Papua New Guinea's most significant donor, both in terms of the volume of aid and the breadth of coverage of its assistance. Consequently, Australian aid can claim some credit for the substantial development achievements to date.

Papua New Guinea's main shortcoming has been in terms of income growth. Overall the growth in income is mainly attributable to population growth and on a per capita basis there has been little or no income growth. Aid may have played a role in preventing a worse outcome, but it cannot claim to have been associated with economic growth. It appears that, despite the substantial improvements in human capital, the country's economic potential has been constrained by the poor policy and institutional environment and shortcomings in public infrastructure.

Raising economic growth is perhaps one of the more important challenges now to be faced. The Government and donors have been successful in using public

programs to improve living standards, in terms of basic social indicators, but they have been unable to convert this into income growth on a per capita basis.

In considering the impact of aid since independence, it is relevant to recognise that there was a clear rationale for budget support in the immediate post-independence period but, in time, it was recognised that budget support had an adverse impact on incentives to develop and implement effective economic development policies. The decision to phase out budget support was also made in an environment of high expectations for Papua New Guinea's revenue prospects (particularly from the mining sector), relative economic and social stability, and a desire to help accelerate Papua New Guinea's progress toward self-reliance.

However as successive governments in Papua New Guinea struggled to deal with growing economic and social problems in the 1990s, it became clear that governance and institutional capacity constraints posed the main challenges to achieving self-reliance. In this environment, traditional project aid was overburdening weak systems within Papua New Guinea and contributing little in terms of local ownership and capacity building for management and service delivery. The second half of the 1990s saw a shift towards programmed assistance in many sectors, and increasing emphasis within Australia's aid program on governance issues.

A key conclusion that can be drawn is that Australian aid has genuinely been responsive to Papua New Guinea's own development needs and priorities. It has been appropriately targeted to prevailing circumstances in Papua New Guinea, while also generally ensuring appropriate focus on longer-term objectives for self-reliance and sustainable development.

Australia has provided more than A\$14 billion in real terms as official development assistance to Papua New Guinea, and remains its largest and most significant donor. Given the volume and breadth of Australia's support in sectors such as health, education, land transport and governance, it is reasonable to conclude that Australian aid has been instrumental in helping Papua New Guinea to achieve what development progress it has.

At a sectoral level there are important examples of the positive impacts of Australian aid. In the **education** sector, Australian aid (A\$540 million since independence) has been instrumental in introducing and expanding the elementary education system, improving access to and quality of primary and secondary education, and financing implementation of the education reform agenda. As a result of these and numerous other contributions by Australian aid, the number of children attending school has almost doubled over the past ten years, student retention rates have increased, and there are more schools and qualified teachers in Papua New Guinea.

In the **health** sector Australian assistance (over A\$250 million since independence) accounts for over 70% of the donor funding received by Papua New Guinea. And its sustained focus on primary health and disease control suggests Australian aid can claim significant credit for improvements in health status that have occurred.

As the severity of Papua New Guinea's budget constraints worsened and its capacity for service delivery declined, particularly since the mid-1990s, it has been necessary for Australian aid to focus on preventing further declines in basic service delivery and living standards. Much of the positive impact of Australia's aid in recent years has therefore been in maintaining infrastructure, equipment and basic services that, in the interests of sustainable development, should eventually be provided by the national government. In the **infrastructure** sector, for example, Australia's support for road maintenance covers more than 25% of the national road network, and represents about triple the amount Papua New Guinea itself has spent. Likewise, a recent health sector review has concluded that the main impacts of Australian aid in recent years have been related to preventing a decline in sector performance that more than likely would otherwise have occurred. In essence, Australia has been helping to keep a collapsing health system functional.

Australia's assistance for the **renewable resources** sector in Papua New Guinea (A\$200 million since independence) has covered a very wide range of sub-sectors, and has been limited to specific priority concerns, making it difficult to isolate the impact of Australia's contribution to improved development performance at a higher level. Further, as with activities in other sectors, broader impacts have not been well documented in individual activity reports. Overall, it appears that Australian aid has been carefully targeted to address some issues of critical importance, and one can infer from the success of specific activities that there have been some important positive development impacts. For example, Australian aid was instrumental in developing and introducing cost-effective strategies and technologies to deal with the serious problem of coffee rust. While objective data on the impact of this are not available, these initiatives increased the quantity of coffee produced by plantations and smallholders, presumably increasing the revenue from this important crop.

With **governance** issues constituting probably the most difficult of Papua New Guinea's development challenges, Australia's role in helping to strengthen institutions, build capacity, support economic reform, promote transparency, accountability and the rule of law, and encourage greater community participation in development and scrutiny of government performance has intensified since the late 1990s. Of the total A\$540 million provided to this

sector since independence, 65% has been in the past five years. Prior to this, Australia's role was mainly limited to supporting the law and justice sub-sector, particularly the police force. The recency of most activities, combined with the long-term nature of capacity building and cultural change associated with improving governance, means it is not yet possible to identify broader impacts of Australian aid, nor to assess the likely sustainability of the governance reforms being introduced. However, a range of shorter term benefits have been identified in this report which, if sustained, are likely to contribute to improving governance in Papua New Guinea.

Based on the report's assessment of past aid strategies and activities, and the very limited data available to assess broader development impacts, it seems likely that a number of the recent fundamental changes in Australia's aid program in Papua New Guinea, including in modes of delivery and AusAID management structures, are likely to yield more tangible impacts in Papua New Guinea and more rigorous impact assessment within AusAID. The **Incentive Fund**, in particular, is a new mode of aid delivery that offers significant potential for using incentives to motivate behaviour change in Papua New Guinea, by supporting organisations that demonstrate excellence. Likewise, Australia's active commitment to Papua New Guinea's Health Sector Improvement Program and the associated move towards a **sector-wide approach** to aid delivery have been critical factors in allowing the rapid and sustained growth in health expenditure over the past three years, and have been substantially responsible for the recent increase in donor support to the sector. Such approaches in other sectors could well yield similar benefits. Within AusAID, the move to **in-country program management** and the establishment in Canberra of a specific **Design, Impact and Review Section** should also improve impact and its measurement.

AusAID's capacity to undertake rigorous impact assessment is an area that needs significant improvement. Since the mid-1990s, Australia's aid program has progressively introduced **benchmarks** and indicators that would allow the performance of aid activities to be assessed in terms of their broader development impact, rather than simply against specific activity outputs. Unfortunately, while appropriate systems and procedures are already in place within AusAID, these have not been followed. Logical framework matrices are usually well constructed, with appropriate links between performance indicators and activity inputs, outputs, objectives and broader potential impacts. In practice however, suitable **baseline data** have rarely been collected at the outset of an activity, making ongoing monitoring of impacts and assessment of (particularly quantifiable) progress at this level difficult, if not impossible. Possibly because of this, AusAID personnel have not queried the failure to

address impact issues in regular activity reporting by contractors. As a result, most activity reporting, even completion reports, is confined to describing achievements in terms of outputs. There have also been few evaluations of Papua New Guinea aid program activities. Even taking into account the difficulty of obtaining reliable data in Papua New Guinea, there is considerable scope to improve the quality of impact information available to AusAID, building on systems and processes that already exist. Recent analytical work to develop more useful **performance monitoring and evaluation frameworks** for application at the activity and sector level within the health sector program is an important first step.

In looking forward to ways to improve the contribution of Australian aid, this rapid assessment has highlighted the importance of a focus on sustainability and the measurement of impacts. The aid program has evolved to improve the prospects of sustainability, most noticeably via the shift from budget to program support. But efforts need to continue to increase the degree of Papua New Guinean ownership and participation and the alignment with national policies and programs. And much could be done to document the impact of Australian aid so as to help improve its effectiveness and efficiency.

1 INTRODUCTION

This report provides a rapid assessment of the contribution of the Australian aid program to development in Papua New Guinea. The report emphasises the need to undertake this assessment in the correct context – a very difficult environment that has shown some improvement but retains many deep-rooted problems. The emphasis is on interpreting the changes observed since independence rather than the level of development, and looks for evidence of the contribution that could reasonably have been expected from the Australian aid program given the environment.

The aim is to quickly help inform AusAID's internal examination of its contribution since 1975 so that a subsequent, detailed assessment is well targeted. This rapid assessment is not intended to cover all aspects of Papua New Guinea's development or the contribution of aid. The interpretations presented should be seen as provisional and requiring further assessment.

The next section summarises the existing literature on economic developments since 1975. This is predominately a negative view of lost opportunity. The subsequent section interprets the available aggregate data to inform the assessment of overall development performance. The Australian assistance program is then described with an emphasis on the strategic thinking underlying the program. The subsequent section provides a preliminary interpretation of the potential impact of the Australian assistance program, both the positives and negatives. The final section provides some initial thoughts on where improvements could be made based on the findings of this work.

2 SOCIO-ECONOMIC DEVELOPMENT SINCE 1975

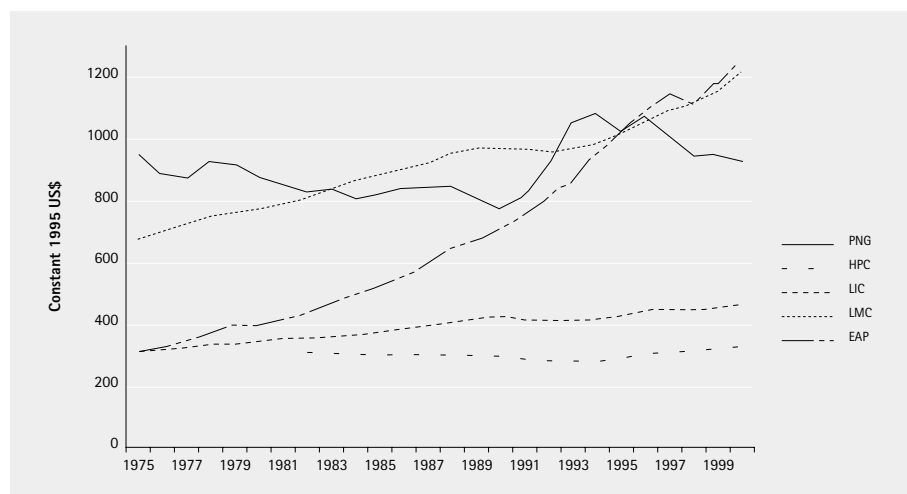
2.1 Overview

To help provide context it is relevant to recognise that Papua New Guinea is a latecomer to the modern world and that significant socio-economic development progress had been achieved by the time of independence compared with the situation of only a few years earlier. For example no metal technology or writing was known in the highlands before 1930 and the infant mortality rate in 1945 was one in four live births. Economic development accelerated in the period leading up to independence with real GDP per capita growing by an annual average of 4% from 1961 to 1975, with expansion of coffee production and the establishment of mining on Bougainville being key factors. However at the time of independence much of the economy was underdeveloped and highly dualistic, with a formal sector based on mining, plantations and government and an informal sector based on a mixture of subsistence agriculture and small-scale cash crops. There was wide acceptance that the building of institutions and human resource capacity left Papua New Guinea ill prepared for independence and the task of making good progress with socio-economic development.

As political preparations were made for independence, the Somare government formulated an eight-point improvement plan known as Papua New Guinea's Eight Aims. The Eight Aims had a distributional focus, based on the assumption that economic growth would not be an issue. This assumption was compatible with the cultural dominance of distribution rather than production as the central socio-economic feature of society. The distributional focus has persisted and been reflected in a range of governance problems and low economic growth since independence. Real per capita income was estimated to be above that for low middle-income countries in 1975, but is now below the average for the same group (see Figure 2.1).

However it is not well recognised that basic education and health indicators have improved markedly since independence. Based on the World Development Indicators, illiteracy rates declined from 56% in 1975 to 36% in 2000 and steady progress was also made with primary school enrolment rates, and since 1995 with secondary school enrolment rates (see Table 2.1). Life expectancy also improved from around 49 years in 1975 to 59 years in 2000 and, according to World Bank data, infant and child mortality rates have also improved since independence. Access to safe sanitation has improved greatly since 1990 and access to safe water also improved significantly in urban areas from 1975 to 1990. However, although immunization rates are currently around

Figure 2.1 Real GDP per capita in Papua New Guinea and other developing countries



Notes: HPC – Heavily indebted poor country, LIC – Low income countries, LMC – low to middle income countries and EAP – East Asia and the Pacific

Source: World Development Indicators

the level of low-income countries they have deteriorated since 1990. United Nations Development Program (UNDP) data generally confirm the trends in basic social indicators but in contrast to World Bank data suggest there has been some deterioration in infant and child mortality rates in recent years, making the interpretation of health indicators difficult. Various reports have also expressed concerns about the deterioration in health facilities in the context of rapid population growth, and have noted a deterioration in a range of indicators of diseases and health outcomes in recent years.

The highly dualistic structure of the Papua New Guinea economy also continues to this day, with around 85% of the population dependent on agriculture to meet daily needs. Although Papua New Guinea has an income level similar to lower middle-income countries it is more appropriate to consider it as a low-income country given the likely impact of the dualistic structure on the income distribution. In this respect it is worth noting that Papua New Guinea's basic social indicators are also very similar to or better than low income countries but clearly inferior to lower middle-income countries.

Table 2.1 Selected socio-economic indicators, PNG and developing country averages, 1975–2000

| Indicator | Unit | 1975 | | | | | 1980 | | | | |
|--|--------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | PNG | HPC | LIC | LMC | EAP | PNG | HPC | LIC | LMC | EAP |
| Population growth rate ^a | % | 2.42 | – | – | – | – | 2.49 | 2.84 | 2.41 | 1.56 | 1.61 |
| Illiteracy rate | | | | | | | | | | | |
| – adult female | % of females ages 15 and above | 66.2 | 68.0 | 68.9 | 45.1 | 50.3 | 61.3 | 63.5 | 64.9 | 39.2 | 42.4 |
| – adult male | % of males ages 15 and above | 47.4 | 45.9 | 45.9 | 24.4 | 25.0 | 42.9 | 41.9 | 42.1 | 20.1 | 19.9 |
| – adult total | % of people ages 15 and above | 56.2 | 57.3 | 57.4 | 34.8 | 37.4 | 51.7 | 53.0 | 53.5 | 29.6 | 31.0 |
| Immunization rate^b | | | | | | | | | | | |
| – DPT | % of children under 12 months | – | – | – | – | – | 26.0 | 14.9 | 13.7 | 54.5 | 45.9 |
| – measles | | – | – | – | – | – | – | – | – | – | – |
| Life expectancy at birth | | | | | | | | | | | |
| – female | years | 49.0 | 49.2 | 51.3 | 64.5 | 63.1 | 51.6 | 51.1 | 54.0 | 67.6 | 65.8 |
| – male | years | 48.8 | 45.8 | 50.2 | 62.4 | 61.0 | 50.5 | 47.8 | 52.4 | 63.8 | 63.0 |
| – total | years | 48.9 | 47.4 | 50.7 | 63.4 | 62.0 | 51.1 | 49.4 | 53.2 | 65.6 | 64.4 |
| Mortality rate | | | | | | | | | | | |
| – infant | per 1,000 live births | 89.8 | 126.2 | 125.7 | 62.8 | 63.6 | 77.9 | 116.0 | 112.2 | 53.9 | 55.9 |
| – under 5 ^c | per 1,000 live births | – | – | – | – | – | 108.8 | 177.5 | 175.9 | 81.3 | 81.7 |
| – maternal ^d | per 100,000 live births | – | – | – | – | – | – | – | – | – | – |
| School enrolment^e | | | | | | | | | | | |
| – primary | % gross | 56.4 | 68.0 | 73.2 | 113.9 | 114.0 | 58.9 | 79.6 | 82.9 | 107.5 | 110.6 |
| – secondary | % gross | 11.7 | 16.2 | 20.4 | 44.4 | 42.3 | 11.9 | 20.0 | 28.7 | 52.1 | 44.2 |
| Daily calorie supply^f | per capita (ca) | 2090 | – | – | – | – | – | – | – | – | – |
| Daily protein supply^g | per capita (gm) | 41 | – | – | – | – | – | – | – | – | – |
| Access to safe water^h | | | | | | | | | | | |
| – rural | % of population | 19 | – | – | – | – | – | – | – | – | – |
| – urban | % of population | 30 | – | – | – | – | – | – | – | – | – |
| – total | % of population | – | – | – | – | – | – | – | – | – | – |
| Access to safe sanitationⁱ | % of population | – | – | – | – | – | – | – | – | – | – |
| Births attended by skilled health staff^j | % of total | – | – | – | – | – | – | – | – | – | – |

Notes: Unless otherwise indicated, data are derived from World Bank, World Bank Development Indicators, Washington, D.C., 2001.

– data not available

a Values are a period average of the annual population growth rate: 1975 refers to 1966–1975; 1980 refers to 1976–1980; 1985 refers to 1981–1985; 1990 refers to 1986–1990; 1995 refers to 1991–1995; and 2000 refers to 1996–2000.

b DPT data are not available for 1980 and 2000: values refer to 1983 and 1999, respectively. Measles data are not available for 2000: values refer to 1999.

c PNG data are not available for 1980, 1985, and 1990: values refer to 1979, 1984, and 1989, respectively. Data are not available for 1995: values refer to 1997.

d Data obtained from ADB, 2002.

e Data are not available for 2000: values refer to 1998.

| 1985 | | | | | 1990 | | | | | 1995 | | | | | 2000 | | | | |
|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| PNG | HPC | LIC | LMC | EAP | PNG | HPC | LIC | LMC | EAP | PNG | HPC | LIC | LMC | EAP | PNG | HPC | LIC | LMC | EAP |
| 2.64 | 2.66 | 2.28 | 1.56 | 1.55 | 2.52 | 2.73 | 2.28 | 1.63 | 1.67 | 2.58 | 2.52 | 2.05 | 1.23 | 1.37 | 2.56 | 2.44 | 1.97 | 1.01 | 1.13 |
| 56.4 | 58.7 | 60.6 | 33.7 | 35.3 | 51.8 | 53.5 | 56.1 | 28.9 | 29.3 | 47.5 | 48.1 | 51.6 | 25.0 | 24.8 | 43.2 | 42.6 | 47.0 | 21.5 | 20.7 |
| 39.0 | 38.0 | 38.5 | 16.6 | 15.8 | 35.6 | 34.1 | 34.9 | 13.6 | 12.5 | 32.4 | 30.2 | 31.5 | 11.2 | 10.0 | 29.4 | 26.6 | 28.3 | 9.2 | 7.9 |
| 47.3 | 48.6 | 49.5 | 25.0 | 25.4 | 43.4 | 44.0 | 45.4 | 21.2 | 20.8 | 39.7 | 39.3 | 41.5 | 18.1 | 17.3 | 36.1 | 34.7 | 37.6 | 15.3 | 14.2 |
| 40.0 | 25.7 | 21.6 | 73.5 | 64.3 | 67.0 | 61.7 | 64.4 | 92.6 | 89.5 | 47.0 | 63.5 | 63.7 | 88.4 | 87.0 | 56.0 | 57.1 | 56.6 | 88.8 | 85.2 |
| 33.0 | 26.6 | 14.8 | 76.0 | 68.5 | 67.0 | 62.0 | 59.8 | 92.3 | 89.4 | 75.0 | 62.6 | 66.0 | 89.7 | 86.9 | 58.0 | 61.1 | 56.6 | 89.1 | 85.4 |
| 53.9 | 52.8 | 56.3 | 69.4 | 67.9 | 55.9 | 53.5 | 58.1 | 70.3 | 69.0 | 57.9 | 53.2 | 59.4 | 70.8 | 69.9 | 59.4 | 52.2 | 60.0 | 71.7 | 70.9 |
| 52.4 | 49.5 | 54.5 | 65.3 | 64.6 | 54.4 | 50.4 | 56.3 | 66.2 | 65.6 | 57.1 | 51.8 | 58.4 | 68.5 | 68.1 | 57.8 | 57.8 | 57.8 | 57.8 | 57.8 |
| 53.1 | 51.1 | 55.4 | 67.3 | 66.2 | 55.1 | 51.9 | 57.2 | 68.2 | 67.3 | 57.1 | 51.8 | 58.4 | 68.5 | 68.1 | 58.6 | 50.9 | 58.9 | 69.5 | 69.1 |
| 71.5 | 108.5 | 99.4 | 45.1 | 48.1 | 83.3 | 102.9 | 88.1 | 39.6 | 43.2 | 66.5 | 95.1 | 81.0 | 37.5 | 39.8 | 56.1 | 88.9 | 76.1 | 32.6 | 35.5 |
| 92.3 | - | - | - | - | 107.7 | 140.8 | 127.1 | 49.8 | 55.0 | 82.4 | 153.6 | 117.4 | 44.3 | 48.5 | 74.7 | 153.9 | 114.9 | 40.6 | 44.7 |
| - | - | - | - | - | 930.0 | - | - | - | - | 390.0 | - | - | - | - | 370.0 | - | - | - | - |
| 65.9 | 75.9 | 88.4 | 114.7 | 118.5 | 71.9 | 73.5 | 88.5 | 116.3 | 120.1 | 80.4 | 76.8 | 91.0 | 112.0 | 115.0 | 84.9 | 82.0 | 95.8 | 106.4 | 107.0 |
| 11.5 | 20.8 | 34.5 | 49.4 | 41.6 | 12.4 | 20.8 | 37.1 | 55.7 | 48.1 | 14.0 | 23.0 | 40.2 | 66.9 | 62.9 | 22.3 | 28.0 | 42.3 | 63.0 | 62.0 |
| - | - | - | - | - | 2236 | - | 2342 | 2741 | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | 42 | - | 56 | 71 | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | 15 | - | - | 47 | - | - | - | - | - | - | 32 | - | - | - | - |
| - | - | - | - | - | 95 | - | 73 | 77 | - | - | - | - | - | - | 88 | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | 24 | - | - | - | - | 41 | - | - | - | - |
| - | - | - | - | - | 10.5 | - | - | - | - | 25 | - | - | - | - | 83 | - | - | - | - |
| 43.0 | - | - | - | - | 40.0 | - | 43.3 | - | - | 33 | - | - | - | - | - | - | - | - | - |

f Data are not available for 1975: PNG refers to 1971. 1971 data obtained from AIDAB, 1994, p.164. Data are not available for 1990: values refer to 1989. 1989 data obtained from AIDAB, 1992, p.66.

g Data are not available for 1975: PNG refers to 1971. 1971 data obtained from AIDAB, 1994, p.164. Data are not available for 1990: values refer to 1989. 1989 data obtained from AIDAB, 1992, p.66.

h Total data are not available for 2000: PNG refers to 2001. Rural and urban data are not available for 1975: values refer to 1971. Rural and urban data for 1971 obtained from AIDAB, 1994, p.164. Rural and urban data for 1989 obtained from AIDAB, 1992, p.66. Total data for 1995 and 2000 obtained from ADB, 2002, p.12.

i The value for 1989 is an average of 1980–89. Data are not available for 2000: PNG refers to 2001. 1989 data obtained from World Bank, 1999b, p.24. 1995 and 2000 data obtained from ADB, 2002, p.12. Note that World Bank, 1999a, p.178, records 83% in 1996, a marked divergence from the 1995 value.

j PNG data are not available for 1985, 1990, and 1995: values refer to 1986, 1989 and 1994, respectively.

2.2 Macroeconomic Performance

The 1975 to 1989 period was characterised by relative economic stability but poor international competitiveness and associated low economic growth. This phase of development was brought to an end in 1989 as the economy faced a major crisis following the closure of the Panguna mine in Bougainville and associated civil unrest, and a large decline in agricultural export prices. The first structural adjustment program was implemented at this time and, as oil and mining revenues grew quickly, the management of mineral revenues became an increasingly important issue. A lack of fiscal discipline and poor progress on structural reforms culminated in a balance of payments crisis in 1994 and led to the adoption of a new exchange rate regime. At the same time, a shift from direct budget support to programmed assistance was well underway.

Since 1995, a (managed) flexible exchange rate regime has been in place and the move from budget support to programmed assistance has been completed. Reforms made with the adoption of the 1995 Organic Law on Provincial and Local Level Governments saw a significant change in the relationship between national and provincial governments. In response to repeat episodes of macroeconomic instability, two further structural adjustment programs have been undertaken with the support of the international community. While the period from 1990 to 1994 saw considerable investment in the mining and oil sectors, investment has since been subdued and the economy has now been in recession since 1999. The economy is once again facing the prospect of macroeconomic instability, triggered by excessive government expenditure. There continues to be a lack of confidence in the mining sector and general uncertainty as to the credibility of current government policies.

2.3 Rural Development

Papua New Guinea has substantial renewable resources and 85% of the population continues to rely on a mix of subsistence and cash activities in the agriculture sector. Despite the importance of small-scale agriculture, government policies have tended to focus on mining, logging, and the major export cash crops of coffee, oil palm, cocoa and coconuts.

Agriculture's share of GDP was around 30% in 1975 and has exhibited a gradual trend decline to about 25% of GDP in 2001. At times agriculture has been boosted by the impact of devaluations and at other times suffered from sudden and large declines in the terms of trade and drought. For most of the period since independence coffee was the most important agricultural export crop but since mid-2000 oil palm has been more important. Price support schemes have been a longstanding feature of government policy but have at times been a

significant strain on the budget and have had adverse incentive effects when international prices are high. The significant real devaluation of the currency that has occurred since the mid-1990s is considered to have been more effective in providing appropriate price incentives to agriculture in general.

Key constraints to the development of agriculture are a rudimentary transport network, cumbersome land tenure arrangements, cultural factors, law and order problems and inadequate extension services. All of these factors are considered to discourage investment and restrict the scope for productivity improvements in agriculture.

2.4 Education

Inadequate education has been one of the most significant constraints to economic and social development in Papua New Guinea. Ultimately, this has been reflected in skill shortages, low workforce productivity and, in conjunction with high real wages, it has contributed to low international competitiveness and low formal employment growth.

Post-independence governments have specified universal primary education as a key objective. A substantial expansion of primary and lower secondary enrolment was made in the 1975–89 period (World Bank, 1991, p. 107). Gross enrolment in the primary age group rose from 56% in 1975 to 72% in 1988. Moreover, during 1975–89, the share of female students in total enrolment increased from 37% to 44% in the primary schools and from 30% to 38% at the lower secondary level.

Despite improvements in basic education indicators, the 1990 population census found that over 50% of the population over the age of 10 had no schooling at all and around a further 20% had only completed grades one to five (Gannicott, 1993). High and growing attrition rates at primary schools, falling transition rates at the upper secondary level, low-quality teachers, high unit costs, and regional and gender disparities (although showing strong improvement) also characterised the education system in the early 1990s. Many reasons have been adduced in explanation of high attrition rates, all of which stress conditions in the schools and other external factors: the payment of fees; distance from schools; under-nourishment; tribal and clan conflict; and the high opportunity cost of education (Goodman et al., 1987, p. 175).

There is a general consensus in the human resource development literature of the need to give priority to primary and lower secondary education when a country is at a relatively low level of economic and human resource development. This proposition was considered especially relevant to Papua New Guinea in this period where unit costs for tertiary education were very high and where in 1989

the 2% of students enrolled at tertiary institutions received 39% of the public subsidy to education (Gannicott, 1993, p. 148). Investment in primary and secondary education was further compromised because responsibility has been divided between the national and provincial governments.

Although Papua New Guinea is still characterised by a low education status for the population in general and the workforce in particular there has been steady improvement in the basic education indicators. During 1990–95, gross primary school enrolment increased from 72% to 80% and gross secondary school enrolment rose from 12% to 14%. Further improvement occurred in the period from 1995 to 2000 with primary school enrolment increasing to 85% and secondary school enrolment to 22%. The improvement in general literacy since 1975 is also significant.

However there continue to be problems with quality, inequities between provinces and by gender, and poor retention and progression rates. Low enrolment rates are still noted in many parts of Papua New Guinea, especially secondary enrolment rates. Many students lack access to secondary school.

2.5 Health

At the time of independence health was regarded as an important issue and the 1974 National Health Plan focused on expanding the provision of health services to rural areas (Connell 1998, p. 235). In the period from 1975 to 1989 the National Department of Health had overall responsibility for the health of the population but each province had considerable autonomy in the delivery of health services. The National Department of Health was responsible for policy, training programs and the delivery of a limited range of services but had no power to impose sanctions on provincial health authorities. Churches, supported by very substantial government subsidies, played a major role in the provision of rural health services and the training of nurses and community health workers.

Naylor et al (1993) summed up the health care services situation from the mid-1970s to the early 1990s by noting that:

- The health status of the population had improved considerably.
- The establishment of a comprehensive network of health facilities had been successful.
- There were, however, inadequate funds to operate the large number of facilities effectively.
- Secondary health services were extremely run down and tertiary services were very limited, but primary health care should be the priority.
- Primary health care could be enhanced by greater community involvement.

- Improved central coordination and control of the health budget was desirable.
- There was an important need to develop a number of management performance indicators.
- Poor health affects economic performance through absenteeism, the ability to work and high treatment costs.

However there have been considerable differences in health provision and outcomes at the provincial level and within provinces (Connell 1997, pp. 231–40). Connell also claims the urban bias in health care provision has worsened since independence.

Institutional reforms to address various problems in the health system (largely associated with decentralisation) were initiated in 1993. A National Health Plan for 1996 to 2000 was also developed. The National Department of Health received significant international support in this period but the main achievements seemed to be in planning and data gathering rather than in improving service delivery (ADB Health and SWAP Review, 2002). Various reports have noted the poor state of health indicators relative to comparator countries, with child and maternal mortality rates being the highest in the region and malnutrition being more extensive than anywhere else in the Pacific (Connell 1997, p.240). Other reports have identified a deterioration in a range of other indicators of facilities, outputs and diseases. There were reported to be increases in immunisable diseases, chronic infectious diseases, lifestyle diseases, malaria, pneumonia and malnutrition in the late 1980s and early 1990s, especially in the Highlands and coastal areas (Economic Insights 1996).

The World Bank (1999, pp. 87–89) claims that over the past 20 years physical infrastructure deteriorated and that today most facilities are in an unsatisfactory condition and provide poor services. The 1999 report noted that a 1996 health and demographic survey found that only 39% of health facilities were in a satisfactory condition and less than 70% of rural aid posts were operating. The report also noted marked regional variations in the availability, condition and performance of health care facilities.

According to the ADB Health and SWAP Review (2002) both process and output indicators declined in the period 1999–01. In addition many rural health facilities were closed in 2001 because of insufficient funding at the provincial level. These conclusions are consistent with indicators in the AusAID health sector review. The AusAID review also notes that newer diseases like typhoid have become endemic, older diseases like yaws and filariasis are re-emerging in selected parts of the country and other infectious diseases are becoming major problems. HIV/AIDS has also developed into a major health problem.

Decentralisation has been identified as an important factor in the deterioration in health services. As with the broader public sector there is no link between performance and rewards or sanctions. Rural primary health expenditure is still considered to be very low, and expenditure at the provincial level is unpredictable and uneven. However some provinces are continuing to perform reasonably well in a difficult environment and the need for greater focus on primary health is gradually being redressed.

2.6 The Socio-Political Environment and Governance Issues

Papua New Guinea is a nation formed from over 800 language groups and thousands of small ethno-political groups each with its own distinctive cultural attributes. It is also a latecomer to the modern world and cultural traditions and linkages to social groups still have strong and, in many cases, dominant effects. The rugged dispersed topography means that many villages are remote and isolated. Bridging the gap between traditional and modern ways of life has proven very difficult. Co-operation within social or ethno political groups is strong but across them is weak. The fragmentation of ethno political groups makes it difficult to build and maintain broad-based social coalitions.

Jones and McGavin drawing on a wide literature (2001, pp. 14–15) argue that a large number of studies of the governance problem in Papua New Guinea highlight the dissonance between the governance hallmarks of the modern state and traditional cultural institutions primarily associated with loyalty to the clan. The result is dispersion of authority and, in conjunction with the low educational capacity of the population, leads to an inability of the government to make good progress in the design, implementation and acceptance of development policies.

Reflecting the clan based traditions, Papua New Guinean politics have tended to be dominated by personalities and/or regional groupings rather than by policies and ideologies. Political loyalties are extremely fluid and votes of no-confidence against the sitting Prime Minister have been a regular feature. Politicians are also expected to deliver resources to their constituents in a manner that is incongruent with modern standards of governance. This view is reflected in the tribal rivalry and violence that occurs at elections as rival groups attempt to increase their chances of winning access to resources (Ahai 1998 and Economic Insights 1999). The view is also consistent with the expectation of reciprocal commitments and resource transfers under the Wantok system. At the highest political level the Rural Development Fund is another reflection of the distributional focus of politics and society in Papua New Guinea.

Connell (1998, pp. 311–2) highlighted governance problems as a critical factor in explaining the lack of growth and highlighted the following characteristics:

- The basic economic system has not fundamentally changed since independence.
- Papua New Guinea demonstrates some of the classic symptoms of the 'resource-curse' thesis where countries that are relatively well endowed with natural resources perform worse than less well endowed countries.
- The whole structure of development has become highly politicised and personalised, with politicians, bureaucrats, and landowners seeking direct involvement in new projects. At every level economic activity is part of political economy.
- The state has failed to stimulate the agricultural sector or regulate the forestry sector.
- The State has largely failed to serve the needs of the rural and urban poor, especially through service delivery.
- Underlying structural problems remain.
- The State is constantly struggling to manage its problems.
- There is almost a continuous state of semi-emergency in some parts of the country.

In a comprehensive report on the status of the economy, public institutions and public policies, the World Bank also concluded that Papua New Guinea's main problem was poor governance (World Bank 1999, p. xxvii).

Some changes have been made in recent years to help achieve greater political stability and the integrity of election processes. In 2001 the Morauta government embarked on a program of attempting to establish a more stable political system and introduced various electoral and parliamentary party reforms. But the impact of the reforms is yet to be tested.

2.7 Law and Order

Public security and the effective operation of a rule of law that protects private property and contractual arrangements are essential for supporting socio-economic development and economic growth. The law and order problem has been identified as a major economic and social development problem and constraint in Papua New Guinea for all of the period since independence.

The law and order problem has restricted the nature and extent of economic, government service and personal leisure activities. It has directly diminished the quality of life on a daily basis and has meant that the work force and the capital stock have been under-utilised. It has meant that businesses and government facilities face increased security costs, restricted hours of operation

and higher wage premiums and security costs for imported skilled labour. It has also limited personal development opportunities because of travel constraints and restricted hours of educational institutions. Armed hold ups, theft and tribal fighting have restricted the growth of the coffee industry in particular, and tourism has been unable to develop to a scale that could have had a highly beneficial impact.

Riots, violent demonstrations, attacks on parliament, violence at elections and curfews have also been features of the law and order problem. Reilly (2002, p. 139) notes that the 2002 elections were widely condemned as the worst ever, with over 30 people killed in ethno-political electoral disputes, violent disruptions in the Highlands and polling abandoned in six seats, as well as major electoral fraud and administrative problems. In addition the Bougainville conflict had a duration of more than 10 years starting in 1989 and was one of the major disturbances in the region since the Second World War.

Papua New Guinea's Institute of National Affairs has undertaken several surveys of impediments to growth in the private sector in the past 20 years. Law and order was at the top of the list in 1982, 1989, 1996 and 1999 (Economic Insights 1999, p. 26). The crime problem extends beyond violent crimes to corruption, which has been a long standing problem. In 1985 Michael Somare, in reviewing the ten-year period since independence, considered that crime including both street crime and corruption constituted the greatest threat to the country.

There are signs however of improvements as reflected in a reduction in the total number of offences by 23% between 1999 and 2001. In the same period, robberies (which are a key indicator of serious crime) also declined by 20%. However one cannot be confident in these statistics because many crimes are not reported and there are likely to be many inaccuracies in reported figures.

2.8 Access to Land

Although there is ample land in a physical sense, land is restricted in an economic sense. Only about 3% of land was alienated by the colonial administration and this proportion has not changed since independence. In addition much of the alienated land is under-utilised and complex requirements for the transfer, mortgage or lease of this land are generally considered to represent a significant business constraint.

Access to customary land remains a matter for local negotiation in accordance with customary arrangements and traditions. Successful land mobilisation can often only be achieved at a very large and ongoing cost and can only be afforded by very large and profitable enterprises, as demonstrated for example

by the successful mobilisation of customary land for oil palm development in West New Britain. In addition customary land cannot be used as collateral to secure finance.

There has been little progress in improving the access to land since independence (Larmour 1991 and Jones and McGavin, 2001, p. 16). The most recent program, known as the Land Mobilisation Program, was suspended in 1995 following student unrest and widespread public concern. Weak administrative capacity, lack of leadership and lack of widespread acceptance of the formal property rights system have been identified as the main reasons for failure with land mobilisation schemes.

2.9 Infrastructure

The rugged and varied terrain and dispersed settlements in Papua New Guinea have been important factors in both contributing to a high cost structure and in explaining relatively low social indicators and regional inequalities. In particular, the availability, standard and condition of road infrastructure are longstanding perennial weaknesses that have had a major impact on the rural population.

The high costs, limited quality and low penetration of Papua New Guinea's infrastructure have been highlighted in a number of studies. The Duncan and Lawson (1997) study on cost structures found that the cost of security was considered to be a "serious problem" by more firms than any other factor. However they also found that access to skilled labour, transport costs, the cost and reliability of electricity and the quality of communications services were considered by a large proportion of firms to be serious or moderate problems. They also noted a clear decline in satisfaction with all factors assessed, with significant deterioration in transport, electricity, communication services and access to and quality of water.

2.10 Provincial Dimensions

While the basic social indicators tend to suggest trend improvements for Papua New Guinea as a whole, there are exceptions between and within provinces and significant and persistent regional disparities. Several of the Highlands provinces have extremely low access to safe water, low literacy rates and low school enrolment rates. However with the exception of the Gulf and Milne Bay provinces life expectancy improved in all provinces between 1980 and 1996 according to UNDP data. The percentage of underweight children also declined in 13 of 15 provinces for which data are available between 1982 and 1996. The gross elementary, primary and secondary school enrolment rate also improved

significantly in all provinces except Bougainville, East New Britain and the National Capital district between 1980 and 1996. Reflecting the urban-regional disparity the National Capital generally records a much better result on most social indicators (the notable exception being in relation to school enrolment) and a much higher average real income.

Implementation capacity has been a longstanding general weakness at the provincial and local government level. The 1995 provincial reforms sought to improve public service delivery with a restructuring of national and provincial government and transfer of additional functions to local governments. There are now four levels of government: national, provincial, district and local, however the national government now has more influence as directly elected provinces were abolished. The reform has been hampered by inadequate funding, legislative difficulties, and capacity and infrastructure at lower levels of government.

3 INTERPRETING THE DEVELOPMENT AND GROWTH OUTCOMES

3.1 Introduction

The conventional perception of development in Papua New Guinea since 1975 has at its core a sense of lost opportunity. Papua New Guinea is widely seen as a resource rich country that has made poor use of its opportunities. This criticism is generally most severe for the 1990s, a period in which the quality of government is seen to have declined markedly.

But the conventional view suffers from an important weakness. Although there are concerns about the accuracy and comparability over time in the available data on the main development indicators, they point to substantial improvements in living standards since 1975.

Based on the estimates of life expectancy, infant and child mortality rates, illiteracy, school enrolment rates and immunisation rates contained in the World Development Indicators, it appears reasonable to conclude that –

- Although the level of development is low, Papua New Guinea has developed at a pace that is broadly similar to other low-income developing countries.
- There appears to have been continued improvement over the 1990s in key social indicators.¹

These observations in turn suggest it is reasonable to reconsider the conventional negative view of Papua New Guinea's performance since independence. The remainder of this section explores the determinants of growth and development with a view to reassessing this negative view of Papua New Guinea's achievements since independence.

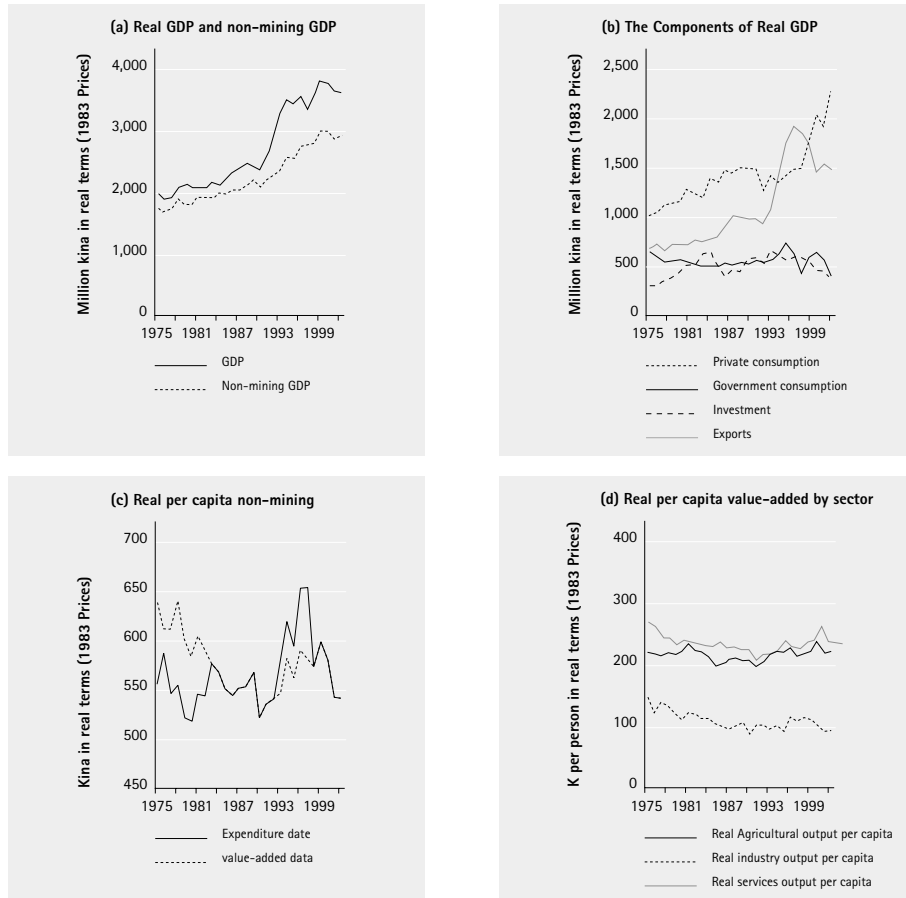
3.2 Identifying the Sources of Economic Growth

Real GDP is estimated to have grown at an average annual rate of approximately 2.5% since independence. A substantial share of GDP is earned by the mining and oil projects and consequently flows to overseas investors. So in a development context it is normally more meaningful to speak of growth in the non-mining sector. The non-mining sector did not match the growth in total GDP, with real non-mining GDP increasing on average by approximately 2% per annum. For both measures the expansion was strongest over the early 1990s and there has been a contraction in recent years (see Figure 3.1(a)).

¹ The main differences in data sources relate to estimates of infant and maternal mortality rates. As noted in Section 2, the 1998 Human Development Report points to a deterioration in these indicators over the 1990s, whereas the WDI shows continuing improvement (see GoPNG and UNDP (1998)).

In looking for the sources of growth in total GDP and non-mining GDP, it is possible to rule out increased capital investment and government consumption. Both have remained reasonably stable over the period in real terms. The recorded increase in GDP is instead shown to be a result of rising exports and private consumption (see Figure 3.1(b)).

Figure 3.1 The Growth Performance



Sources: Bank of Papua New Guinea, 1998, Money and Banking in Papua New Guinea, Bank of Papua New Guinea Quarterly Economic Bulletin, various quarters, Government of Papua New Guinea, 2002, Economic and Development Policies, Volume 1 of the Budget Papers, various years, World Development Indicators (population).

Much of the increase in exports is a result of increased mining and oil activity. While most of the income earned by the sector flows overseas, the expansion in mining and oil exports does have important flow-on effects for the non-mining sector as it increases Government revenue, provides payments to landowners and stimulates some supporting economic activity (eg, in transport or the finance sector).

The estimated increase in private consumption can be seen to be predominantly a result of population growth. However, some contribution was also provided by an improvement in agricultural exports over the 1990s and from the flow-on effects of expansion in other sectors.

If the effect of population growth is removed, it becomes clear that the growth performance has been weak. Population growth has roughly matched GDP growth, and there has been little change over 25 years in both per capita GDP and non-mining GDP. While interpretation of the per capita estimates of GDP is complicated by data problems, the key point is that there has been little or no overall growth since independence on a per capita basis (see Figure 3.1(c)).

The data point to a stable or declining level of real per capita incomes to the late 1980s before a large rise in the 1990s. The noticeable rise over the 1990s is largely attributable to the benefits of booming mining and oil sectors. However much of the gains seen over the 1990s have recently been lost as the economy has contracted. This contraction can in turn be traced back to passing of the oil boom as reserves at Kutubu quickly declined, the unwinding of a dutch disease type problem (as discussed further below) and the adverse effects of a relaxation of fiscal responsibility and deteriorating physical infrastructure (eg roads). The adverse effects of the underlying constraints to development, such as discussed in Section 2, have also played an important role in the poor growth outcome.

On a per capita basis there has been a trend decline in investment and government consumption. This was partially compensated for by the rise in exports and private consumption. As noted, much of the increase in exports can be attributed to the increase in the mining and oil sectors. On a per capita basis, the real value of agricultural output remained fairly stable in real terms, although the sector showed some signs of improvement over the 1990s (see Figure 3.1(d)). The real value of industry and services output on a per capita basis trended down from independence to the late 1980s, and has since also shown some signs of improvement as overall economic growth has improved.

3.3 Explaining the Determinants of PNG's Growth Performance

Drawing on the established international framework for analysing growth, it is meaningful to categorise the underlying determinants of economic growth as likely to be –

- Growth in the stock of physical capital.
- Growth in the stock of human capital, both the quantity and quality.
- Technological change.
- The policy environment.
- The institutional environment.

Unfortunately a shortage of reliable data prevents defensible statistical analysis of the relative importance of these broad determinants of growth. Nonetheless some useful observations can be made.

The first point to note is that the growth in the non-mining economy since independence is largely accounted for by population growth. Overall the economy has only been growing at the rate of the population, and there has been little or no growth in real per capita incomes. This observation confines the assessment of the growth performance. There is no need to try and disentangle the contribution of technological change, improved human capital, the policy environment, etc. At an aggregate level there is simply no growth in per capita incomes to explain.

A second key point is the apparent absence of a growth dividend from improved education and health. The improved social indicators presented above point to an improved quality of the human capital input (ie, a better educated and healthier population). Improvements in the quality of human capital should result in growth, but this does not appear to have been the case in Papua New Guinea. It appears reasonable to conclude that the potential offered by the improvement in human capital has been stifled by other constraints.

Or in other words, the aggregate data suggest that something is holding the economy back. But what are these constraints? The aggregate data are not sufficiently rich to allow a rigorous identification of the constraints that matter the most. But the most likely explanation is that realisation of the benefits of improved human capital has been constrained by weaknesses in the policy and institutional environment and/or perhaps a shortage of physical capital, notably physical infrastructure. In this respect it certainly seems reasonable to argue that key constraints are likely to include the adverse impacts of the 'dutch disease', effects associated with a booming mining sector and substantial aid, the law and order problem, the adverse effect on incentives of certain aspects of the culture and the macroeconomic instability created by poor fiscal management are key factors.

It is also likely that private investment in physical capital has been held back by similar constraints. The poor investment record would have had the adverse flow-on effect of reducing opportunities for new technology to be introduced, further hindering growth.

In summary, unfortunately for Papua New Guinea it is not a case of explaining why growth has occurred, but of explaining why the growth outcome has been weak. And these explanations inevitably point back to the state of the policy and institutional environment and public infrastructure.

3.4 Reconciling the Growth and Development Outcomes

For many observers, Papua New Guinea's poor development performance is confirmed by the observation that it is a low middle-income country with the social indicators of a low-income country.² The observation is seen as proof that Papua New Guinea has made poor use of its income – it should be able to afford a much higher state of development than it has achieved. The problem is usually attributed to weaknesses within the public sector that have grown since independence.

But the combination of a poor overall growth performance and substantially improved social indicators challenges this view. While key social indicators have improved by the order of 20 to 50% (as reported by the World Development Indicators), real per capita incomes have been stable or perhaps declined. And the improvement in key social indicators occurred while real government consumption declined in both aggregate and per capita terms. That is, people have been able to lift their standard of living without additional income or expenditure.

This outcome is unusual. Of the main country groups of East Asia and the Pacific, Latin America and the Caribbean, South Asia and Sub-Saharan Africa, the substantial improvement in key social indicators since around 1970 has been accompanied by real income growth. Looking at individual countries, the same relationship applies to Hong Kong, Korea, Singapore, Taipei China, Indonesia, Malaysia, Thailand, Bangladesh, India, Nepal, Pakistan and Sri Lanka (that is, both real incomes and social indicators have improved in these countries over the past 25 years or so).

One possible explanation of the unusual outcome in Papua New Guinea is that even though incomes and government expenditure have not improved, they have been at a sufficient level to lift living standards. It is possible that there are high returns on public programs at the early stage of development as seen in Papua New Guinea. If so, even stable levels of income and government expenditure can provide a sustained improvement to living standards. Or perhaps the composition of resource use has improved over time such that more has been achieved from every available kina allocated to public programs.

Both interpretations are somewhat at odds with the generally negative perception of the quality of public services since independence and especially over the 1990s. This suggests it is plausible to question whether the often-reported ineffectiveness and deterioration in services is as severe as widely discussed.

2 For a long time Papua New Guinea has been formally classified as a lower middle-income country. However on 1 January 2003, Papua New Guinea was formally reclassified by the DAC (Development Assistance Committee of the OECD (Organisation for Economic Cooperation and Development)) as a lower-income country.

Of course this argument is open to debate. It says nothing about the level of the return or how much money was poorly used. It is possible for example that the same benefits could have been achieved at an even lower level of expenditure. It is also possible that the benefits would have occurred even without public programs. There appear to have been rapid gains in Papua New Guinea in a relatively short period (the infant mortality rate in the highlands in the 1930s was reported as 1 in 4, and is now around 1 in 10), and there may have been sufficient momentum from an exposure to better living practices (eg, with respect to the feeding of infants, sanitation or prevention of disease) to have assured an improvement in living standards over time.

This report tentatively draws the conclusion that public programs have made an important contribution to the improvement in living standards since independence. The examination of assistance programs provided in other sections of this report provides some confidence that sensible public programs have been operating. But perhaps more importantly it is difficult to be convinced that such large improvements in living standards as have been seen could have been achieved without improved public programs, given that real per capita incomes and government consumption have been stable or fallen on a per capita basis. For example, it is difficult to see why higher school participation rates would have been sustained without recognition by parents that the education system was of value. It seems reasonable to conclude that there must have been sufficient teachers, classrooms, appropriate teaching training, etc, to provide a worthwhile service and keep children away from alternative activities (eg, helping in the home or food garden).

In reaching the conclusion that public programs have lifted living standards over the 25 years since independence, it is important to recognise that candidates for sharing the credit for the gains include the communities themselves, the NGO movement and in particular the churches, the government and donors. While it appears reasonable to conclude that public programs have made an important contribution, it is harder to establish from this aggregate analysis which group has generated the returns.

This is not to suggest that all public programs are appropriate and operating efficiently. The argument that public programs have made an important contribution is consistent with a recognition of low standards and a potential for considerable improvement. The argument simply is that enough was done to help lift living standards and that changes have been positive.

3.5 Implications for Aid

To summarise the tentative findings so far, quantitative analysis of the sources of development is precluded by a shortage of reliable data. But because these development gains are to an extent dependent on the quality of public services, it appears reasonable to attribute at least some of the improvements to effective public programs. The tentative conclusion is that the steady gains in development in the face of a stable level of real income and government expenditure are indicative of good returns on public programs.

To explain the role of aid, it is necessary to understand the potential contribution of government expenditure (because most aid programs are channelled through the budget). Unfortunately it is difficult to establish a clear message from the aggregate data on government expenditure used in this rapid assessment.

Nonetheless, the documentation of the Australian aid programs, such as for example contained elsewhere in this report provides confidence that aid activities have been useful. If it is reasonable to conclude that public programs generally have generated meaningful development returns, and this report concludes this is the case, then it also appears reasonable to conclude that Australian aid has generated meaningful development returns.

It follows that aid can be seen to have made a significant contribution to alleviating poverty. A detailed analysis of the poverty situation in Papua New Guinea is beyond the scope of this rapid assessment. But the improvement in key social indicators has an important message. Internationally, education and health are important dimensions of the poverty problem, and recent poverty research confirms this is also the case in Papua New Guinea. So the improvements made over time to the standard of education and health are likely to have eased poverty over time.

Papua New Guinea's main shortcoming has been in terms of growth. Overall the growth that has been seen is mainly attributable to population growth and on a per capita basis there has been little or no growth. Aid may have played a role in preventing a worse outcome, but it cannot claim to have achieved growth. It appears that despite improvements to human capital, the country's economic potential has been constrained by the poor policy and institutional environment and limited public infrastructure. In this respect the shift in Australian aid towards governance orientated activities is potentially important for relieving what appears to be one of the key constraints to growth.

Australian aid has offered both potential positives and negatives for income levels and growth in Papua New Guinea. The transfer of income from Australia to Papua New Guinea provides a direct boost to economic activity by lifting local expenditure. The multiplier effects that arise as the money is spent in the

economy, and any productivity gains arising from improved human or physical capital, will also tend to keep income higher than it otherwise would be.

But Australian aid has also had a negative effect on income levels because it contributed to a 'dutch disease' type effect by supporting a higher real exchange rate than in the absence of the aid (see Box 3.1). This in turn has had adverse competitiveness and income effects for agriculture in particular. Recognition of this problem was one of the factors motivating the shift from budget to program support. The full cost of this 'dutch disease' effect is unclear, in part because the economy is still adjusting to the removal of the imbalances that were created.

This means it cannot be said whether the positives offered by Australian aid for income levels and growth did outweigh the negatives. What is clear is that action has been taken to reduce the negative effect on growth in the future.

BOX 3.1 THE DUTCH DISEASE IN PAPUA NEW GUINEA

Internationally the 'dutch disease' problem is normally faced when large export revenue from enclave-type resource projects raise the demand for local currency and leads to a higher exchange rate than would otherwise be the case (this can see the real exchange rate appreciate relative to what it would otherwise be). This is a problem because it reduces the international competitiveness of other sectors, normally export-focused agricultural activities and import-competing activities such as local food production. The result is that enclave-type resource projects can indirectly take place at the expense of other forms of activity.

In the Papua New Guinea context, much of the export revenue from the mining and oil sectors remains permanently offshore and does not flow through the foreign exchange market. But the payment of taxes and, to a lesser extent, local costs provides a large inflow of foreign exchange. This has had the effect of lifting the demand for kina in the foreign exchange market (as the Government etc seeks to sell its foreign exchange) and combined with other factors leading to a higher real value of the kina than would otherwise have applied.

In Papua New Guinea the inflow of revenue from the mining and oil sectors has also been supplemented by a large inflow of donor funds from the international donor community, notably the budget support of Australia. This inflow of foreign exchange has added to the dutch disease problem by also providing support for the exchange rate.³

3 See AusAID (1999), Duncan et. al. (1998), Fallon et.al. (1995) and King and Sugden (1996) for recent discussion of the dutch disease problem in Papua New Guinea. The problem has been acknowledged for at least 20 years, with Garnaut and Baxter (1984), Jarrett and Anderson (1989) and Goodman, Lepani and Morawetz (1987) providing good discussion of early thinking on the issue.

Although the precise extent of the dutch disease problem is somewhat unclear, a sense of the potential impact is provided by the large fall in the nominal value of the kina in recent years. Since the kina was floated in October 1994, it has been on a downward trend attributable to declining mining and oil revenue, the gradual removal of Australian budget support and large Government budget deficits. At the time of the float, the kina was roughly at parity with the US\$. Such a high exchange rate has proven unsustainable and the kina is now worth around a quarter of its pre-float value in US\$ terms.⁴

It is important to appreciate that the dutch disease problem in Papua New Guinea could have been largely avoided. The original intention of the Government was that revenue from the mining and oil sector was to be saved in the Mineral Resource Stabilisation Fund (the MRSF). While positive account balances were recorded over the 1990s, these 'savings' were only book entries and budget deficits meant that the Government actually quickly spent the mining and oil revenue. If instead the mining and oil revenue had been saved and spent gradually as originally intended, the effect on the exchange rate and hence non-mining and oil sectors would have been much less.

So in one sense the dutch disease problem evident in Papua New Guinea is best seen as a result of how the Government used the mining and oil revenue, rather than mining and oil activity *per se*. The large inflow of aid has also been an important contributor to the problem. It follows that the dutch disease problem is best thought of as a result of the public sector rather than the mining and oil projects alone.

As a result of a decline in mining and oil revenue and the removal of Australian budget support, the economy is now facing the effects of an unwinding of a 'dutch disease' problem that has seen the public sector undermine prospects for the private sector for much of the period since independence.⁵ This is triggering economic changes that are creating problems for many in the community, notably in the urban centres reliant on formal economic activity. This is frequently described as a crisis, and is seen by some as evidence of a failing state. But the changes are also creating opportunities for others, notably for the rural poor and the informal sector. Over time, the changes triggered by a falling kina can be expected to see a sustainable economy emerge providing for improved growth and poverty outcomes. While the adjustment now occurring could certainly be managed at a lower cost (if for example the Government controlled overspending and provided well maintained physical infrastructure), it offers important benefits for the long term.

4 It is emphasised that the fall in the nominal value of the kina is also in part a result of over-expenditure by the National Government. Had the National Government operated balanced budgets and not the large deficits seen over the last ten years, the nominal value of the kina would be considerably higher than at present (see Sugden (2002) for a discussion).

5 See Sugden (2000).

4 THE CHANGING FOCUS OF AUSTRALIAN AID SINCE 1975

This section of the report aims to trace the history of Australia's aid assistance to Papua New Guinea since independence (1975) and, where information is available, Section 5 assesses the impact of that assistance on Papua New Guinea's development. To do this, it is necessary to understand the fundamental shifts that have occurred in the aid relationship over the years. It is not appropriate to judge the impact of aid provided ten or more years ago against current objectives and priorities. Impacts, both positive and negative, need to be placed in the context of Australian and Papua New Guinean government aid policies, objectives and strategies at the time the aid was programmed and delivered. Also, it should be noted that this analysis is restricted to information that is publicly available, in particular AusAID's project completion reports, project and sector reviews and evaluations, and activity monitoring briefs. The conclusions drawn from this information are intended to form the first step in a longer-term process aimed at improving the performance information available in AusAID to assess the effectiveness and impact of Australian assistance on Papua New Guinea's development.

4.1 Political Context

Australia has consistently been Papua New Guinea's largest development partner. Since it attained independence in 1975, Australia has provided more than A\$14 billion⁶ in real terms (A\$8.1 billion in nominal terms) as official development assistance to Papua New Guinea.⁷ In 1975–76, Australia's aid to Papua New Guinea accounted for 60% of the overall Australian aid budget. Today, it still accounts for about 20%, and Papua New Guinea remains the largest of Australia's bilateral aid programs.

Australian aid was crucially important for the Papua New Guinea economy at the time of independence, accounting for 41.4% of central government's expenditure in 1974–75⁸. Based on Australia's historical relationship with Papua New Guinea and its responsibilities under the United Nations Charter, Australia assured Papua New Guinea in 1974 that it would have first call on Australia's aid program after independence. Although successive reviews of Australia's aid

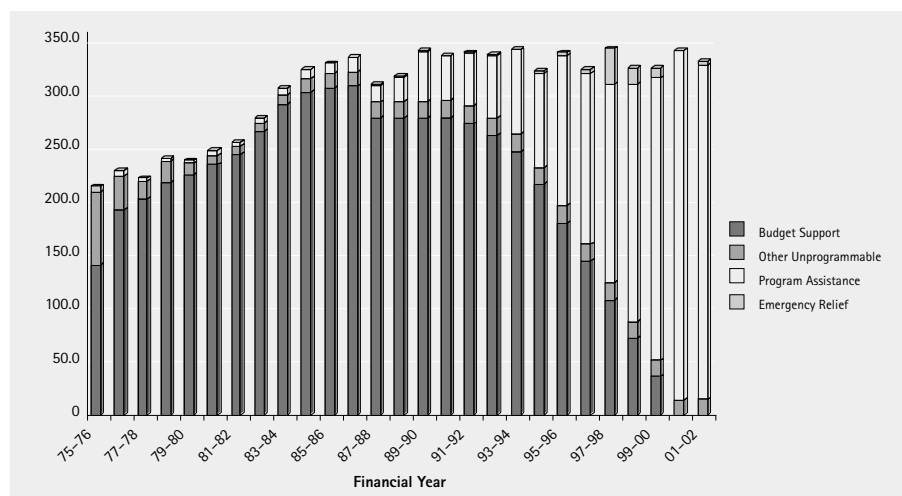
6 Constant 2001–02 prices, covering expenditure from 1975–76 to 2001–02 inclusive.

7 All expenditure figures used in this report have been compiled from project-level expenditure data reported in *Australia's Overseas Aid Program Statistical Summary* ("the blue book").

8 *Australia's Overseas Development Assistance 1975–76*, Budget Paper No. 10, Australian Government Publishing Service, 1975.

program saw a decline in the overall level of Australian aid funding for Papua New Guinea in real terms, it was not until the mid-late 1980s that a fundamental shift began to occur in the nature of the aid relationship between Australia and Papua New Guinea (see Figure 4.1). As part of the 1985 aid agreement, Australia and Papua New Guinea agreed on a gradual reduction in the *total* amount of Australian aid funding provided each year of at least 3% per annum in real terms, combined with a gradual reduction in budget support and an increase in programmed assistance.

Figure 4.1 **Composition of Australian Assistance to Papua New Guinea, 1975 to 2002**



Source: Australia's Overseas Aid Program Statistical Summary, AusAID, Canberra (various editions)

One of the most significant changes in the bilateral relationship occurred in December 1987, with the signing by both heads of government of the *Joint Declaration of Principles Guiding Relations Between Australia and Papua New Guinea*. The Declaration was a watershed in the bilateral relationship, shifting it from the post-colonial phase of giving aid and advice to a more mature phase in which the relationship is based on reciprocity and recognition of mutual benefits between independent and equal nations. Embodied in the Declaration is Australia's commitment to an approach based on constructive commitment, respect for the sovereignty and independence of Papua New Guinea, and support with advice and assistance for the decisions taken by Papua New Guinea about its future. A key element was the mutual aim to move aid away from the centre of the bilateral relationship. Accordingly, the first comprehensive *Treaty on Development Cooperation*, signed in 1989, reaffirmed Australia's continued commitment to assisting Papua New Guinea's development and security and recorded the principle of progressive declines in overall aid levels, accompanied by a progressive shift from budget support to programmed aid.

The second and current Treaty came into effect in July 2000, following the cessation of budget support in June 2000. It provides the framework for current and future Australian aid to Papua New Guinea. It establishes ceilings on the level of Australian aid funding and ensures the aid program will continue to focus on helping to reduce poverty and promote sustainable growth. The new Treaty also specifies generic and sector-specific performance targets and benchmarks. Performance against these benchmarks is reviewed and assessed annually, and will be used to determine the type and volume of future Australian assistance. This is the first time such an approach has been taken in the Australian aid program.

4.2 Budget Support

More than two-thirds (A\$9.3 billion) of Australian aid to Papua New Guinea since independence has been provided in the form of untied budget support grants. Although budget support was seen in the early years as providing necessary aid assistance, while giving Papua New Guinea management control over decision-making, by 1980 there were emerging concerns in both governments. The availability of budget support acted as a disincentive for Papua New Guinea to take difficult economic decisions in the interests of equitable growth, and little effort was made to diversify the Papua New Guinea economy.

There were various ‘false starts’ in the combined effort to reduce Papua New Guinea’s reliance on budget support grants. Until the late 1980s, each attempt to reduce budget support was softened in response to different external shocks and internal difficulties facing Papua New Guinea. These decisions were based very much on the special relationship between Australia and Papua New Guinea, rather than real need. Whilst the economic problems confronting Papua New Guinea were certainly real, the situation was not desperate, and it was recognised at the time that there was much Papua New Guinea itself could have done to manage its economic problems (eg, reducing new expenditure; using tied, concessional assistance from other sources; and relaxing the “hard kina” policy). Not surprisingly, the Papua New Guinea government had never been keen to bring these options into play (or to accept programmed assistance) for fear of jeopardising Australia’s totally unconditional budget support grants.

The final decision to phase out budget support⁹ was not taken lightly, and was the subject of significant debate in both countries. In Papua New Guinea, the desire for genuine self-reliance competed with the attraction of assured, unconditional funding. In Australia, some questioned Papua New Guinea’s ability to adjust to programmed assistance, and there was reluctance to risk

9 Encapsulated in the first Treaty on Development Cooperation, 1989.

criticism that the withdrawal of Australian budget support might be blamed for causing any future decline in the economy or law and order situation. In the end, both countries agreed that a tough decision on the level and form of Australian aid was necessary to stimulate difficult decisions in Papua New Guinea in the interest of sustainable development. In particular, reduced and closely targeted Australian aid was acknowledged as being critical to enable Papua New Guinea's leaders to obtain essential support for economic and social reforms, thus accelerating growth. A seven-year, straight line phasing out of budget support commenced in 1994–95, with untied budget support ceasing to be used as a form of assistance in Australia's aid program in June 2000.

Although the impact of Australia's budget support on development cannot be assessed directly because the grants were channelled directly into Papua New Guinea's budget – and it will always be possible to debate whether budget support was the most effective instrument to use from the outset of independence – there was a clear rationale for budget support at the time. It was Papua New Guinea's preferred form of support, enabling the new nation to set its own development priorities without interference from its former administering authority. Budget support contributed significantly to political, economic and social stability after the rapid transition to independence, and helped bridge the resource gap between Papua New Guinea's high investment requirements and its low domestic savings. It was flexible, easy to administer, and imposed no debt on Papua New Guinea. Also, analysis of the Papua New Guinea Government's own funding for different sectors confirms that government funding for key sectors such as infrastructure, health and education was higher when Papua New Guinea was receiving budget support than in more recent times. This would suggest that Australian budget support was an important element in the higher levels of service delivery that existed at the time in various sectors.

4.3 Evolving Approaches to Programmed Assistance

Over the 14-year period from 1975 to 1989, programmed assistance accounted for only 2.7% of total Australian aid funding to Papua New Guinea. By contrast, programmed assistance has accounted for 45.5% of Australian aid funding over the subsequent 14 years (1990 to 2003). During the earlier period, almost all Australian aid funding was provided either as untied budget support, other fixed costs such as the payment of termination and retirement benefit entitlements to officers of pre-Independence administrations, or reactive humanitarian assistance to address the consequences of natural disasters. Australia's capacity to assist in meeting Papua New Guinea's priority development needs was largely limited to its ongoing policy dialogue with the Papua New Guinea Government.

Although there were many reasons for the joint desire to reduce budget support, a key reason for the parallel increase in programmed assistance was to allow **more effective targeting** of Australian assistance to areas of priority need, in support of Papua New Guinea's own development objectives. Annex A seeks to capture some of the flavour of changing emphases in aid program priorities in Papua New Guinea, summarising the main objectives and strategies, as well as the catalysts for them.

As the volume of available programmed assistance increased during the 1990s, the areas prioritised for Australian support were influenced by drastic changes that occurred in Papua New Guinea's own circumstances. The financial crisis and Rabaul volcano eruptions of 1994, the need to restore peace and provide welfare support on Bougainville, serious drought and frosts in 1997–98, and the impacts of the Asian financial crisis of 1997, exacerbated the country's already enormous development challenges through the 1990s. Prior to this, Papua New Guinea had managed its economy reasonably well since independence and had achieved development progress.¹⁰

When programmed assistance was introduced in 1986, Papua New Guinea's priority areas for Australian assistance sought to **accelerate progress towards self-reliance**. Early assessments indicated that the shift from budget support to programmed assistance was generating significant benefits for both countries, improving both the effectiveness of Australian aid and its broader impact on helping Papua New Guinea overcome key constraints to self-reliance – the lack of educated people and scarcity of capital.¹¹ However, as successive governments struggled to deal with growing economic and social problems in the 1990s, it became clear that governance and institutional capacity constraints posed the main challenges to achieving self-reliance. Future development progress would depend on strong leadership, integrity and transparency of decision-making, rigorous prioritisation of public investment, and a skilled, efficient and incorruptible public service. Priority in Australia's aid efforts since about 1997 has been given to helping Papua New Guinea **achieve economic stability and social cohesion**.

In 1995, both governments agreed that performance benchmarks would be introduced to monitor reforms crucial to the success of jointly programmed aid.¹² A review of performance against these benchmarks at the September 1996

10 *One Clear Objective: Poverty Reduction Through Sustainable Development*, Report of the Committee of Review of Australia's Overseas Aid Program, Commonwealth of Australia, April 1997.

11 Joint Parliamentary Committee on Foreign Affairs, Defence and Trade Inquiry into Australia's Relations with Papua New Guinea: Development Cooperation, Australian International Development Assistance Bureau Submission, August 1989.

12 Benchmarks for 1996 were agreed for the health, education, infrastructure and forestry sectors.

Ministerial Forum found that real progress had been made in improving planning for service delivery, especially in health and education. Also, in 1997, for the first time, Australia's aid contribution was incorporated into Papua New Guinea's development budget. This introduced transparency, clarifying for Papua New Guinea's citizens the areas in which Australian assistance was supporting the country's development. It also allowed Papua New Guinea to integrate Australia's aid into its own development plans.

As Papua New Guinea's absorptive capacity has improved in different areas, Australia's programmed assistance has also evolved since the early 1990s. From traditional **project assistance**, Australia moved to a **program approach** to aid delivery in sectors such as infrastructure, using local contractors to help implement rolling programs of road maintenance. The health sector, probably the most advanced in this process today, is now adopting a **sector-wide approach**, led by Papua New Guinea, ultimately involving the pooling of all donor resources to support the National Health Plan. More broadly, Australia is now providing substantial support for an **Incentive Fund**, explicitly focused on supporting organisations that demonstrate excellence and financial accountability to deliver community and public services.

Although Papua New Guinea's ability to be fully effective as a nation is seriously challenged by its constraints to development, and much needs to be done to consolidate a sense of nationhood before governments will truly be held accountable for service delivery, this sort of evolution in the form of Australian assistance does show a gradual strengthening of Papua New Guinea's sense of ownership of development programs. Over time, aid that is effectively integrated with Papua New Guinea's own programs will help build capacity at all levels of program formulation, delivery, monitoring and review within Papua New Guinea. Australia's assessment in 2000 was that the shift to programmed assistance had:

"...gone a significant way to making Australian aid more effective, transparent and accountable. The move has also resulted in a more cooperative approach to planning and implementing aid activities, which has strengthened personal and institutional links between Australia and Papua New Guinea."¹³

With the ageing of the World War II generation, the level of interest about Papua New Guinea within Australia had been declining. Australia's shift to programmed assistance has helped to revive the level of close personal contacts between Australia and Papua New Guinea.

13 Papua New Guinea Program Profiles 1999–2000, AusAID, February 2000.

4.4 Involving Other Donors

Papua New Guinea, more than most developing countries, has consistently relied on a single donor – Australia – for its development assistance financing. Until 1982, Australian budget support alone accounted for some 95% of the foreign grants received by Papua New Guinea.¹⁴ By 1987–88, it still accounted for 80% of Papua New Guinea's total aid receipts.¹⁵ At that time, in tandem with the fundamental shift in the nature of the aid relationship that had been agreed by the two governments, it was envisaged that other donors would gradually start to play an increasing role in Papua New Guinea's development. Papua New Guinea invited the World Bank to establish a Consultative Group, and the inaugural meeting held in May 1988 succeeded in achieving broader international support for Papua New Guinea's development strategies. Although subsequent meetings of the Consultative Group have stimulated an expansion and diversification of the country's aid sources, Papua New Guinea today remains heavily reliant on Australian aid, which currently accounts for about 72% of its total bilateral aid. Japan is the next largest bilateral aid donor. Multilateral institutions such as the Asian Development Bank (ADB), the World Bank, the United Nations (UN), and the European Union (EU) also provide substantial support.

External resources can best assist economic growth, poverty alleviation and broad development if domestic economic policies in the recipient country are supportive. Accordingly, AusAID has devoted considerable resources to research and analysis to strengthen the policy dialogue between Australia and Papua New Guinea, particularly since 1990. It was the first Australian bilateral aid program to invest heavily in policy research and analysis, an initiative intended to provide practical support for the changing nature of the development partnership between the two countries articulated in the 1987 Joint Declaration of Principles. These analytical reports are still regarded as the best information produced internationally in relation to Papua New Guinea, and were instrumental in engaging other donors in Papua New Guinea's development.

These efforts to broaden Papua New Guinea's base of external finance and advice have lost momentum in recent years. The last Consultative Group meeting was held in November 1999. This has been unfortunate, coinciding with a period in Papua New Guinea's development when the country has probably most needed the coordinated support of a cohesive body of donors. The independent aid policy priorities and programming and delivery processes of each donor (including Australia) have added to the complexity of aid

14 Desk Study: Papua New Guinea (Literature Review), AusAID, May 1984.

15 *Australia's Overseas Aid Program 1987–88*, Budget Related Paper No. 4, Australian Government Publishing Service, 1987.

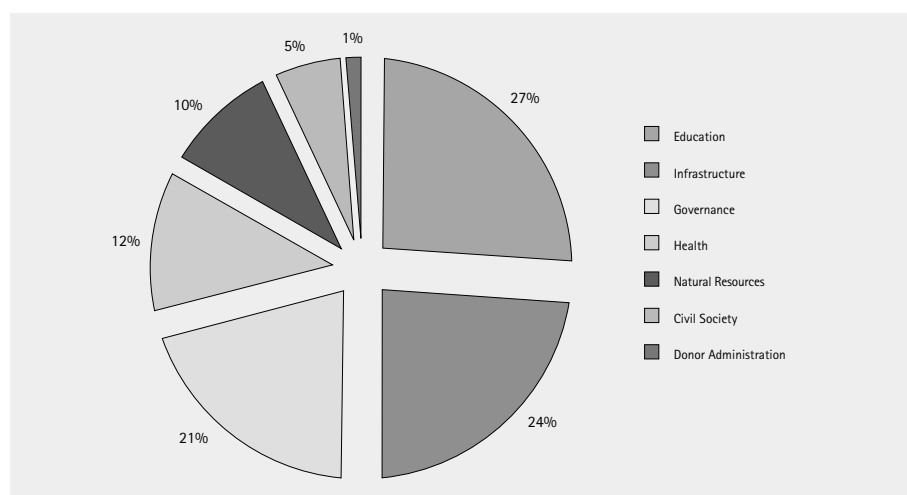
management for Papua New Guinea, over-burdening the already limited capacity that exists within government and, at times, diverting Papua New Guinea's resources away from its own development policy priorities.

Australia, ADB and the World Bank have now initiated a working group to examine the viability of developing and implementing a joint country assistance strategy for their assistance in Papua New Guinea. The intention is to develop a joint focus on helping Papua New Guinea address its highest priority challenges at the central, sectoral, and provincial levels, if possible integrating both requirements *and* processes for policy and analytical work, operational delivery, and monitoring and review. To work, this initiative will depend on strong ownership by Papua New Guinea and should incorporate as many other donors as possible. It is the first time this depth of aid coordination has been attempted internationally, and will require fundamental changes in the way donors 'do business' in Papua New Guinea. Nevertheless, it has the potential to yield significant benefits for Papua New Guinea, in enabling the country to drive a sustainable development agenda, and actually deliver against higher order development objectives rather than simply achieve piecemeal progress within narrowly defined activities.

4.5 Sectoral Priorities

Figure 4.2 summarises the sectoral composition of Australian programmed assistance in Papua New Guinea since independence.

Figure 4.2 Sectoral Composition of Australian Programmed Assistance to Papua New Guinea, 1975 to 2002



Source: Australia's Overseas Aid Program Statistical Summary, AusAID, Canberra (various editions)

When programmed assistance was introduced in 1986, Papua New Guinea's priority areas for Australian assistance were aimed at accelerating progress towards self-reliance:

- Revenue generation;
- Institution strengthening for key economic departments;
- Technical assistance for state enterprises; and
- Management development in the health, works, police and justice departments.

The first Treaty Review (1992) identified six priority areas for the sectoral focus of Australian aid: health, education and training, transport and communication, renewable resources, law and justice, and the private sector. Since then, programs targeting governance and rehabilitation on Bougainville were introduced, along with expanded and more targeted programs in traditional areas of Australian assistance, such as basic education, maintenance of transport infrastructure and primary health. Since July 2000 under the second Treaty, the total Australian aid program (\$300 million per annum) has been applied to programmed assistance activities, and is focused on four agreed objectives:

- Strengthening governance;
- Improving social indicators;
- Building prospects for sustainable economic growth; and
- Consolidating the peace process in Bougainville.

The agreed priority sectors for future Australian assistance continue to include basic education, primary health, maintenance of infrastructure, rural development, and law and justice, but now also include a significant focus on governance and on development of the provinces.

New and flexible operational strategies are being adopted across AusAID's program, aimed at increasing the level of Papua New Guinean participation in aid activities, reducing complexity, strengthening performance benchmarks, and linking performance more closely to funding decisions. An Incentive Fund has been established, for example, which enables Australia and Papua New Guinea to direct Australian aid through the most capable Papua New Guinea agencies. The Fund aims to promote contestability among service providers by funding agencies (inside and outside government) with a proven track record of good program management or policy reform.

5 THE IMPACT OF AUSTRALIAN AID IN PAPUA NEW GUINEA

Although aid will never be the primary determinant of development progress in an independent nation such as Papua New Guinea, it plays a strategic role in helping to reduce poverty, improve quality of life, promote equity, and build management capacity to enable the government to influence development progress through effective policies and service delivery. As noted earlier, Australia has consistently been Papua New Guinea's most significant donor since independence, both in terms of the volume of aid and the breadth of coverage of its assistance. While the lack of data makes firm conclusions difficult, the sectoral assessment in this section supports the trends identified in Section 3. In essence, it is fair to conclude that Australian aid has genuinely been responsive to Papua New Guinea's own development needs and priorities. It has been appropriately targeted to prevailing circumstances in Papua New Guinea, while also generally ensuring appropriate focus on longer-term objectives for self-reliance and sustainable development. At a sectoral level there are important examples of the positive impacts of Australian aid and, across most of the key sectors, Australian aid has been a major influence on Papua New Guinea's development achievements to date. Anecdotally at least, Australia's support has been instrumental in helping Papua New Guinea to achieve what development progress it has, maintain a vibrant and relatively stable democracy post-independence, and stem the declines occurring in basic service delivery.

5.1 Education

The education sector has consistently accounted for at least 25% of Australia's programmed assistance in Papua New Guinea, with funding totalling almost A\$540 million since independence.¹⁶ More than half of this has supported education at the elementary, primary and secondary levels. Australia has also consistently been the largest provider of tertiary scholarships for Papua New Guinea, with about 100 students graduating each year from tertiary institutions in Australia, and up to 150 new places now being offered each year. AusAID funding has helped to upgrade several provincial high schools, supplied educational materials to selected primary schools, supported the training of elementary teachers, established a vocationally-oriented trade testing certification system, developed a program for lecturers at the Community Teachers College and helped improve the Department of Education's capacity to plan and monitor its education reform agenda.

16 At least a further A\$80 million has been provided for other sector-specific training (eg: in health, governance, infrastructure and renewable resources).

Australia's funding support has increased significantly in recent years, and it appears this support for Papua New Guinea's education reform process is having a positive impact. With an estimated 80% of the government's own budget being spent on teachers' salaries since the mid 1990s, Australia has been funding the vast majority of costs associated with implementing the education reform agenda. AusAID's education sector expenditure over the last four years has averaged more than A\$68 million per year, almost double the average annual expenditure of the previous four years. Enrolments in the first eight years of school have increased by over 100,000 in the last three years. Student retention rates and the number of students going on to higher institutions have also increased. There is an increased number of qualified teachers and schools in Papua New Guinea.

Based on the outputs and achievements listed in Box 5.1, it is fair to conclude that Australian aid has had a significant positive influence on improving access to education, enhancing the quality of education, and building and maintaining capacity and momentum for reform within the education sector in Papua New Guinea.

BOX 5.1 EDUCATION SECTOR ACHIEVEMENTS OF AUSTRALIAN ASSISTANCE

Access

In the past ten years the numbers of children attending school has almost doubled, from 510,000 in 1992 to an estimated 1 million in 2002. AusAID support has played a key role in this achievement:

- Provided elementary education opportunities for about 270,000 pupils in some 4,200 schools, learning in 200 of PNG's 800 languages. Ten years ago there were no elementary schools in PNG and all children started school in English. A number of sources indicate that AusAID is certainly the most significant if not the only donor in this area.
- Increased the number of teachers trained from 600 to 1,000 per annum.
- Physically upgraded 240 primary schools.
- Provided scholarships for about 2,000 secondary students to study in Australia.
- Upgraded 9 high schools in PNG so that Grade 11–12 enrolments could be increased from 1,000 per annum (1993) to about 5,000 per annum (2002).
- Achieved a gradual increase in the proportion of girls enrolled in secondary school. The participation rate of girls in Grade 10 has increased from 36% in 1985 and 1990 through to 41% in 1998.
- Provided up to 150 tertiary scholarships each year for study in Australia. A recent study found that over 80% of former scholarship recipients reported improved confidence, new and improved competencies, and innovative approaches to work.

- Improved retention rates at school through curriculum development and materials supply.

Quality

- Successfully introduced and expanded the elementary school system, including development of multigrade policy and teaching materials.
- Improved the relevance of education at elementary level through support for vernacular language in community schools.
- Improved the quality of language and mathematics training at elementary level.
- Improved the quality of primary education through skills transfer, production and distribution of new learning materials, provision of textbooks, teacher training, and support for the introduction of a life-skill-based curriculum to replace the old academic Australian-based curriculum.
- Improved the relevance of secondary education by introducing life skills into the curriculum.
- Provided essential textbooks to 272 secondary schools.
- Improved the quality of teacher education – over 80% of primary teachers are now grade 12 graduates, rather than grade 10.
- Introduced competency based training in 7 core trades, establishing the framework and skills to expand to other trades.
- Increased the relevance of technical and vocational training by linking competencies to industry needs.
- Encouraged gender equity (eg, gender equity curriculum materials and training).
- Established twinning arrangements between the University of Goroka, Queensland University of Technology and the Charles Sturt University.

Maintaining Impetus and Capacity for Reform

- Introduced innovation in piloting many aspects of the reform agenda (eg, developed and tested new curriculum and teaching materials).
- Enhanced capacity to implement and maintain significant aspects of the reform agenda (eg, establishing, training and facilitating the work of key new units central to the implementation of the reform agenda).
- Strengthened the professional and technical skills of staff in the Department of Education and improved linkages between the Department and provincial education units.

5.2 Governance

Formal targeting of governance as a key sector for Australian assistance in Papua New Guinea really only commenced in 1997, following Australia's acceptance of the Simons Review recommendations in this regard. Prior to this, the vast bulk of Australia's assistance to improve governance in Papua New Guinea was focused on the law and justice sub-sector, particularly the police force. Since then, Australia's efforts have intensified in support of public sector administration and economic management, as well as in helping develop an effective judicial and law enforcement system and strengthening systems for the protection of individual rights and freedoms.¹⁷ Australia is also giving priority to enhancing community awareness and participation, as a means to improving government accountability in Papua New Guinea through better public scrutiny of policies and practices.

5.2.1 LAW AND JUSTICE

Notwithstanding the difficult law and order situation (which has numerous causes external to the law and justice sector), Australia's support for law and justice activities in Papua New Guinea has had a range of impacts vital to improving governance throughout the country. In total, Australia has provided more than A\$240 million in assistance to strengthen law and justice in Papua New Guinea, 68% of which has supported the police force.

BOX 5.2 STRENGTHENING THE ROYAL PAPUA NEW GUINEA CONSTABULARY

Australian project assistance has been provided to the Royal Papua New Guinea Constabulary (RPNGC) since 1984. Improvement initiatives have reached into every part of the RPNGC and have included substantial institutional strengthening, capacity building, decentralised training, and provision of facilities and equipment. Some key achievements to date, including broader development impacts where separately identifiable, include:

- Raised the level of discipline and professionalism in the police force.
- Achieved significant management improvements, including in relation to senior police executives, human resource management and corporate planning.
- Introduced a strategic management system unique to the environment of Papua New Guinea.
- Developed and introduced policies to support the advancement of women and the promotion of equal employment opportunity within the Constabulary, where domestic violence is a serious problem.

17 Such as the Law Courts, Attorney General's Department, National Judicial Staff Service, Ombudsman's Commission, and the proposed Human Rights Commission.

- Achieved operational efficiencies in community policing, police prosecution, and fraud investigation.
- Improved the national prosecution rate by 9% in five years (1994–1998).
- Introduced administrative reforms to improve the efficiency and accountability of basic police operations.
- Provided extensive training (including formal, on-the-job, and overseas work experience) to 20,000 attendees.
- Established excellent training facilities at Bomana.
- Provided housing for 166 senior and junior staff in strategic locations.
- Provided accommodation for women at Bomana Police Training College.
- Improved police response times to reports of crime and disorder at the Boroko Operations Centre in Port Moresby.
- Established Public Complaints Units in major population centres.

At the broadest level, the positive impact of this extensive assistance is demonstrated by the RPNGC's performance during periods of major unrest. While Bougainville stands out as a telling reminder, the Sandline crisis and recent Papua New Guinea Defence Force and anti-structural reform unrest both had the potential to spill over into a full constitutional crisis. Through each of these crises, the RPNGC has maintained its loyalty to the State. This is a positive impact that is absolutely fundamental in a country so culturally diverse and clan-based. Although detailed information has not been available for this report to analyse the different contributing factors, the depth of internalisation of what we would call 'good governance' principles that must have occurred to achieve this result should not be underestimated.

Since 1990, Australia has also provided substantial ongoing support (A\$52 million to June 2002) to strengthen Papua New Guinea's correctional services system. This support has raised the profile of the system, placing it on an equal footing with other law and justice agencies in Papua New Guinea. It has enhanced management and strategic planning capacity, and introduced operational efficiencies that are expected to be sustainable. Longstanding support for police and correctional services has been broadened since the late 1990s to incorporate all aspects of the criminal justice and judicial services systems.

BOX 5.3 STRENGTHENING LAW AND JUSTICE IN PAPUA NEW GUINEA

In addition to assisting the Constabulary, Australian project assistance has had a range of important positive impacts across the law and justice sector:

- Provided access – for the first time since independence – to updated and consolidated legislation and case law in electronic and paper form, as well as a raft of new legal texts.
- Enhanced court operations at all levels through professional development training for all judges and magistrates, as well as for court officers and village court officials.
- Strengthened corporate and human resource management in the Attorney General's Department, resulting in a more strategic, client-focused approach.
- Revitalised the Legal Training Institute, the only agency providing ongoing legal education to university graduates.
- Raised the profile and strengthened the strategic planning capacity of the Correctional Services system.
- Upgraded Correctional Services staff housing and facilities, constructed two minimum-security prisons, a juvenile detention centre, a new training college and a new sewerage system for the main prison in Port Moresby, and upgraded and renovated the other provincial prisons to make them more humane and secure.
- Introduced an effective prison classification system that helps PNG manage its prisons better and greatly assists with the rehabilitation of prisoners.
- Facilitated the separation of juvenile prisoners from adults, a significant human rights achievement.
- Reinvigorated prison industries, providing a means to feed prisoners and producing income for the institution.
- Improved literacy and numeracy of prison staff and detainees, as well as HIV/AIDS awareness.
- Introduced Minimum Security Units in prisons, allowing for increased security, improved management of detainees, and a change in the attitude to escaping.

Despite the improvements to date, much remains to be done before principles such as discipline and accountability will truly be entrenched in Papua New Guinea. These are still major problems within the various law and justice agencies and more broadly. In spite of the institutional improvements that have occurred to date, the sector's performance overall has, if anything, weakened¹⁸. The latest phase of the RPNGC Development Project is seeking to address these deep constraints. Crime prevention strategies based on principles of community

18 A Review of the Law and Justice Sector Agencies in Papua New Guinea. Opportunities to Improve Efficiency, Effectiveness, Coordination and Accountability, Confidential Draft Report, Government of Papua New Guinea, 2002.

policing are being introduced, along with procedures to reward good performance and discipline. The project is also initiating procedures to record and investigate complaints about police behaviour. More broadly, Australia's assistance strategy in the law and justice sector is being refined to foster a sector-wide approach in support of Papua New Guinea's new National Policy on Law and Order.¹⁹ A focus on building links between key law and justice agencies within government, as well as encouraging greater formal and informal community involvement, is likely to improve the impact of Australian assistance and the prospects for sustainability of this assistance.

5.2.2 ECONOMIC MANAGEMENT AND PUBLIC ADMINISTRATION

Although Australia contributed A\$15 million to Papua New Guinea's Structural Adjustment Program in 1989–90, its support for this sub-sector of governance has only really intensified since 1999–00. Since independence, a total of A\$160 million has been provided, two-thirds of which (A\$107 million) has been in the last three years.

BOX 5.4 IMPROVING GOVERNANCE WITHIN THE PUBLIC SECTOR

Through institutional strengthening and capacity building activities, as well as support for multi-donor initiatives to assist Papua New Guinea's public sector reform efforts, Australian assistance for economic management and public administration has had a number of positive impacts on improving governance in Papua New Guinea:

- Introduced constitutional changes to strengthen the independence of the public service, in particular in the appointment and dismissal of permanent heads.
- Introduced a new performance management system to improve public service performance.
- Improved the functioning of Cabinet processes.
- Introduced improvements in the budget preparation process.
- Introduced a process of major functional and expenditure reviews, to rationalise and streamline the work of key central agencies and major spending agencies.
- Provided extensive training in different aspects of financial management for public sector personnel across the country, to improve the accountability and disbursement of public funds.
- Improved competency levels and performance standards within the Ombudsman Commission, which are expected to result in more open, transparent, accountable, equitable and responsive performance by government leaders and agencies. In 2001, the Ombudsman Commission made ten referrals to the Leadership Tribunal, a 100 percent increase over the previous year.
- Improved productivity within the Ombudsman Commission by 30–50%.

19 See AusAID Concept paper for the Law and Justice Sector Program. November 2002.

- Increased PNG public access to and confidence in the Ombudsman Commission, reflected in the 100% increase in complaints over the life of the project.
- Heightened community awareness of electoral matters.
- Strengthened capacity within the National Statistics Office, enabling the successful planning and conduct of the 2000 national census.
- Helped PNG to better control the movements of people into and out of the country through installation of computerised migration control systems in Port Moresby and in overseas missions in the 1990s.
- Developed relationships between central government agencies and their stakeholders inside and outside of government, as well as with relevant agencies within Australia.
- Improved the operational and institutional capacity of the Taxation Office, resulting in increased tax revenue, despite serious project implementation problems.
- Provided flexible and responsive advisory support across all aspects of government planning and administration.
- Improved macroeconomic forecasting capacity within the Treasury.
- Developed new superannuation legislation.
- Introduced initiatives to streamline revenue collection procedures within the Treasury.
- Improved customer servicing within the Bureau of Customs and Excise, resulting in more timely revenue collection and fewer defaults.
- Sustained improvement in customs and excise processing and operations in Port Moresby.

Institutional strengthening support and capacity building assistance is now being provided across all central public sector agencies, with a particular emphasis on supporting public sector reform. In addition, Australia's aid program is actively engaged in strengthening government at a provincial level in a range of areas, but particularly in the management of public funds. Given the recency of most of these initiatives, and the long-term nature of capacity building, it is not yet possible to identify broader impacts of Australian aid, or to assess the likely sustainability of the governance reforms being introduced in this sub-sector in Papua New Guinea. Nevertheless, a range of shorter term benefits can be identified which, if sustained, are likely to contribute to improving governance in Papua New Guinea.

An important recent initiative has been the attempt to introduce incentives-based programs that encourage and strengthen good government. The Papua New Guinea Incentive Fund was established in 2000 to assist organisations that demonstrate excellence in program management and financial accountability to

deliver community and public services. Early reviews²⁰ of the two streams of the Fund²¹ have been positive about the concept of the Incentives Fund and the potential for using incentives to motivate behaviour change in Papua New Guinea.

5.2.3 CIVIL SOCIETY

Australia has consistently supported the development activities of non-government organisations (NGOs) in Papua New Guinea since independence. Since the late 1980s, this support has been extended to other community development initiatives, as well as support to strengthen human rights, labour rights and other industrial relations matters. To a much smaller extent, Australia has also provided support for private sector development, particularly through micro-enterprise development, but also in assisting with trade policy development. In recent years, support for the development of civil society has increased markedly. By enhancing community awareness and participation, it is hoped that this support will facilitate better public scrutiny of government policies and practices over time, ultimately contributing to improving government accountability in Papua New Guinea. Since 1999–00, Australian funding for community and private sector development activities has averaged A\$7.7 million per annum, compared with an average of A\$2.5 million per annum over the previous decade (1989–90 to 1998–99). In addition to these amounts, substantial assistance has been channelled through NGOs to support peace-building efforts on Bougainville, particularly since 1996.

The largest activities, the Community Development Scheme (CDS) and the Bougainville NGO Project, have been operating since 1996. In its first phase, the CDS succeeded in delivering grants to small NGOs, church, or community-based organisations in all provinces, including in rural locations beyond the reach of other existing schemes. It was also able to achieve an equitable distribution of available funding, including the active participation of women. Overall, the final report of Phase I concluded that the impact of the funded projects had been overwhelmingly positive on participating NGOs and recipient communities. The longer term viability of many of these small groups remains tenuous, and Phase II of the CDS is focused on developing strategies to promote sustainability. Australia has also provided training for more than 800 people in small business and micro-enterprise training programs, located throughout rural Papua New Guinea as well as in urban settlements of Port Moresby.

20 Draft Report of Independent Review of the PNG Incentive Fund, AusAID, September 2002 and Draft Review of Incentives and the Australian aid program, Program Evaluation Section, AusAID, December 2002.

21 The PNG Incentive Fund has two components – a Program stream which, at the time of Review, had funded 19 awards totalling K121m and a Policy stream that approved four awards, all in the Health sector, totalling K2m.

In addition, Australian aid has facilitated improvements in media standards and development of the National Broadcasting Commission radio network, resulting in tangible improvements in the media's ability to scrutinise governance issues such as government accountability.

5.3 Health

Australia has provided over A\$250 million²² in health sector assistance to Papua New Guinea since independence, 78% of which has been provided in the past five years²³. This level of funding represents about 70% of all donor health sector funding in Papua New Guinea, suggesting that Australian aid has been a key contributor to the country's health improvements. More than 25% of Australia's aid has been provided through the Health Services Support Program, a sector-wide initiative that has grown significantly in the past three years. A further 20% has supported improvements in management and administration within Papua New Guinea's health sector.

AusAID's support in the health sector and for the development of Papua New Guinea's Health Sector Improvement Program (HSIP) has resulted in some significant recent achievements. The mutual goodwill developed by Australia's commitment to HSIP and its more flexible funding modalities were critical factors in allowing the rapid and sustained growth in health expenditure over the past three years. The commitment to move towards a sector-wide approach and the subsequent reforms to aid delivery heralded by HSIP are substantially responsible for the recent increase in donor support to the sector. Increased resources have been flowing to the sector, there is greater policy engagement, and the National Department of Health and other donor partners are increasingly focusing on performance. Structural changes and new planning and performance information mechanisms are providing the basis for improved decision-making, resource allocation and accountability. Without HSIP it is unlikely other donors would have continued to be engaged.

The most recent health sector study has found that increased donor funding in recent years has not translated into improved health services or positive changes in health indicators. What it has done, however, is prevent a decline in sector performance that more than likely would otherwise have occurred, given the state of service delivery and the severity of budget constraints. In essence, Australian aid has been helping to keep a collapsing health system functional, by providing essential health infrastructure and equipment, pharmaceuticals, immunisation, health education, institutional strengthening, technical assistance and training.

22 This does not include A\$13.8 million in support of water and sanitation infrastructure and services, which are also vital to improved health.

23 1997-98 to 2001-02.

BOX 5.5 HEALTH IMPACTS OF AUSTRALIAN ASSISTANCE

- Some evidence of a reduction in the number of deaths per 100,000 from malaria and pneumonia between 1996 and 2002, coinciding with increased Australian support across the health sector, including a \$9 million project to field test an Australian candidate malaria vaccine and provide associated training and equipment.
- Provided substantial support for immunisation against polio, triple antigen, tetanus toxoid, measles, tuberculosis and hepatitis B, including vaccine supplies, helping to arrest the decline in immunisation coverage after a fall in rates during the mid 1990s.
- Immunised over 600,000 children aged under 5 years against polio. Polio has now been eradicated in PNG.
- Supplied drugs, vaccines and supplies essential to treating conditions such as malaria, pneumonia and diarrhoea to over 500 health centres in 20 provinces, including 600 basic medical equipment kits and over 4,000 essential drug kits.
- Conducted mobile health clinics and patrols in 8 provinces, immunising children against tuberculosis, polio and measles and providing antenatal care to mothers.
- Rehabilitated PNG's vaccine storage and distribution system.
- Trained staff at 40 clinics in HIV/STD testing procedures.
- Completed the first Demographic Health Survey in PNG, covering 19 provinces. The survey provides a significant database for planning future initiatives in reproductive and population health.
- Provided approximately \$5 million in goods and associated services, such as surgical equipment and supplies, ward furniture, administrative equipment such as computers, and ambulances, and an additional \$3 million in biomedical equipment to provincial hospitals.
- Completed emergency repairs to make medical equipment at 19 provincial hospitals operational.
- Reconstructed priority rural health facilities in four provinces, including installation of solar panels, water tanks, water supply lines and bore pumps; renovated general and maternity wards; and constructed or rebuilt housing, toilets, laundries and kitchens.
- Upgraded four base hospitals.
- Established 20 new provincial vaccine stores, and rehabilitated 222 health facilities, including district vaccine stores.
- Constructed and equipped 10 new STD clinics.
- Improved the level of HIV/AIDS awareness in selected urban and peri-urban areas in PNG from 80% to 97%, increased condom usage from 35% to 42%, and increased the rate of individuals seeking AIDS tests from 9% to 18%.
- Mobilised over 150 community and church groups to conduct HIV/AIDS awareness programs.

- Provided core funding to the PNG Institute for Medical Research in recognition of its contribution to malaria research, as well as broader disease control studies, including in the area of HIV and pneumonia and operational research supporting health delivery.
- Enhanced operational efficiency of hospital services in 5 base hospitals, through a number of planning, administrative, financial and human resource management improvements.
- Provided technical assistance for development of annual work programs, budgeting and financial management in 6 provincial hospitals and 20 provincial health departments.
- Improved and broadened the skills and knowledge base of PNG medical students, specialists, and residents by providing Australian medical specialists for short periods each year for cost-effective in-country training and consultancy services to hospitals. This assistance has also yielded less tangible benefits such as goodwill between the medical professions of both countries.
- Established PNG's first degree-level health administration course.
- Introduced a new student-centred curriculum at the University of Papua New Guinea medical faculty.
- Provided extensive training for medical officers, including 99 specialist medical officers (there were no such PNG specialists in the early 1970s).
- Provided extensive training for nurses, biomedical technicians, rural health staff, hospital staff, specialist STD clinic workers, district health workers, health administrators, and hospital Board members and chief executives.

At this stage, higher order outcomes of individual health projects are difficult to measure because the vast bulk of Australia's programmed assistance in the health sector has only been provided in the last five years, and improvements in key health indicators tend to take place over a much longer time frame. Also, it is difficult to isolate the effects of individual projects on health indicators, since there are many other factors that can affect health status, such as access to clean water, health education, access to transport networks, etc. According to the Health Sector Monitoring and Review Group, the health system is only responsible for about 20% of the impact on mortality etc, with most impact attributable to external factors. Further, there is evidence that population figures were miscalculated during the 1990 census, which will have affected the reliability of a number of commonly used indicators of health trends. With these caveats, examination of improvements in social indicators (see Section 1) indicates that, while Papua New Guinea's health status remains extremely poor when compared with other similar countries, there have in fact been a number of marked improvements since independence. Life expectancy, while still low, has improved significantly. Infant and child mortality rates have

also improved²⁴, and there is evidence of a reduction in some preventable diseases such as malaria and pneumonia. Likewise, there is some evidence that improvements have followed aid interventions. For example, deaths from immunisable diseases have reduced in periods following major donor-funded immunisation campaigns in Papua New Guinea.

5.4 Infrastructure

In total, Australia has provided A\$0.5 billion to support infrastructure development in Papua New Guinea, more than 80% of which has been in the transport sector, particularly roads and civil aviation. Analysis of Papua New Guinea's performance in the infrastructure sector, and the contribution of Australian aid, indicates that the main impacts have been related to preventing rapid decline of essential infrastructure. Government funding for road maintenance, for example, has consistently been inadequate since the late 1980s, if not earlier. The bulk of Australian aid for infrastructure since 1993 (some \$320 million) has been spent maintaining and rehabilitating roads and bridges. This has been sufficient to cover about 25% of the national road network. Other donors are also providing substantial assistance to maintain land transport infrastructure. Papua New Guinea's economic performance would have been even worse without this support, given the key role of accessible roads in enabling commercial activity, and the country would have faced much higher risk of social tension and instability. Yet even this volume of aid is insufficient and, in the current fiscal environment, unsustainable. Overall, roads are continuing to deteriorate rapidly, and this is affecting other basic services that depend on land transport for access (such as health and education facilities). It is also imposing further constraints on private sector and rural development, and efforts to achieve social cohesion. Even under an optimistic scenario, where adequate internal funding is available for maintenance and upgrading of existing infrastructure, Papua New Guinea will face significant challenges well into the future in being able to maintain its existing road network, let alone finance new major roads that may have high economic returns.

Likewise, in civil aviation, Australian assistance has been instrumental in ensuring the national airline carrier (Air Niugini) could continue operations over several years since independence. Unfortunately, these achievements have yet to prove sustainable, and the situation remains tenuous. As recently as mid-January 2003, Australia's Civil Aviation Safety Authority threatened not to renew Papua New Guinea's Air Operator's Certificate²⁵, over concerns about safety standards.

24 Deeper analysis of these statistics is needed before firm conclusions can be drawn, as discernible trends differ depending on the data source used.

25 Extended for three months from 31 January 2003.

BOX 5.6 KEY ACHIEVEMENTS OF AUSTRALIAN AID FOR INFRASTRUCTURE

Roads & Bridges

- Upgraded or maintained approximately 25% of the national road network (2,130 kilometres of rural roads and highways).
- Upgraded or replaced 18 bridges, and provided maintenance for 60 bridges across 11 provinces.
- Constructed 7 remote footbridges.
- Constructed one wharf.
- Provided training for 112 Department of Works staff.
- Improved road design specifications, and construction and maintenance documentation.
- Rebuilt 21 kilometres of urban roads in Lae, together with associated works.
- Rehabilitated and maintained roads on Bougainville, including 302 kilometres of the coastal trunk road, 25 kilometres of feeder roads and the repair of 45 bridges and causeways.
- Upgraded rural roads (44kms) and the highway (4.6km) for Kokopo township, following the Rabaul volcano eruption.

Civil Aviation

- Maintenance of 19 of 22 of PNG's national airports since 1992.
- Established and supported PNG Civil Aviation Authority, including through provision of training in engineering and technical design, construction supervision and management, and administration.
- Upgraded 3 airports.
- Resealed 9 airstrips.
- Installed 17 navigation facilities.
- Improved maintenance management systems and procedures.
- Upgraded communications systems.
- Improved aviation safety.

Other Construction

- Provided major infrastructure for Kokopo township to assist victims displaced by the volcanic eruption at Rabaul, and construction of a high school, 3 community schools, 4 community resource centres, a business college, police headquarters, police station and police accommodation.
- Enhanced water security for more than 6,000 people in Lae through installation of storage tanks to double water supply capacity to 26 million litres.
- Restored radio services to Bougainville province to support the peace process.

5.5 Renewable Resources

In total, Australia has provided aid totalling A\$200 million since independence, mainly in support of agricultural development and research, but also across all other renewable resources sub-sectors. Australia's assistance has been limited to specific priority concerns, and has covered a very wide range of issues, making it difficult to isolate the impact of Australia's contribution to improved development performance at a higher level. Also, broader impacts have not been well documented in individual project reports. Nevertheless, from the major project outputs that have been documented, it is possible to conclude that Australian assistance has been carefully targeted to address some issues of critical importance. One can infer from the success of these aid activities that this aid has achieved some positive development impacts.²⁶ For example, Australian aid was instrumental in developing and introducing cost-effective strategies and technologies to deal with the serious problem of coffee rust. While objective data on the impact of this are not available, these initiatives increased the quantity of coffee produced by plantations and smallholders, presumably increasing the revenue from this important crop.

BOX 5.7 IMPACTS OF AUSTRALIAN AID ON THE MANAGEMENT AND PROTECTION OF RENEWABLE RESOURCES

Agriculture

- Developed a world first laboratory scale micro-fermentation system, enabling a "quickenning" of the cocoa clone development cycle. The system was claimed to be useful internationally for assisting with the release of improved cocoa clones. The revised breeding program was expected to lead to improved clones in the late 1990s which, if and when fully adopted, would increase export values by over \$1 million per annum.
- Improved the quality of cocoa through development of a mini-box fermenter, an appropriate farm-level processing technology that was expected to add about K80 per tonne to the value of cocoa. From a smallholder's perspective this would equate to an internal rate of return of between 9 and 15%.
- Rehabilitated some 500 copra and cocoa driers on Bougainville, significantly increasing potential farm incomes and local community business opportunities.
- Developed appropriate, lower-cost coffee rust spraying technology valued at almost K1.0 million per annum to the plantation sector, with no negative impact from chemical residues.

26 Although this rapid assessment has not had time to examine this area in depth, it appears likely from the achievements documented that Australia's aid has probably had disproportionate positive benefits, ie. greater benefits from lower but very targeted expenditure.

- Reduced the incidence of coffee rust amongst smallholders by facilitating widespread adoption of coffee pruning, increasing yield potential by an estimated 13%.
- Reduced soil erosion in coffee gardens and stream pollution by coffee pulp waste.
- Introduced taro varieties less susceptible to taro blight.
- Improved research capacity within the National Agricultural Research Institute (NARI) and ensured an appropriate focus on food security and improving agricultural sector income earning opportunities.
- Improved productivity in the agricultural sector, notably in pest and crop disease management, through Australian Centre for International Agricultural Research (ACIAR) research outcomes.
- Identified, documented and mapped detailed information on smallholder agricultural farming systems for the whole of PNG.
- Established a good network between the PNG and Australian quarantine agencies.

Forestry

- Generated a five-fold increase in recoverable timber in Kandrian-Gloucester through successful demonstration of the natural reforestation method. Also increased forestry incomes through better application of reforestation levies, payments to local people for timber, a micro-credit scheme for women and purchase of Galip Nuts.
- Enhanced the capacity of forestry sector personnel in technical and professional areas, landholder education and industry technical skills development

Fisheries

- Strengthened the capacity of the National Fisheries Authority's College in Kavieng to meet the human resource needs of the PNG fishing industry. The national fishing industry has committed to taking graduates, and is funding its own staff to attend.
- Increased the number of graduates from National Fisheries College to 180 (up from 20 per annum).

Environment

- Developed a new Environmental Bill and Environmental Regulatory System with Codes of Practice.
- Successfully protected the Queen Alexandra Birdwing Butterfly in Oro province.

Vulcanology

- Upgraded volcano monitoring facilities run by the Rabaul Vulcanological Observatory.
- Strengthened capacity of the Rabaul Vulcanological Observatory to monitor and minimise the risks from further volcanic activity in this and other regions of PNG.

Land Use Management

- Established one of the world's first national computerised resource information systems, which is now taught at UniTech in Lae, and which has proved useful in catchment management planning.
- Developed the National Mapping Bureau to the point where it should be a sustainable commercial proposition.
- Produced a comprehensive series of provincial, district and statistical area maps for the national census, as well as a series of digital cadastral data base maps for the main urban areas.
- Improved rental income for the National Housing Commission by K2.4 million per annum from land not on the existing rent register, and identified an estimated K4.0 million per annum from currently vacant land, through production of better land records resulting from Land Data Verification Project.

6 LOOKING FORWARD

6.1 Sustainability

Much of the positive impact to date of Australia's aid has been in providing infrastructure, equipment, and basic services that, in the interests of sustainable development, should eventually be provided by the national government. While this use of Australian aid funds is ultimately unsustainable, there is little doubt that it has been necessary to prevent further declines in basic service delivery and living standards – and it has achieved significant results in terms of outputs and impacts in this regard.

Papua New Guinea today is in a difficult economic and social situation to achieve sustainable development. The systems of government are very weak; financial mismanagement over many years has left the country confronting its most difficult fiscal environment to date, and poverty remains extensive. There are numerous areas in which successive governments could have taken a much more proactive and determined approach to pursuing fiscal and development goals, and some of these are identified in this report. The opportunity cost for Papua New Guinea in using Australian aid funds to deliver basic government services has been that these aid funds have not been available for activities that might accelerate development or assure sustainable future economic and social progress.

At the same time, expectations of what Papua New Guinea could or should have achieved since independence need to be tempered in recognition that it is still a very young country. Stable and sustainable development, and a cohesive cultural identity, evolve over generations. Culturally, Papua New Guinea is one of the most diverse countries in the world, with 832 living languages. The mountainous terrain that separates many groups makes adequate infrastructure provision extremely difficult and costly, and perpetuates the strong tribal loyalties that have existed over centuries. Although Papua New Guinea has now been an independent nation for 27 years, most of the population still has little sense of national identity. Papua New Guinea has also had to deal with numerous major external shocks since independence, each one causing a realignment of economic and social development priorities, and each one further weakening an already fragile young nation.

The sense of understanding that Australian budget support did not promote genuine self-reliance, developed over a number of years in Papua New Guinea. Prior to that, the difficult choice to move away from budget support grants competed with the short-term attraction of assured and untied funding. In many ways, Papua New Guinea faces a similar decision today in relation to the financing of its recurrent budget requirements. There is no doubt that Papua

New Guinea needs donor financing for maintenance, essential equipment and basic service delivery in its present circumstances. But this is, in effect, a more conditional form of budget support. In the interests of self-reliance, Papua New Guinea will need to consider the desirability of continuing reliance on such aid. In addition to being unsustainable, donor financing to meet recurrent budget items over the longer term could well entrench dependency.

The scale of Australia's continuing role also raises questions about prospects for self-reliance in Papua New Guinea. In spite of various efforts to expand Papua New Guinea's range of donor partners, Australia remains very much the dominant influence. Even if inadvertently, this dominance is likely to skew aid programming and implementation priorities in Papua New Guinea in favour of Australian priorities, working against efforts to promote local ownership. Continued attention to broadening Papua New Guinea's donor base is in both countries' interests, and would enhance Papua New Guinea's prospects for sustainable development and self-reliance.

The gradual shift from project aid to a program approach through the 1990s was specifically structured and managed to help reduce absorptive capacity problems and thus improve the prospects for generating sustainable development gains. This was a mammoth task given the volume of Australian funding to be absorbed in development programs rather than the recurrent budget, magnified further by increasing economic and social problems. However, it was considered necessary to enhance prospects for the sustainability of aid activities over the longer term. Traditional project structures have often imposed parallel management systems and overburdened already weak capacity within Papua New Guinea. They have also been too dispersed, often putting pressure on marginal areas. These are criticisms that can be levelled at all donors in Papua New Guinea, and are not specific to Australian aid. They have led to negative impacts in areas such as capacity building and priority setting, reducing prospects for sustainability. Within a program approach, joint programming seeks to ensure local ownership of activities and is targeted to help strengthen Papua New Guinea's own capacity to deliver basic services. It is still too early to judge Australia's impact on improving absorptive and delivery capacity through these programs, many of which are still underway. However, the emerging trend towards sector-wide approaches that are led by Papua New Guinea, and more fully integrated with its own policy and program priorities, will further assist this process.

Australia's role as a major aid donor must be to respond to the country's development needs, providing services and facilities where they are needed to prevent declines in living standards while, at the same time, helping to build Papua New Guinea's capacity to deliver these services itself. Australia fully

recognises that Papua New Guinea's longer-term future depends on improving its fiscal and administrative management capacity, its skills base, and its revenue sources. This is obvious from the progressions that have occurred since Papua New Guinea obtained independence in both Australia's aid strategies and the changing nature of its delivery mechanisms. Australian aid has a role to play in each of these areas, so that Papua New Guinea can achieve self-reliance and begin focusing on initiatives to accelerate the country's growth, rather than simply maintaining current levels of development. Recent fundamental changes in the emphasis of Australia's aid program, such as increasing the degree of Papua New Guinean participation in and ownership of aid activities, integrating aid funding within national policies and programs, and developing workable cost recovery systems, will all be important elements in achieving this progression towards sustainable development within Papua New Guinea.

6.2 Improving Impact and its Measurement

At present, the data available to assess the impact of Australian aid in Papua New Guinea are very limited, and their reliability is questionable. In Australia, until the late 1980s, the success or failure of aid interventions was assessed primarily against *efficiency* and *input*-based criteria. The development and use of performance indicators to measure the *effectiveness* of aid programs and interventions was an initiative first introduced around 1987, as part of the Australian Government's adoption of program budgeting. Performance measurement processes evolved through the 1990s, with increasing emphasis given to measures of the effectiveness of activity *outputs*.

Beyond this, the very recent introduction of benchmarks or milestones is an attempt to develop more complete performance information, including of broad development *impacts*. This effort is complicated by the fact that economic and social statistics are often very weak in developing countries, and reliable baseline data are rarely available. This is certainly the case in Papua New Guinea. Baseline data are still being sought or developed to allow reliable assessments of the broader development impact of aid to be undertaken in future. At present, efforts to attribute development advances and failures to the work of aid donors can only be based on trends and often subjective judgements.

Even when accurate information is available, it is important to recognise that the question of determining the broad development impact of aid funding is extremely complex. A multitude of factors influence a country's growth and development. Aid is never the sole factor determining development results. It is not usually even the primary factor. Even countries that are highly aid dependent have a strong desire for self-determination, and aid programs can

only assist within the context of the partner government's own policies, practices and management capacity.

The need for much more rigorous monitoring, measurement, and evaluation of Australian aid is crucial given the volume of Australian funding for Papua New Guinea's development since independence, and its significant development challenges. Such performance information needs to be accessible not only at the activity and sector level but also, importantly, at the broadest level, in the context of Papua New Guinea's development policies and development progress, as well as in the context of Australia's own objectives.

AusAID already has a range of systems in place that could be used to improve the quality of baseline data and regular monitoring and assessment of project and sector-level performance. At present, logical framework matrices (logframes) are prepared for all aid activities, which identify performance indicators and link these to higher order objectives as well as to project-specific outputs. These should (and usually do) establish a framework for the sort of baseline data that ought to be collected, and the extent of ongoing monitoring that would be required to assess performance against impact indicators. The results of such monitoring should routinely be documented as part of the existing reporting requirements for projects. This would then allow more effective impact assessment of project outcomes and achievements at project completion. It would also provide a valuable basis for the conduct of subsequent ex-post or cluster evaluations.

The Project Completion Report (PCR) format in *AusGUIDE* explicitly requires the managing contractor to make a preliminary judgement about the impact of the activity. In practice however, most reporting is confined to specific, verifiable outputs. Few project completion reports comment on broader development impacts and, where they do, the comments tend to be confined to unsubstantiated assertions. This is probably because baseline data were not required to be collected at the outset of most projects, making subsequent performance assessment difficult. The paucity of performance information is also a function of the very small number of ex-post evaluations that have been done.

Improving the information base on which to assess the development impact of Australia's aid requires some relatively straightforward changes in AusAID's current processes, to develop an integrated monitoring and evaluation system.

For example, design teams should be required to identify appropriate baseline data to allow measurement of performance and impact as well as outputs. If not done during the design phase, the conduct of a baseline survey should be a priority during the inception phase of project implementation. This process should document the methodology required for the project to monitor changes

in the baseline indicators over the life of the project. Depending on the sector and the project, this monitoring may need to be done by the managing contractor, with reporting required through current mechanisms (eg, annual plans, six-monthly reports). Alternatively, it may be done more appropriately through mechanisms such as mid-term reviews, technical advisory groups, sector monitoring and review groups, or evaluations. Some sector programs within AusAID's PNG Branch are already developing systems that will go some way toward improving the performance information available to AusAID, such as a more rigorous approach to developing and using monitoring and evaluation frameworks. Where these are being developed, it is important that they be in place as early as possible in the life of a project.

AusAID's move to in-country management will facilitate monitoring and evaluation of program outcomes, and increase dialogue on program performance with the Government of Papua New Guinea.

A number of activities, such as in the renewable resources or infrastructure sectors, lend themselves to quantification of benefits through use of cost benefit analysis (CBA). Ignoring for the moment the desirability of using CBA as a planning tool at the feasibility study stage, it may be worth considering more systematic use of CBA for appropriate projects at the completion or evaluation stage. Activity guidelines in AusAID already specify that:

"When possible and essential to determining the worth of a project, calculate the financial rate of return (FIRR) and the economic internal rate of return (EIRR), and compare these with that estimated at the time of project design."²⁷

In the interests of isolating and estimating the economic and financial impacts of activities, it would be highly desirable for project completion reports to be required to calculate the FIRR and EIRR wherever practicable.

Once effective systems are in place to gather performance information beyond the output level, it is important that AusAID systematically monitor the collection and periodic review of such data through appropriate systems. AusAID has not required impact-level data until very recently, and has not monitored or supervised this aspect of project reports closely. Nevertheless, a range of systems is already in place in AusAID that could be used to facilitate this process easily.²⁸ Systematic monitoring and reporting of project and sector-wide outcomes and impacts of Australian aid activities would enable more rigorous analysis of performance against higher order development goals. This would allow defensible conclusions to be drawn, to the benefit of future policy and programming decisions.

27 AusGUIDELines 13 – Preparing Project Completion Reports.

28 For example: annual plans, activity monitoring briefs, mid-term reviews, technical advisory groups, sector monitoring and review groups, and project completion reports.

Both within sectors and more broadly, as the quality of available performance information improves, consideration should be given to strengthening the performance milestones used at the highest level of scrutiny of the Papua New Guinea – Australia aid program, ie. Treaty indicators. It has not been possible in this paper to analyse whether the current Treaty indicators are proving valuable but, in a general sense, Australia should encourage use of milestones and indicators at this level, to help build ownership and capacity within Papua New Guinea itself to assess the impact of donor support on development.

7 FINDINGS AND RECOMMENDATIONS

Papua New Guinea's development record to date is generally regarded as poor because, by international standards and in comparison to similar countries, its level of development remains extremely low based on most key economic and social indicators. Nonetheless, improvements have been made in the standard of living. While there are some differences between data sources in the estimated extent of the improvement, it appears reasonable to conclude that key social indicators have improved substantially since independence.

These improvements have been achieved despite some deep-rooted development constraints, including consistently weak government capacity for service delivery, a deteriorating law and order situation over many years, an unstable political environment, and a firmly clan-based civil society.

Quantitative analysis of the sources of development is precluded by a shortage of reliable data. But because these development gains are to an extent dependent on the quality of public programs, it appears reasonable to attribute at least some of the improvements to effective public programs. In reaching this conclusion, it is important to recognise that credit for the gains in development should also be shared with the communities themselves, the NGO movement and, in particular, the churches.

At an aggregate level, it is not really possible to separate out the effects of Government and donor-funded programs. For much of the period there was essentially no difference, with most donor funds provided by Australia as budget support. However even under program support there are insufficient data to distinguish the effect of government versus donor programs through aggregate analysis. But by implication, it appears reasonable to conclude that aid has generated at least moderate development returns in improving the efficiency, effectiveness and impact of key public programs. It follows that it appears reasonable to conclude that aid has made a significant contribution to alleviating poverty. Education and health are important dimensions of the poverty problem, so the improvements made over time to the standards of education and health are likely to have eased poverty over time.

In reviewing these conclusions, the implications of fungibility need to be kept in mind. A widely held concern is that by boosting the funding available to the budget and relaxing the budget constraint, aid may have seen some low value or inappropriate activities or practices emerge that otherwise could not have been afforded. So even though aid may be allocated to a specific, desirable expenditure, the total impact also needs to consider the consequences of any expenditure that is in effect indirectly funded by aid.

However, it seems reasonable to argue that the poor state of governance would have seen at least some of the inappropriate practices take place even in the absence of aid. A key factor in this regard is the ability for MPs to be elected on only a small share of the vote gain in their electorate. This has created a bias towards expenditure that channels funding to selected groups rather than the electorate as-a-whole and provides opportunities for other means of gathering support. It follows that it is unrealistic to have expected the same level of funding for high priority expenditures such as basic education and health care as was actually seen in the presence of aid. So while aid probably has indirectly funded some inappropriate activities, it appears reasonable to argue that aid also achieved a net increase in funding to important expenditure.

Papua New Guinea's main shortcoming has been in terms of growth. Overall the growth that has been seen is mainly attributable to population growth and, on a per capita basis, there has been little or no growth. Aid may have played a role in preventing a worse outcome, but it cannot claim to have achieved growth. It appears that, despite improvements to human capital, the country's economic potential has been constrained by the poor policy and institutional environment and public infrastructure.

This rapid assessment has highlighted the importance of further research into Papua New Guinea's development record and the contribution of Australian aid. In particular:

- i. There is a need to clarify the accuracy and comparability of the main indicators of development. This assessment has been based on the best readily available approximations of the indicators established under the Millennium Development Goals (MDGs). The World Development Indicators (WDI) is used as the primary data source in the analysis. For some indicators, data from the 1998 Human Development Report shows a less favourable outcome. There would be considerable value in ensuring agreement between the Government and the main donor agencies as to the data that will be used to measure performance against the MDGs.²⁹ It would also potentially be useful to investigate the basis of Papua New Guinea's ranking as a low middle-income country. This ranking in the face of social indicators of the low-income countries is seen as evidence of poor performance, but the conclusion may be misleading, particularly recognising the highly dualistic nature of the economy in Papua New Guinea.
- ii. There is an opportunity to bridge the gap between the preliminary, positive interpretation offered by the aggregate data and the detailed sectoral data through a more detailed analysis of sectoral achievements. This examination need not examine the full range of activities, but could instead focus on areas offering a rich source of information on lessons

²⁹ It is noted that such work may already be underway.

learned. A good example would probably be the tracking of the immunisation program since independence.

- iii. It may be possible to shed more light on the determinants of growth and development, and the contribution of aid, through provincial or local-level analysis. Detailed time series analysis is largely precluded by the absence of poor quality of data on growth and its key determinants. However, it is possible that productive research could be undertaken on cross-sectional (and perhaps pooled) data drawing on the provincial or local level data. For example, analysis of the local level data (eg, on cash incomes, employment) provided by the census could provide useful insights into the growth process.
- iv. Treaty Indicators – The findings of assessments undertaken to date against the various Treaty indicators were not available for this rapid assessment. Thus it has not been possible to comment on their quality or value for current or future impact assessment. Such analysis, through discussion with the Papua New Guinea Government and AusAID’s PNG Branch and Post, would be helpful.
- v. Budget Support – A more detailed assessment of the impact of Australian budget support would require analysis of Papua New Guinea government expenditure by sector during these years.
- vi. Comparisons – A more detailed impact assessment of Australian aid could compare development performance in certain areas for provinces and sectors in which Australia has not played a major role.
- vii. Poverty – A useful suggestion by an independent peer reviewer of the draft of this report is to explore systematically the impact of Australian aid on poverty. This is a complex issue, beyond the scope of this rapid assessment, but well worth pursuing.
- viii. Education – More detailed analysis of the impact of scholarship programs would be of value. It is understood a tracer study is planned.
- ix. Health – It is difficult to locate reliable anthropometric data on, for example, height for age, or weight for height, for Papua New Guinea. It is possible such data have not been collected, however references in other research suggest such data may be obtainable, for instance from the 1996 PNG Household Survey and the 1982 Nutrition Study. The National Department of Health collects data on weight for age, although it appears this has only been the case since 1997.
- x. Infrastructure – Based on available information for this rapid assessment, the report tends to focus on road maintenance issues rather than on new investments. At the same time, it appears there are reports that support the economic benefits of constructing certain new roads in Papua New Guinea. In the time available, it has not been possible to analyse the history behind the shift in policy toward giving priority to maintenance. It would be

useful to document the findings of such analyses, if they are available. For example, while the logic of focusing on maintenance issues is clear, has the economic benefit of maintaining existing roads been quantified and compared with the alternative of letting the state of certain roads decline while investing in certain new roads?

- xii. Renewable Resources – Time constraints have not allowed adequate analysis of Australian aid in this sector. Although less significant in volume terms than other sectors, it is clear from the projects that have been summarised that Australian aid has been of enormous value in specific priority areas. It is likely that, if completed and expanded, a range of other impacts of Australian aid could be identified. Given the importance of this sector to Papua New Guinea's future sustainable development, further analysis may be of value. This should include consultation with ACIAR.
- xiii. One specific project that may be worth further evaluation is the Cocoa Quality Improvement Project. Indications at project completion were that this project had the potential to yield significant gains in terms of increased export values and improved smallholder returns, and early estimates suggested a quite favourable economic outcome. The Project Design Document (PDD) estimated a 23% EIRR (which is very good for agriculture), but the EIRR was not recalculated at completion.
- xiv. Non-Government Organisations – Limited time and information have precluded detailed analysis of Australian aid provided through NGOs. There is an assumption that they are a better delivery mechanism in various circumstances, but this needs further analysis. In particular, difficulties of sustainability need to be addressed.
- xv. Sustainability – Future programming would benefit from further analytical work to identify strategies that can help improve the prospects for sustainability of aid activities in Papua New Guinea. Existing strategies such as joint programming, incentives-based activities, and the integration of activities within Papua New Guinea's own policy framework are important initiatives. But achieving sustainability in Papua New Guinea is an extremely complex endeavour, the success of which will depend on turning around some deeply-rooted cultural constraints, such as the lack of a real sense of nationhood and the widespread acceptance of corruption. Program strategies and activity designs need to be developed which directly target improvements in these areas. For example, structural efforts to reduce corruption (such as tightening procurement procedures) will, in and of themselves, change little. They need to be combined with strategies to change the *attitude* towards corruption. Such attitudinal change may then allow development programs to harness cultural systems such as the *wantok* system to work for the benefit of development in Papua New Guinea.

- xv. Performance assessment – There is considerable scope to improve the quality of impact information available to AusAID, building on best practice systems and processes that already exist within the Agency but which are not followed (see Section 6.2). Greater investment in baseline studies, performance measurement and formal evaluations would not only improve the quality of performance information available, but would also contribute to improved activity targeting and design over time.

ANNEX A EVOLUTION OF AUSTRALIAN AID OBJECTIVES IN PAPUA NEW GUINEA

| Year | Catalysts | Objectives | Priorities |
|------|---|---|--|
| 1975 | <ul style="list-style-type: none"> • Independence • Somare Government emphasis on equity and stability, rather than growth | <ul style="list-style-type: none"> • To assist PNG achieve a smooth transition to independence and enable it to continue its development strategies in the post-independence period. | <ul style="list-style-type: none"> • To enable PNG to set its own development priorities • To bridge the resource gap between PNG's high investment requirements and low savings • To ensure PNG is able to maintain a stable, viable and united country after its rapid transition to independence |
| 1980 | <ul style="list-style-type: none"> • High expectations for minerals sector • Crawford Review | <ul style="list-style-type: none"> • To enable PNG to pursue its economic development policies with assured funding while, at the same time, meeting its stated objective of self-reliance. | <ul style="list-style-type: none"> • To reduce budget support gradually and predictably |
| 1982 | <ul style="list-style-type: none"> • Impact of world recession affects PNG economy, particularly mining sector – fall in gold price, declining Bougainville Copper profits | <ul style="list-style-type: none"> • To provide PNG with a practicable framework in which to plan its development. | <ul style="list-style-type: none"> • To ease the rate of decline of budget support |
| 1986 | <ul style="list-style-type: none"> • Introduction of project aid • Wingti Government emphasis on economic growth, away from social services | <ul style="list-style-type: none"> • To accelerate progress towards self-reliance. • In addition to budget support, to introduce a country program utilising a range of instruments (projects, training, scholarships, and technical assistance). | <ul style="list-style-type: none"> • Revenue generation • Institution strengthening for key economic departments • Technical assistance for state enterprises • Management development in the Departments of Health, Works, Police and Justice. |

| Year | Catalysts | Objectives | Priorities |
|------|---|---|---|
| 1989 | <ul style="list-style-type: none"> • First Treaty • Namaliu Government | <ul style="list-style-type: none"> • To promote self sustaining economic growth with equity and contribute to PNG's stability and social cohesion. • To reduce progressively the overall level of Australian aid, shifting from budget support to project aid. • To maintain support within Australia for aid to PNG. • To consolidate the geographic spread of Australian aid and achieve an appropriate balance in sectoral emphasis between projects supporting economic growth and those supporting social development. | <ul style="list-style-type: none"> • Human resource development and institution strengthening, especially at provincial level • Rural development • Civil aviation • Forest & environmental management • Continued support for law and order projects • Revenue generation (taxation/customs) |
| 1995 | <ul style="list-style-type: none"> • Economic recovery program following 1994 financial crisis • Devolution to provincial governments | <ul style="list-style-type: none"> • To assist PNG meet its objectives of greater self-reliance, economic stability, social and gender equity and poverty alleviation. • To strengthen PNG's abilities to develop sectoral policies, improve basic service delivery especially in rural areas, foster investment and create employment. | <ul style="list-style-type: none"> • Health • Education & training • Transport & communication • Renewable resources • Law & justice • Private sector development |
| 1998 | <ul style="list-style-type: none"> • Recovery from major drought in 1997 • Restoration of peace on Bougainville | <ul style="list-style-type: none"> • To promote sustainable development, self-reliance, stability and social cohesion. • To assist with implementation of PNG's economic reforms. • To strengthen PNG's ability to improve basic service delivery especially in rural areas, implement development programs, foster investment and create employment. • To enhance PNG's capacity to plan for devolution of service delivery responsibilities to provinces. | <ul style="list-style-type: none"> • Maximising involvement of PNG agencies in delivery, including project funding through PNG agencies • Greater NGO involvement • Increased commodity supply <p>Same sectors, but emphasis on:</p> <ul style="list-style-type: none"> • Same sectors, but emphasis on: |
| 2000 | <ul style="list-style-type: none"> • Second Treaty • Budget support phase-out completed | <ul style="list-style-type: none"> • To relieve poverty and achieve sustainable development. • To introduce contestability among PNG organisations seeking aid funds. | <ul style="list-style-type: none"> • Strengthen governance • Improve social indicators • Build prospects for sustainable economic growth • Consolidate the peace process in Bougainville |

ANNEX B SECTOR BREAKDOWN OF AUSTRALIAN AID TO PAPUA NEW GUINEA, 1975–2002

| Sector Sub-Sector | A\$ (Nominal) | % of Sector Total | % of Programmable Aid |
|---|--------------------|-------------------|-----------------------|
| CIVIL SOCIETY | | | |
| Community Development | 37,436,329 | 33.8 | |
| Post-Conflict Peace Building | 58,925,748 | 53.2 | |
| Private Sector Development | 14,330,392 | 12.9 | |
| Sector Total | 110,692,469 | 100.0 | 5.4 |
| GOVERNANCE | | | |
| Economic & Public Administration | 159,064,406 | 37.1 | |
| Law & Justice | 240,202,725 | 56.1 | |
| Post-Conflict Peace Building | 29,239,560 | 6.8 | |
| Sector Total | 428,506,690 | 100.0 | 20.8 |
| EDUCATION | | | |
| Elementary, Primary, Secondary | 284,454,879 | 53.0 | |
| Management & Administration | 24,289,870 | 4.5 | |
| Non-Formal, Managerial & Teacher Training | 39,347,198 | 7.3 | |
| Technical & Vocational Education | 43,469,664 | 8.1 | |
| Tertiary | 145,605,949 | 27.1 | |
| Sector Total | 537,167,560 | 100.0 | 26.1 |
| HEALTH | | | |
| Basic Health Infrastructure | 11,017,121 | 4.3 | |
| Health Education | 20,127,238 | 7.9 | |
| Infectious Diseases | 35,797,894 | 14.1 | |
| Management & Administration | 51,439,498 | 20.2 | |
| Maternal & Child Health | 48,816,961 | 19.2 | |
| Medical Services | 19,259,987 | 7.6 | |
| Sector-wide Programs | 68,006,680 | 26.7 | |
| Sector Total | 254,465,379 | 100.0 | 12.3 |
| INFRASTRUCTURE | | | |
| Communications | 27,357,028 | 5.5 | |
| Housing, Construction, Urban Planning | 798,920 | 0.2 | |
| Management & Administration | 15,035,432 | 3.0 | |
| Cross-Sector | 56,308 | 0.0 | |
| Post-Conflict Peace Building | 15,195,144 | 3.0 | |
| Power & Energy | 4,101,567 | 0.8 | |
| Air Transport | 99,471,954 | 19.9 | |
| Land Transport | 311,811,400 | 62.4 | |

| | | | |
|---|----------------------|--------------|-------------|
| Water Transport | 11,990,866 | 2.4 | |
| Water & Sanitation | 13,751,017 | 2.8 | |
| Sector Total | 499,569,636 | 100.0 | 24.2 |
| NATURAL RESOURCES | | | |
| Agriculture | 65,774,649 | 32.9 | |
| Environmental Management & Protection | 14,263,316 | 7.1 | |
| Fisheries & Livestock | 5,884,783 | 2.9 | |
| Forestry | 38,316,575 | 19.2 | |
| Land & Water Resources | 34,478,895 | 17.3 | |
| Vulcanology, Geology & Mining | 7,739,679 | 3.9 | |
| Sector-wide Programs | 33,334,803 | 16.7 | |
| Sector Total | 199,792,700 | 100.0 | 9.7 |
| DONOR ADMINISTRATION | | | |
| Program Development, Administration & Review | 30,323,256 | 1.5 | |
| Total Programmable Funding | 2,060,517,690 | | |
| % of Total Flows | | | 25.4 |
| UNPROGRAMMABLE | | | |
| Budget Support | 5,515,792,500 | | |
| Other (retirement benefits, emergency relief) | 530,785,200 | | |
| Total Unprogrammable Funding | 6,046,577,700 | | |
| % of Total Flows | | | 74.6 |
| Total Aid | 8,107,095,390 | 100.0 | |

Included in the above figures is assistance to Bougainville. Separately identifiable assistance to Bougainville totals: 147,013,860

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The Contribution of Australian Aid to Papua New Guinea's Development 1975–2000

Evaluation and Review Series

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As part of a broader focus on improved learning and accountability, AusAID is taking steps to improve its ability to measure the effectiveness of the aid program to PNG. This report was commissioned as a background document to inform that exercise.

The key findings of the Report are:

- PNG faces serious development challenges, most notably a weak institutional environment with poor control of government spending and a serious law and order problem;
- However, PNG has made some development progress since independence, even in the face of stagnant per capita incomes;
- There is evidence that the aid program has contributed materially to development. For example, it has been central to education reform, prevented health system collapse and maintained some essential infrastructure;
- Many questions remain to be answered, and our capacity to complete a rigorous assessment of the program needs to be improved.

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