



NATIONAL ECONOMIC &
FISCAL COMMISSION

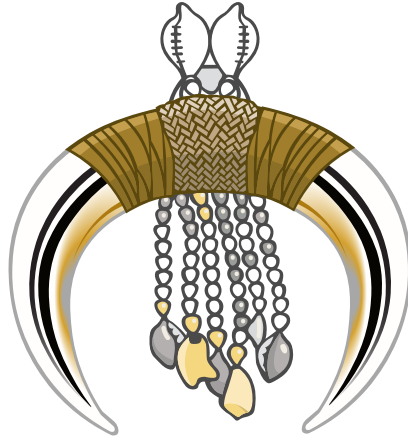


The THIN BLUE LINE 2020



Cost of Sub-national Services Study
Methodology & Results Technical Report
December 2022





DISCLAIMER

Cost of Services Report is a product of the National Economic and Fiscal Commission (NEFC). The findings, interpretations, and conclusions expressed in this work are based on data obtained from various sources including provinces and national agencies. Whilst the NEFC makes every effort to ensure that data sources are valid and reliable, the NEFC requests users to exercise caution including further validation when solely relying on the data, information, and analysis included in this report.



Foreword by **Chairman and CEO**

The *Thin Blue Line* describes the cost of sub-national government services – the amount that needs to be spent year-on-year to breathe life into the government's service delivery machine. The cost of services study continues to be a cornerstone in the intergovernmental fiscal architecture which supports Papua New Guinea's journey in adequately funding the administrative and service delivery activities at the sub-national level.

In 2020, the National Economic & Fiscal Commission in partnership with Departments of Treasury, Provincial & Local Government Affairs and Prime Minister and NEC, together with valued support from DFAT Australia conducted and completed the latest costing update exercise. The 2020 costing study provides an update to previous studies with the original study completed in 2005, and subsequent updates undertaken in 2011 and 2015. It establishes what it would cost in 2020 to fund the administrative and service delivery machinery that is located across the country in every province and district. You will see, in 2020, it includes the new sectors of Land Mediation, Forestry, and Disaster Management.

The study continues to look at the recurrent operational and maintenance costs that are necessary to support the capital infrastructure and personnel that are currently in place. However, we know significant investments continue to be committed to develop subnational infrastructure – with over K2.4 billion channeled through the SIP and PIP/DIP programs in 2023. These assets, both human and physical, represent a significant investment already made by our government and are two of the three critical components necessary to see the delivery of basic services. The third component is funding for operations and maintenance (O&M). O&M is the lifeblood that enables the human resources to conduct service delivery activities and maintains and operationalizes newly constructed infrastructure. The 2020 estimate of K1.17 billion in O&M costs is essential funding if the subnational levels are to effectively support the implementation of the Government's service delivery aspirations.

The study does not attempt to answer the question of equity as it relates to the adequacy of infrastructural assets (such as the number of schools) and the adequacy of staff (such as the number of teachers) in a given province. These are critical questions that merit exploration. The adequacy of provincial and district infrastructural assets should be improving, given the volume of investment, and merits analysis to determine our progress. What this study does seek to establish and communicate is the costs to deliver a standard set of basic services in every province in every district given the existing

personnel and infrastructure. In doing so it seeks to understand the cost relativities between the provinces as well as the specific costs in the sectors to inform the current system of intergovernmental finance, a system based on the principles of equity.

In this publication, we also identify the way forward, the steps we need to take to further strengthen our knowledge of costs, and to provide vital insight to Government in its current review of the intergovernmental financing arrangements, and in a variety of other key areas – including Provincial Health Authorities, District Development Authorities, Municipal and City Authorities, and the special arrangements with the Autonomous Region of Bougainville.

So, I trust you find this publication informative, it provides insight into the way the National Economic & Fiscal Commission approaches the task of establishing the cost of services that underpins the intergovernmental funding arrangements that have been in existence since 2009.

A handwritten signature in blue ink, appearing to read 'P. Kennedy Painap', with a stylized flourish at the end.

Patrick Kennedy Painap
Chairman and CEO
National Economic and Fiscal Commission



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Executive Summary

The NEFC report *The Thin Blue Line* in 2020 provides the latest results of the Cost of Subnational Services Study (O&M) that was carried out in 2020. The study is a key component in the design and the ongoing implementation of intergovernmental financing system in Papua New Guinea. This report discusses in detail the methodology, the technical inputs, and the results of the costs of administration and services for the different service sectors and administrative divisions in each province.



Key uses of the 2020 Update

The NEFC will now use the updated results as a basis in its various activities – in analysis, subsequent studies, and the advice and recommendations it provides to Government. Notably, the results will also be used as the basis for:

- Determining the allocation of grants to the subnational levels of government commencing with the calculations for the 2024 fiscal year.
- To inform the review of the intergovernmental financing system (IGFAR) that commenced in 2023 and is ongoing.

Features of the 2020 Update













The study continues to be highly conservative and is based on a minimum level of operational costs that relate to the subnational levels of Government – Provinces, Districts and LLGs. Notable features of the 2020 version of the study include:

- The use of the most recent data available (i.e., in infrastructure, facilities, prices, and staffing) to update the cost estimates.
- As part of the update, it now includes three new sectors – (i) Land Mediation, (ii) Forestry, and (iii) Disaster Management.
- The update also includes a refreshing of activity assumptions in specific divisions and sectors to ensure they reflect current practice in GoPNG in the 2020s. This follows, a robust series of consultations at the national and subnational levels of government.

Key Results

The high-level findings of the 2020 study are as follows:

Table 1: Comparing total cost estimates across the NEFC costing studies in 2011, 2015 and 2020

	2011	2015	2020	Percentag Change between 2015 and 2020 Costs	Percentage Share of Total Costs
	PGK millions	PGK millions	PGK millions		
Total Costs	 709	 852	 1,170		
Provincial Costs	 423	 531	 708	33%	61%
District Costs	 185	 198	 300	52%	26%
LLG Costs	 100	 124	 161	30%	14%

- Total costs, K1,170m an increase of 37% from the 2015 study
- Provincial costs, K708m
- District costs, K300m
- LLG costs, K161m

Figure 1 depicts the costs by sector. We can see that the estimated O&M costs in three sectors – education, health, and infrastructure – comprise 70% of the total estimated cost. The cost estimates in two other areas are significant – being administration (13%) and Primary Production (Agriculture, Fisheries and Forestry) together with Village Courts comprise a further 10%. Figure 2 then presents the costs by Province, at the provincial, district and LLG levels.

Figure 1: Total Costs by sector

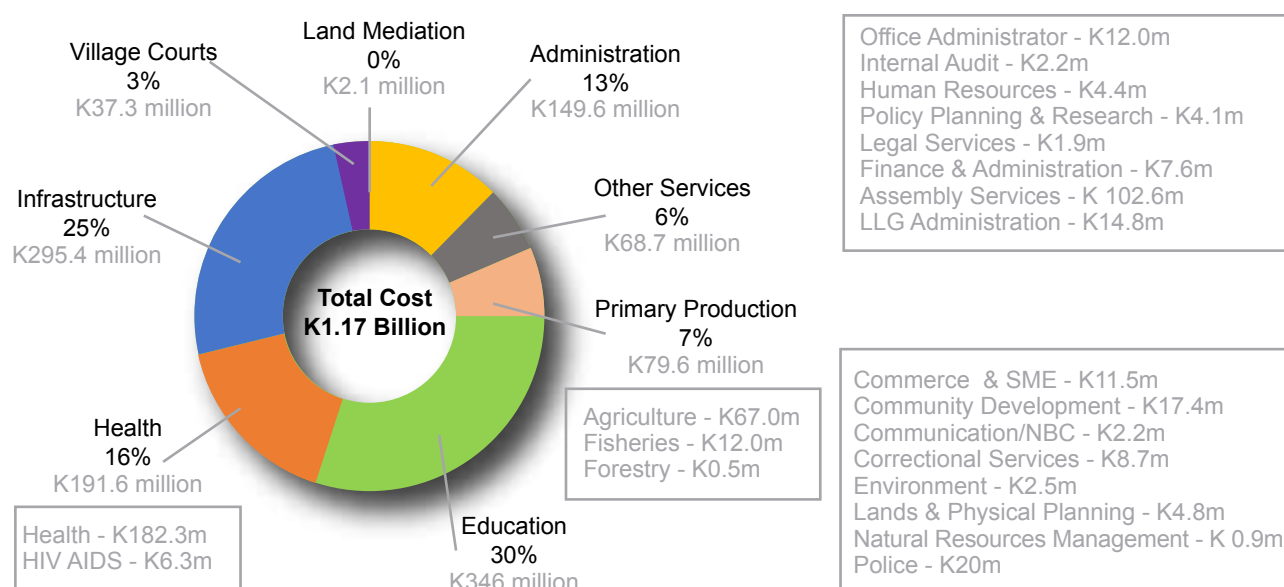


Table 2: Costs by province and level

Province	Provincial Costs	District Costs	LLG Costs	Total
Western	38,746,433	20,889,662	9,841,361	69,477,457
Gulf	17,397,391	11,308,547	4,399,292	33,105,230
Central	37,606,693	17,426,202	7,480,173	62,513,068
MBP	26,830,300	17,137,565	7,772,408	51,740,273
Oro	17,540,129	9,856,124	5,734,178	33,130,432
SHP	33,815,060	14,846,532	8,028,381	56,689,974
Hela	19,585,018	13,085,856	5,063,808	37,734,683
Enga	38,386,843	15,583,166	8,075,307	62,045,317
WHP	43,779,649	9,305,602	5,994,291	59,079,543
Jiwaka	29,705,359	8,209,233	5,144,383	43,058,976
Simbu	34,650,952	12,746,211	6,040,775	53,437,938
EHP	59,156,063	14,059,864	9,177,743	82,393,670
Morobe	62,306,322	24,295,296	16,839,738	103,441,355
Madang	44,889,422	21,286,783	11,848,717	78,024,922
ESP	60,531,599	19,360,761	15,387,507	95,279,867
Sandaun	30,717,698	20,028,106	13,782,713	64,528,517
Manus	15,765,272	5,455,346	2,055,600	23,276,219
NIP	21,048,974	11,333,234	3,696,112	36,078,319
ENB	37,455,333	12,206,038	8,434,261	58,095,632
WNB	38,915,091	21,926,812	6,463,108	67,305,011
Total	708,829,601	300,346,943	161,259,858	1,170,436,402

Strengthening future Updates

Since the early 2000s, and the original COSS in 2004, the NEFC has continued to work to better understand the diverse local operating context, and the challenges and cost of providing government administration and delivering services in PNG. There are a number of areas within the Cost of Services Study Model that could and should be reviewed and improved upon. This will involve a significant effort from NEFC in partnership with other agencies, subnational organisations, and wider stakeholders.

Specific tasks to improve the COSS and to expand the base and specifics of the study are listed below. These areas are discussed in greater detail in section 2.3.2 on page 18.

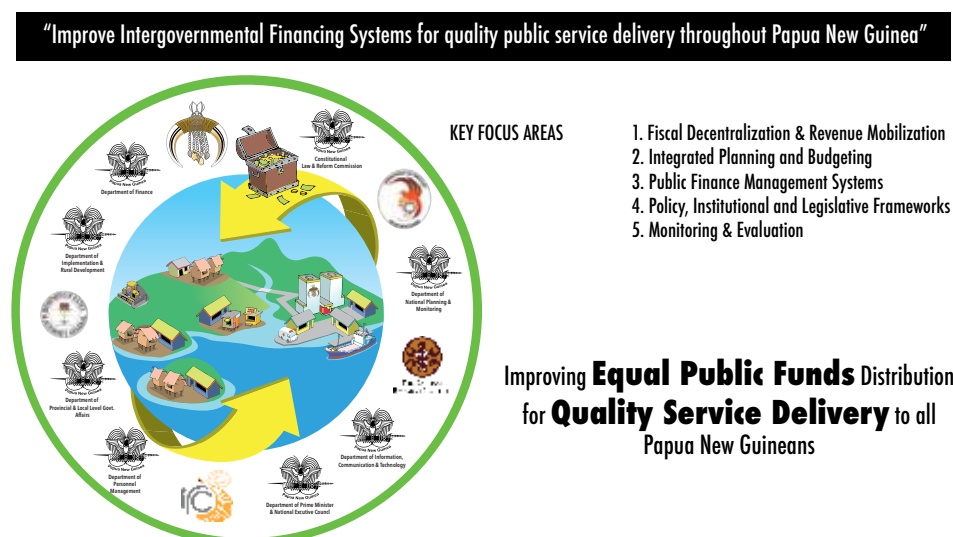
1. The ongoing task to refresh and update the activity sets and assumptions as and when policy and practice changes that relates to the functions of various sectors.
2. The integration of new Districts and new LLGs within the study as and when they are established and gazetted.
3. The COSS needs to evolve to raise the 'thin blue line', to the step above 'bare minimum', to ensure the various sectors and divisions receive the funding necessary to support an improving quality of public service.

4. A specific focus on the costing of Provincial Health Authorities to ensure the COSS reflects the current structure and practice within the health sector.
5. A specific focus on the costing of Municipal and City Authorities – to ensure the country’s growing urban centres have the funding needed to support urban administration and services.
6. A specific focus on the district level and District Development Authorities – to reflect the changes that have taken place since the introduction of DDAs.
7. Create a sustainable methodology for travel routes calculations – to ensure the travel model retains its currency and vitality.
8. Updating the register of sub-national infrastructure assets given limited data availability – a significant task that needs to be coordinated with other national agencies and partners.
9. Commence Bougainville Costing exercise as a special case study – to support the development of ARoB and the arrangements it has agreed with GoPNG.

IGFAR – reviewing the intergovernmental financing arrangements in PNG

The Government has issued a directive to central agencies to review the intergovernmental financing system that has been widely viewed as being strongly implemented and supported since the late 2000s. The IGFAR review will involve the NEFC, together with other central agencies including the Departments of Treasury (DoT), Finance (DoF), Personnel Management (DPM), and Provincial and Local Government Affairs (DPLGA). In reviewing the intergovernmental financing system the central agencies will rely on the latest information available which will include the results from this report, and from the NEFC’s own assessment of how the costing methodology can and should be strengthened to ensure it is best positioned to support the intergovernmental financing system over the coming years.

The NEFC will continue to update and strengthen the Cost of Subnational Services Study (O&M), and publish the methodology and results, on a periodic basis.





1 Introduction

1.1 Acknowledgement

The Cost of Services Study has become a defining piece of work within the National Economic & Fiscal Commission. The Commission owes a debt of gratitude to the members who pioneered and undertook studies in 2005, 2011 and 2015. The 2020 study and this report is an update to the work of the former committed NEFC teams.




1.2 The Original (2005) Cost of Services Study

The original (2005) study was undertaken as part of a range of analytical work to inform the design of the intergovernmental financing system in 2009. The quality of the work and its usefulness did not only serve its fundamental purpose, which is calculating or determining the level of provincial and local-level grants, it was also useful in a variety of ways which assist planning, expenditure and budget monitoring and further promotes clarity and understanding in the sub-national context.

1.3 Purpose and objectives of the report

This report provides the results of the 2020 Cost of Services Study and discusses the methodology used in the series of studies undertaken since 2005. In writing and publishing this report, the NEFC has the following objectives.

Figure 2: Report Objectives¹

	1: Promotes Fiscal Transparency <ul style="list-style-type: none">• Promotes Fiscal Transparency within the intergovernmental financing and how the system operates.• It establishes the level of fiscal need that exists at sub-national level.• It is useful for the purpose of informing the grant calculation process in relation to where more funding should be allocated towards.
	2: Increase Knowledge <ul style="list-style-type: none">• It makes information available to inform and influence better decision making.• It assists in sub-national levels in the area of planning, budgeting and expenditure monitoring in support of service delivery in PNG.
	3: The Basis to Review the current System <ul style="list-style-type: none">• Ensures the knowledge acquired in past studies including various gaps identified are discussed and accommodated under the current review into the intergovernmental financing system in PNG.

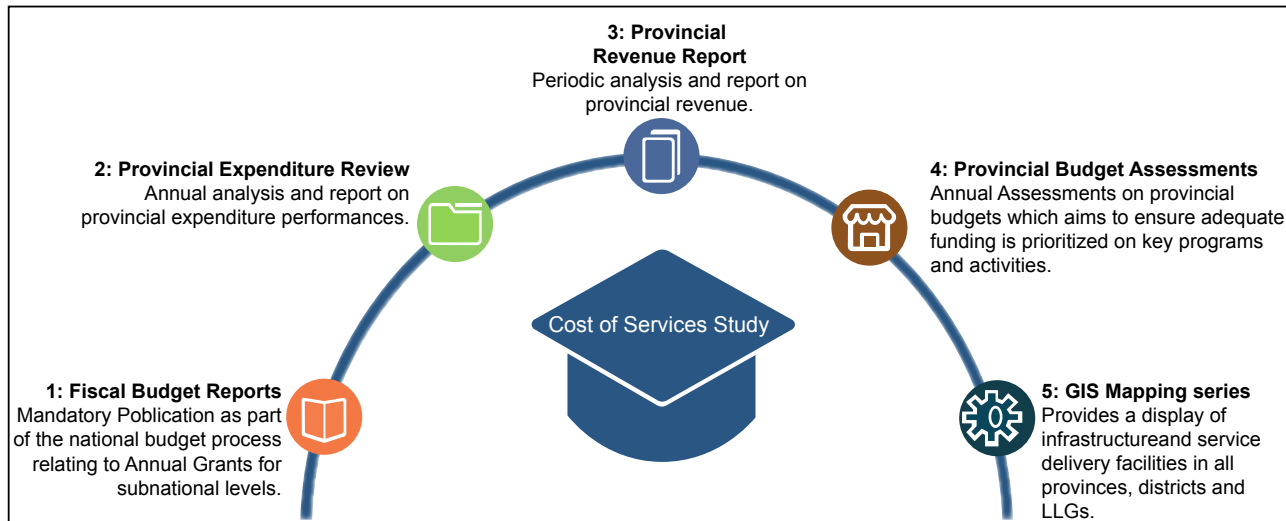
¹The third objective which refers to the review of the current system is a government's decision in 2021 which establishes a sub-committee of PLSSMA, comprising of NEFC and Treasury along with nine (9) other national agencies, with the task to review the current intergovernmental financing system in PNG.

1.4 Iterative Uses of the Cost of Services Study

To support the ongoing process of the intergovernmental financing since 2009, the costing information has become an essential means of planning, analyzing, and guiding sub-national budgets and spending.

Whilst the iterative use of the study continues to emerge, the study at present contributes to the following internal tasks:

Figure 3: Iterative Uses of the Cost of Services Study



There is also an increasing demand for the results and information obtained from the study to be used for various means such as sectoral planning and reviews undertaken by line agencies and development partners. Such external studies may test and unpack other crucial areas of the cost of services parameters. These areas can be improved upon for the purposes of alignment and reality.

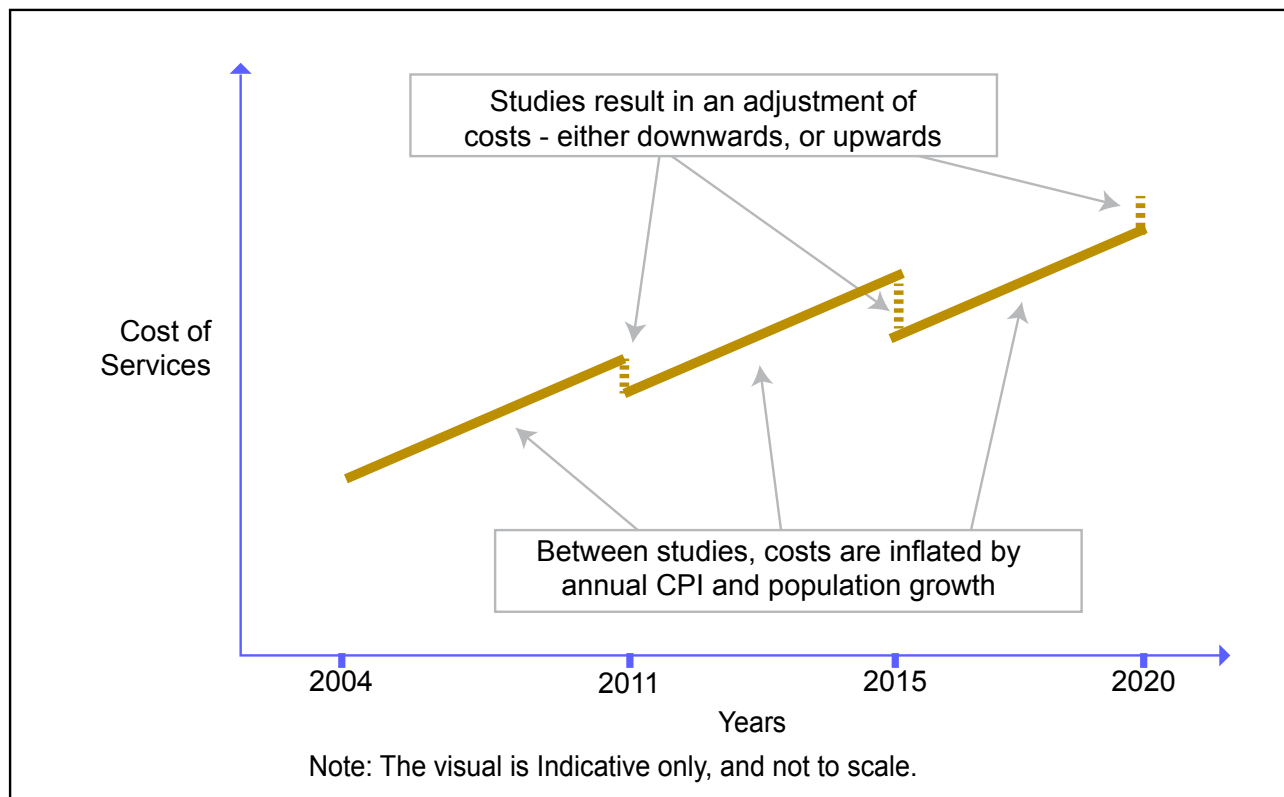
1.5 The 2020 Update



In 2020, the NEFC undertook an update of the 2015 study. The update was able to use the most recent data available. This also provides some contrast to the annual costs that were generated using the indexation methodology. The diagram below (Figure 4) illustrates how theoretically the impact of study in relation to the annual indexation methodology². We can see that the 2010 and 2015 Cost of Service Study exercises had the effect of reducing the overall costs compared to the cumulative effect of the indexing approach that occurs between study updates.

²The NEFC uses an indexation approach to maintain the real value of costs established in base year (2015). Each year costs were indexed by CPI and a provinces' population growth.

Figure 4: Impact of Costs Updates



The method adopted in the 2020 study follows similar approach adopted in previous Cost of Services Study updates. In this process, several changes were made to the original costing model. These changes were to improve the veracity of the costing model and adjust for changes in the general sector assumptions due to new information and policy changes. The cumulative impact of the changes will be discussed in the next chapters.





2 Strategy for Conducting Future Costing Updates

2.1 Lessons from the 2020 update and previous studies

The approach adopted in 2020 retraced many of the steps taken previous studies, i.e., to visit each province and to update as many aspects of the data as possible. This approach was largely successful however some important lessons were learned.

In general, the study was able to:

- Update new prices and inputs
- Update with new and reasonable underlying assumptions for inputs and activities
- Update the cost of services models and grant calculation models with new updated information
- Utilise the support of key government sectors and undertook the survey in partnership with Departments of Treasury, Provincial and Local-level Government Affairs, and Prime Minister & NEC.

However, several constraints were also faced during the study:

- Conducting such a comprehensive study as a single project places a considerable burden upon NEFC's limited resources.
- The project length was extended to readjust certain technical areas and to peer review the findings which had an adverse impact upon the project's completion.

In designing an on-going strategy, the NEFC is mindful of the lessons learned from past experiences and wants to address these constraints. An incremental strategy of updating the costing study may be a suitable and effective approach. This can be undertaken in an incremental or progressive manner with a combination of mini-projects and periodic updates.

Under this approach, data would be collected and integrated in the model at different times according to a 'costing calendar' that NEFC would design. This would mean that not all data would relate to a particular point in time. This is not a weakness per se. Indeed, it is a reality in many models that derive their datasets from large informational databases that they must take an incremental approach to updating their datasets.

To allow for this difference in the timing of the updates, the design will need to:

- diligently track the various datasets, and
- include a system of indexation that ensures the data is adjusted to reflect current levels.

2.2 Principles that will guide an incremental approach

The following principles can guide an incremental approach for updating the Cost of Services Study.

There are a number of areas within the Cost of Services Study Model that could and should be reviewed and improved upon. This will involve a significant effort from NEFC in partnership with other agencies, subnational organisations, and wider stakeholders.



1: Robustness

- Ensuring that the quality of the study is maintained.
- Targetting priority areas of the study where the assumptions and completeness can be improved upon.
- Involves moving the study from highly conservative to somewhat more realistic.



2: Consistency

- Reviewing the alignment between the Function Assignment Determination (FAD) and the Medium Term Development Plans (MTDPs) to ensure there is consistency in the priorities that are costed and funded.
- Involves close collaboration with PLSSMA, DPLGA, provincial administrations and line agencies.



3: Efficiency

- Looking at areas of the study that are highly complex and consider the best and most sustainable manner for future updates.
- Balancing between technical quality, usefulness and the resourcing required to maintain the study.
- Credibility should not be compromised. Methodology must be sustainable.



4: Collaboration

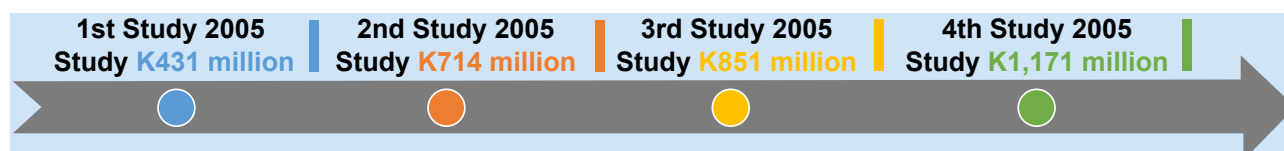
- Looking for win-win opportunities to update data through collaboration with key agencies and partners.
- Jointly undertake mini-cost studies or sector cost studies that meet the needs of both NEFC and partner agencies.
- There will be future opportunities for NEFC to work with other parties, sectors and development partners - in a synergistic manner in collecting information and conducting studies.



2.3 The natural evolution of the O&M study

The Cost of Sub-national Service (O&M) Studies over the years have helped us to better understand the rural service delivery context.

Figure 5: Different Cost of Services Study Periods



We now better understand the functions and activities that must happen at each provincial headquarters, district center, health facility and school and the cost of supporting those functions and activities. However, we also better understand the gaps in our knowledge and the work that remains to be done to consolidate and even expand on our understanding. The sections that follow expand on some of the areas of work that need to happen to improve on what is an already good product and to expand our understanding in areas that have yet to be explored.

2.3.1 The NEFC's growing portfolio of work to understand services and costs

Since the early 2000s, and the original COSS in 2004, the NEFC has continued in its work to better understand the diverse local operating context, and the challenges and cost of providing government administration and delivering services in PNG.

The visual in Figure 6 depicts the NEFC's ongoing work in the area of cost and benchmarking as it continues to evolve in response to its mandate and the needs of Government. While the Cost of Subnational Services (O&M) Study is the cornerstone of the NEFC's work in this area, there are many sub-studies, new studies, and new products that leverage off the COSS. For example, there are two sub-studies that underpin the COSS – the first being the GIS mapping work that includes a comprehensive visual library of government (and partner) infrastructure (roads etc.) and facilities (health facilities and schools, etc.); and the second being the detailed travel routes model that identifies the varied travel routes routinely used by government staff in every province, district, and LLG across the country.

Figure 6: NEFC work in costing, benchmarking, and related areas in 2023

Cost of Subnational Services (O&M) Study		Sector (and related) Cost Studies	Special Purpose Cost Studies (e.g. ABG)
		Urban Services Cost Studies	Human Resources Costs & Distribution
GIS Mapping of Infrastructure & Facilities	Travel Routes Model	Go Long Ples Remoteness Study	International Cost and Benchmark Studies

Sector cost (and related) studies are of enormous relevance to the work of the NEFC. Sector cost studies can inform the COSS and also inform the NEFC, in a more general sense as it seeks to understand service provision in PNG and its costs. As such, the NEFC needs to be aware of any costing studies that are taking place in the country, and if invited, it may be beneficial for the NEFC to have a level of involvement in the design and implementation of the sector studies. Such an involvement, where agreed, can help ensure the mutual benefit to all parties.

Other work related to understanding services and costs includes NEFC's ongoing work in the area of urban services. Urban service planning, development, and costing is a specialised area of study. The NEFC has participated in this domain, and as discussed in the next section (section 2.3.2), is an area of growing importance and one that Government is likely to continue to call upon the NEFC to provide advice and expertise in keeping with its mandate.

The 2014 study, *Go Long Ples*, was a joint initiative between the National Department of Education (NDoE) and the National Economic and Fiscal Commission (NEFC) to determine how the Education Tuition Fee Subsidy could best be distributed in a way that recognises the different cost impacts on schools. The aim of the study was to improve the equity of funding to all students by outlining how a funding formula based on remoteness costs would work in PNG. However the product is useful in many ways, in conducting the study, the NEFC developed a remoteness index that includes every LLG in the country and can be used by anyone who needs to understand remoteness in a systematic way.

While much of the NEFC's costing work has focused on recurrent operational costs, it has also conducted initial research and analysis in the area of human resources (e.g. staffing). The cost of human resources is enormous, and staff and their cost (personnel emoluments) are typically a significant proportion of all budgets at both the national and subnational levels. The NEFC has conducted initial work at the subnational levels to better understand the cost and distribution of staff across provinces, sectors, and divisions.

The last area refers to international cost and benchmark studies. Many countries and international organisations conduct studies to understand the costs of specific areas – sectors, subsectors, services, etc. The NEFC, as it has done in the past, can continue to leverage such published information as a point of comparison in understanding the challenges and costs of services in other settings to those in PNG. Staying across international practice is also a good way to see 'good practice' in cost methodology, as inevitably almost all costing exercises demand a high level of innovation and bespoke design.

2.3.2 Strengthening the Subnational COSS

There are a number of areas within the Cost of Services Study Model that could and should be reviewed and improved upon. This will involve a significant effort from NEFC in partnership with other agencies, subnational organisations, and wider stakeholders.

Specific tasks to improve the COSS and to expand the base and specifics of the study will include:

10. Refresh and update the activity sets and assumptions as and when policy changes which relates to functions of various sectors
11. Integrating new Districts and new LLGs that are established and gazetted
12. Raising the thin blue line – the step after ‘bare minimum’
13. Specific focus on the costing of Provincial Health Authorities
14. Specific focus on the costing of Municipal and City Authorities
15. Specific focus on the district level and District Development Authorities
16. Create a sustainable methodology for travel routes calculations
17. Updating the register of sub-national infrastructure assets given limited data availability
18. Commence Bougainville Costing exercise as a special case study.

With regard to point 1, the NEFC uses the cycle of 5-yearly updates as a time to refresh and update the activity sets and assumptions to reflect policy changes which relate to the functions of the various sectors and administrative divisions. This refreshing process can be strengthened by using the learnings from the most recent 2020 study – of areas identified that merit additional strengthening – and exploring how these areas can be better reflected in the COSS. This process should be done in the next 18 months, in advance of the next 5-yearly study update in 2025.

Regarding point 2, new provinces, districts, and LLGs are typically integrated within the COSS (to support the grant calculation process) after they are officially gazetted. A more substantial research process then takes place during the next costing study update, to ensure the new entity (and any existing entities that are impacted and require adjustment) are adapted according to the normal COSS methodology.

Raising The Thin Blue Line – the step above ‘bare minimum’

Regarding point 3, the COSS is founded on the premise that Government is seeking to deliver a standard set of basic service across the country. It follows, that determining just what those services are is the single most critical step in this whole process. Since 2005, the NEFC has worked with a range of stakeholders to identify a standard set of services which have then been tested and modified in ensuing costing study updates, most recently in 2020. However, there is a more substantive task that awaits the NEFC and that is ensuring that the standard set of services accurately reflects the country’s evolution and its increasing fiscal capacity. Where once a bare-bones approach to costing was a necessity, now, there is a need to consider and implement the step above ‘bare minimum’.

The step after ‘bare minimum’ will likely entail:

- Updating priority sectoral studies (e.g., health, education, infrastructure).
- This is likely to involve looking for win-win opportunities to update data by collaborating with other agencies [sectors] and development partners to jointly undertake mini-cost studies that meet the needs of both NEFC and partner agencies.

- Integrating new sectors (in a similar manner to forestry, land mediation and disaster management) and new functional responsibilities (like city authorities and municipalities).
- Create an approach to indexing base costs that creates a sustainable uplift from 'bare minimum' while avoiding unwanted distortional affects.

The Health Sector and PHAs – updating and aligning health costs

On point 4, while the health sector in PNG has continued to evolve in very significant ways, the NEFC's costing approach for the health sector in its regular periodic costing study updates (including 2020) has remained the same since the first costing exercise was completed in 2005. As such, it is timely to update the COSS methodology to reflect the new situation.

The health sector has changed markedly over the last 15 years, with the subnational architecture of the health sector in PNG transforming, new policy initiatives, and the introduction of new types of health facilities. As a consequence, the COSS needs to be updated to reflect the new situation. This will involve adapting the methodology to acknowledge and accommodate PHAs, considering the impact of the Government free health care policy, integrating the nuances, interplay, and impacts of faith-based health providers, and updating the costings for district hospitals and community health posts.

This may also be a timely point of reflection, to consider strategic issues including: (i) NEFC's role in advising in a broader way on health funding; and (ii) the issue that has become apparent with provinces failing to allocate internal revenue to the health sector... which leaves rural health perennially underfunded.

The NEFC has a strong working relationship with the health sector at the national level with NDOH and with the rural health section (network of lower-level facilities) of provinces that now come under the umbrella of the Provincial Health Authorities.

Specific matters to address that are related to the costing study will likely include:

- Updating the costs to better reflect the diversity of facilities, including the district hospitals and community health posts that are now being built across many districts in the country.
- Consider the impact of the Government funding to support the free healthcare policy that was introduced in Feb 2014. Consider how the Government funding to support the free healthcare policy is allocated across provinces which will impact need and fiscal capacity.
- Consider the alignment between the responsibilities and funding for lower-level facilities (and the activities they undertake) ensuring it is consistent and avoids duplication between the various main actors – particularly between government and faith-based providers.
- More broadly, in what ways should future costing studies integrate and reflect the wider health setting including the establishing of Provincial Health Authorities and the important role of faith-based providers? PHAs have several divisions – in addition to the area of rural health, PHAs have a significant administrative division,

and a curative division that includes the provincial hospital. In addition, the area of faith-based providers (that operate church-run facilities); and drugs and medical supplies that are managed nationally are relevant.

Municipal and City Authorities

Papua New Guinea is estimated to have only 13% of its population in urban settings, with 87% residing in rural areas. In this context, it is unsurprising to observe an increasing emphasis on the development of Papua New Guinea's urban centres to improve basic services to urban citizens, to accommodate future population growth to these centres due to the natural flows of urban migration, and to act as catalysts of social and economic growth.

Since the passing of the City Authorities Acts in 2015, City Authorities have been established in Lae, Mt Hagen, and Kokopo. The establishing of city authorities complements the establishing of district authorities and is intended to allow three of PNG's major urban cities to grow and develop in a manner similar to Port Moresby under the National Capital District.

Given its role as an independent adviser to Government, and expertise in estimating the cost of administration and service provision in PNG, the Government continues to seek advice from the NEFC on the costs of particular services relating to new urban authorities and the revenues and funding they are likely to require to support the provision of basic services. The NEFC will want to lean further into this area, to ensure it has the understanding and cost methodologies to model urban settings and calculate the funding implications with increased acuity.

In response, the NEFC will want to develop a plan for strengthening its in-house capability in urban costing to undertake analysis and provide advice in PNG. The plan should be directed at developing a standard set of urban services in PNG together with an adaptable costing methodology that NEFC can use. The plan should be submitted to the NEFC management (and board) for their consideration.

In developing the workplan, guiding questions may include:

- What are the critical sources of information and data to underpin urban costing? What are appropriate methods and approaches to work-around data gaps and information that is unavailable?
- What are the best ways to establish city boundaries, population, and demographics?
- Given cities (and urban settings) are inherently unique, how can a costing approach be developed that adapts to individual settings and provides insight and useful information for stakeholders?
- What would a standard set of urban services look like in PNG in the mid-2020s?
- What is the appropriate focus and scope of an urban costing exercise? Recurrent costs only? Or should it include a development aspect (e.g., capital costs) that acknowledges the importance of developing certain core elements of the city infrastructure?
- What revenues are, or (realistically) could be, available to city authorities?
- What lessons of good practice can be drawn from regional and international literature in urban costing, funding, and development?

The District Level and District Development Authorities

Since the passing of the District Development Authorities Act in 2014, DDAs have been established across PNG replacing the longstanding institution of the District Administration. The establishing of DDAs, is a highly significant change in PNG's political and administrative subnational architecture and one that impacts historical lines of accountability and introduces an increased political dynamic. The COSS needs to be updated to ensure its treatment of the district level with the study remains current and relevant.

In response, an assessment – supported by consultations, a review of relevant reports and literature, and field-based case studies (if and where necessary) – should be carried out to consider the introduction of DDAs and its impact on the COSS methodology, and a paper with recommendations should be submitted to the NEFC management (and board) for their consideration.

In developing the workplan, guiding questions may include:

- What are the critical sources of information and data to underpin urban costing? What are appropriate methods and approaches to work-around data gaps and information that is unavailable?
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- What is the appropriate focus and scope of an urban costing exercise? Recurrent costs only? Or should it include a development aspect (e.g., capital costs) that acknowledges the importance of developing certain core elements of the city infrastructure?
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- What lessons of good practice can be drawn from regional and international literature in urban costing, funding, and development?

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In response, an assessment – supported by consultations, a review of relevant reports and literature, and field-based case studies (if and where necessary) – should be carried out to consider the introduction of DDAs and its impact on the COSS methodology, and a paper with recommendations should be submitted to the NEFC management (and board) for their consideration. Guiding questions are likely to include:

- What are the differences that have emerged (responsibilities, activities, and costs)

- between the system of district administrations and the new system of DDAs?
- What methodology should be used to integrate DDAs within the COSS in future COSS updates?
- What are the time and resource implications for implementing the preferred strategy?

Streamlining Future Costing Study Updates

Since its inception in 2005, the NEFC has settled into a pattern of conducting a major revision of the costing study on a 5-yearly basis. Each update largely follows a similar methodology, with updates completed in 2011, 2015 and 2020. One of the challenges with this approach, is the sheer volume of work that is involved for the NEFC team to implement and conclude each 5-yearly update process while maintaining their other responsibilities. Inevitably, there is limited time for the NEFC to undertake additional research endeavors related to the COSS to address any major data gaps that require significant and specific attention while concurrently undertaking the wider update process.

Key steps in preparing for the 2025 COSS.

- 1) **Review and update the methodology:** The NEFC has now conducted and completed three review exercises to update the COSS since the study was first completed in 2005. As has already been mentioned, there is a pattern and a level of commonality now established for conducting these costing study updates and, as such, it is timely to reflect on the merits of the process and how it might be strengthened.

Over the next 12 months, an assessment should be carried out to address the following considerations and a paper with recommendations should be submitted to the NEFC management (and board) for consideration:

- Is a 5-yearly review cycle the best approach? What are the benefits and justifications?
 - Critically review the process, (i) which aspects of the review need to be retained, (ii) which aspects are not necessary or can be done in a more effective way, (iii) what new aspects should be added?
 - What are the time and resource implications for implementing the preferred strategy?
- 2) **Travel Routes:** The travel routes component of the costing study is complex due to the weight of detail. The origins of this complexity are the NEFC's determination to understand and establish an accurate cost for rural service delivery in each district across the country. 'Travel' was rightly seen as being fundamental to this end. Given the complexity, it is timely to consider what a sustainable methodology might be for updating this area in the future whilst still providing the cost relativities that are valued and beneficial.

One option is to update the travel routes model on a less frequent basis (e.g., every 20 years) as a separate research exercise, and then use the updated model and results in the next COSS update. Having a less frequent update process may be reasonable and defensible, given the reality that transport routes tend to change only slowly in PNG (and in many other countries), particularly given the challenging terrain in PNG that makes the expansion of the road network extravagantly expensive. Smaller targeted reviews of specific locales within the travel routes model could still

be carried out as and when required (for example, in some cases, the changing of provincial and/or district boundaries may disrupt existing travel routes and demand the creation of new travel route subsystems within newly created jurisdictions).

Over the next 12 months, an assessment should be carried out to address the following considerations and a paper with recommendations should be submitted to the NEFC management (and board) for consideration:

- Frequency, how often should the travel routes model be updated?
- What methodology should be used to update the travel routes model?
- What are the time and resource implications for implementing the preferred strategy?

3) **Transport Infrastructure Assets:**

Transport assets are extravagantly expensive to build, and the cost of maintaining the Government's network of non-national rural transport assets [including roads, bridges, wharves, jetties, and airstrips] is highly significant. The National Department of Works holds the country's register of road and bridge assets. It is critical that this register is maintained on a periodic basis so that the information can inform the quantum of funding that should be allocated to sub-national levels to maintain these assets.

All non-national roads are presently recorded as a maintenance responsibility belonging to provincial administrations. This is unlikely to be correct. In reality the responsibility is likely to fall across the provincial, district and LLG levels of government and administration. However, the process of classifying non-national roads is still to be completed (by NDoW) and until this is done it is impossible to identify with accuracy the specific responsibilities.

Over the next 12 months, an assessment should be carried out to address the following considerations and a paper with recommendations should be submitted to the NEFC management (and board) for consideration:

- Discussions with NDoW (and relevant development partners) on the status of the PNG register of roads and bridges assets, and the plans for updating the register.



- What methodology should NEFC use to update transport infrastructure assets within the COSS?
- What are the time and resource implications for implementing the preferred strategy?

2.3.3 Special case study – the cost of administration and services in ARoB

The Autonomous Region of Bougainville has sought the assistance of the NEFC to better understand the cost of administration and services in the Bougainville region. A Terms of Reference will set the objectives and scope for the exercise. The exercise is scheduled to be carried out in 2023.

While the ARB has special status in PNG, this does mean it falls outside of the Organic Law on Provincial & Local-level Government (OLPLLG) and also outside of the intergovernmental financing arrangements that the NEFC advises on, and supports in many ways. As such, the ARB is not included within the scope of the 5-yearly COSS.

It is envisaged that the upcoming costing exercise will assist the ARB in a variety of ways.

2.3.4 Understanding the distribution of resources across PNG

The NEFC has been undertaking research in PNG – across the country’s many provinces and districts – since 2000. In undertaking this work, the NEFC is aware of the areas that remain to be explored and better understood. It’s notable, that the COSS does not attempt to answer questions of equity as it relates to the adequacy of infrastructural assets (such as the number of schools) and the adequacy of staff (such as the number of teachers) in a given province. Yet these are critical questions that merit exploration. With significant public funds being committed to development through capital investment the adequacy of provincial and district infrastructural assets should be improving, and merits analysis to determine our progress toward raising the capacity of all provinces and districts.

These areas include:

- 1) **Equity of Infrastructure:** The COSS seeks to establish a realistic estimate of the recurrent costs for funding a standard set of basic services based on existing service delivery facilities and infrastructural assets. The existing study does not seek to address the question of equity, as the concept relates to the evenness of coverage of service delivery facilities and infrastructure across the country. In an ideal world, Papua New Guinea would have a suitably even spread of schools, health facilities, roads, and wharves in each locale. We know the present situation is not even in this sense and this is why Government initiatives in the development domain – such as the PSIP, DSIP and LLGSIP programs, and the new PIP/DIP programs – are intended to address this inequity.³ Addressing these gaps is a long-run ambition and will happen in part as a response to the local areas competing development priorities.

Research considerations:

- The NEFC is well positioned to work with national agencies to identify the evenness in coverage of government service delivery facilities and infrastructural as-

sets. Identifying the critical asset gaps would be a meaningful contribution of information to assist decision-makers in the capital budget allocation process.

- Has the development spending over the last 15 years resulted in an increased portfolio of infrastructural assets? Are there more schools, health facilities, roads, and jetties? And are these assets promoting a more even distribution and better access to services across provinces and districts?
- Once development spending (such as SIP, and PIP/DIP) results in new service delivery facilities or infrastructural assets it becomes critical for these assets to be supported with a recurring stream of O&M funding. NEFC is well positioned to estimate the recurring stream of O&M costs for various assets. This will help ensure that Government is aware and able to support new assets into the future.

- 2) ***Equity and Optimisation of Staffing Levels:*** Neither does the existing study seek to address the question of equity, as the concept relates to the evenness and coverage of staff (human resources) across the country. Staff in this sense includes public servants involved in administration and service delivery activities and those employed by faith-based service providers such as churches. In an ideal world each administrative hub and service delivery centre would have an appropriate level of staffing to deliver a similar level of public administration and services. Yet we know this is not always the case. Staffing levels will be incrementally adjusted as new service delivery facilities are developed and staffed, however other adjustments may also be necessary to ensure that the right number of staff are situated in the right place.



Research considerations:

- The NEFC is well positioned to work with national agencies to identify the evenness in coverage of government staff in the areas of service delivery and administration. Identifying the critical staffing gaps would be a meaningful contribution of information to assist decision-makers in the human resource budget allocation process.
- Once a methodology has been developed for determining a reasonable complement of staff in a particular area this can inform the level of O&M funding to be allocated.
- This research can also provide national and subnational participants with critical information to assist in considering where additional human resources are required, as and when, recurrent funding becomes available to invest in additional staff.

³The District Service Improvement Program, or DSIP, is the Government's key modality for funding development projects at the district level since 2007.



3 General Methodology

There are different approaches to undertake costing. Some countries adopt a unit cost approach whereby they establish an output cost for a specific service, for example, the cost to educate an individual child. Due to constraints with data for Papua New Guinea's situation, an activity-based costing approach is currently being used. To determine activity costing, a 3-stage approach is used.

Figure 7: The 3-Stage activity-based costing approach



This approach typically involves consulting hundreds of people and collecting an enormous amount of data to establish a cost for delivering a minimum set of basic services and the cost of supporting an administration. This approach sought to reflect the realities of each province and district, which we know are not the same in terms of service delivery and administrative costs. The different types of data and key elements that combine to help us derive activity costs relating to specific locations across PNG is illustrated in the schematic diagram below (Figure 8).

Figure 8: Costing Data Jigsaw

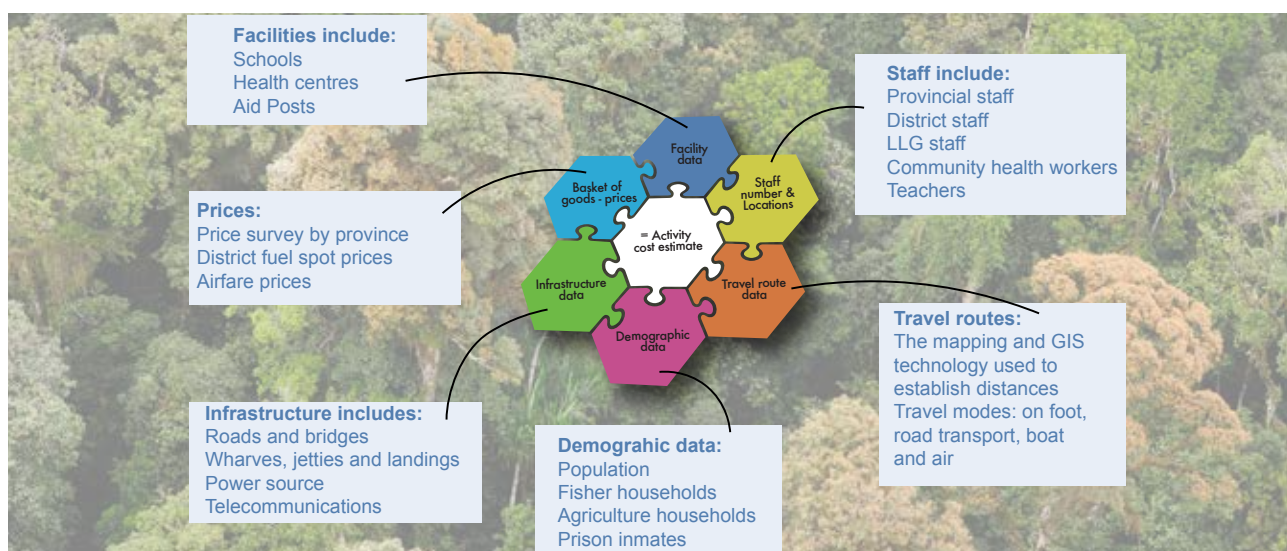
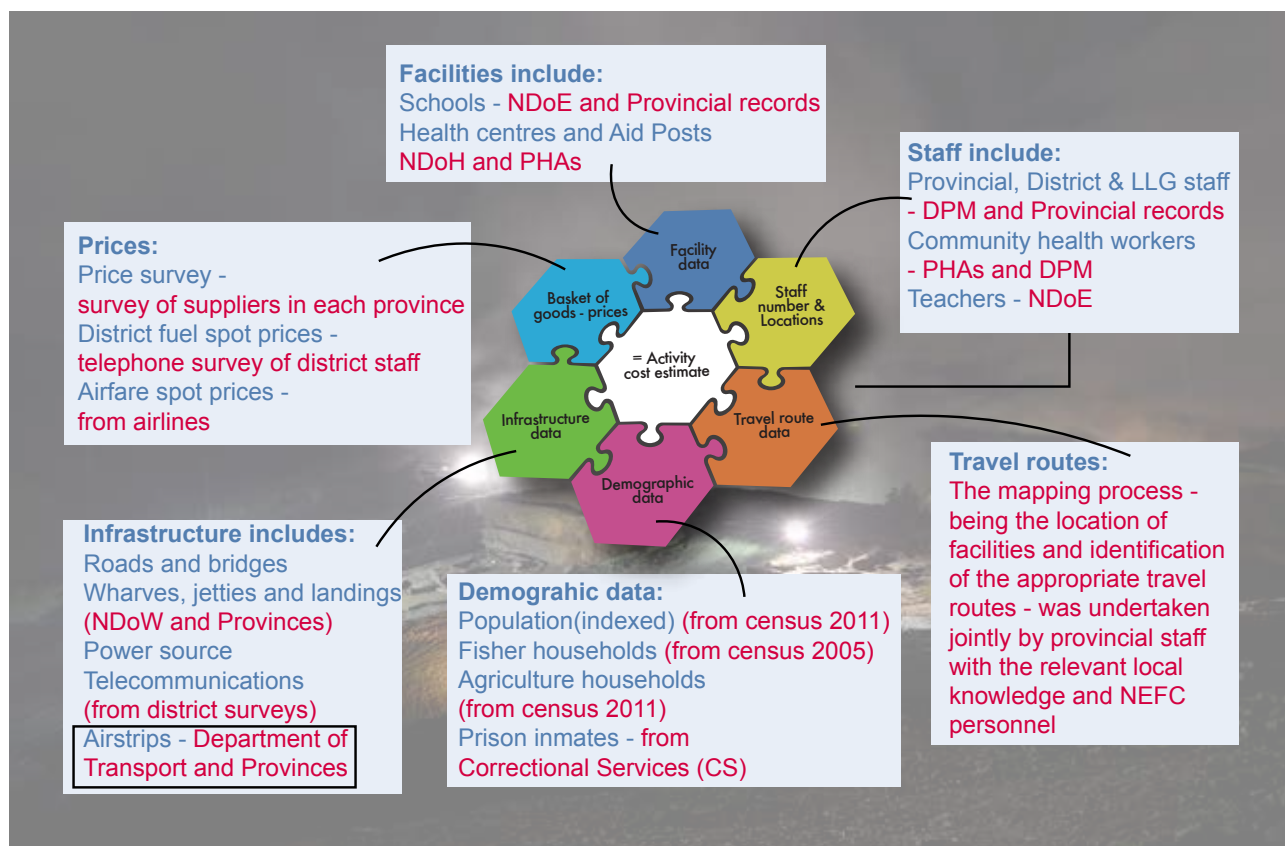


Figure 9: Major Data Sources



Notes on data sources

Prices: The provincial price survey involved surveying three relevant suppliers in each provincial capital in 2020 - this included the major price list, the generic price list, and the district fuel spot prices.

Facilities: Education facility data is from the most recent NDoE and provincial records. Health facility data is from the most recent NDoH and PHA records. Village Courts facility data is from the most recent Village Courts and Land Mediation Secretariat records in 2020.

Staff: Teacher data is as per the NDoE 2019 Education Census and Infrastructure records (received from NDoE in 2020). Rural health worker data is as per NDoH records, received in 2020. For other provincial staff the primary source was from DPM records, which was validated against the provincial establishment registers (this process was conducted in 2020).

Farmer: Information from 2011 Census (indexed).

Fisher: Information from 2005 (indexed). This information was not available in the 2011 Census.

Prison inmates: Information by province was provided by the Correctional Service in 2020.

Infrastructure: Roads and bridges are per the NDoW 2005 RAM's database which is still viewed as the most consistent source of information. The NEFC is continuing its

consultations with NDoW, Provinces and Districts to establish an updated methodology for establishing the status of road and bridge assets at the subnational level. District level power supply and telecommunications data was resurveyed in 2020. Jetties and landings from Provincial records (2020). Data on airstrips was from Department of Transport and validated with Provincial information (2020).

3.1 Parameters of the Costing Study

The study is structured around thirteen (13) parameters which guides how data is collated and analyzed to derive the cost estimates for each sector or division. At this stage we continue to assume that cost should relate to existing service delivery programs. In the future it should be possible to build on this by looking at a greater detail at some of the broader areas and constraints as discussed below.

The cost of existing service delivery programs

At this stage of the study, we have assumed that costing should relate to existing service delivery programs as agencies and lower levels of government understand they should be delivered. Future studies should be able to build on this by looking in greater detail.

A similar set of services in all provinces

In order to develop a costing which is comparable across all provinces, we had to assume a standard set of services and inputs for all provinces. There are nevertheless some variations. For example, fisheries extension services are assumed to be provided only to those areas that personnel that undertake fisheries activities. The number of persons to whom these services are provided is therefore much greater in coastal provinces than in the highlands.

The cost of what should be spent, not what is being spent

The study focuses on what provincial and local governments should be spending, not what they have actually spent. In most cases the level of actual spending is well below what was required to sustain basic services; thus, it was not meaningful to adopt this approach.

Service Delivery Programs as they should be delivered, not as they are being delivered

The study draws on from the knowledge of what services are currently being delivered to develop a program of standard services as they should be delivered, rather than what is being delivered at the moment. This does not exclude further work which may identify that some of these activities are no longer useful or do not produce the desired outcomes.

By publishing the set of programs and activities, the NEFC hopes to stimulate the debate on the veracity of the activity set and gain an insight on where change may be necessary. This will ensure we continue to reflect through the *cost of services study* a reasonable and acceptable standard set of services in Papua New Guinea today.

Only existing facilities

We assumed that the costing should relate to actual, existing and operational facilities and roads, and to current levels of staffing

Again, this represents a first stage of work on estimating what provincial governments need. Since many facilities are currently not operating as they should (mainly because of insufficient recurrent funding), a first step is to get them operating again and delivering services as they should. Only then can some evaluation be undertaken of whether there are too many, too few or the wrong kind of facilities to achieve realistic and affordable goals of service delivery.

Only existing staff

Existing staffing levels formed the basis of the costing estimates. Administration costs for each province are based directly on the actual staff numbers recorded in the provincial establishment register.

There is evidence that public servants are inequitably distributed between provinces—in other words, some provinces have fewer staff than they should have, while other provinces have more staff than they should. However, it was not possible to incorporate an analysis of appropriate staffing levels into the present study because of time and resource limitations. Further studies may be required to develop the costing database further by determining an appropriate formula for allocating staff and using that to adjust the costing numbers based on those staffing levels.

Only recurrent non-salary recurrent costs

The costing study only covered the annual non-salary, recurrent costs of service delivery. It does not include the cost of staff salaries, or the cost of large capital expenditure. There are however several exceptions made.

Capital costs in the study include:

- Replacement of vehicles and 'banana' boats
- Office furniture
- Office equipment

Major capital costs, such as rehabilitation of roads or buildings are funded periodically which does not have to be budgeted for every year. However, to support ongoing administrative costs, vehicle and boat purchases, including office furniture and equipment are exceptions for this study.

Personnel Costs include:

- Teachers Leave Fares
- Councilors' allowances
- Village Courts and Land mediators' allowances
- Provincial assembly members' salaries

Since the objective of this study was to estimate provincial cost responsibilities, it was not relevant to cost salaries, except for example, leave fares. Teachers' leave fares are a provincial cost responsibility, and the grants are managed locally. Any under-funding is met by the province. This includes allowances for village courts or land mediators which provinces are required to either partially or fully fund as their responsibilities.

Only Provincial and LLG cost responsibilities

In most sectors, both the national government and provincial government (including districts and LLGs) have joint responsibility to pay for most different services. For example, road maintenance for national roads and national highways are the responsibility for the national government. Provincial and district roads are the responsibility of lower government levels.

The cost of services study has focused only on those costs which are currently accepted as being the responsibilities of provincial or local-level governments. This may also mean that the cost estimates in this study do not cover the whole cost of service delivery in all sectors.

Since the passing of the District Development Authorities Act in 2014, DDAs have been established across PNG replacing the longstanding institution of the District Administration. The establishing of DDAs, is a highly significant change in PNG's political and administrative subnational architecture and one that impacts historical lines of accountability and introduces an increased political dynamic. Accordingly, in the next iteration of the COSS, an assessment will be conducted to ensure the treatment of the district level within the study remains current and relevant.



Only affordable inputs for basic essential services

In determining the activities and in particular the inputs to those activities, the costing study adopted an approach of including only the minimum and essential costs without which it would not be possible to deliver the service. This conservative approach is open to criticisms that real costs can be actually higher than what is estimated here.

Travel Costs identified

Travel costs are a major component of the recurrent costs of service delivery in Papua New Guinea. Service delivery in the health, education, agriculture, village courts and other sector activities involves travel by road, boat or air. One aim of the study was to accurately record the travel routes, distances, and methods for each district, so that these costs can be more accurately calculated.

Province-specific pricing of inputs

The study uses data on the actual cost of specific inputs that have been surveyed in each province. The main aim of provincial price survey is to establish the local prices for around sixty goods and services including stationery, office equipment and consumables and repairs, fuel, vehicles and boats and maintenance, food and clothing (for prisoner detention) and accommodation and venue hire for training or workshops and fuel.

Rural services prioritised

The primary focus of this phase of the costing study was on service delivery to the rural majority of Papua New Guinea's population. Urban services are of a different nature and need to be the subject of a separate study and report as discussed in Chapter 2 on expanding the base of the costing study.

Costing of Services for the Autonomous Region of Bougainville (AROB)

There is a need to revisit the service costing needs for the Autonomous Region of Bougainville specifically and to scope out and develop an up-to-date set of activity cost estimates that reflect the administrative and service delivery responsibilities for the region.

Given the uniqueness of Bougainville, it is now an urgent need to carry out a separate costing exercise in order to support the funding arrangements under the new constitutional arrangements.

3.2 How the 2020 Study was Approached

The approach in which the 2020 Study was planned and carried out follows a similar approach used in the 2015 study and other past studies. In its overall design, the study uses a 3-stage approach which consists of, a *Pre-field phase*, a *Field-visit phase* and a final *Post-field study phase*.

Pre-field Study Phase

- The study first determines the different sectors which are under the responsibility of provinces.
- It then develops questionnaires to identify all key programs and activities that make up service delivery in each sector.
- Finally, it collects all key facility data from each sector in preparation for provincial verification.

Field Visits

- Visits were made to each province over a 4-month period.
- Interviews were made with key administrative and sector managers on their different programs and activities for costing. Also, consultations were made to determine what level of government (province, district or LLG) these activities are usually undertaken from.
- Verify with key provincial and district officials the status of different facility data and their locations and travel mode on district maps.
- Identify travel routes to these facilities.
- Undertake a basket of goods survey to determine prices of goods in the provincial capital.

Post-field Study Phase

- Data obtained in the field visit-stages are then compiled, processed, and analyzed. The results are then modelled, reviewed, and tested for sense. Once the review process is complete, the results of the study are used by the NEFC in its work and can be released in a final report.





4 Overview of the 2020 Results













The 2020 update of the cost of sub-national services study continues to be highly conservative. The study estimates at minimum the operational costs of provincial and local-level governments to fund the delivery of a basic set of government services at the sub-national level. In reality, more funding will be necessary to adequately fund the delivery of basic services. The costs are based on existing infrastructure and is designed to support existing staff. It is also designed to assess the fiscal capacity of sub-national levels. The real costs will be greater.

The high-level findings of the 2020 study are as follows:

- Total costs, K1,170m
- Provincial costs, K708m
- District costs, K300m
- LLG costs, K161m

In total, costs have increased by 37% from 2015, as can be seen from the table below.

Table 3: Comparing total cost estimates across the NEFC costing studies in 2011, 2015 and 2020

	2011	2015	2020	Percentage Change between 2015 and 2020 Costs	Percentage Share of Total Costs
	PGK millions	PGK millions	PGK millions		
Total Costs	 709	 852	 1,170		
Provincial Costs	 423	 531	 708	33%	61%
District Costs	 185	 198	 300	52%	26%
LLG Costs	 100	 124	 161	30%	14%

The graph that follows illustrates the costs by sector. We can see that the estimated O&M costs in three sectors – education, health, and infrastructure – comprise 70% of the total estimated cost. The cost estimates in two other areas are significant – being administration (13%) and Primary Production together with Village Courts comprise a further 10%.



Figure 10: Total Costs by sector

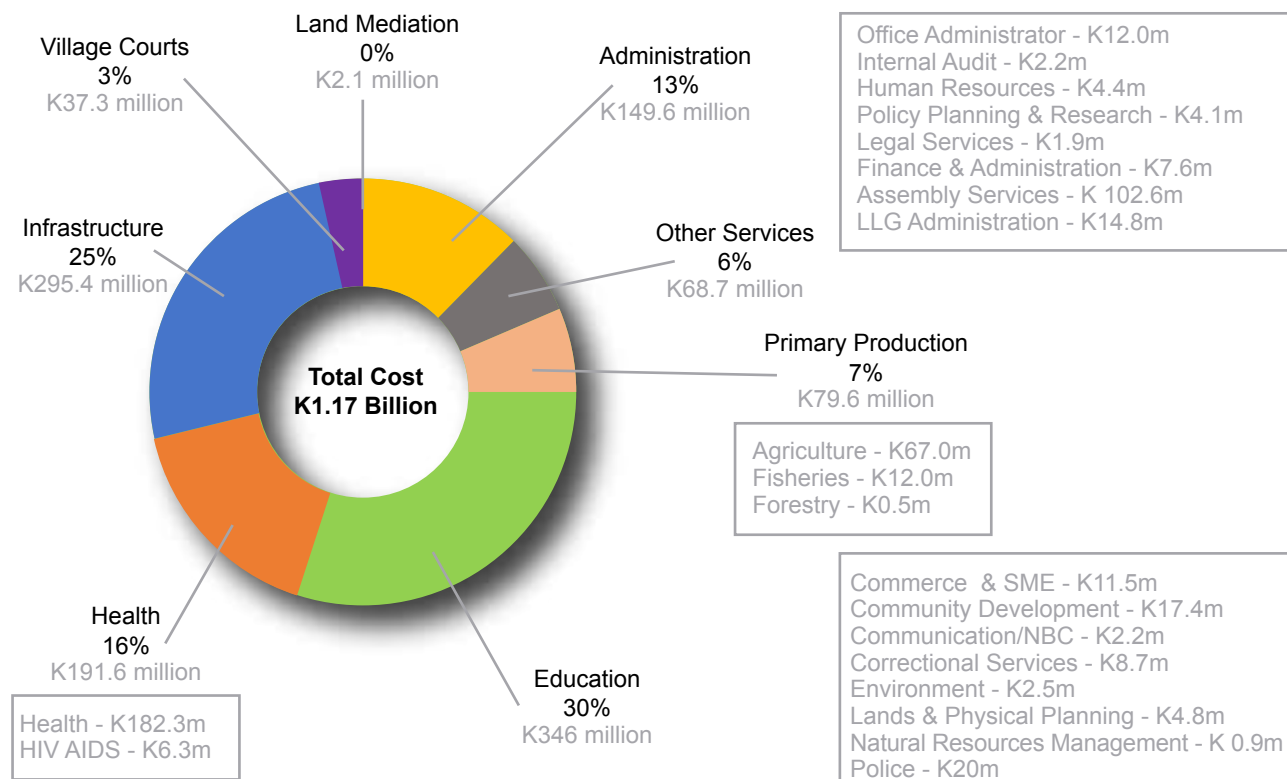


Table 4: Costs by province and level

Province	Provincial Costs	District Costs	LLG Costs	Total
Western	38,746,433	20,889,662	9,841,361	69,477,457
Gulf	17,397,391	11,308,547	4,399,292	33,105,230
Central	37,606,693	17,426,202	7,480,173	62,513,068
MBP	26,830,300	17,137,565	7,772,408	51,740,273
Oro	17,540,129	9,856,124	5,734,178	33,130,432
SHP	33,815,060	14,846,532	8,028,381	56,689,974
Hela	19,585,018	13,085,856	5,063,808	37,734,683
Enga	38,386,843	15,583,166	8,075,307	62,045,317
WHP	43,779,649	9,305,602	5,994,291	59,079,543
Jiwaka	29,705,359	8,209,233	5,144,383	43,058,976
Simbu	34,650,952	12,746,211	6,040,775	53,437,938
EHP	59,156,063	14,059,864	9,177,743	82,393,670
Morobe	62,306,322	24,295,296	16,839,738	103,441,355
Madang	44,889,422	21,286,783	11,848,717	78,024,922
ESP	60,531,599	19,360,761	15,387,507	95,279,867
Sandaun	30,717,698	20,028,106	13,782,713	64,528,517
Manus	15,765,272	5,455,346	2,055,600	23,276,219
NIP	21,048,974	11,333,234	3,696,112	36,078,319
ENB	37,455,333	12,206,038	8,434,261	58,095,632
WNB	38,915,091	21,926,812	6,463,108	67,305,011
Total	708,829,601	300,346,943	161,259,858	1,170,436,402

The table above provides the costs by Province, District and LLG according to their current functional responsibilities (between province and LLG).

- Provincial level costs are dominated by the costs of infrastructure maintenance and education services. In practice, most activities within the two sectors are now being undertaken in districts.
- District level costs are primarily support for health and agriculture and village courts.
- LLG level costs relate mostly to assembly and elementary/primary school class maintenance.

Table 5: Sector/division costs for all provinces by level

All Sectors & Divisions	Level			
	Province	District	LLG	Total
Agriculture	3,592,354	63,457,051	-	67,049,405
Assembly Services	28,341,502	1,958,798	72,326,955	102,627,254
Commerce and SME	8,969,778	2,523,044	-	11,492,822
Communication	2,125,133	49,509	-	2,174,642
Community Development	15,341,620	2,038,949	-	17,380,569
Correctional Services	8,722,090	-	-	8,722,090
Disaster Management	831,619	-	-	831,619
Education	264,671,340	10,853,196	70,661,967	346,186,504
Environment	2,502,565	45,881	-	2,548,446
Finance and Administration	5,844,185	1,406,586	344,192	7,594,963
Fisheries	1,705,849	10,332,577	-	12,038,426
Forestry	516,255	-	-	516,255
Health	20,852,136	154,741,912	6,710,432	182,304,480
HIV AIDS	9,336,092	-	-	9,336,092
HRM	4,310,390	79,490	-	4,389,880
Infrastructure	283,240,832	12,141,496	-	295,382,328
Internal Audit	2,113,091	75,817	-	2,188,908
Land and Physical Planning	4,639,896	110,834	-	4,750,731
Land Mediation	942,540	824,643	265,129	2,032,312
Legal Services	1,886,608	-	-	1,886,608
LLG Administration	4,608,080	1,614,503	8,532,322	14,754,905
Natural Resource Management	880,966	-	-	880,966
Office of Administrator	8,663,854	3,343,337	-	12,007,191
Police	19,902,674	-	-	19,902,674
Policy, Planning and Research	2,999,633	1,133,865	-	4,133,499
Village Courts	1,288,517	33,615,455	2,418,860	37,322,832
Grand Total	708,829,601	300,346,943	161,259,858	1,170,436,402

The table above illustrates provincial, district and LLG level costs for all provinces on a sector and divisional basis. When reviewing the table you will note:

- That most of the costs are found in only five areas; being the major sectors of

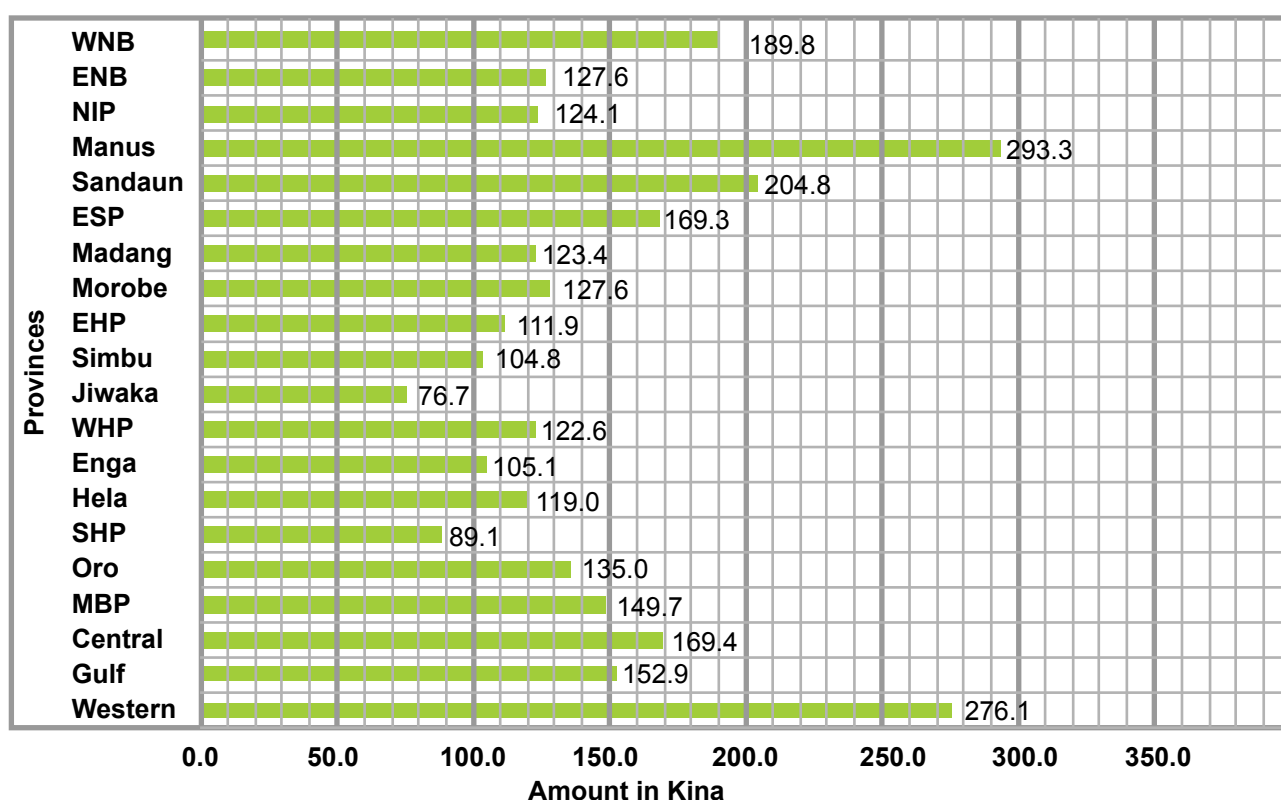
health, education, infrastructure, agriculture and assembly services. These five areas comprise about 85% of the total cost estimate.

- At provincial level, education and infrastructure activities consists of more than 77% of total provincial level costs.
- At district level, health, agriculture, and village courts activities are almost 84% of district level costs.
- Education (school maintenance) and LLG assembly costs are 89% of LLG level costs.

Equal access to services

To assess how much it would cost per person in each province, an analysis of costs per capita is shown in the chart below.

Figure 11: Costs per capita by province



The graph above depicts the total costs per capita using provincial populations.

- In looking at costs per capital, it is estimated to cost almost K300 per person in Western and Manus to deliver and maintain basic services annually (Manus K293 and Western K276).
- Costs per person in the highland provinces are much lower compared to the coastal and island provinces. This can be attributed, in part, to the availability of road travel within the highland region as opposed to boat and air travel common in other provinces. Population size and density can also influence the cost per capital.
- Morobe, with the largest provincial population, has a costs per person of about K128. This indicates also that the costs do not strictly align with population. For example, it is estimated to cost more than twice as much per head to provide the same level of health services in Manus as it does in Western Highlands.



5 Sectors & Divisions: Discussion, Results and Assumptions

This section of the report discusses the major assumptions that underpin the study by presenting and discussing the costs of service delivery sectors and administrative division. For readers with an interest in the detailed cost estimates at activity level these are provided in in 'Appendix 2 of the report.

5.1 Major Sectors

Not all sectors have the same cost footprint at the sub-national level. Some sectors are large in financial terms and cost a lot to fund, whilst others are relatively small. The study found that four service sectors and one administrative area have very high costs relative to the whole. These are the sectors of; education, health, infrastructure and primary production, and the administrative area of LLG assembly services. These five areas collectively comprise 85% of the cost of services study. Because of their relative weighting and complexity this report provides more analysis on these five areas.

The challenge in drafting this report is to decide what information is useful to readers, and so include, and what is simply too much and therefore unintentionally overwhelming. The study is by nature comprehensive and detailed and whilst some readers may have an interest in the minutiae the reality is that even those readers will be interested in answering questions at a particular time and not the whole. The report in this section seeks to target the need for the many readers who want to get a general understanding of the sector results and the major underlying assumptions.

The subsections on the major sectors are ordered as follows:

- Summary information, including total cost and cost drivers.
- A discussion of the sector
- A graph or table illustrating sector costs by province and level.
- A table of the activity set immediately below the graph.

Other information can be found at:

- An explanation of the principal cost methods adopted in this study can be found in chapter 6, 'Generic Cost Assumptions.'
- A list of costing terms and explanations can be found in Appendix 1.
- Detailed costings by province, level and activity can be seen in the appendices to this report in 'Appendix 2: Cost Estimates.'



5.1.1 Education

Summary

- The 2020 sector cost estimate for education is K346 million [2015, K249 million].
- Education comprises 30% of the overall cost estimate.
- Education services are provided at all levels of the sub-national system with a large amount of costs involved in supervision and supplies for school facilities.
- In total, education costs have increased by 39% from 2015.
- The biggest proportion of the costs (76%) is at the provincial level, K265m.
- District education costs K11m.
- LLG education costs K71m (for school maintenance).

Discussion

Delivering education services in PNG remains a constant challenge due to the enormous size of the sector and the binding constraints. These include the lack of resources, the remote locations of school facilities, the cultural diversity that is prevalent across PNG, and the lack of teachers and teacher training.

There are more than 2,300,000 students attending elementary, primary, and secondary schools in the country. There are approximately 54,000 teachers and more than 12,500 schools in PNG. Responsibilities within the sector are shared between the national government through the Education Department and all subnational levels.

This study focuses on the recurrent operational costs associated with the activities and responsibilities undertaken by provinces, districts and LLGs across Papua New Guinea. The total cost for education is estimated to be K346 million. This covers only those costs that subnational governments are expected to meet. The national government, on the other hand, also supports a number of important education service delivery activities, including the initial supply of curriculum materials to new schools, direct school funding (via the Tuition Fee Free (TFF) incentives), certain inspection costs⁴, teacher allowances and other national department and policy initiatives.

⁴In recent years, provincial administrations have been requested by NDoE to fund inspectors (or standard officers) travel. At NEFC regional workshops, the NDoE have presented and urged provinces to support or fully fund the travel costs of inspector travel. Notwithstanding, the reporting structure, salary structure. etc. remains at the national level under NDoE.

Table 6: Comparing education cost estimates across the NEFC costing studies in 2011, 2015 and 2020

	2011	2015	2020	Percentage Change between 2015 and 2020 Costs	Percentage Share of Total Costs
	PGK millions	PGK millions	PGK millions		
Total Costs	172.0	249.7	346.2		
Provincial Costs	135.8	192.1	264.7	38%	76%
District Costs	5.2	5.8	10.9	86%	3%
LLG Costs	31.0	51.7	70.1	37%	20%

Cost drivers: The main cost driver in the education sector is the large **number of facilities** (i.e., schools) in rural areas that need to be operated, supervised, and maintained. The cost of **travel** is another key cost driver. Travel is required for a range of education activities - for supervision, support and to distribute exam papers, education subsidies and school stationaries. The more schools there are, and the further they are apart, the more travelling is involved in delivering education services.

Impact of Free Education on Costs: The government's policy on Free Education (or Tuition Fee Free Education Policy) has also been in existence since 2012. This government initiative has resulted in an increase in student numbers, more schools, and more teachers compared to 2015. The increase in students, teachers, and schools has increased the operational costs required to support schools and for the education sector at the subnational levels.

Unit Costs of Education (PDP). We understand the last substantive and specific costing study for the education sector at the subnational levels in PNG was the 'PDP study' completed some 15 years ago in 2007. Further costing work seems long overdue. An updated study, designed to meet the needs of the sector, and with a sense of measure and realism⁵, can also contribute to the NEFC's and indeed the wider audiences understanding of the cost of services in the education sector in PNG.



⁵There is a tendency for sectoral costing studies to be somewhat aspirational in nature, and to reflect expectations, standards and costs that are often simply not achievable in a particular country-setting. Whilst this may be suitable for some purposes, it may not be helpful for countries in budget setting and guiding the allocation of their scarce resources.

The table below provide a list of education activities which are costed at different levels within a province.

Table 7: Education sector activities by level

Provincial level activities	District level activities	LLG level activities
K264.7 million	K10.9 million	K70.7 million
<ul style="list-style-type: none"> Administration Staff training (HRM) Elementary School Supplies Primary School Supplies Secondary School Supplies Provincial Education Board Provincial Contribution to School Operating Costs Teachers Leave Fares School Establishment Approval Teachers Appointment Exam Administration Pre-Service Training (Elementary Only) In-Service Training (Primary & Secondary Only) Secondary School Maintenance 	<ul style="list-style-type: none"> District Administration Costs Inspection and Advisory Visits Payroll Administration Provincial Ratings Conference 	<ul style="list-style-type: none"> Elementary and Primary School Maintenance

In looking at each province, the table below shows total education costs at different levels of province, district and LLG.

Table 8: Education sector costs by province and level, 2020

Province	Provincial Costs	District Costs	LLG Costs	Total
Western	10,283,489	886,849	2,357,291	13,527,629
Gulf	4,623,622	355,680	1,297,483	6,276,785
Central	10,996,547	604,568	2,650,420	14,251,535
MBP	9,416,842	560,498	2,594,085	12,571,426
Oro	5,339,133	372,838	2,063,735	7,775,706
SHP	14,700,470	535,371	4,065,935	19,301,776
Hela	6,502,513	323,341	2,257,837	9,083,690
Enga	12,992,236	509,147	4,071,134	17,572,517
WHP	20,005,871	297,901	4,323,753	24,627,524
Jiwaka	11,038,443	280,475	3,456,843	14,775,761
Simbu	14,133,404	476,131	3,807,193	18,416,728
EHP	22,854,668	584,912	6,659,172	30,098,752
Morobe	24,937,120	933,962	6,954,217	32,825,298
Madang	14,445,695	736,169	4,607,874	19,789,739
ESP	23,158,115	661,206	6,956,867	30,776,188
Sandaun	12,422,575	982,958	3,949,824	17,355,356
Manus	3,937,004	167,600	664,820	4,769,423
NIP	6,654,561	379,588	1,908,445	8,942,593
ENB	12,543,169	459,898	3,198,925	16,201,992
WNB	23,685,864	744,107	2,816,113	27,246,085
Total	264,671,340	10,853,196	70,661,967	346,186,504

The table below provides the costs for the various activities under education by different levels.

Table 9: Education sector costs by activity and level, 2020

Education Sector Activity Cost Estimates 2020	Level			
	Province	District	LLG	Total
Administration	4,667,047	1,127,280	-	5,794,327
Elementary School Supplies	20,569,261	-	-	20,569,261
Exam Administration	13,873,426	-	-	13,873,426
Human Resource Development	279,251	-	-	279,251
In-Service Training (Primary & Secondary only)	19,045,080	-	-	19,045,080
Inspection and Advisory Visits	-	8,118,226	-	8,118,226
Provincial Contribution to School Operating Costs	44,062,599	-	-	44,062,599
Payroll Administration	-	1,607,690	-	1,607,690
Pre-Service Training (Elementary only)	7,699,933	-	-	7,699,933
Primary School Supplies	46,156,540	-	-	46,156,540
Provincial Education Board	1,230,840	-	-	1,230,840
School Establishment Approval	199,274	-	-	199,274
Elementary & Promary School Maintenance	-	-	70,661,967	70,661,967
Secondary School Maintenance	51,954,638	-	-	51,954,638
Secondary School Supplies	13,745,606	-	-	13,745,606
Teacher Appointment	3,820,648	-	-	3,820,648
Teacher Leave Fares	37,367,198	-	-	37,367,198
Total	264,671,340	10,853,196	70,661,967	346,186,504

A detailed discussion on the unique activities, cost basis and the assumptions used to generate the costs for education is provided in the table below.

Table 10: Education sector unique activities, cost basis and assumptions

Activity Name	Activity Description	Cost Basis	Explanation of Costing Assumptions
Provincial level activity costs			
Provincial Education Board	Arrange and support Board meetings	National standard costs plus travel calculation	Assumes 13 members meeting 4 times a year (half public servants/half community reps; half from provincial capital; half outside provincial capital— proxy median LLG). Meeting lasts 2 days.
Provincial contribution to school operating costs	Meet cost of provincial <u>contribution</u> to school operating costs / education subsidy		
Provincial top-up of teacher leave- fares	Teacher leave-fare funding shortfall	Estimate of annual leave fare liability less national government contribution (being the national gov't Teachers Leave Fare Grant)	Assumes 1/3 of teachers come from outside of the province and receive a leave fare every 2 years, they travel with 3 dependents with the average cost of the leave fare equal to a return ticket from the provincial capital to Port Moresby.
Curriculum materials supply	Purchase of curriculum materials	No cost estimate, see notes.	Ideally curriculum materials would be replaced, on average, once every 5 years. However, the responsibility for providing new/replacement curriculum is unspecified and is, in practice, quite irregular.

	Distribution of curriculum materials	No cost estimate, see notes.	The distribution of curriculum materials is recorded as a provincial responsibility. However, given the irregular nature in the procurement of new/ replacement curriculum a cost estimate has not been developed for inclusion.
School establishment approval	Process submissions from schools	No unique cost	Receive submissions from schools through LLGs. Assumes cost covered under other school visits.
	Travel to assess school establishment submission.	Travel calculation, province-school site visit	Assumes 1 person from province visits proposed site for 2 days each and assumes that each province has a total of 5% of its school numbers as new schools each year, and there is the same average travel time to reach these schools as this is for existing schools within the province.
	Submission to PEB for approval	No unique cost	Assumes this is covered in regular meetings.
	Presentation to NDoE in POM	No unique cost	Postal charges. Assume postal cost absorbed under administration.
Teacher appointment and deployment	Teacher recruitment	No unique cost	Assume no unique costs for recruiting teachers i.e., no visits to teacher colleges etc.
	Deployment costs (new recruits, promotions, retirement)	Travel calculation Province - LLG	Assume that each year 10% of teachers are from outside the province, and they (2 adults and three children) require travel from provincial capital to median LLG. Once in the province, it is assumed the 10% of teachers and their families travel to the median LLG in each district by public transport.
Payroll administration	Keeping teacher pay roll records; advise to TSC	No unique cost	Assumed to be absorbed under admin.
	Prepare salaries budget	No unique cost	Assumed to be absorbed under admin.
	Present to TSC and supervise entering of teacher data	No unique cost	Fax/email forms to POM. Assumed to be absorbed under admin.
Education subsidy administration	Pay to schools	No unique cost	Assumed to be absorbed under admin.
Exam administration	Send exams from POM to province	National responsibility	Assume freight costs are a national cost.
	Primary (grade 8) exam administration Distribute exams	Travel calculation, province - school	Assumes short (half-day) primary school visit to distribute exams
	Collect exams	Travel calculation, province - school	Assumes short (half-day) primary school visit to collect exams.
	Provincial visit (marking)	Travel calculation, school - province	Assumes 1 marker from each primary (grade 7) school to provincial capital for 5 days; assume all come from median LLG.
	Venue Hire	No unique cost	Venue hire – n/a, assumes marking is based in schools

	Secondary (grade 10) exam administration Distribute exams	Travel calculation, province - school	Assumes short (half-day) secondary school visit to distribute exams
	Collect exams	Travel calculation, province - school	Assumes short (half-day) secondary school visit to collect exams
	Provincial visit (marking)	Travel calculation, school - province	1 marker from each secondary/high school to provincial capital for 5 days; assume all come from median LLG
	Venue Hire	No unique cost	Venue hire – n/a, assumes marking is based in schools
	Secondary (grade 12) exam administration Distribute exams	Travel calculation, province - school	Assumes short (half-day) secondary school visit to distribute exams
	Collect exams	Travel calculation, province - school	Assumes short (half-day) secondary school visit to collect exams
Pre-service training (elementary only)	Provide provincial training course	Travel calculation and local costs	Assume 20% of elementary teachers are in training. Assume two courses per year in provincial capital for 3 weeks. Province pays for venue hire, course materials, trainer per diem - but not trainees transport.
	Inspection visits to elementary schools	Travel calculation, province - elementary schools	Assumes province-to-elementary school visits; 3 staff to 20% of schools with each visit lasting 3 days.
In-service training	Provide in-service training	Travel calculation and local costs	Assume 50% of teachers receive a 5-day in-service training course at provincial level. Assume costs of providing a trainer are met by NDoE. Costs are refreshments, course materials, per diems. Assumes that high school facilities are used for accommodation and venue.
Secondary school maintenance	Maintain Secondary school buildings 50% of cost	National standard cost	Assume province meets 50% of the cost of maintaining each secondary school classroom. Assume province meets 50% of the cost of maintaining each secondary school classroom. The cost of maintaining classrooms is based on the per student estimates contained in the 2008 Universal Basic Education Plan (duly indexed).
	Maintain Secondary School buildings. 50% of cost	National standard cost	Assume 50% paid by other parties (i.e., not the provincial government).
Elementary school supplies	Procurement of school supplies	Local costs	UPDATED ASSUMPTION: Assumption of quantity of school supplies required by elementary school students. School supplies are assumed to be: 3 x 96 -page exercise books, 6 x pencils and 2 x erasers, a ruler and a sharpener. (2020 study added to the supplies a ruler and a sharpener)

	Distribute supplies to schools	Travel calculation, province – school	UPDATED ASSUMPTION: Assume that each school receives two distributions of supplies each year, and that distribution vehicle (small truck or chartered aircraft) can fit supplies for 6 elementary schools on average. (2020 study increases number of distributions from 1 to 2 in a year)
Primary School Supplies	Procurement of school supplies	Local costs	UPDATED ASSUMPTION: Assumption of quantity of school supplies required by primary school students. School supplies are assumed to be: 6 x 96 - page exercise books, 6 x pens, 6 x pencils and 2 x erasers, 1 x ruler, 1 x sharpener. (2020 study increases number of distributions from 1 to 2 in a year)
	Distribute supplies to schools	Travel calculation, province – school	Assume that each school receives two distributions of supplies each year, and that distribution vehicle (small truck or chartered aircraft) travels individually to each primary school.
Secondary School Supplies	Procurement of school supplies	Local costs	UPDATED ASSUMPTION: Assumption of quantity of school supplies required by secondary school students. School supplies are assumed to be: 9 x 96-page exercise books, 9 x pens, 9 x pencils, 1 arch-lever file and 2 x erasers, 1 x ruler, 1 x sharpener. (2020 study increases number of distributions from 1 to 2 in a year)
	Distribute supplies to schools	Travel calculation, province – school	Assume that each school receives four distributions of supplies each year, and that distribution vehicle (small truck or chartered aircraft) travels individually to each secondary school.
District level activity costs			
Payroll administration	School (resumption) visit	Travel calculation, province – school	Short (half-day) visit to each school
Inspection and Advisory (elementary, primary, secondary)	Elementary, Primary and Secondary school inspections	Travel calculation, province – school	UPDATED ASSUMPTION: Assume inspectors come from District level. National function but partly met by province. Assume province meets two of the three required visits each year. (Increased from one visit to two in 2020 study) <i>Visits are by 1 person for 1 day in each school.</i>
	Elementary coordination and inspection	Travel calculation, province – school	UPDATED ASSUMPTION: Assume 2 additional visit of 1 person to each elementary school each year. (Visits increased from 1 to 2 in 2020 study)
	Provincial ratings conference	Travel calculation, district – province	Assume 2 staff from each district attends conference at provincial capital once a year for 5 days.
	National ratings conference	National responsibility	Visit to POM. Assume paid for by NDoE
Vocational	Various - but covered under other programs	No unique cost	Assume cost met under other programs
Literacy/non formal education	Covered under community development	No unique cost	Assume cost met under community development area

CODE (Distance Education)	Various - but covered under other programs	No unique cost	Assume cost met under other programs
LLG level activity costs			
Elementary and Primary school maintenance	Maintenance of school buildings 50% of cost	National standard cost	Assume LLG meets 50% of the cost of maintaining each elementary and primary school classroom. The cost of maintaining classrooms is based on the per student estimates contained in the 2008 Universal Basic Education Plan (duly indexed).
	Maintenance of school buildings 50% of cost	National standard cost	Assume 50% paid by other parties (i.e., not the provincial government).
Facility (school) level activity costs			
Education Subsidy Administration	Collect and cash cheques	Travel calculation, school to district travel	Cost of travel is met by the school

Note: Activities highlighted in orange are assumed to be cost neutral. The costs are assumed to be covered under another related activity, or are a national responsibility, or are 'someone else's' responsibility.

5.1.2 Health

Summary

- The 2020 sector cost estimate for health is K182 million [2015, K132 million].
- Health services are provided at all levels of the subnational system with a large amount of costs involving the operation of health facilities, immunization patrols and patient transfer.
- In total, health costs have increased by 38% from 2015.
- The largest proportion of the costs (85%) are incurred at the district level, K155 million.
- Rural health costs at the provincial level are K21 million.
- Costs at LLGs are K7 million.

Discussions

The health sector is one of the largest sectors in government. It has a huge presence in all of the subnational levels. Given its size, the increasing population, and the many binding constraints – these include an evolving and complex burden of disease, the diverse remote challenging geographic terrain, and the shortage of trained health care workers – the health sector is faced with significant challenges and impediments in its efforts to improve access to quality health services for the country's multitude of dispersed rural communities.













In recent years the Government has made efforts to address the challenges through a variety of initiatives and reforms across the health sector. Most notable, is the introduction and establishing of Provincial Health Authorities (PHAs) in all provinces by 2022. PHAs are independent statutory authorities that report to a board (and to the Minister for Health) and have a mandate to manage and coordinate health responsibilities and activities within a province.

The cost of services methodology is yet to be adapted to reflect the costs of the health sector operating under the Provincial Health Authority modality. As such, the 2020 cost

of services estimates do not reflect the PHA modality. Looking forward, the full cost of a PHA will need to be considered – but would typically include the PHA’s management and administration, the provincial hospital service, and the rural health service (which includes lower-level facilities managed by government, by church health providers and by other non-government providers). Careful thought and recalibration will be required as NEFC considers how health sector costs are calculated and integrated in a modified manner within the intergovernmental financing system.

Note on scope and methodology of the 2020 cost of services study for health: The scope and methodology of this 2020 study follows the previous studies (in 2005, 2010, and 2015), with a focus on health programs and activities that relate to rural health service delivery only. It has not been adapted to reflect the introduction of PHAs and new levels of facilities.

Table 11: Comparing health cost estimates across the NEFC costing studies in 2011, 2015 and 2020

	2011	2015	2020	Percentag Change between 2015 and 2020 Costs	Percentage Share of Total Costs
	PGK millions	PGK millions	PGK millions		
Total Costs	 123.8	 132.3	 182.3		
Provincial Costs	 15.8	 17.0	 20.9	23%	11%
District Costs	 104.1	 111.0	 154.7	39%	85%
LLG Costs	 3.9	 4.3	 6.7	56%	4%

Cost drivers: The main cost driver in the health sector is the number of facilities (i.e., health centres and aid posts) in rural areas that are in operation and staffed. The cost of travel is another key cost driver. Travel is required for a range of health activities - for supervision, clinical support and to distribute medical supplies. The more health facilities there are, and the further they are apart, the more travelling is involved in delivering rural health services. The table below however provide a list of health activities with costs assigned to the different levels within a province.

Table 12: Rural Health sector activities by level

Provincial level activities	District level activities	LLG level activities
K20.9 million	K154.7 million	K6.7 million
<ul style="list-style-type: none"> • Administration • Staff training (HRM) • Provincial Health Authority Board • Health Information Systems • Supervision • Disease Control • Distribution of Medical Supplies • Health Promotion 	<ul style="list-style-type: none"> • Administration • DHMC • Supervision • Patient Transfer • In-service Training • Rural Health Facility Operations • Rural Health Centre Transportation • Maintenance of Medical Equipment • Immunization/MCH • Water Supply • Health Promotion • HC Radios 	<ul style="list-style-type: none"> • Aid Posts

Provincial Health Authorities (PHAs): As noted earlier in this section, all provinces throughout the country now have a functioning PHA established as a mechanism for managing health services within a province. PHAs were intended to oversee all aspects of health service delivery, and as such, they have subsumed the provincial hospital functions and been delegated the mandate for rural health from the Provincial Government.

Catholic Church Health Services and Christian Health Services:

Faith-based health service providers in PNG are now represented by two bodies – being the Catholic Church Health Services and the Christian Health Services. Faith-based health service providers continue to be a significant contributor and a major partner in delivering rural health services in PNG. Faith-based health service providers (and other non-government health service providers) also fall under the mandate and oversight of PHAs, however in practice, they continue to operate with a level of autonomy. In most situations, church-run facilities continue to receive assistance from provincial governments, districts and PHAs – albeit in varied levels.

New types of facilities: In recent years, the Department of Health has introduced new levels of health facilities within their network of subnational health facilities below the provincial level (below level 5). These include district hospitals (level 4) and community health posts (or CHPs, level 2). The broad ambition is for districts to have either a district level hospital (or provincial hospital if it is the provincial capital) capable of providing an agreed level of health service in their area, and for CHPs to incrementally replace (several) aid posts in a catchment area, again, providing an agreed level of health service.

HIV services: In 2022, HIV services have been re-amalgamated with the Department of Health. This should be reflected in future NEFC costing studies.

In looking at each province, Table 13 below shows total health costs at different levels of province, district and LLG.



Table 13: Health sector costs by province and level, 2020

Province	Provincial Costs	District Costs	LLG Costs	Total
Western	1,436,575	12,547,661	409,824	14,394,059
Gulf	562,236	5,492,152	224,615	6,279,003
Central	843,305	8,685,800	188,641	9,717,747
MBP	1,022,885	8,463,506	356,922	9,843,313
Oro	749,256	4,695,110	205,382	5,649,747
SHP	837,191	8,348,648	288,603	9,474,442
Hela	1,143,769	7,187,663	244,847	8,576,278
Enga	1,118,626	7,333,175	363,751	8,815,552
WHP	829,653	4,504,360	169,903	5,503,917
Jiwaka	912,865	4,399,981	299,114	5,611,960
Simbu	996,202	6,788,446	323,431	8,108,079
EHP	851,653	6,643,049	394,725	7,889,427
Morobe	1,604,034	12,169,289	592,866	14,366,189
Madang	1,665,010	10,674,979	742,954	13,082,943
ESP	1,220,355	9,036,947	387,688	10,644,989
Sandaun	1,369,597	10,549,636	398,952	12,318,186
Manus	581,051	2,122,581	252,585	2,956,217
NIP	822,481	6,078,979	147,157	7,048,617
ENB	884,740	6,293,455	281,298	7,459,492
WNB	1,400,653	12,726,494	437,175	14,564,323
Total	20,852,136	154,741,912	6,710,432	182,304,480

Table 14 provides the costs for the various activities under rural health with costs assigned to the different levels.

Table 14: Health sector costs by activity and level, 2020

Health Sector Activity Cost Estimates 2020	Level			
	Province	District	LLG	Total
Administration	5,361,770	2,365,277	-	2,365,277
Human Resource Management	562,570	-	-	562,570
Provincial Health Board	1,087,195	-	-	1,087,195
DHMC	-	1,528,495	-	1,528,495
Aid Posts	-	-	6,710,432	6,710,432
Disease Control	125,984	-	-	125,984
Distribution of Medical Supplies	1,870,424	-	-	1,870,424
HC Radios	-	1,167,760	-	1,167,760
Health information system	17,270	-	-	17,270
Health Promotion	5,774,475	1,656,457	-	7,430,932
Immunization/MCH	-	19,301,342	-	19,301,342
In-Service Training	-	1,754,573	-	1,754,573
Maintenance of Medical Equipment	-	9,723,355	-	9,723,355
Patient transfer	-	-	-	52,815,613
Rural Health Centre Transportation	-	28,601,009	-	28,601,009
Rural Health Facilities	-	17,817,071	-	17,817,071

Supervision	6,052,447	5,365,514	-	11,417,961
Water Supply	-	12,645,445		12,645,445
Total	20,852,136	154,741,912	6,710,432	182,304,480

A detailed discussion on the unique activities, cost basis and the assumptions used to generate the costs for the rural health sector is provided in the table below.

Table 15: Health sector unique activities, cost basis and assumptions

Activity Name	Activity Description	Cost Basis	Explanation of Costing Assumptions
Provincial level activity costs			
Supervision	Management supervision of districts	Travel calculation, province - district visit	Assume provinces conduct management supervision and necessary technical work (e.g., environmental health tasks) in District capital 4 times a year. Assume 4 officers from province travel to each district, for 2 days each quarter.
	Performance review	Travel calculation, health center-district-province - visit	Assume the OIC of a health center and a District Health Officer travel to provincial capital 4 times a year for quarterly performance review. Assume 2 people (OIC and DHO) travel. Review takes 1 day at provincial capital.
	Clinical team from provincial hospital visit each health center	Travel calculation, province - health center visit	Assume 6 people from Provincial Hospital visit each HC once a year for three days for clinical support.
Disease Control	Outbreak management	Travel calculation, health center visit	It is assumed that 2 health centres would experience a disease outbreak each year. It is assumed that a team of 4 people for 5 days are required to travel to HC level to investigate, and that the HC are evenly spread throughout the province. It is assumed that communication costs are covered under general admin costs, and that any testing supplies are provided in the medical supplies budget (National Government responsibility).
Distribution of Medical Supplies	Distribution of medical supplies from province to district to health centre	Travel calculation, province - health centres	Assume distribution occurs from province capital 4 times a year. Distribution route/mode advised by province - based on most economical route from provincial capital to each Health Centre. Assume distribution vehicle (either banana boat, small airplane, or 4WD) travels separately to each health centre.
Health information system	Monthly reports from HC to province Send to POM	No unique cost National standard cost	Assume no unique cost. Costs such as post and travel are assumed to be covered under other forms of travel - supervision, quarterly reviews etc. Monthly DHL package province to POM
Health Promotion	Dissemination of print materials	Local cost	Printing of 4 x A4 colour leaflets per year for 25% of provincial pop. Distribution to health centres is via medical supplies distribution process, and to households via patrols/clinics (hence no unique cost for distribution).
	Radio spots	National standard cost	Assume 10 x 30 second ads per day for 100 days per year

Provincial Health Authority Board	Arrange and support Meetings	National standard cost, plus travel calculation	Assume 12 members; 50% public servants; 50% outside members; assume outside members drawn equally from throughout province; 4 meetings per year; 1 day duration; costs are travel, per diem, sitting fees, stipend, and lunch. Assume no venue hire.
Environmental Health	Check/inspection of town sewerage, fishing boats, etc.	No unique costs, province - district	Assume no unique costs. Assume limited to provincial capital and district centres. Provincial based inspections covered in provincial admin cost, and district based visits covered in supervision visit as listed above.
	Inspection of food markets and shops	No unique costs, province - district	As above
	Water quality testing	No unique costs, province - district	As above
District level activity costs			
Supervision	Combined general/technical/program, supervisory visit District to HC	Travel calculation, district-health centre	Assume Districts conduct combined management/technical supervision of HC 4 times a year. Assume 5 officers from District travel to each HC for 2 days.
	Aid post supervision visit	No unique costs, health centre - aid post	Assume this occurs during the scheduled 6 visits per year made by the HC to provide public health outreach services (see below). Hence no unique cost for this activity.
Disease control	Village based outreach, (e.g. bed net distribution, DOTS, case finding, contact tracing)	No unique costs, village visits	Assumed to be covered by aid posts and clinic visits - hence no unique costs. Additional costs of contact tracing for STIs/HIV are included under HIV.
Distribution of medical supplies	Distribution of medical supplies from HC to AP	No unique costs, health centre - aid post	Assumed that distribution occurs during clinic visits - hence no unique costs
District Health Management Committee	Arrange and support meetings	National standard cost, plus travel calculation	Assume 6 members; 3 public servants; 3 outside members; assume outside members drawn equally from throughout district; 4 meetings per year; 1 day duration; costs are travel, per diem, sitting fees, stipend and lunch. Assumes no venue hire.
Radios	Regular maintenance of HC radios	National standard cost	It is assumed regular radio maintenance costs K740 cost for spare parts. It is further assumed that each year all health centres required a visit each year for specific repairs.
	Emergency repair and maintenance of radios	National standard cost, plus travel calculation	It is assumed emergency radio maintenance costs equals K740. It is further assumed that each year all health centres required a visit each year for emergency repairs. One technician travel from provincial capital to 10% of HCs to undertake repair for 2 days duration. Assume other maintenance is covered under general supervisory visits.

Health Promotion	Local groups activities	National standard cost, village grants	It is assumed that each year, 5% of villages in the province receive a community grant of K1,280 for local level health promotion/improvement activities each year, and that these grants are managed through ward committees or NGOs who use part of the grants for disbursements and monitoring.
In-service training	Conduct in-service training for service delivery staff. District Training Course	Travel calculation, and local costs	Assume 50% of health workers from health centres and aid posts receive 5 days in-service training per year at district level. Assume in any given year the trainees are drawn equally from HC throughout the province. Assume half of participants need to travel from LLGs, class size of 20, and 2 trainers travel from province HQ.
Water supply	Establish new tank based water supply system villages each year	Asset procurement -water supply system	It is assumed that each year, 5% of villages in the province receive a new water supply system. For costing purposes, it is assumed that the system is a tank-based system that is adequate to provide water for 300 people (2000ltr with necessary building supplies for installments). It is assumed that the villages are equally spread throughout the province.
Patient Transfer	HC to provincial for emergency transfer	Travel calculation	Assume that 1% of the population would be expected to require hospitalization each year for the priority health care programs provided at rural health centres. This expected number has been apportioned to each province based on population to arrive at an expected number of cases to be transferred to hospital in each province. It is assumed that within each province, the number of expected cases is equally distributed between health centres. The cost of transfers (paid for by provincial health) only includes one-way transport for the patient and one relative. All other costs are borne by the hospital or the patient and are not included as part of the cost in this model.
Rural health facility operations	Health centre non- medical supplies	Basket of local costs	Assume each HC requires the following non-medical supplies: 1,000 litres of diesel fuel for generator, 200 litres of kerosene, 18 litres of bleach, 120 cakes of soap, 1 mop and 1 bucket. The amounts of each item have been worked out based on actual consumption of these items of a well- resourced (with user fees) Urban Health Centre in ENB that is seeing 30,000 outpatients per year. This figure of 30,000 contacts per year equates to the 'ideal' catchment population for a HC in the NDoH minimum standards of 10,000 and 3 outpatient contacts per year.
	Patient books	National responsibility	Health centre patient books are assumed to be a national responsibility.
	Maintenance of health centres including furniture and fittings	National standard cost	The Maintenance Cost is based on a Monash/ ADB Study. (duly indexed). Assumes each Health Centre minimum maintenance costs of K17,400 per year.

Maintenance of medical equipment in health centre	Maintenance of medical equipment in HC	National standard cost	For health centre medical equipment, it is assumed an average cost allocation per year is required to maintain a list of equipment deemed necessary for the health centre to operate to the sectors minimum standard. This costing was taken from NDoH has been duly indexed. Assume K13,051 for each Health Center. Any travel costs associated with medical equipment maintenance is assumed to be covered by the general supervisory visits which includes provision for a biomedical technician.
Rural Health Centre Transportation	Provide transport access to clinic extension points	Local costs of procurement and maintenance	Each health centre is provided with a vehicle or a boat (or both) where necessary to access clinic points and to transport patients. The costs are: depreciation on vehicle/boat (over 7 years), maintenance costs, and a fuel allowance.
Immunization / MCH	HCs collect vaccines	No unique costs, province-health centre	Assume vaccines are required to be supplied to the HC every two months (6 times per year). It is assumed that this supply is covered in other province to district trips (such as; supervision, quarterly reviews, and medical supply distribution trips) and hence there are no unique costs provided for in the cost study.
	Fridge repair/ maintenance & operating costs	National standard cost	The fridge repair/maintenance allocation is a weighted average that reflects the differing fridge types used in HCs and their prevalence (gas, kerosene, electric & solar) per the Monash/ADB study. Operating costs of a gas fridge is cost of 10 x 13kg bottles of gas per annum. It is assumed that 25% of fridges are each type, and that solar fridges have no operating costs (as in original 2005 study), while electric and kerosene running costs are covered under non-medical supplies (kerosene and diesel).
	Mobile Clinics / Outreach	Travel calculation, health centre - clinic site visits	The study assumes mobile clinics from HC are held at sites (census units) which are chosen to be within 2 hours travel time for the population within the HC catchment area. It is assumed that these clinic points need to be serviced by health staff at least 6 times per year to meet the requirements of the key public health program particularly immunization which requires 6 contacts per year per child to be fully immunized. Other public health programs require less intensive contact than that and hence are assumed to be met by the 6 visits per year requirement. Assume each clinic lasts half a day and that 3 HC staff travel for each clinic if travel is by vehicle, or if it is a walking clinic, then an additional three staff/casuals travel as carriers.

	School visits	Travel calculation, health centre-schools	The study also assumes the health centre staff visit each school in the catchments area once a year. This is in addition to the clinic sites and that each school clinic lasts 1 day with three staff.
	Village Birth Attendant Program District Training	Travel calculation, and local costs	Assume 50% of HC in each province have VBA program consisting of 20 VBA/VHV per HC, and that they receive 2 days of training per year at District level. Assumes half the participants come from the median LLG in the district by public transport and are reimbursed for their travel costs.
	Assume each VBA receives 20 replacement VBA/VHV kits	National responsibility VB Attendant and Volunteer Kits	Assume each VBA receives 20 replacement VBA/VHV kits birthing kits each year (which consist of large plastic sheet, 2 pieces of string, new razor blade, pair gloves, small piece of soap, 6 pieces of gauze). The cost of this is provided by the national government under the medical supplies budget.
Local level activity costs			
Aid Posts	Non-medical supplies for aid post	Basket of local costs	It is assumed that Aid Posts require 10% of the cost of non-medical supplies provided to HC <i>NB: annual HC costs are 200 litres of kerosene, 18 litres of bleach, 120 cakes of soap, 1 mop and 1 bucket)</i>
	Maintenance of medical equipment	National standard cost	The model adopts the advice from NDoH (duly indexed). Assume minimum cost of K1827 for each Aid post.
	Maintenance of aid posts facility (incl. furniture and fittings)	National standard cost	The model adopts advice from NDoH. (duly indexed). Assume minimum cost of K1274 for each Aid post.

Note: Activities highlighted in orange are assumed to be cost neutral. The costs are assumed to be covered under another related activity, or are a national responsibility, or are 'someone else's' responsibility.

5.1.3 HIV AIDS subsector

Summary

- 2020 sub-sector cost estimate, K9.3 million [2015, K6.9 million).
- Activity costs in this subsector are provided at the provincial level.
- The major activity cost relates to public awareness activities.

Note: In 2022, HIV services were re-amalgamated with the Department of Health. This change should be reflected in future NEFC costing studies.

The way the HIV AIDS subsector operates differs from province to province. Activities or functions relating to treatments and drugs are coordinated through the health sector, whereas activities relating to awareness and promotion are coordinated through community development or other social sectors. This study however focuses on activities that are not health-related assuming that the PHAs would perform these functions.

Table 16 provides the activity costs by province for the various activities under HIV AIDS subsector.

Table 16: HIV AIDS subsector costs by province

Province	Provincial HIV Committee	Public Awareness	Training	Grand Total
Western	33,369	364,743	17,727	415,839
Gulf	14,246	127,546	14,279	156,071
Central	16,015	370,655	9,453	398,024
MBP	19,250	399,522	11,222	429,994
Oro	20,128	305,778	6,727	332,632
SHP	14,945	608,177	4,894	628,016
Hela	18,972	716,559	7,789	743,321
Enga	15,777	423,343	6,163	468,900
WHP	17,906	333,355	4,581	374,594
Jiwaka	14,649	538,689	5,309	577,409
Simbu	14,821	375,109	8,205	398,135
EHP	16,762	588,255	5,691	648,805
Morobe	20,721	840,821	9,282	870,824
Madang	19,110	737,337	8,753	765,200
ESP	14,622	431,376	6,267	452,264
Sandaun	47,459	408,840	26,735	486,213
Manus	16,696	92,796	6,739	186,533
NIP	20,143	196,624	7,202	328,482
ENB	14,098	311,568	7,209	332,876
WNB	23,953	267,089	9,550	341,960
Total	393,643	8,438,182	183,776	9,336,092

A detailed discussion on the unique activities, cost basis and the assumptions used to generate the costs for the HIV AIDS subsector is provided in Table 17.

Table 17: HIV AIDS subsector unique activities, cost basis and assumptions

Activity Name	Activity Description	Cost Basis	Explanation of Costing Assumptions
Provincial level activity costs			
Provincial HIV AIDS Committee	Arrange and support meetings	National standard cost plus travel calculation	Assume 12 members; 1/2 public servants; 1/2 outside members; assume outside members drawn equally from throughout province; 4 meetings per year; 1 day duration; costs are travel, per diem, sitting fees, stipend, lunch. Assume no venue hire.
Public Awareness and material distribution	Health Promotion	Local costs	Assume 2 x A4 pamphlets (colour) to 25% of population per year, distribution by all sectors (hence no extra cost)
	Radio Adverts	Radio ads-National standard cost	Assume 100 days per year, 30 second 5 times a day

	Community Grants	National standard cost	Assumes grants provided to 10% of villages per year at K1,000 each for HIV AIDS community programs
	Outreach visits	Travel calculation, province-schools	Assume 10% of schools visited per year; 0.5 days in each school plus travel time; Assume schools are in median LLG.
	Distribution - Health Centre/Aid Post	No unique costs, travel province-health centre-aid post	Assume, drugs, condoms and health promotion materials distributed under health sector costing
Training	Health Staff	No unique costs, training courses	Assume covered under health training
	Community Counsellors Training courses	Travel calculation and local costs	Assume 2 course per year per province; 20 participants held at province level. Assume participants come from median LLG

Note: Activities highlighted in orange are assumed to be cost neutral. The costs are assumed to be covered under another related activity, or are a national responsibility, or are 'someone else's' responsibility.

5.1.4 Infrastructure

Summary

- 2020 sector cost estimate, K295.4 million [2015, K219 million].
- Infrastructure services are provided at all levels of the sub-national system with a large amount of costs involved in roads, bridges, and rural airstrip maintenance.
- In total, Infrastructure costs have increased by 35% from 2015.
- The biggest proportion of the costs (76%) is at the provincial level, K283 million.
- District costs K12 million.

The total cost of the infrastructure services under the cost of services study across Papua New Guinea is K295.4 million (Table 18). This covers only those recurrent costs that provincial and local-level governments are expected to meet. The national government, on the other hand, also supports a number of programs and activities in the transport and infrastructure sector which is outside of the scope of this study on the costs of subnational government responsibilities.

Table 18: Comparing infrastructure cost estimates across the NEFC costing studies in 2011, 2015 and 2020

	2011	2015	2020	Percentage Change between 2015 and 2020 Costs	Percentage Share of Total Costs
	PGK millions	PGK millions	PGK millions		
Total Costs	123.8	219.1	295.4		
Provincial Costs	170.5	208.6	283.2	36%	96%
District Costs	9.4	10.5	12.1	15%	4%
LLG Costs					

Discussion

Infrastructure development and maintenance remains a constant challenge in PNG given the geographical difficulties, the inhospitable terrain, and the highly dispersed population. Broadly, infrastructure when used to describe a sectoral classification, would generally cover the areas of transport, roads, air services, shipping, electricity, telecommunications, etc. In addition to that, there are other direct incentives⁶ or programs.

At the national level there are various infrastructure projects, but many tend to be developmental in nature – not directed at the routine maintenance that is the focus of this study. For example, the Connect PNG program, which is administered at the national level, is being implemented to develop about 16,000 km of road connecting different provinces throughout PNG. There is also the rural electrification program and the civil aviation development infrastructure program, plus other programs, that are all contributing to the development of infrastructure at a national scale across PNG. These national-level investments clearly have subnational benefits in various provinces and districts, but they fall beyond the purview of the NEFC costing study which is focused on subnational service delivery responsibilities that are recurrent and operational in nature – not major capital works or development investment.

In addition to the national level investment projects and programs, there is also growing financial support available for provinces and districts through the Government's expansive services improvement program (SIP) and a new provincial and district infrastructure program (PIP/DIP). In 2023, through the provincial service improvement program (PSIP) and the district service improvement program (DSIP) about K1.185 billion of funding continues to be available to provinces and districts, together with a new funding allocation of between K1 billion to K1.2 billion (PIP/DIP) – under the guidance of Governors and Members and their provincial and district committees – to build, rehabilitate, or maintain infrastructure subnational assets such as airstrips, roads, and jetties, etc. The NEFC cost estimate for routine maintenance for the country's precious subnational infrastructural assets is less than 13% of the amount being granted via the SIP and PIP/DIP programs.

Note on scope and methodology of the 2020 cost of services study for infrastructure: The scope and methodology of this study continues to adopt a range of highly conservative assumptions in estimating the needs and costs for the different activities within the infrastructure sector at the subnational levels. For example, the estimated cost for road maintenance is based on the (most minimal) cost of annual routine maintenance only. The real costs are typically much higher given the poor state and frequency of basic maintenance of the country's roading infrastructure. Poorly maintained infrastructure, particularly roads, quickly become extravagantly expensive to maintain or rehabilitate.

Table 19 lists the infrastructure activities that are included in the costing study at the different levels of subnational government and administration – province, district and LLG.

⁶Examples of direct incentives include the Tax Credit Scheme Incentives and Special Support Grants for provinces with resources projects.

Table 19: Infrastructure sector activities by level

Provincial level activities	District level activities	LLG level activities
K283.2 million	K12.2 million	K0
<ul style="list-style-type: none"> Administration Staff training (HRM) Transport Board/Authority Policy Development Rural Airstrip Maintenance Wharf, Jetties and Landings maintenance Bridge Maintenance Road Maintenance 	<ul style="list-style-type: none"> Administration District Communication Rural Electricity 	No function performed at this level

Table 20 shows infrastructure costs, by province, at the different levels of subnational government and administration – province, district and LLG.

Table 20: Infrastructure sector costs by province and level, 2020

Province	Provincial Costs	District Costs	LLG Costs	Total
Western	21,582,297	531,572		22,113,869
Gulf	7,401,815	474,008		7,875,823
Central	18,336,880	854,341		19,191,221
MBP	10,346,980	698,933		11,045,912
Oro	6,140,603	290,603		6,431,207
SHP	10,724,800	445,983		11,170,782
Hela	6,406,575	417,947		6,824,521
Enga	17,204,513	822,999		18,027,512
WHP	14,788,797	368,076		15,156,873
Jiwaka	12,511,912	219,195		12,731,107
Simbu	12,215,085	595,642		12,810,727
EHP	26,718,815	792,080		27,510,895
Morobe	24,336,335	1,240,365		25,576,700
Madang	19,242,991	966,636		20,209,628
ESP	27,933,759	844,455		28,778,215
Sandaun	9,866,158	939,958		10,806,116
Manus	6,442,522	62,692		6,505,214
NIP	7,589,532	327,875		7,917,406
ENB	16,582,341	561,516		17,143,857
WNB	6,868,122	686,620		7,554,742
Total	283,240,832	12,141,496		295,382,328



Table 21 provides the costs for the various activities under infrastructure with costs assigned to the different levels.

Table 21: Infrastructure sector costs by activity and level, 2020

Infrastructure Sector Activity Cost Estimates 2020	Level			
	Province	District	LLG	Total
Administration	2,308,296	340,362		2,648,658
Bridge Maintenance	11,658,159			11,658,159
District Communication		3,801,225		3,801,225
Human Resource Development	92,378			92,378
Jetties	5,728,825			5,728,825
Policy Development	426,401			426,401
Provincial Procurement Committee	90,629			90,629
Road Maintenance	244,638,402			244,638,402
Rural Airstrips	17,820,000			17,820,000
Rural Electricity		7,999,909		7,999,909
Transport Board	477,742			477,742
Total	283,240,832	12,141,496		295,382,328

A detailed discussion on the unique activities, cost basis and the assumptions used to generate the costs for the infrastructure sector is provided below.

Table 22: Infrastructure sector unique activities, cost basis and assumptions

Activity Name	Activity Description	Cost Basis	Explanation of Costing Assumptions
Provincial level activity costs			
Policy Development/ Project Management	Project management	Travel calculation, province - district	Travel to identify potential projects and monitor existing contracts. Assumes that 2 staff travel to each district twice a year to identify potential projects and 2 staff visit each project twice a year for 3 days in a monitoring capacity.
Transport Authority/Board	Arrange and support meetings	National standard cost plus travel calculation	Assumes 8 members; 50% public servants; 50% outside members; assume outside members drawn equally from throughout province; 4 meetings per year; 1 day duration; costs are travel, per diem, sitting fees, stipend, and lunch. Assumes no venue hire.
Road Maintenance	Maintain road infrastructure	National standard cost = km's of road x unit cost	The maintenance cost is a simple calculation involving the kilometres of road in a province and a standard cost for routine maintenance. Length: The network of provincial roads was based on interviews with provincial officials on the extent and quality of the road network in each district and has been adjusted where appropriate. Unit Costs: There are separate unit costs for routine maintenance of sealed and unsealed roads.
Bridge Maintenance	Maintain bridge infrastructure	National standard cost = number of bridges x unit cost	The maintenance cost is a simple calculation involving the number of bridges in a province and a single standard cost for routine maintenance. The length and quantity of bridges was based on interviews with provincial officials and has been adjusted where appropriate.

Airstrip Maintenance	Maintain rural airstrips	National standard cost = number of airstrips x unit cost	UPDATED ASSUMPTION: The maintenance cost is from Rural Airstrip Agency advice who is involved in the rehabilitation and maintenance of rural airstrips in PNG. An average annual cost of K45,000 is used in this simple calculation of the number of airstrips in a province and the single standard cost for routine maintenance. The network of rural airstrips was determined based on interviews with provincial officials during the study.
Jetties	Maintain landings, wharves and jetties	National standard cost = number of waterway structures x relevant unit cost	The maintenance cost is a simple calculation involving the number of landings, wharves, and jetties in a province and the relevant standard cost for their routine maintenance. The network of landings, wharves and jetties were determined based on interviews with provincial officials during the study. Unit Costs: Refer to the table earlier in this section on infrastructure maintenance unit costs.
District level activity costs			
Rural Electricity	Cost of providing electricity to district administrations	National standard cost and/or Local cost	Where the district centre is connected to PNG Power, standard assumptions apply re: average cost of electricity per staff member. Where the district centre has a generator of less than 200KWh (approx. 120KVA) it is assumed to operate at an efficiency of 0.3 litres of diesel per KWh (generators greater than 200KWh are assumed to consume 0.4 litres per KWh). Where generator size is not known, or not operational District is assumed to operate a 100KWh generator. Assume average daily usage of 200KW, additional costs include cost of oil, and the cost of maintaining the generator and transmission lines.
District HQ Communication	Cost of providing communication services to District Centre	National standard cost	Where district centre is connected to mobile networks the standard assumptions apply regarding average cost of phone service per staff member. Satellite phone: If it does not have access to mobile networks or radio service (see below) it is assumed to have a satellite phone with costs assumed to include; handset maintenance, network access fee, license and call costs.
	District Radio (where applicable)	National standard cost plus travel calculation	It is assumed that regular radio maintenance costs equal 5% of the capital cost of a new radio to be used for spare parts. It is further assumed that each year 10% of districts required a visit each year for specific repairs per year. One technician travels from the provincial centre for 2 days to each district to undertake the repair. Assume other maintenance is covered in general supervisory visits.

Note: Activities highlighted in orange are assumed to be cost neutral. The costs are assumed to be covered under another related activity, or are a national responsibility, or are 'someone else's' responsibility.

5.1.5 Primary Production – Agriculture subsector

Summary

- 2020 Agriculture subsector cost estimate, K67 million [2015, K43 million]
- Most sub-sector activities and costs are at the district level (95%)
- Subsector costs increased by 55% from 2015 study
- Cost drivers: Population alone is not an accurate driver of cost in this subsector. The main drivers of costs in this sector are **travel costs** and the **number of farmers**. Extension services are more expensive to provide in provinces with widely dispersed populations, where agricultural extension staff have to travel long distances to reach farmers.

The main agriculture service delivery activities are listed in the table below. Extension services and Farmer Training are the main activities provided mostly at the district level. This involves visiting extension points to speak to farmers, provide them with materials, and provide advice on farming techniques and marketing.

Table 23: Agriculture subsector activities by level

Provincial level activities	District level activities	LLG level activities
K3.6 million	K63.5 million	K0
<ul style="list-style-type: none"> • Administration • Staff training (HRM) • Supervision 	<ul style="list-style-type: none"> • Administration • Extension Services • Farmer Training • Information and Awareness 	No function performed at this level

The table below provides the costs for the various activities under agriculture with costs assigned to each province by different levels.

Table 24: Agriculture subsector costs by activity and level, 2020

Province	Administration		Staff Training (HRD)	Supervision	Extension Services	Farmer Training	Information and Awareness	Total
	Province	District	Province	Province	District	District	District	
Western	22,857	59,082	13,772	43,635	3,179,515	931,059	84,787	4,334,707
Gulf	134,097	40,752	6,385	15,922	1,605,036	592,831	39,021	2,434,044
Central	82,244	178,316	35,959	28,997	2,850,716	679,935	78,266	3,934,432
MBP	79,638	34,054	7,061	29,501	2,483,480	946,242	92,263	3,672,239
Oro	107,277	110,946	23,639	6,431	1,814,574	703,546	58,870	2,825,283
SHP	56,854	-	626	25,508	1,165,175	1,149,166	103,175	2,500,503
Hela	135,117	7,741	4,073	19,364	909,864	1,358,153	154,360	2,588,672
Enga	186,411	76,720	18,341	17,618	1,794,159	1,071,221	93,467	3,257,937
WHP	111,301	83,341	23,041	13,949	1,005,944	882,136	69,942	2,189,654
Jiwaka	74,175	22,034	3,814	10,733	363,708	946,143	79,469	1,500,076
Simbu	94,524	124,643	24,936	25,668	829,669	935,054	92,602	2,127,095
EHP	207,106	162,320	35,641	26,814	1,281,629	1,393,822	111,328	3,218,660
Morobe	144,572	150,010	37,681	48,008	4,023,073	1,683,348	189,582	6,276,273
Madang	430,017	315,523	66,024	35,593	3,413,202	1,234,001	138,003	5,632,363
ESP	159,204	207,436	33,569	28,586	2,887,926	1,347,202	123,948	4,787,872

Sandaun	214,963	233,829	66,308	36,353	3,168,412	1,118,089	111,117	4,949,069
Manus	278,327	78,606	9,296	3,216	588,480	491,811	47,601	1,497,337
NIP	41,344	21,774	4,745	10,653	1,448,031	698,366	46,525	2,271,438
ENB	83,077	46,590	8,906	18,431	1,660,813	940,285	84,038	2,842,140
WNB	61,271	38,381	7,750	11,433	1,914,870	2,101,234	74,671	4,209,611
Total	2,704,376	1,992,097	431,565	456,413	38,388,275	21,203,642	1,873,037	67,049,405

The table that follows details the assumptions or the thinking behind the individual activities that have been identified and included in the cost study in the agriculture sub-sector. Generic activities and inputs can be viewed in the chapter Generic Cost Assumptions on page 95.

Table 25: Agriculture subsector unique activities, cost basis and assumptions

Activity Name	Activity Description	Cost Basis	Explanation of Costing Assumptions
Provincial level activity costs			
Supervision	Management supervision of district officers	Travel calculation, province - district	Assume 3 provincial staff visit each district 4 times a year (quarterly) for 2 days.
District level activity costs			
Extension Services	Combined extension visits	Travel calculation, district/ LLG to extension points	Assume quarterly visits to LLG extension from district/LLG to points (to proxy a rural outreach). At these extension points "lead farmers" are trained/ supported to provide extension to other farmers. UPDATED ASSUMPTION: Assume 4 officers travel to these points (to cover content areas of extension, including livestock) 4 times a year from either LLG or District (depending on where staff are provided). Travel mode is advised by district. Assume each visit takes travel time to destination plus 5 days for service/information provision at point (3 days duration in 2015 study)
	Seed/ tool distribution - farmers and schools	National responsibility	Assume cost of seeds and demonstration materials are provided by Commodity Boards/National Department of Agriculture and Livestock.
Farmer Training	Training of farmers	Travel calculation and Local costs	Training courses in LLGs Assumes; 10 % of farmer headed households per year; spread across province/district; held at LLG, includes only trainer and course costs <u>not participants costs</u> .
Information and Awareness	Dissemination of information	Local costs	Assumes 10% of farmer households receiving 2 A4 colour leaflets per year. The leaflets are distributed through extension services (i.e., an absorbed cost).
	Field Days	Travel calculation and National standard cost. District -LLG travel	UPDATED ASSUMPTION: Assume 1 Field Day in each LLG each year of 3 days duration. Cost is travel of district staff to LLG (4 for 3 days). Assume K1200 for demonstration materials. (In 2015 study, K200)

Processing	Rice, Copra and Cocoa Mills	N/A	Assume self-financing – no unique costs
	Subsidising farmer transport costs	N/A	Assume self-financing – no unique costs

Note: Activities highlighted in orange are assumed to be cost neutral. The costs are assumed to be covered under another related activity, or are a national responsibility, or are “someone else’s responsibility.

5.1.6 Primary Production – Fisheries subsector



Summary

- 2020 sub-sector cost estimate, K12.0 million [2015, K8.7 million].
- Most sub-sector costs are at the district level (86%).
- Cost drivers: The main cost drivers in this sub-sector are the number of fishermen and women, and the coastline or fisheries extension sites in a province.

Discussion

In the costing study, Fisheries is included as a subsector within the broader sector of Primary Production. Whilst most programs and activities in Fisheries are coordinated or undertaken as a responsibility of the national government through the National Fisheries Authority (NFA), there have been several functions delegated to particular provincial governments through a Memorandum of Understanding (MoU). Examples of those delegated functions include enforcement, surveillance, aquaculture, fish storage and markets, including jetties. Specific costs for fishery activities in provinces will be looked at more closely in consultation with the industry and provinces in future costing studies.

For this study, the fisheries subsector is an area where provincial needs vary. Some provinces have a much greater coastline and many more fishermen and women than others. The estimation of each provinces’ requirement for fisheries extension services uses two main factors: the first being the number of coastal extension points and the second the number of fishermen and women, as projected from the 2011 census.

The two main activities covered by this sector are advice and extension services to new fishermen and women (K3.7 million) and fisher training (K4.8 million). The remaining costs are mainly associated with administration costs, and monitoring and enforcement.

Table 26 below is a list of the activities that are included in the cost study. No costs are identified at the LLG responsibility level.

Table 26: Fisheries subsector activities by level

Provincial level activities	District level activities	LLG level activities
K3.6 million	K63.5 million	K0
<ul style="list-style-type: none"> Administration Staff training (HRM) Supervision 	<ul style="list-style-type: none"> Administration Monitoring and Enforcement- Farmer Training Advice & Extension to new fishers Training at LLG Centers 	No function performed at this level

The table below provides the costs for the various activities under fisheries with costs assigned to each province by different levels.

Table 27: Fisheries subsector costs by activity and level, 2020

Province	Administration		Staff Training (HRD)	Supervision	Advice and extension to new fishers	Monitoring and Enforcement	Training at LLG centres	Total
	Province	District	Province	Province	District	District	District	
Western	22,857	11,243	3,913	27,830	261,234	120,945	431,833	879,855
Gulf	156,446	139,144	21,948	12,707	183,740	69,358	253,063	836,405
Central	41,122	40,193	8,368	13,181	149,377	74,249	240,235	566,725
MBP	99,547	33,104	7,805	19,791	796,366	106,509	517,245	1,580,367
Oro	64,366	50,503	10,927	4,287	109,932	66,220	182,120	488,356
SHP	-	-	-	2,469	39,552	27,580	32,926	102,526
Hela	-	-	-	6,120	35,101	22,341	33,761	97,323
Enga	18,641	-	226	-	-	-	-	18,867
WHP	-	-	-	-	-	-	-	-
Jiwaka	-	-	-	2,340	35,764	16,207	25,246	79,557
Simbu	37,809	-	463	-	-	-	-	38,273
EHP	18,828	16,904	3,602	2,428	33,860	26,981	25,234	127,837
Morobe	144,572	53,589	11,225	15,969	210,401	79,596	140,797	656,149
Madang	122,862	31,978	7,740	27,868	283,594	125,428		918,658
ESP	159,204	-	1,950	16,680	208,071	118,092	345,307	849,304
Sandaun	128,978	34,430	12,421	15,524	135,250	111,671	201,287	639,560
Manus	208,745	-	2,161	2,144	171,502	87,438	269,995	741,984
NIP	-	-	-	7,930	427,801	68,839	391,233	895,803
ENB	83,077	37,438	7,434	14,834	257,053	106,454	223,345	729,637
WNB	81,695	9,930	3,467	21,348	366,037	123,753	1,185,008	1,791,238
Total	1,388,750	458,456	103,650	213,449	3,704,634	1,351,663	4,817,823	12,038,426

The table below details the assumptions or the thinking behind individual activities that have been identified and included in the Cost Study under the fisheries subsector. Generic activities and inputs are in the table below.

Table 28: Fisheries subsector unique activities, cost basis and assumptions

Activity Name	Activity Description	Cost Basis	Explanation of Costing Assumptions
Provincial level activity costs			
Supervision	Supervision support for district fisheries officers	Travel calculation, province – district	Assume 2 officers from province travel to each coastal district (includes inland fishing sites) 4 times a year for 2 days
District level activity costs			
Monitoring & Enforcement	Awareness and monitoring of local private fisheries	Travel calculation, district - LLG	UPDATED ASSUMPTION: Assume 2 officers visit each coastal LLG 4 times a year for 5 days. In 2015, assumption was 1 visit per year for 2 days.
Advice and extension to new fishers		Travel calculation, from district/LLG to extension points	Assume quarterly visits to the coastal village extension points. Assume 2 officers travel to these points 4 times a year from either LLG or District (depending on where staff are provided). Travel mode is advised by district. Assume each visit takes travel time to destination plus 3 days for service/information provision
Training of fisherman	LLG training course	Travel calculation and Local costs	Assumes; 10 % of fishermen/women headed households per year; spread across province/district; held at LLG, includes only trainer and course costs not participants costs.

5.1.7 Primary Production – Forestry subsector



Summary

- The forestry subsector is a new inclusion in the 2020 costing study.
- The forestry subsector cost estimate is K0.5 million in 2020.
- All of the estimated costs for the sub-sector relate to the provincial level.
- Cost drivers: The main cost driver in this subsector is the number of forestry sites within a province.

Discussion

Forestry is a new addition to the cost of services study in 2020. In practice, most programs and activities in this sector are coordinated or undertaken as a responsibility of the national government through the National Forest Authority. However, given the increased significance of forest activities in a number of provinces, it has become important for the costing study to include, identify, and cost an initial set of roles and activities that are commonly supported by provincial governments.

It should be noted that forestry and forest-related activities in each province differs. Some provinces have forestry officers within their staffing structure while others do not. Some provinces coordinate forest responsibilities alongside their environment and climate change divisions. Further, some provinces have far more forest projects and activities than others. To estimate each provinces' requirement for forest extension services two main factors are used: the first being the number of forestry staff at the provincial level and the second the number of forest activities as identified in the costing study.

The table below lists the activities that are included in the cost study. No costs are identified at the district or LLG levels of responsibility.

Table 29: Forestry subsector activities by level

Provincial level activities	District level activities	LLG level activities
K1.7 million	K0	K0
<ul style="list-style-type: none"> Administration Staff training (HRM) Inspection & Monitoring Visits to new forest sites 	No function performed at this level	No function performed at this level

The table below (Table 30) provides the costs for the various activities under forestry with costs assigned to each province.

Table 30: Forestry subsector costs by activity and level, 2020

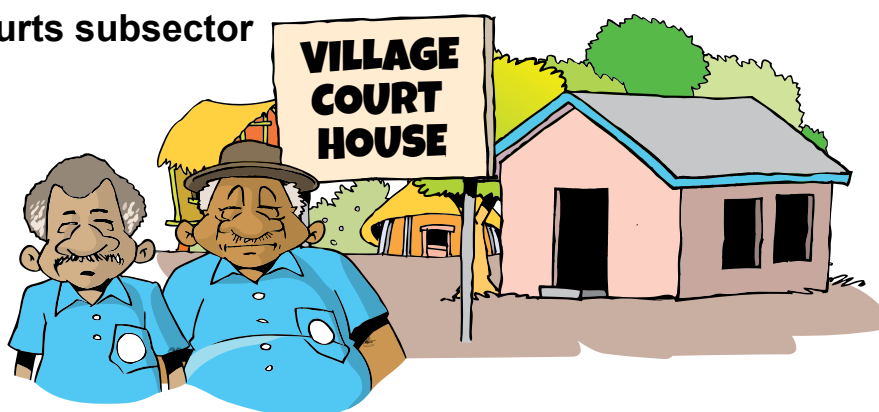
Province	Administration	Staff Training (HRD)	Inspection & Monitoring	Visits to new Forestry Sites	Total
	Province	Province	Province	Province	
Western	-	-	-	-	-
Gulf	-	-	-	-	-
Central	41,122	501	3,321	3,815	48,759
MBP	-	-	-	-	-
Oro	21,455	251	2,296	5,241	29,243
SHP	-	-	-	-	-
Hela	19,302	254	3,237	4,524	27,317
Enga	-	-	-	-	-
WHP	-	-	-	-	-
Jiwaka	-	-	-	-	-
Simbu	-	-	-	-	-
EHP	37,656	442	3,630	2,126	43,854
Morobe	20,653	275	6,428	3,432	30,789
Madang	81,908	970	3,419	2,987	89,284
ESP	-	-	-	-	-
Sandaun	21,496	297	5,940	7,489	35,222
Manus	23,194	240	2,550	3,963	29,946
NIP	62,016	693	1,918	3,342	67,969
ENB	20,769	225	2,632	1,975	25,600
WNB	81,695	1,041	2,271	3,265	88,272
Total	431,267	5,188	37,642	42,159	516,255

The table below details the assumptions or the thinking behind individual activities that have been identified and included in the Cost Study under the forestry subsector. Generic activities and inputs are in the table below.

Table 31: Forestry subsector unique activities, cost basis and assumptions

Activity Name	Activity Description	Cost Basis	Explanation of Costing Assumptions
Provincial level activity costs			
Inspection & Monitoring	Forest Management	Travel calculation, province – LLG	NEW ASSUMPTION: Assume 2 forestry officers from province travel to each forestry sites (assuming there are 6 sites in a province spread evenly amongst LLGs) for a duration of 5 days.
Visits to new forest areas	Forest Management	Travel calculation, province – LLG	NEW ASSUMPTION: Assume 1 officer visit potential forest sites proxy LLGs for a duration of 2 days for consultation or awareness.

5.1.8 Village Courts subsector



Summary

- Total subsector cost, K37.3 million
- Although the courts system is a national responsibility, provincial governments have had responsibility for village courts since 1996.
- The major cost drivers in this subsector are the number of village courts and the number of village courts officials.

Discussion

Village Courts (part of the law and justice sector in PNG) have played an important role in the justice system in PNG since independence. They promote peace and stability within communities. There are over 1,600 village courts in the country with more than 17,600 village courts officials (excluding NCD and ARoB). Each village court has about 11 officials which include - 1 Chairman, 1 deputy Chairman, 1 Clerk, 4 magistrates and 4 peace officers. The sector's roles and responsibilities are shared between the national and subnational levels. An example of this sharing of responsibilities (and costs) are the village court allowances that are paid to village court officials. Allowances for village court officials cost about K82.5 million annually, with seven of the 11 officials in each village court funded by the national government through the budget of the Department for Justice and Attorney General, while the remaining four officials are funded by their respective provincial government.

Most core programs and activities in this sector are coordinated or undertaken as a responsi-

bility of the national government through the Village Courts and Land Mediation Secretariat, under the Department of Justice and Attorney General. Provincial governments provide support in the operation of the village courts in their rural communities. Given the significance of the sector in the rural communities, it has become important for this study to include, identify, and to cost out certain roles or activities usually supported through provincial governments.

Table 32: Village Courts activities by level

Provincial level activities	District level activities	LLG level activities
K1.7 million	K33.6 million	K2.4 million
<ul style="list-style-type: none"> Administration Staff training (HRM) 	<ul style="list-style-type: none"> Administration Allowances (provincial support) District Courts Magistrates Support (Village Court Official travel for appeals) Supervision Training 	<ul style="list-style-type: none"> Village Court Supplies

The table below lists the activities that are included in the cost study. The table below provides the costs for the various activities under village courts with costs assigned to each province by level.

Table 33: Village Courts sector costs by activity and level, 2020

Province	Administration	Allowances	District Courts Magistrates Support	Supervision	Training	VC Supplies	Total
	Province	District	District	District	District	LLG	
Western	41,334	800,914	17,944	73,335	154,604	70,345	1,158,476
Gulf	62,244	1,175,810	17,896	81,841	188,091	108,395	1,634,276
Central	114,008	1,414,380	23,006	95,936	221,524	126,345	1,995,199
MBP	80,534	1,363,258	23,408	96,129	200,315	120,400	1,884,043
Oro	70,141	783,873	7,956	58,299	91,001	69,230	1,080,501
SHP	95,800	2,044,886	19,529	129,709	232,636	180,600	2,703,160
Hela	221,592	1,601,828	16,334	105,590	234,898	141,470	2,321,712
Enga	140,892	2,641,312	29,572	170,863	333,105	233,275	3,549,018
WHP	63,228	1,346,217	14,685	85,970	152,222	18,895	1,781,218
Jiwaka	95,842	1,192,850	10,890	75,193	151,036	105,350	1,631,161
Simbu	57,409	1,755,194	30,507	115,073	246,585	159,305	2,364,072
EHP	38,915	1,704,072	20,089	110,491	208,492	160,510	2,242,569
Morobe	20,928	1,704,072	16,754	118,505	217,575	150,500	2,228,335
Madang	62,158	1,584,787	16,427	111,484	210,452	139,965	2,125,273
ESP	80,577	1,840,398	21,727	124,523	231,865	162,540	2,461,629
Sandaun	100,210	1,056,525	50,527	93,737	267,744	93,310	1,662,054
Manus	46,868	800,914	12,500	61,941	105,769	70,735	1,098,727
NIP	138,549	783,873	11,655	56,929	105,651	69,230	1,165,887
ENB	62,982	749,792	7,899	52,155	94,282	66,220	1,033,330
WNB	62,052	817,955	16,771	81,170	152,005	72,240	1,202,193
Total	1,656,265	27,162,908	386,078	1,898,873	3,799,849	2,418,860	37,322,832

Note. The cost estimate for District Courts Magistrates Support relates to travel for village court officials to attend appeals.

The table below details the assumptions or the thinking behind individual activities that have been identified and included in the Cost Study under the village courts sector. Generic activities and inputs listed below.

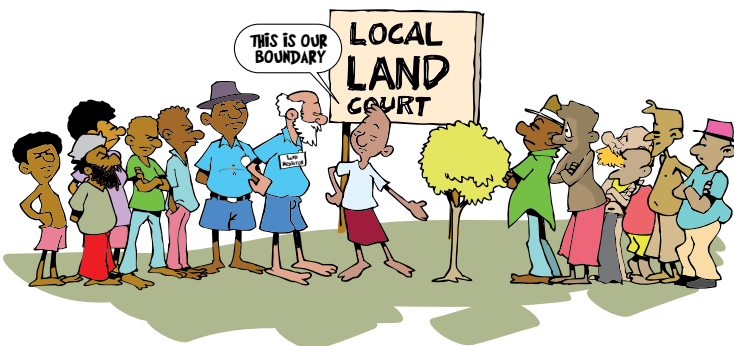
Table 34: Village Courts sector unique activities, cost basis and assumptions

Level	Activity	Description	Input	Costing assumptions
Province	Peace and Good Order Committee	Provincial meeting	Meeting	No unique cost
District	Allowances	Paying VC officials	Salary	Allowances are a shared responsibility between national government and provinces. 4 of 11 officials are met by provinces and costed using official payment rates.
District	District Courts Magistrates support	Visits to VC		Assume 2 appeals per year per court. One magistrate travel to each VC to hear cases; assume 1 day per court.
District	Supervision	Visits to each village court	VC visit	Assume 2 visits from district to each VC, for 2 days by 2 staff
District	Training	Training of village court officials	LLG training course	UPDATED ASSUMPTION: Assume all (100% of) village court official receives 5 days training each year. Assume 2 resource people per course from province level. Assume courses held in each district. Assumptions In 2015 was 50% of officials.
LLG	Inspection and monitoring Visit to each VC	VC visit	Visit	No unique cost. Assume this is part of supervision or general LLG quarterly patrol visits by LLG staff (see under LLG administration)
LLG	VC Supplies	New flags	No of VCs	UPDATED ASSUMPTION: Assume 50% of VC get new flag each year, unit cost K150 in 2020. Assumption in 2015 was 10%.
LLG	VC Supplies	New uniforms & badges	No of VC officials	UPDATED ASSUMPTION: Assume 50% of VC officials get new uniform and badges each year, unit cost K260. Assumption in 2015 was 10%.

5.1.9 Land Mediation subsector

Summary

- 2020 subsector cost estimate, K1.3 million [new inclusion for the 2020 study].
- Land Mediation services are provided at all levels of the subnational system with a large amount of costs involved inspection and monitoring, training of officials and supplies.
- Cost drivers: The main cost drivers in this sub-sector are the number of land mediation areas and the number of land mediators.



Discussion

Land Mediation is a new addition into the cost of services study in 2020. The land mediation subsector (part of the wider law and justice sector in PNG) employs customary methods of mediation and conflict resolution throughout PNG. The subsector covers around 83 Land Mediation Divisions (Districts) and 319 Land Mediation Areas (LLGs), excluding NCD and ARoB.

Officials in a Land Mediation Area usually comprise of 1 Chairman, 1 Deputy Chairman and 2 permanent Land Mediators. The roles and responsibilities of land mediation is shared between the national and subnational levels.

Most programs and activities within the subsector are coordinated or undertaken as a responsibility of the national government through the Village Courts and Land Mediation Secretariat, under the Department of Justice and Attorney General. Given the significance of the sector and its role in the rural communities, it has become important for the costing study to include, identify, and cost an initial set of roles and activities that are commonly supported by provincial governments.

The table below lists the activities that are included in the cost study.

Table 35: Land Mediation sector activities by level

Provincial level activities	District level activities	LLG level activities
K0.9 million	K0.8 million	K0.3 million
<ul style="list-style-type: none"> • Administration Staff training (HRM) • Provincial Land Dispute Committee (PLDC) • Local Land Courts Support (Land Mediators travel to attend courts) 	<ul style="list-style-type: none"> • Administration • Inspection and Monitoring • Training 	<ul style="list-style-type: none"> • Land Mediation Supplies

The table below provides the costs for the various activities within land mediation with costs assigned to each province by level.

Table 36: Land Mediation sector costs by activity and level, 2020

Province	Administra- tion	Provincial Land Dispute Committee	Local Land Courts	Inspection & Monitoring	Training	Land Mediation Supplies	Total
	Province	Province	Province	District	District	LLG	
Western	-	33,369	15,196	37,963	24,183	14,072	69,008
Gulf	-	14,246	7,464	18,601	9,060	8,410	32,118
Central	-	16,015	12,199	27,530	13,505	12,690	46,052
MBP	-	19,250	5,768	27,530	6,753	8,790	48,840
Oro	21,706	20,128	4,823	18,640	6,475	7,569	49,884
SHP	19,160	14,945	12,540	22,522	14,092	16,820	64,850
Hela	19,556	18,972	9,396	19,841	12,737	11,774	57,401
Enga	18,867	15,777	9,496	22,946	13,427	14,297	61,468
WHP	37,502	17,906	6,167	13,084	7,649	9,251	63,217
Jiwaka	18,762	14,649	4,559	8,738	6,276	6,728	37,165
Simbu	19,136	14,821	12,044	26,108	6,276	16,820	69,771
EHP	38,097	16,762	13,135	29,029	15,488	18,652	92,363
Morobe	20,928	20,721	21,381	46,690	26,063	26,987	107,835
Madang	20,719	19,110	13,454	32,166	15,137	15,213	77,473
ESP	20,144	14,622	16,793	38,774	19,263	21,250	88,302
Sandaun	21,793	47,459	14,983	46,575	26,116	13,606	98,353
Manus	-	16,696	6,431	24,425	9,820	10,092	36,843
NIP	-	20,143	6,147	18,342	8,436	10,092	30,229
ENB	20,994	14,098	10,771	24,287	12,673	14,372	64,837
WNB	41,368	23,953	7,414	42,583	14,387	9,326	99,665
Total	338,735	393,643	210,161	546,373	278,270	265,129	1,295,674

The table that follows details the assumptions or the thinking behind the individual activities that have been identified and included in the cost study in the agriculture sub-sector.

Table 37: Land Mediation sector unique activities, cost basis and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Provincial Land Dispute Committee	Meetings	Prov Meeting	NEW ASSUMPTION: Assume 12 members meeting 4 times a year (half public servants / half from community). Half of members are in prov capital; half from outside the prov capital – proxy median LLG). Meeting is only 1 day.
Province	Land Mediators Allowances	Paying Land Mediators	Salary	No unique cost. Allowances for land mediators is now a responsibility of the national government, budgeted for under the Department of Justice & Attorney General.
Province	Local Land Courts support	Land Court Hearing Costs	LLG visit	Assume travel to each LLG once per year for 2 days duration.

District	Training	Training of Land Mediators	LLG training course	NEW ASSUMPTION: Assume all (100% of) land mediators receives 5 days training each year. Assume 2 resource people per course from province level. Assume courses held in each district.
District	Inspection and Monitoring	Visit to each land mediation area	LLG visit	NEW ASSUMPTION: Assume 2 people travel to each LLG for inspection and supervision 2 times each year for a duration of 2 days.
LLG	Land Mediation Supplies	New flags	No of LLGs	NEW ASSUMPTION: Assume 50% of Land Mediation Areas get a new flag each year, unit cost K150 in 2020.
LLG	Land Mediation Supplies	New uniforms & other supplies	No of LLGs	NEW ASSUMPTION: Assume 50% of Land Mediators get new uniforms and other supplies each year, unit cost K260.

Note 1: Activities highlighted in orange are assumed to be cost neutral. The costs are assumed to be covered under another related activity, or are a national responsibility, or are “someone else’s responsibility.”

Note 2: Activities highlighted in grey are new additions to the 2020 costing study.

5.2 Other Service Sectors

5.2.1 Commerce & Small to Medium Enterprise (SMEs)

Summary

- Total sector cost, K11.5 million
- Subsectors include business development, SME, Tourism (incl. cultural events)



Discussion

The Commerce and SME Sector continues to evolve and develop in PNG reflecting its growing importance in supporting and regulating economic activity and advancement at the subnational levels across the country. As such, the 2020 study sees a greater emphasis placed on SME activities, with cost estimates now incorporated to provide a Provincial SME Conference and District SME Promotional Events.

Table 38: Commerce and SME sector and major activity costs by province, 2020

Province	Administration		Staff Training (HRD)	Policy Development & Coordination	Business Development	Provincial SME Conference	District SME Promotional Events	Tourism	Commerical & Business Project Support	Grand Total
	Province	District	Province	Province	Province	Province	Province	Province	District	
Western	22,857	-	272	26,375	22,192	6,016	18,602	313,041	107,497	516,853
Gulf	67,048	78,015	13,450	10,547	20,158	3,058	6,353	262,813	56,675	518,118
Central	102,805	99,679	20,897	18,898	14,200	4,899	10,747	267,966	92,369	632,461
MBP	99,547	43,921	9,822	19,162	18,681	4,364	11,535	276,423	91,005	574,460
Oro	85,821	70,114	15,248	5,460	17,361	4,879	2,144	279,341	46,990	527,358
SHP	94,756	-	1,043	10,449	19,737	3,598	9,003	265,671	89,286	493,543
Hela	193,025	20,168	6,742	13,377	19,737	7,379	7,002	286,461	77,642	631,533
Enga	167,770	24,897	6,958	13,429	19,878	3,923	6,129	268,707	90,317	602,007
WHP	129,851	20,913	6,864	10,252	18,989	3,158	4,831	269,531	56,124	520,513
Jiwaka	-	23,609	2,930	6,179	18,989	4,563	3,759	266,951	47,560	374,540
Simbu	56,714	23,866	5,232	15,927	19,042	3,690	9,082	265,818	101,722	501,095
EHP	112,967	39,702	9,688	18,841	19,077	3,277	9,120	268,059	117,244	597,975
Morobe	268,490	15,835	8,076	44,192	18,047	5,194	17,037	282,462	186,418	845,752
Madang	163,816	55,959	12,859	27,134	18,910	5,083	12,973	278,688	121,326	696,697
ESP	159,204	52,562	10,350	18,724	20,212	4,042	10,006	267,594	132,434	675,128
Sandaun	128,978	55,703	18,002	27,997	21,602	5,971	14,961	341,841	125,421	740,475
Manus	139,164	-	1,441	2,076	20,502	4,315	1,072	272,454	50,778	491,800
NIP	82,687	-	924	7,893	20,705	3,534	3,719	277,178	50,718	447,358
ENB	62,308	37,438	7,209	12,708	20,441	3,643	6,536	265,269	84,816	500,368
WNB	122,542	38,381	8,531	22,632	19,200	6,847	4,109	286,608	95,938	604,788
Total	2,260,352	700,765	166,540	332,252	387,658	91,432	168,718	5,562,826	1,822,279	11,492,822

Table 39: Commerce and SME– unique activity inputs and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Business Development	Identifying new business opportunities, developing proposals etc.	POM Visit	Assume 2 trips to POM for 2 people one week per year
Province	Policy Coordination	Supervision	DHQ-PHQ Visits	District Business Development Officers meet quarterly in provincial capital for 1 day.
Province	Provincial SME Conference	Host conferences and workshops	Meetings	NEW ASSUMPTION: Assume province host 1 conference/ workshop in a year for 2 days.
Province	District SME Promotional Events	Travel to attend promotional events	PHQ-DHQ Visits	NEW ASSUMPTION: Assume 2 trips to each district for 2 people for 2 days, once per year for promotional events.

Province	Tourism	Cultural Committee	Meetings	Assume 12 members; 50% public servants; 50% outside members; assume outside members drawn equally from throughout province; 4 meetings per year; 1 day duration; costs are travel, per diem, sitting fees, stipend, lunch. Assume no venue hire.
Province	Tourism	Cultural events	Grant	Assume each province runs 2 per year at K50,000 per event (for local dancers, theatre groups etc.). Assume size of grant does not vary with size of province.
Province	Tourism	National promotion - POM		
Conference	POM Visit	Assume 1 trip for 4 people for one week to attend conference		
Province	Tourism	Promotional materials	TV Ads (30 seconds) quarter page newspaper ad; A4 colour pamphlet.	Assume each province runs 2 per year at K50,000 per event.
Province	Tourism	Tourism Committee	Meetings	Assume 12 members; 50% public servants; 50% outside members; assume outside members drawn equally from throughout province; 4 meetings per year; 1 day duration; costs are travel, per diem, sitting fees, stipend, lunch. Assume no venue hire.
Province	Tourism	Tourism training for private sector	Courses	2 courses per year, one week, in provincial capital, 20 participants, only cost venue hire, course materials, trainer costs not participants costs. Assume trainers come from provincial capital.
District	Commerce / Business Project Support	Project technical support e.g., SYOB, micro-credit, downstream processing, management training	LLG Visit	Assume each BDO staff from each district make 2 visits per year to each LLG. Each visit consists of two staff and last for 5 days.
District	Commerce/ Business Project Support	Training	Training Courses	Assume each district office provides 4 training courses per year in business development areas. Courses held in districts, participants meet their own costs. Training provided by district and provincial staff. Assume 20 participants per course; 5 days per course

5.2.2 Community Development

Summary

- Total sector cost, K17.4 million
- Subsectors include sports development, child welfare, youth extension and maintenance of community halls or resource centers.

Discussion

At the national level, matters relating to community development fall under the auspices of the Department for Community Development and Religion. At the subnational levels, a number of responsibilities have been assigned to the provincial and district levels with key activities identified, costed, and included in this section of the costing study. There are no activities with discrete costs identified at the LLG level for community development.



Table 40: Community Development and major activity costs by province

Province	Administration		Staff Training (HRD)	Child Welfare	Community Development		Sports Development		Youth Extension	Community Halls & Resource Centres		Total
	Province	District			Province	District	Province	District		Province	District	
Western	45,715	-	544	85,387	118,867	4,755	75,161	11,837	235,478	35,000		612,744
Gulf	89,398	55,964	10,147	40,929	75,505	2,971	45,709	7,014	187,457	25,000		540,094
Central	61,683	233,649	47,184	83,555	146,390	5,805	65,464	14,409	289,818	40,000		987,957
MBP	-	20,685	4,554	84,626	148,007	4,715	72,755	13,874	221,191	40,000		610,408
Oro	150,188	40,295	9,895	71,193	78,446	2,590	55,978	7,090	179,235	22,500		617,409
SHP	94,756	-	1,043	97,500	180,854	6,393	75,007	17,423	586,721	50,000		1,109,699
Hela	96,512	16,756	5,726	139,134	112,868	4,380	56,461	12,273	308,333	35,000		787,444
Enga	37,282	14,921	3,873	94,205	181,270	6,856	67,398	18,018	512,992	42,500		979,317
WHP	129,851	27,655	8,675	71,123	147,335	4,840	51,326	13,460	332,849	27,500		814,615
Jiwaka	111,263	35,162	5,704	111,173	110,707	6,093	52,648	11,763	554,516	20,000		1,019,029
Simbu	189,047	50,256	11,908	77,595	215,793	7,417	72,024	20,375	337,532	50,000		1,031,948
EHP	75,311	65,083	14,243	81,895	286,763	10,496	74,770	26,498	459,793	60,000		1,154,852
Morobe	185,878	40,684	11,636	156,225	323,743	11,628	105,373	32,175	632,208	82,500		1,582,048
Madang	122,862	99,597	21,508	144,465	217,937	7,858	85,915	21,762	472,601	47,500		1,582,048
ESP	218,906	-	2,681	87,937	215,693	7,853	84,371	20,630	378,425	70,000		1,086,496
Sandaun	150,474	42,234	16,778	95,073	160,911	6,666	87,184	14,896	246,017	45,000		865,233
Manus	162,358	-	1,681	40,705	41,730	1,186	42,719	3,575	59,208	30,000		383,161
NIP	20,672	-	231	53,813	78,453	2,289	63,247	6,784	188,776	25,000		439,266
ENB	145,385	37,438	8,108	74,966	145,431	4,617	64,182	13,573	308,178	45,000		846,879
WNB	81,695	28,452	5,585	65,168	80,358	2,908	68,329	7,870	299,600	30,000		669,966
Total	2,169,236	808,832	191,705	1,756,665	3,067,062	112,316	1,366,022	295,301	6,790,930	822,500		17,380,569

Table 41: Community Development– unique activity inputs and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Child Welfare	Allowances	Per court allowance	UPDATED ASSUMPTION: Welfare officers are usually paid by the national government. Assume provinces share some of the costs. Assume an allowances of K90 per sitting for each district court with 5 cases handled per year.
Province	Child Welfare	Training	Training of community counselors	10 days training per year - venue hire, course materials, refreshments
Province	Child Welfare	Dissemination of awareness materials	Print materials; radio spots	Assume reproduction of 2 x A4 pamphlets per year in sufficient quantities to reach 5% of the pop per year (distribution is by other sectors outreach); and assume 30 second radio spots five times a day for 100 days per year (same basis as HIV).
Province	Community Development /Women in Development	Grants to NGOs/ community groups	Cost of grants	UPDATED ASSUMPTION: Assume each district has 1 grant of K35,000 per year (increased from K30,000 in 2015).
Province	Community Development /Women in Development	Provincial Youth Council	Meetings	Assume 6 members; 5 from civil society, 1 from public servant, assume civil society representatives drawn equally from throughout province; 4 meetings per year; 1 day duration; costs are travel, accommodation, rations and incidental expenses. Assume no venue hire.
Province	Sports Development	Facility maintenance	Grass-cutting, painting goalposts	UPDATED ASSUMPTION: Assume 2 facilities per province, K10,000 per year per facility.
Province	Sports Development	Junior Sports Development	School-based programs	2 staff visit each district once a year - each visit covers 5% of schools in each district for 5 days
Province	Sports Development	Training & sports development (e.g. coaching)	Training courses (Two courses held at provincial level each year)	Assume 2 courses are conducted for 30 participants for 3 days. Cost covers course materials, refreshments and venue hire.
Province	Youth Extension	Vocation skills training (for out of school youth)	Training courses run out of existing technical Vocational Colleges	2% of 15-24-year-olds receive 3-week course in existing technical vocational schools

District	Community Development	Grant monitoring	Extension Point Travel	Assume district officers travel to two extension points within each LLG (one near, one far) each year for 2 days to monitor grant schemes
District	Sports Development	Facility maintenance	Grass-cutting, painting Goalposts	UPDATED ASSUMPTION: Assume K1,500 per district per year
District	Sports Development	Training courses (one at each district each year)	Number of districts	Course materials, refreshments for 20 people in each district
District	Community Halls/Resource Centers	Facility maintenance	Cost of grants	NEW ASSUMPTION: Assume each LLG receives 1 grant of K2,500 per year for annual maintenance of facilities.

5.2.3 Correctional Services

Summary

- Total sector cost, K8.7 million
- Correctional Services is a national function. The study however assumes that provincial governments support or meets up to 50% of the operation cost for running prisons.
- The activities costed include detention programs and the transfer and repatriation of prisoners.

Discussion

At the national level, matters relating to correctional services (including the country's prisons) fall under the auspices of the PNG Correctional Services. At the subnational levels, a number of responsibilities have been assigned to the provincial level with key activities relating to these responsibilities identified, costed, and included in this section of the costing study.



Table 42: Correctional Services sector and major activity costs by province

Province	Detention Province	Transfer and Repatriation Province	Total
Western	115,363	11,017	126,380
Gulf		11,017	11,017
Central	388	11,017	1,109,405
MBP	409,283	11,017	420,300
Oro	296,234	11,017	307,251
SHP	224,299	11,017	235,316
Hela	11,333	11,017	22,350
Enga		11,017	11,017
WHP		11,017	1,398,530
Jiwaka	256,781	11,017	267,798
Simbu	293,240	11,017	304,257
EHP	462,146	11,017	304,257
Morobe	,538	11,017	1,022,555
Madang	591,176	11,017	602,193
ESP	280,929	11,017	291,946
Sandaun	182,291	11,017	193,308
Manus	173,853	11,017	184,870
NIP	540,408	11,017	551,425
ENB	589,769	11,017	600,786
WNB	577,205	11,017	588,222
Total	8,501,750	220,339	8,722,090



Table 43: Correctional Services – unique activity inputs and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Detention	Feeding and clothing prisoners	Rations for prisoners	Rations per prisoner includes items such as biscuits, tea, sugar, rice, tinned fish, corned beef, salt. Assume Province meets 50% of the cost of rations.
Province	Detention	Feeding and clothing prisoners	Personal Hygiene	Items per prisoner - disinfectant, steelo pads, toilet paper, razor blades, soap, matches, sanitary pads (for female prisoners). Assume Province meets 50% of the costs.
Province	Detention	Feeding and clothing prisoners	Bedding & clothing	Issues per prisoner - blankets and clothing. Assume Province meets 50% of the costs
Province	Transfer and Repatriation	Repatriating prisoners to home province	Out of province travel	UPDATED ASSUMPTION: Assumes K11,000 per annum is for repatriation costs of prisoners.

5.2.4 Disaster Management

Summary

- Total sector cost, K0.8 million [new inclusion for the 2020 study]
- The study includes activities relating to Disaster Coordination, and Training & Awareness.

Table 44: Disaster Management sector and major activity costs by province





























































Province	Administration	Disaster Coordination	Training & Awareness	Total
	Province	Province	Province	
Western	 23,129	 5,161	 9,301	37,592
Gulf	 -	 2,680	 3,177	5,857
Central	 62,435	 4,126	 5,373	71,934
MBP	 60,400	 4,384	 5,768	70,552
Oro	 65,118	 2,568	 1,072	68,758
SHP	 38,320	 5,056	 4,501	47,877
Hela	 -	 3,869	 3,501	7,370
Enga	 -	 3,912	 3,065	6,976
WHP	 -	 2,244	 2,415	4,660
Jiwaka	 37,525	 1,641	 1,879	41,045
Simbu	 19,136	 4,208	 4,541	27,885
EHP	 -	 5,138	 4,560	9,698
Morobe	 104,642	 8,172	 8,518	121,332
Madang	 62,158	 4,577	 6,486	73,222
ESP	 -	 6,741	 5,003	11,744
Sandaun	 43,586	 5,864	 7,480	56,931
Manus	 23,434	 3,097	 536	27,067
NIP	 20,903	 2,513	 1,859	25,275
ENB	 20,994	 3,781	 3,268	28,043
WNB	 82,736	 3,011	 2,054	87,802
Total	664,517	82,743	84,359	831,619

Table 45: Disaster Management – unique activity inputs and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Training & Awareness	Awareness and training at district level	Travel calculation, province-district	NEW ASSUMPTION: Assume 2 provincial staff visit each district for 2 days once a year to conduct training or for awareness purposes.
Province	Disaster Coordination	Emergency response	Travel calculation, province-LLGs	NEW ASSUMPTION: Assume 3 provincial staff visit 10% of LLGs for 5 days for disaster coordination activities.

5.2.5 Environment

Summary

- Total sector cost, K2.5 million
- The activities included in the study relates to Environmental Management, and Information & Promotion.

Table 46: Environment sector and major activity costs by province. 2020

Province	Administration	Environmental Management	Information & Promotion	Total
	Province	Province	Province	
Western	-	16,631	97,355	113,985
Gulf	-	9,113	47,863	56,976
Central	31,537	8,101	87,372	127,010
MBP	-	8,722	91,684	100,406
Oro	-	10,115	73,712	83,826
SHP	-	7,763	102,318	110,081
Hela	58,669	9,247	141,679	209,595
Enga	18,867	6,255	96,291	121,413
WHP	-	4,799	73,979	78,778
Jiwaka	18,762	4,891	114,527	138,180
Simbu	18,528	5,175	79,629	103,332
EHP	57,146	5,380	84,883	147,410
Morobe	77,994	7,475	160,796	246,266
Madang	-	6,902	149,580	156,482
ESP	-	6,780	96,164	102,944
Sandaun	21,793	13,200	104,814	139,807
Manus	46,868	8,231	44,791	99,890
NIP	62,708	7,511	58,250	128,470
ENB	52,612	5,134	79,308	137,054
WNB	62,052	7,435	77,053	146,540
Total	527,538	158,861	1,862,048	2,548,446



Table 47: Environment – unique activity inputs and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Environmental Management	Investigate environmental damage	LLG Visit	Assume 2 visits per year per province to median LLG of 5 days duration (plus travel time).
Province	Environmental Management	Visit development sites to monitor compliance with management plans	LLG Visit	Assume 6 sites per province (in median LLG); 1 visit per year to each site of 2 days (plus travel time). Assume 2 officers make each trip.
Province	Information/Promotion	Dissemination of awareness materials	Print materials; radio spots	Assume reproduction of 2 x A4 pamphlets per year in sufficient quantities to reach 5% of the pop per year (distribution is by other)
Province	Information/Promotion	Environment day	Grant	UPDATED ASSUMPTION: Assume 10,000 kina per province for local activities - such as local theatre groups etc. In 2015 study, K5,000.
Province	Information/Promotion	Visits to schools	Travel	Assume visit 10% of schools for 1 day (2 people) per year.

5.2.6 Lands & Physical Planning

Summary

- Total sector cost, K4.7 million

Discussion

Whilst most of this sector remains a largely a national function, under various MoU and agreements, provincial governments play a role in responsibilities such as:

- Provincial Lands Board
- Physical Planning Boards, preparation of development plans and zoning plans for the province, and enforcement of zoning restrictions
- Liaison with customary landowners
- Management of government (state) land including monitoring of use and occupation, land allocation and granting of state leases.
- Administration of state leases including collection of land rents
- Liaison in relation to land acquisition
- Surveys for land registration.
- Undertaking valuations and maintaining a valuation roll for imposition of local-level government rates.

The table below provides the costs for the various activities under the sector with costs assigned to each province.

Table 48: Lands & Physical Planning - major activity costs by province, 2020

Province	Administration	Alienated Land	Conference	Customary Land	Physical Planning Board	Survey	Total
	Province	Province	Province	Province	Province	Province	
Western	115,647	73,968	16,644	14,552	47,993	35,246	304,050
Gulf	56,591	40,154	5,040	5,628	28,870	20,586	156,869
Central	62,435	47,146	7,100	8,034	30,639	28,731	184,085
MBP	167,063	51,357	18,681	8,789	33,874	28,983	308,747
Oro	108,530	42,096	13,021	5,673	34,751	15,840	219,911
SHP	38,320	44,779	4,934	9,603	29,569	27,791	154,996
Hela	58,669	46,125	9,868	8,091	33,596	23,110	179,460
Enga	46,335	42,345	4,969	6,495	30,400	23,845	154,391
WHP	64,637	42,245	9,494	3,115	32,530	21,207	173,229
Jiwaka	56,287	37,403	9,494	2,311	29,273	18,795	153,564
Simbu	38,273	44,584	4,760	6,167	29,445	28,674	151,904
EHP	19,049	47,690	4,769	7,736	31,386	30,855	141,484
Morobe	220,762	60,655	22,559	15,200	35,345	42,256	396,777
Madang	186,475	53,231	23,637	8,079	33,734	33,637	338,792
ESP	202,225	45,750	25,265	11,731	29,245	30,134	344,351
Sandaun	155,352	84,095	16,202	14,851	62,083	32,409	364,991
Manus	117,170	36,571	15,377	6,106	31,320	13,429	219,973
NIP	62,708	43,029	10,352	4,661	34,766	17,951	173,468
ENB	211,883	40,233	25,551	5,507	28,722	23,448	335,344
WNB	165,472	47,212	19,200	5,543	38,576	18,341	294,345
Total	2,153,884	970,670	266,918	157,874	686,115	515,269	4,750,731

The table below details the assumptions or the thinking behind individual activities that have been identified and included in the Cost Study under lands and physical planning sector. Generic activities and inputs are listed in the table below.

Table 49: Lands & Physical Planning– unique activity inputs and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Alienated land	Collection and inspection of lease Rentals	District visit	Assume 2 visits per year per province to median LLG of 5 days duration (plus travel time).
Province	Alienated land	Compulsory land acquisition	District travel	(assume costs are covered under lease rental travel)
Province	Alienated land	Land Valuation	LLG Travel	UPDATED ASSUMPTION: Assume 2 visits from Prov to median LLG for 2 people for 5 days. In 2015, 1 visit for 2 days
Province	Alienated land	Operation of the Land Information System	Computer/ internet Access	(assume costs are covered under general administration costs).

Province	Alienated land	Provincial Land Board	Board	Assume 12 members; 1/2 public servants; 1/2 outside members; assume outside members drawn equally from throughout province; 4 meetings per year; 1 day duration; costs are travel, per diem, sitting fees, stipend, lunch. Assume no venue hire.
Province	Customary Land	Negotiations with landowners	LLG travel	Assume 2 staff travel to half of LLGs each year for 2 people for 2 days
Province	Physical Planning	Physical Planning board	Board	Assume 12 members; 1/2 public servants; 1/2 outside members; assume outside members drawn equally from throughout province; 4 meetings per year; 1 day duration; costs are travel, per diem, sitting fees, stipend, lunch. Assume no venue hire.
Province	Physical Planning	Provincial capital visits	Provincial capital Travel	Assume K5,000 per year for within provincial capital travel
Province	Survey	Survey equipment	Costs of survey Equipment	UPDATED ASSUMPTION: Assume annual lump sum of K11,000 for equipment replacement. In 2015 study, K8,600.
Province	Survey	Survey of alienated land	District visit	Assume 2 visits per year per district of 3 days duration (plus travel time) for 3 people.
Province	National Conference	Travel to attend conferences and workshops	Travel to POM	NEW ASSUMPTION: Assume half of the staff travel to POM to attend 1 conference/workshop in a year.

5.2.7 National Broadcasting Commission [Communication]

Summary

- Total sector cost, K2.2 million.
- NBC is largely considered as a national function.

Discussion

While NBC is largely considered to be a national function, there are activities that are hereby costed that reflect the contribution provincial governments may make to the NBC provincial stations that are operating within each province. Staff



employed by NBC do not form part of the provincial administration. The main activities involved in supporting the operation of provincial radio stations includes content development (preparation of stories) and operational costs for the radio stations.

Table 50: NBC - major activity costs by province, 2020

Province	Administration	Content Development	Equipment operating costs	Grand Total
	Province	Province	Province	
Western	-	29,104	50,000	79,104
Gulf	45,130	11,257	50,000	106,387
Central	108,139	16,069	50,000	174,208
MBP	-	17,577	50,000	67,577
Oro	21,706	11,346	50,000	83,052
SHP	-	19,207	50,000	69,207
Hela	-	16,183	50,000	66,183
Enga	132,069	12,991	50,000	195,060
WHP	-	6,230	50,000	56,230
Jiwaka	56,287	4,623	50,000	110,910
Simbu	-	12,335	50,000	62,335
EHP	-	15,471	50,000	65,471
Morobe	83,714	30,400	50,000	164,114
Madang	82,878	16,158	50,000	149,036
ESP	51,244	23,463	50,000	124,707
Sandaun	65,380	29,701	50,000	145,081
Manus	23,434	12,213	50,000	85,647
NIP	-	9,322	50,000	59,322
ENB	52,452	11,015	50,000	113,467
WNB	136,459	11,085	50,000	197,545
Total	858,893	315,749	1,000,000	2,174,642

The table below details the assumptions or the thinking behind individual activities that have been identified and included in the Cost Study under the sector. Generic activities and inputs are listed in the table below.

Table 51: Provincial Support for NBC– unique activity inputs and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Content Development	Travel	Travel from PHQ-LLGs	Cost of travel to each LLG once a year (2 people for 2 days)
Province	Equipment Operating Costs	Provincial Government Contribution to local NBC studio operating costs	Provincial Government Grant to local NBC studio	UPDATED ASSUMPTION: K50,000 per year. In 2015, Costs at K36,000

5.2.8 Natural Resource Management

Summary

- Total sector cost, K0.9 million
- Of this, about three-quarters (75%) of the costs is for administration (overheads).
- Activities relating to landowner consultations within the province (Districts and LLGs) comprises of the remaining one-quarter (K0.2 million) of total sector cost.

Table 52: Natural Resource Management sector - major activity costs by province

Province	Administration	Staff Training (HRD)	Landowner Consultation	Grand Total
	Province	Province	Province	
Western	22,857	272	20,210	43,339
Gulf	67,048	647	7,425	75,121
Central	-	-	12,891	12,891
MBP	-	-	13,679	13,679
Oro	-	-	3,216	3,216
SHP	94,756	1,043	11,682	107,482
Hela	19,302	254	8,610	28,166
Enga	55,923	678	8,809	65,410
WHP	-	-	6,974	6,974
Jiwaka	-	-	5,367	5,367
Simbu	-	-	12,298	12,298
EHP	131,795	1,546	13,407	146,748
Morobe	20,653	275	21,860	42,788
Madang	122,862	1,455	16,189	140,505
ESP	-	-	13,221	13,221
Sandaun	21,496	297	17,105	38,898
Manus	-	-	1,608	1,608
NIP	82,687	924	4,790	88,402
ENB	20,769	225	8,679	29,673
WNB	-	-	5,181	5,181
Total	858,893		213,200	880,966

Table 53: Natural Resource Management– unique activity inputs and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Landowner Consultation	Liaise with landowner Representatives	District visit	Assume 2 visits to each district per year by 2 staff per district of 3 days duration (plus travel time).



5.2.9 Police

Summary

- Total sector cost, K20 million
- Policing is a national function. Police personnel (other than some locally engaged community police) are employed and report to the National Government

Discussion

The study however assumes that provinces contribute to about 25% of the operation cost of provincial police operations. This includes paying utilities, office materials, vehicle maintenance and fuel. The study calculates these costs based on standard unit costs for operational materials multiplied by police numbers located in each province HQ. The study assumes that specialist equipment such as uniforms, guns, ammunition, radios, and fuel (for police patrolling operations) are provided by the national government.

Table 54: Police sector and major activity costs by province

Province	Administrative Support Province
Western	794,292
Gulf	240,256
Central	1,151,414
MBP	418,098
Oro	488,110
SHP	1,544,525
Hela	149,594
Enga	1,607,799
WHP	2,072,985
Jiwaka	565,586
Simbu	1,484,022
EHP	1,703,919
Morobe	1,321,798
Madang	1,310,529
ESP	845,772
Sandaun	521,284
Manus	289,924
NIP	645,995
ENB	1,827,703
WNB	919,068
Total	19,902,674



Table 55: Police Sector– unique activity inputs and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Contribution to administration costs for police staff			Assumes Province pays for 25% of Administration Costs for Police located at Provincial HQ.

5.3 Administrative Divisions

Overview

- Total administration costs, 150 million
- The highest proportion of the cost is taken up at the LLG level (54%), followed by the provincial level (39%), and district level 6.4%.
- Assembly Costs features highly with 69% of administrative costs (K103 million). The remaining K47 million (31%) is spread across the administrative divisions.
- These areas include HR, LLG administration, finance, office of administrator, legal, and Internal Audit

Table 56: Administrative costs by division, by level, 2020

Administrative Divisions	Level District			Total
	Province		LLG	
Assembly Services	28,341,502	1,958,798	72,326,955	102,627,254
Finance and Administration	5,844,185	1,406,586	344,192	7,594,963
HRM	4,310,390	79,490	-	4,389,880
Internal Audit	2,113,091	75,817	-	2,188,908
Legal Services	1,886,608	-	-	1,886,608
LLG Administration	4,608,080	1,614,503	8,532,322	14,754,905
Office of Administrator	8,663,854	3,343,337	-	12,007,191
Policy, Planning and Research	2,999,633	1,133,865	-	4,133,499
Total	58,767,343	9,612,396	81,203,470	149,583,209

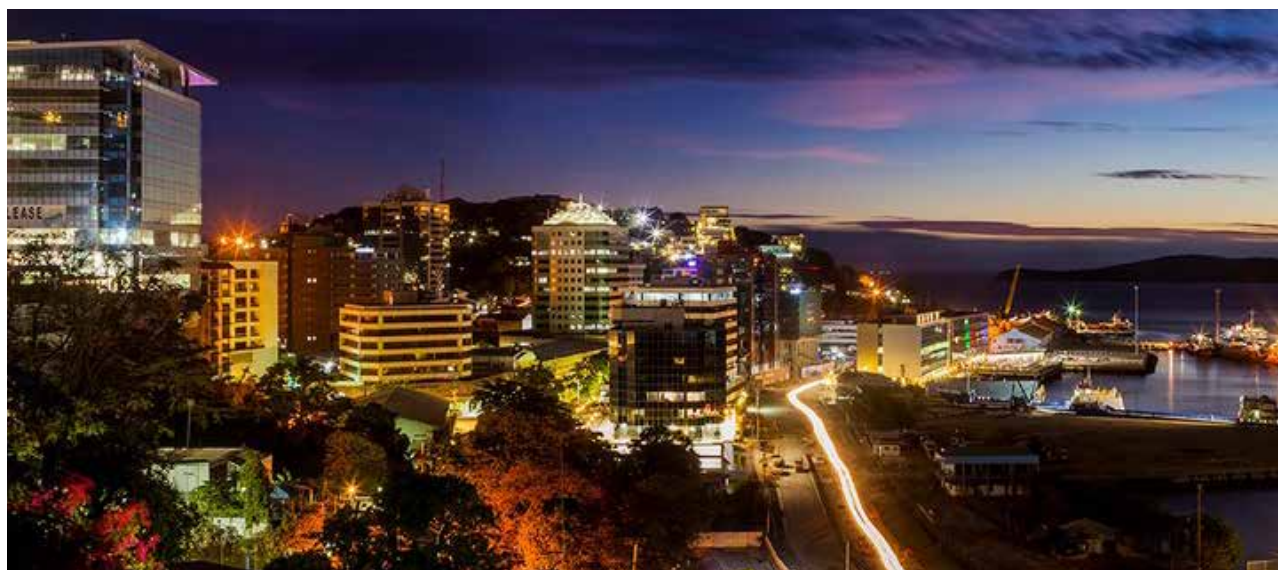


Table 57: Administrative costs by division, by province, by level, 2020

Province	Provincial Costs	District Costs	LLG Costs	Total Costs
Western	2,349,859	560,213	6,989,829	9,899,901
Gulf	2,781,235	302,722	2,760,390	5,844,346
Central	2,773,358	600,688	4,502,076	7,876,122
MBP	2,916,120	452,331	4,692,211	8,060,662
Oro	2,446,518	204,743	3,388,263	6,039,524
SHP	2,987,059	372,480	3,476,423	6,835,962
Hela	2,448,780	441,213	2,407,881	5,297,874
Enga	2,690,879	413,085	3,392,850	6,496,814
WHP	2,558,483	296,718	1,372,489	4,227,690
Jiwaka	1,943,188	196,679	1,276,348	3,416,215
Simbu	3,211,342	444,724	1,734,026	5,390,092
EHP	3,531,762	564,542	1,944,683	6,040,987
Morobe	4,688,373	901,055	9,115,168	14,704,596
Madang	3,520,237	723,627	6,342,711	10,586,575
ESP	4,050,266	992,823	7,859,162	12,902,251
Sandaun	3,149,340	563,839	9,327,021	13,040,201
Manus	2,315,928	266,134	1,057,368	3,639,431
NIP	2,893,070	363,725	1,562,870	4,819,665
ENB	2,603,055	333,695	4,873,446	7,810,197
WNB	2,908,491	617,358	3,128,253	6,654,103
Total	58,767,343	9,612,396	81,203,470	149,583,209

What factors contribute to the variation in costs we see across provinces?

- The size of the province, specifically the number of districts and LLGs will impact the costs for assembly services in a province.
- The size of the province together with geographic aspects related to travel will also impact many activity costs. Larger provinces with more administrative outposts and/or provinces with less accessible terrain, will incur a higher cost of travel to carry out same functions.
- And finally, larger provinces with more staff in administrative divisions will incur more costs.



5.3.1 Offices of the Administrator and Deputy Administrator

Summary

- Total Costs, 12 million
- Of this, the majority of the costs relate to administration overheads (71%).
- Travel related activities for liaison purposes both within the province (Districts and LLGs) as well as to Port Moresby are about K1.5 million.
- The other core activity relates the province participating or hosting regional meetings at a cost of K100,000 per province.

Table 58: Office of the Administrator – major activity costs by province

Province	Administration	Staff Training (HRD)	Liaison Activities	Regional Meetings	Grand Total
	Province	Province	Province		
Western	180,596	13,034	100,425	100,000	394,054
Gulf	463,499	17,526	71,693	100,000	652,718
Central	475,338	58,721	58,683	100,000	692,742
MBP	350,870	37,140	74,028	100,000	562,038
Oro	347,128	13,434	61,552	100,000	522,114
SHP	405,640	14,483	76,219	100,000	596,342
Hela	337,900	49,186	74,339	100,000	561,425
Enga	293,744	30,187	69,793	100,000	493,723
WHP	239,628	30,278	61,593	100,000	431,499
Jiwaka	228,317	11,793	60,521	100,000	400,630
Simbu	311,313	22,529	67,034	100,000	500,876
EHP	334,865	28,782	68,687	100,000	532,334
Morobe	744,190	92,726	81,806	100,000	1,018,721
Madang	588,590	71,178	72,674	100,000	832,443
ESP	821,970	80,579	79,991	100,000	1,082,540
Sandaun	264,015	23,421	96,093	100,000	483,529
Manus	149,784	4,168	70,772	100,000	324,723
NIP	708,293	41,060	70,080	100,000	919,433
ENB	202,902	18,387	69,710	100,000	390,999
WNB	416,316	31,001	66,988	100,000	614,305
Total	7,864,897	689,613	1,452,681	2,000,000	12,007,191

Table 59: Office of the Administrator – unique activity inputs and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Liaison	Travel	POM, District and LLG Travel	Assume 4 trips to POM by 3 staff for 5 days duration, 1 visit to each District for 2 days duration by 2 staff, and 1 visit to each LLG for a 1- day duration by 2 staff.
Province	Cost of Hosting Regional Meetings	Funding for Regional Meetings	Grants	UPDATED ASSUMPTION: Assume K100,000 grant by each province. In 2015 cost is at K65,000

5.3.2 Internal Audit

Summary

- Total Costs, 2.2 million
- Of this, majority of the costs, about 75% is for administration (overheads).
- Audit related activities within the province K0.4 million. The costs mostly involve travel within the province to undertake audit functions.

Table 60: Internal Audit – major activity costs by province

Province	Administration	Audit	Professional Association Membership	Total
	Province	Province	Province	
Western	32,282	35,941	6,000	74,223
Gulf	121,469	15,298	12,000	148,767
Central	111,212	22,196	6,000	139,407
MBP	88,808	23,002	6,000	117,810
Oro	94,768	11,385	6,000	112,154
SHP	27,698	21,507	6,000	55,206
Hela	67,207	15,086	6,000	88,293
Enga	84,042	17,378	6,000	107,419
WHP	64,605	12,243	12,000	88,847
Jiwaka	64,638	10,575	-	75,214
Simbu	104,046	21,102	3,000	128,148
EHP	84,568	25,949	3,000	113,517
Morobe	175,543	39,626	6,000	221,169
Madang	49,770	26,384	9,000	85,154
ESP	169,811	30,064	6,000	205,875
Sandaun	100,036	35,945	3,000	138,981
Manus	32,164	9,359	6,000	47,522
NIP	8,780	11,510	6,000	26,291
ENB	50,702	16,392	9,000	76,094
WNB	115,807	20,009	3,000	138,816
Total	1,647,957	420,951	120,000	2,188,908

Table 61: Internal Audit – unique activity inputs and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Professional association membership	Professional association membership	Annual fee, number of accountants	UPDATED ASSUMPTION: Assume prov govt pays for fee of K3,000 for each accountant. In 2015 the cost was K684 for each accountant.
Province	Human Resource Management	Continuing education courses	Unit cost	UPDATED ASSUMPTION: Assumes K2,502 per accountant per annum. In 2015 the cost is K1,950.
Province	Human Resource Development	Purchasing professional materials/books	Unit cost	UPDATED ASSUMPTION: Assumes K1,102 per accountant per annum. In 2015 the cost is K861 per accountant in a year.

Province	Audit	District audit	District visit	UPDATED ASSUMPTION: Assume 12 days per audit, 1 audit per year each district, 1 staff person. Assume printing of report covered under general administration. In 2015, 5 days per audit.
Province	Audit	LLG/School audit	LLG/School visits	Assume 50% of LLGs, 10% of community/primary/secondary schools audited each year, 2 days per audit, one auditor per audit. Assume even spread of audits across province. Assume printing of report covered under general administration.

5.3.3 Finance and Administration

Summary

- Total Cost, K7.6 million
- Of this, about half of the cost is administration (overheads), generated by the division.
- K4.2million on administrative overheads, that is administration and staff training (28%).

Table 62: Finance and Administration – major activity costs by province

Province	Administration		Staff Training		Budget			Revenue			Total
	Province	District	Province	Province	District	LLG	Province	District	LLG		
Western	-	42,677	9,122	111,433	62,507	26,173	7,820	9,384	2,346	271,462	
Gulf	201,145	-	1,941	74,886	27,626	10,026	7,820	6,256	1,564	331,265	
Central	226,171	-	2,756	70,252	53,234	11,259	7,820	12,512	3,128	387,132	
MBP	159,275	-	1,792	89,146	53,418	14,668	7,820	12,512	3,128	341,760	
Oro	150,188	-	1,755	62,380	19,165	11,137	7,820	6,256	1,564	260,264	
SHP	113,707	-	1,252	81,132	40,719	6,444	7,820	15,640	3,910	270,625	
Hela	135,117	7,741	4,073	86,165	40,061	8,050	7,820	9,384	2,346	300,759	
Enga	167,770	-	2,033	87,357	45,310	10,083	7,820	15,640	3,910	339,924	
WHP	241,153	-	2,612	77,647	32,537	5,580	7,820	12,512	3,128	382,990	
Jiwaka	92,719	-	1,093	91,873	22,656	3,378	7,820	9,384	2,346	231,270	
Simbu	113,428	-	1,389	93,004	55,578	11,102	7,820	18,768	4,692	305,782	
EHP	244,762	49,053	12,754	98,156	63,692	11,879	7,820	25,024	6,256	519,397	
Morobe	433,715	-	5,782	139,207	112,983	20,966	7,820	28,152	7,038	755,663	
Madang	225,247	55,142	13,069	108,552	71,432	18,232	7,820	18,768	4,692	522,955	
ESP	398,010	-	4,874	100,362	63,786	15,193	7,820	18,768	4,692	613,506	
Sandaun	236,459	-	3,267	114,690	77,076	31,569	7,820	12,512	3,128	486,521	
Manus	208,745	-	2,161	66,220	14,049	12,635	7,820	3,128	782	315,541	
NIP	62,016	21,774	4,976	76,802	24,859	9,767	7,820	6,256	1,564	215,833	
ENB	124,616	-	1,348	85,075	40,666	9,281	7,820	12,512	3,128	284,446	
WNB	265,509	-	3,384	92,257	49,217	31,864	7,820	6,256	1,564	457,871	
Total	3,799,753	176,388	81,433	1,806,597	970,571	279,285	156,402	259,627	64,907	7,594,963	

Table 63: Finance and Administration – unique activity inputs and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Budget	Preparation	Province work-shop	Assume 1 workshop required per year for 30 people drawn from province divisions and districts (2 per district); duration of 3 days at prov level
Province	Budget	Presentation	POM Visit	Assume two trips are required each year from province to POM. One technical team of 2 people for 2 days to fix/follow-up any problems with budget, and one team of 6 people visiting for 3 days to present the budget. Follow-up visit is assumed to be 1st quarter Budget review meeting
Province	Budget		Printing	Assume 100 copies of 100 pages
Province	Budget	Monitoring	Quarterly Reviews (provincial)	District Administrator and provincial advisors (30 pax), 1 day meeting 4 times a year at provincial level
Province	Budget		Quarterly Re-views (national)	2 people per province travel to POM for 2 days, 3 times a year.
Province	Budget	Annual PAC appearance	POM visit	Assume 3 people travel to POM once a year for 2 days
Province	Revenue	Revenue Collection (GST, traffic, land tax, liquor)	Local Travel	UPDATED ASSUMPTION: Assume K7,820 per province for local travel for collections activities, etc. This assumes travel around provincial capital.
Province	Revenue	Admin		Covered under general admin
Province	Procurement Unit	Provision of provincial supplies		Covered under general admin - no unique cost
Province	Procurement Unit	Maintained assets register		Covered under general admin - no unique cost
Province	IFMS	Training	POM Visit	NEW ASSUMPTION: Assume each province receives support of 1 trainer per year for 3 days to provide technical assistance.
District	Cash Office	Providing cash to office	Province - LLG travel	No unique costs. Assume no cash offices in districts.
District	Cash Office	Security	Province - LLG travel per diem/ accommodation cost	No unique costs. Assume no cash offices in districts.
District	Cash Office	Provide acquittals	District travel	No unique costs. Assume no cash offices in districts.

District	Budget	Preparation	District work-shop	Assume one workshop per year, 20 people - district and LLG people (assume 2 from each LLG), duration 2 days; held in the district.
District	Budget	Presentation	Prov Trip	Assume 3 people from each district travel to province for 2 days once a year
District	Budget	Monitoring	Quarterly Re-views (district)	Assume 4 meetings in each district each year, district staff attend and 2 from province for each meeting in each district
District	Revenue	Collection/ compliance	Local Travel	UPDATED ASSUMPTION: Assume lump sum of K3,128 per district for local compliance related travel
LLG	Budget	Monitoring	District visit (from LLG)	Assume 2 people from each LLG travel to district for 2 days every 6 months.
LLG	Revenue	Collection/ compliance	Local Travel	UPDATED ASSUMPTION: Assume lump sum of K782 per LLG for compliance/collection related travel

5.3.4 Human Resources Management

Summary

- Total Costs, K4.4million
- Of this, majority of the costs, about 94% is for administration (overheads).
- The remainder relates to costs for activities such as staff training and organizational management.



Table 64: Human Resources – major activity costs by province

Province	Administration	Staff Training (HRD)	Organisation Management	Total
	Province	Province	Province	
Western	115,275	15,871	12,384	143,530
Gulf	379,940	3,666	10,859	394,465
Central	185,049	2,255	6,390	193,694
MBP	219,004	2,465	9,751	231,219
Oro	257,464	3,008	8,761	269,233
SHP	322,171	3,548	10,543	336,261
Hela	96,512	1,269	10,543	108,324
Enga	149,129	1,807	10,648	161,584
WHP	222,602	2,411	9,982	234,995
Jiwaka	129,807	1,530	9,982	141,318
Simbu	340,285	4,168	10,021	354,475
EHP	225,934	2,650	10,048	238,632
Morobe	289,143	3,854	9,275	302,273
Madang	245,724	2,909	9,922	258,555
ESP	199,005	2,437	10,899	212,341
Sandaun	214,963	2,970	11,942	229,874
Manus	208,745	2,161	11,117	222,023
NIP	41,344	462	11,269	53,074
ENB	103,847	1,123	11,071	116,041
WNB	173,320	4,508	10,140	187,967
Total	4,119,264	65,073	205,544	4,389,880

Table 65: Human Resources – unique activity inputs and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Training	Out of province training	Training course in POM	Assume 1.5% of public servants receive out of province training per year. Cost of the course is proxied by a 2-week management course provided by IPA
Province	Training	In-province training	In province training course	Assume 1.5% of public servants receive in province training per year. Cost of the course is proxied by a 2-week middle management course provided by PNG IPA in the province
Province	Training	HRD Division in-service training	Provincial Training Course	Assume 50% of HRD Division staff receive 5 days training per year at provincial level
Province	Payroll	Pay roll processing	Freight to POM (fortnightly)	UPDATED ASSUMPTION: No unique costs. Payroll is now processed through ALESCO system

Province	Payroll		Freight Prov-District fortnightly)	UPDATED ASSUMPTION: No unique costs. Payroll is now processed through ALESCO system
Province	Organization management	Staff restructuring	Travel to POM	Assume 3 people need to travel to POM, once a year for 3 days on staffing issues

5.3.5 Policy, Planning and Research

Summary

- Total Costs, K4.1million
- Of the K4.1 million, majority of the costs (67%) is for administration (overheads) for staff in this division.
- The costs for planning coordination and policy dissemination estimated at K1.2million
- Research and Information Management comprises of a smaller component (6%) cost of the cost.

Table 66: Policy Planning and Research – major activity costs by province, 2020

Province	Administration	Information Management	Planning	Policy Dissemination	Research	Grand Total
	Province	Province	Province	Province	Province	
Western	89,306	2,000	46,335	16,153	7,975	161,769
Gulf	67,695	907	23,358	7,321	4,690	103,971
Central	193,665	2,675	45,919	15,028	7,341	264,628
MBP	194,035	1,150	44,493	15,606	7,599	262,884
Oro	142,479	2,722	22,070	8,649	4,377	180,297
SHP	114,960	1,590	46,628	11,828	9,075	184,081
Hela	170,422	2,500	33,339	13,786	6,683	226,730
Enga	178,832	1,575	46,971	13,853	7,328	248,560
WHP	150,009	1,250	36,483	11,874	4,455	204,071
Jiwaka	93,812	25,000	29,950	8,401	3,249	160,412
Simbu	222,044	6,000	60,648	15,428	8,227	312,347
EHP	163,780	875	70,888	19,879	9,961	265,383
Morobe	125,570	1,800	85,180	34,635	14,804	261,989
Madang	165,755	2,225	58,718	22,253	8,395	257,348
ESP	198,893	4,730	58,277	16,392	12,368	290,661
Sandaun	115,695	2,225	62,982	18,526	9,482	208,911
Manus	140,604	2,225	13,409	4,833	5,509	166,580
NIP	62,708	830	22,180	8,567	4,523	98,808
ENB	83,976	1,475	37,937	11,444	7,399	142,230
WNB	82,736	850	27,883	14,948	5,423	131,839
Total	2,756,979	64,604	873,647	289,405	148,864	4,133,499

Table 67: Policy Planning and Research – unique activity inputs and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Policy Dissemination	Information sharing	Annual workshop at provincial level	Assume 1 workshop for 30 pax for 2 days drawn from province divisions and districts (2 participants from each District)
Province	Planning	Development of annual activity plans for Province and District Development Plans	Annual workshop in Province plus one in each district	UPDATED ASSUMPTION: Annual workshop in Province (20 participants for 5 days) with no participants from Districts, plus one workshop (15 pax for 5 days) in each district where 2 people travel from the Province (and 10 of 15 people from LLGs)
Province	Information management	Collection of village survey data for provincial data system	Collection of other data from other divisions	No unique cost
Province	Information	Information dissemination	Production of annual report	Assume only discrete cost is printing of 100 copies of report 100 pages long
Province	Research	Small scale research/survey work in support of planning	LLG travel	Assume team of 3 people travel to 10% of LLGs for 10 days each year to conduct research/survey

The development of information systems at provincial level is now becoming crucial where provinces need to play a key role in oversight, monitoring and reporting across province, districts and LLGs. With the emergence of District Development Authorities (DDAs) and City Authorities, performance monitoring is now a key aspect for provinces and particularly the policy, planning and research division to embrace.

5.3.6 Legal Services

Summary

- Total Costs, K1.9 million
- The major costs in this area relates to the prosecution and defense of provincial and LLG court cases.
- Other costs relating to administration and professional memberships, K0.7 million.

Table 68: Legal Services – major activity costs by province, 2020









































Province	Administration	Professional Association Costs	Prosecute-Defence of Provincial and LLG cases	Grand Total
	Province	Province	Province	
Western	 6,650	2,174	 80,707	89,531
Gulf	 6,141	2,174	 53,250	61,565
Central	 25,463	2,174	 60,166	87,803
MBP	 5,772	2,174	 69,077	77,023
Oro	 5,442	-	 41,967	47,409
SHP	 44,356	2,174	 62,056	108,586
Hela	 45,148	2,174	 51,206	98,528
Enga	 24,938	2,174	 57,728	84,840
WHP	 62,102	2,174	 55,380	119,657
Jiwaka	 62,136	2,174	 45,216	109,526
Simbu	 101,544	2,174	 70,238	173,955
EHP	 24,920	4,348	 67,713	96,980
Morobe	 26,542	2,174	 78,334	107,050
Madang	 26,549	-	 77,053	103,601
ESP	 46,443	-	 73,254	119,697
Sandaun	 28,296	2,174	 81,293	111,763
Manus	 6,227	-	 43,654	49,881
NIP	 6,278	2,174	 47,073	55,525
ENB	 27,206	-	 60,118	87,324
WNB	 47,270	2,174	 46,919	96,363
Total	629,422	34,784	1,222,402	1,886,608

Table 69: Legal Services – unique activity inputs and assumptions

Level	Activity	Description	Input unit	Costing assumptions
Province	Human Resource Management	In-service training for division staff	Province training course	Assume 50% of division staff (from all levels) receive 5 days in-service training per year.
Province	Human Resource Management	Compulsory govt lawyers conference	Travel/Fee	Each lawyer attends conference each year. Assume held in POM. Conference lasts for two days plus travel time.
Province	Human Resource Management	Continuing legal education courses	Fee	Assume each lawyer does one continuing legal education course per year

Province	Human Resource Management	Purchasing legal books	Purchase	UPDATED ASSUMPTION: Assumes K1,102 for each lawyer per year. In 2015, cost is at K861 per lawyer.
Province	Draft Provincial and LLG legislation	Drafting legislations	Stationery and staff time	Absorbed under admin. No unique costs
Province	Prosecute/ defend Provincial and LLG cases	Representation in cases - POM, province, district	POM Travel and District Travel	UPDATED ASSUMPTION: Assume one lawyer can handle between 3-7 out of province cases per year (depends on size of province); 5 National Court cases (in provincial capital) per year; and 10 District Court cases per year. Assume all out of province cases are in POM, and each case requires travel once a year of 5 days to POM for each lawyer. This trip also covers of other in POM work required by the lawyer such as liaison with national legislation bodies etc. Assume national court cases are in provincial capital and require no travel costs. Assume district court cases are evenly spread throughout province and require 0.5 day per case and are dealt with in clusters of 2 cases per visit.
Province	Prosecute/ defend Provincial and LLG cases	Filing Fees (lodgment) with National Court	Fees per court case	Assume 5 national court cases but assume that half of these 3 (rounding up) would be initiated by province hence they would have to pay lodgment fee.
Province	Prosecute/ defend Provincial and LLG cases	Company Searches	Fees per court case	Assume half of the out of province and national court cases require a company search.
Province	Prosecute/ defend Provincial and LLG cases	Private legal services	Fees	UPDATED ASSUMPTION: Assume one of the out of province cases requires private legal services to be employed. Assume on average this cost K20,000 per case. In 2015, costs were at K15,000 per case.
Province	Prosecute/ defend Provincial and LLG cases	Subscriptions to national gazette	Annual Subscription	UPDATED ASSUMPTION: Assumes cost of one subscription to national court judgements, K3,128. In 2015 costs were at K2,444. .
Province	Professional Accreditation	Pay fees	Fee	UPDATED ASSUMPTION: Assumes professional membership fee per lawyer, K2,174.

5.3.7 Assembly Services

Summary

- Total Costs, K102.6million
- Assembly Services is the largest in the administrative sector as identified in the study
- About 70% of the cost (K72.3 million) relates to Council Meetings.
- Provincial Assembly and DDA meetings make up about K22.4million (22% of Sector Cost)

Other costs comprised of duty travel costs, committee or board sitting fees and certain assembly member salaries (not funded by the national government).

Table 70: Assembly Services – major costs by activity by province

Assembly Services	Level District		Total
	Province	LLG	
Administration	1,482,089	49,415	1,531,504
Council Meetings	-	72,326,955	72,326,955
DDA Board Meetings	-	1,909,383	1,909,383
Human Resource Development	26,253	-	26,253
Office of the Governor/Deputy Governor	6,441,661	-	6,441,661
Provincial Assembly	20,391,498	-	20,391,498
Grand Total	28,341,502	1,958,798	102,627,254

Table 71: Assembly Services – major costs by activity by province

Province	Administration	Office of the Governor & Deputy Governor	Provincial Assembly	DDA Board Meetings	Council Meetings	Total
	Province	Province	Province	District	LLG	
Western	92,518	351,133	949,899	151,286	6,352,758	7,897,594
Gulf	67,695	301,586	783,938	63,650	2,388,974	3,605,843
Central	54,557	313,532	951,096	73,229	3,963,662	5,356,076
MBP	60,400	327,240	1,029,243	94,928	4,001,326	5,513,137
Oro	108,530	278,004	576,647	56,032	2,969,243	3,988,456
SHP	57,480	334,214	1,171,715	69,449	3,276,824	4,909,682
Hela	58,669	314,054	797,906	65,542	2,161,954	3,398,125
Enga	94,335	319,652	961,614	69,468	3,036,003	4,481,072
WHP	112,507	305,642	731,271	44,615	1,199,585	2,393,619
Jiwaka	56,287	295,419	566,744	33,728	1,180,959	2,133,137
Simbu	57,409	335,175	1,123,535	82,651	1,509,958	3,108,727
EHP	76,195	346,869	1,418,452	94,669	1,715,648	3,651,832
Morobe	41,857	385,609	1,984,769	143,988	8,288,158	10,844,380
Madang	62,158	351,804	1,295,262	100,554	5,667,585	7,477,364
ESP	80,577	346,082	1,505,708	119,081	7,200,073	9,251,522
Sandaun	87,173	345,047	1,123,489	161,164	8,602,865	10,319,739
Manus	93,736	279,562	750,420	139,630	792,081	2,055,428
NIP	83,611	298,366	700,461	62,612	1,101,684	2,246,734
ENB	83,976	319,169	1,089,961	79,860	4,384,406	5,957,372
WNB	128,087	293,503	879,369	203,246	2,533,210	4,037,415
Total	1,557,757	26,441,661	620,391,498	1,909,383	72,326,955	102,627,254

Table 72: Assembly Services – unique activity inputs and assumptions

Level	Program	Activity	Input Unit	Costing Assumptions
Province	Office of Governor/ Deputy Governor	Maintain communication	Annual phone cost per person	As per general admin assumption in Chapter 6.
Province	Office of Governor/ Deputy Governor		Annual post/ freight cost per person	As per general admin assumption in Chapter 6.
Province	Office of Governor/ Deputy Governor	Office stationery	Annual office supplies cost per staff person	As per general admin assumption in Chapter 6.
Province	Office of Governor/ Deputy Governor	Maintain office equipment	Annual computer maintenance per Computer	As per general admin assumption in Chapter 6.
Province	Office of Governor/ Deputy Governor		Annual computer consumables per Computer	As per general admin assumption in Chapter 6.
Province	Office of Governor/ Deputy Governor		Annual Photocopy service per Photocopier	As per general admin assumption in Chapter 6.
Province	Office of Governor/ Deputy Governor		Annual photocopy consumables per Photocopy	As per general admin assumption in Chapter 6.
Province	Office of Governor/ Deputy Governor		Provide utilities	Annual electricity cost per staff person
Province	Office of Governor/ Deputy Governor		Annual water cost per staff person	
Province	Office of Governor/ Deputy Governor	Vehicle Maintenance	Annual Service/ Repair cost per boat/car	Assume vehicle allowance for <u>deputy governor</u> - as per SRC determination
Province	Office of Governor/ Deputy Governor	Housing	Allowance	Assume housing allowance for <u>deputy governor</u> - as per SRC determination
Province	Office of Governor/ Deputy Governor	Entertainment	Allowance	Assume entertainment allowance for <u>deputy governor</u> - as per SRC determination
Province	Office of Governor/ Deputy Governor	Allowances	SRC mandated allowances	Assume Governor and Deputy Governor will receive personal allowances and allowances for staff as provided for in the Salaries and Remuneration Commission determination. In addition, it is assumed that termination benefits payable by the provincial government are annualized and included as an amount in each years' budget
Province	Office of Governor/ Deputy Governor	Travel	Visits to POM, Districts and LLGs	Assume 5 visits to POM for 5 days (3 people, visit each district 4 times for 3 days)

Province	Provincial Assembly	Paying SRC mandated allowances	Allowances per assembly member	It is assumed the ordinary assembly members will receive salaries as per the SRC determination. In addition, the provincial government is liable for termination benefits and utility allowances. These are assumed to be annualized and budgeted accordingly.
Province	Provincial Assembly	Members accommodation	Per diem per assembly member	As above
Province	Provincial Assembly	Member travel	Travel allowance per assembly member	It is assumed that there are 4 assembly meetings each year (a minimum of four are required under the Organic Law) and they last 3 days each. As per SRC determination each assembly member resident outside provincial capital is entitled to receive K100 per sitting day. Ordinary assembly members resident in provincial capital are entitled to receive K50 per day. Members resident outside of provincial capital have their transport paid to attend meetings.
Province	Provincial Assembly	Printing	Cost of printing legislation	It is assumed that each Assembly meeting requires photocopying of 50 A4 pages per assembly member for each assembly meeting.
Province	Provincial Assembly	Parliamentary Committee	Meeting costs	It is assumed that there are 6 parliamentary committees including the Joint District Planning and Budget Priorities Committee. It is assumed that each committee has a chairman and two members and that the 6 committees meet 4 times per year for an average of 1.5 days. Assembly members receive fees as per the SRC determination.
Province	Provincial Assembly	PEC Meetings	Meeting costs	It is assumed as per the Organic Law, the PEC comprises 1/3 of the assembly. It is assumed that PEC meetings are 6 times a year and last for three days. Allowances are payable as per the SRC determination. It is assumed that transport allowance would be payable to all PEC members resident outside provincial capital. It is assumed that one PEC member and the Governor reside in the provincial capital, and other PEC members are spread evenly between the nearest and farthest LLG.

District	District Development Authority	Meetings and LLG Member travel	Meeting costs	Assumes 4 meetings per year of 2 days duration. assume that Open member and appointed members live in District centre, and LLG Presidents travel. Assume 2 LLG members per vehicle to attend meetings.
LLG	Council Members	Meetings and LLG Member travel	Meeting costs	Assumes 4 meetings per year of 2 days duration. assume that Open member and appointed members live in District centre, and LLG Presidents travel. Assume 2 LLG members per vehicle to attend meetings.
LLG	Council Members	Paying SRC mandated allowances	Allowances per councilor	As per mandated allowances, assumes 5 meetings of 2 days duration per annum.
LLG	Council Members	Members accommodation	Per diem per councilor	Camping allowance
LLG	Council Running Costs	Transport	Travel allowance per councilor	As per mandated allowances. Assumes half of total LLG-clinic point travel time to reach LLG.
LLG	Council Running Costs	Rations	Cost per meeting	As per standard assumption for LLG meetings. Refreshments are 2 cans of soft drink, 1 wopa biscuit, 1 can Ox & Palm Red 340g, 300g rice, 1 can besta tuna, plus tea and sugar.
LLG	Council Running Costs	Stationary	Cost of official documents	Assumes standard cost of meeting supplies
		Printing	Cost of printing legislation	Cost of printing 1,000 pages of legislation per annum at the provincial centre.





5.3.8 LLG Administration

Summary

- Total Cost, K14.8 million
- The major activity cost is supervision (34%)
- K4.2 million on administrative overheads, that is administration and staff training (28%).

Table 73: LLG Administration – major activity costs by province

Province	Administration	Staff Training (HRD)	Policy Coordination	LLG Supervision	LLG Administration	LLG Supervision	Total
	Province	Province	Province	District	LLG	LLG	
Western	68,572	52,830	46,851	90,933	37,512	571,041	867,738
Gulf	52,615	66,252	19,138	47,921	66,312	293,514	545,752
Central	41,122	89,743	34,356	65,392	80,763	443,263	754,640
MBP	39,819	133,740	35,933	72,210	107,266	565,823	954,790
Oro	42,911	152,722	10,719	46,927	110,594	295,725	659,597
SHP	75,805	9,564	34,083	66,482	8,714	180,530	375,179
Hela	65,648	136,172	23,651	54,688	108,785	126,746	515,690
Enga	32,499	111,889	28,336	64,113	102,089	240,765	579,692
WHP	83,306	64,028	22,524	37,958	48,658	115,537	372,011
Jiwaka	-	31,829	17,164	26,050	32,199	57,465	164,708
Simbu	94,524	91,873	37,459	73,653	91,343	116,931	505,783
EHP	241,812	42,453	43,964	83,783	33,839	177,061	622,913
Morobe	20,653	181,925	63,014	128,752	123,346	675,660	1,193,350
Madang	143,339	123,677	45,239	84,698	99,310	552,891	1,049,154
ESP	166,766	173,274	39,305	107,560	167,897	471,308	1,126,109
Sandaun	42,993	173,204	42,784	112,444	103,432	586,027	1,060,884
Manus	-	138,789	5,359	61,713	130,760	121,111	457,732
NIP	506,944	185,897	13,868	47,402	139,177	310,679	1,203,967
ENB	41,539	143,718	25,934	67,867	150,282	326,350	755,690
WNB	81,695	233,540	14,649	98,028	150,038	411,578	989,527
Total	1,842,562	2,337,119	604,330	1,438,572	1,892,316	6,640,006	14,754,905

Table 74: LLG Administration – unique activity inputs and assumptions

Level	Activity	Description	Input Unit	Costing Assumptions
Province	Policy Coordination	District support/supervision of LLG staff	District Visit	UPDATED ASSUMPTION: Travel from Prov to District for 1 staff 4 times a year, for 5 days. Increase in number of days in 2015 study from 2 days to 5 days.
Province	Disaster Coordination	Emergency response	Visits to LLGs	UPDATED ASSUMPTION: Assume this activity is taken up in disaster management
District	LLG Support and Coordination	Supervisory visits to each LLG	District - LLG travel	Quarterly visit to each LLG for 3 days (2 staff).
LLG	LLG Administration	Maintain communication	Annual radio maintenance	As per general admin cost assumptions
LLG	LLG Administration	Provide stationary	Annual office supplies cost per staff person	
LLG	LLG Administration	Vehicle Maintenance	Annual Service/Repair cost per boat/car	Assume each LLG has one vehicle - car if land based, boat if sea based.
LLG	LLG Administration	Building/ Furniture Maintenance	Annual repair of LLG HQ	As per general building maintenance assumptions
LLG	LLG Administration		Cleaning	Annual cleaning cost per staff person
LLG	Ward Supervision	Supervision of ward committees, project management, aid posts, schools, DPI offices, village courts	Ward supervisory visit	1 visit per quarter for 2 staff to each extension point in LLG (route depends on each LLG). Duration = 1 day of work plus travel time.





6 Generic Cost Assumptions

6.1 Costing of Administrative Overheads

Every province [and district] and every division and sector within a province incurs a range of basic costs simply to support the existence of the staff they employ. These costs are often referred to as administrative overheads. Typically, they include the cost of; communications, utilities, stationery, office cleaning, office equipment, office furniture, building maintenance and fittings. The approach adopted in this study was to calculate a reasonable cost for each of these services and then to convert the total of these costs into a unit cost that could be applied to each staff member located at a particular level in a particular administrative division or service sector.

The table that follows provides a summary of the overhead costs included in the study, the key assumptions used, and the basis for the calculation. It should be noted however, that these are the main assumptions and there are often minor assumptions that underpin the calculations and have remained largely unchanged from previous studies.

Table 75 : Assumptions for Administration Overheads

Overhead Description	Input Unit	Key cost assumptions & basis of calculation
Communication Costs	Annual phone cost per person, plus cost of telephone allowance	Is based on the number of program/professional staff in the province/district and a survey of reasonable communication costs from a sample of provincial and national users.
	Annual post/freight cost per person	Estimated at K2,322 per person. Does not apply to LLG's. Estimated at K35 per person. Does not apply to LLG's.
Stationary	Annual office supplies cost per staff person	Is based on: (i) the number of program/professional staff in the province/district, (ii) a survey of reasonable consumption levels, and (iii) provincial-specific prices.
Maintenance of Office Equipment	Annual computer amortization per computer	No service/maintenance assumption for computers. Assumes asset replaced every 5 years.
	Annual printer amortization per printer	No service/maintenance assumption for printers. Assumes asset replaced every 5 years.
	Annual printer consumables per printer	Assumes 1 toner per month per printer.
	Annual photocopier amortization per photocopier	Assumes asset replaced every 5 years.

	Annual photocopier consumables per photocopier	Assumes; 2 x 6 month 20,000 copy plans per photocopier; consumables of 1 toner/cartridge every 6 months.
Utilities [power & water]	Annual electricity cost per staff person, plus cost of utilities allowance	The price of electricity and water was based on what an average person may use. This can be justified on the basis that the price of water and electricity does not vary across the country. Assume K2,185 per person for power.
	Annual water cost per staff person	Assume K2,158 per person for water Does not apply to LLG's.
Vehicle Running Costs	Annual fuel costs for boat/car local travel within provincial capital	Assume annual fuel costs for local travel within provincial and district capital of 50 liters of zoom per boat, and 55 liters of diesel per vehicle.

6.2 Costing the Replacement of Essential Operating Assets

Office assets such as computers and printers and transport assets such as vehicles and boats depreciate quickly [despite maintenance] and need to be replaced. Meeting the replacement cost of these operating assets is often the responsibility of the sub-national levels of government. For these reasons the cost of replacing these basic operating assets has been factored into the study.

The table that follows provides a summary of the assumptions underpinning the cost to replace essential operational assets that are included in the study, the key assumptions used, and the basis for the calculation.

Table 76: Assumptions for Essential Operating Assets

Overhead Description	Input Unit	Key cost assumptions & basis of calculation
Office Equipment Replacement	Annual computer amortization per computer	No service/maintenance assumption for computers. Assumes asset replaced every 5 years.
	Annual printer amortization per printer	No service/maintenance assumption for printers. Assumes asset replaced every 5 years.
	Annual photocopier amortization per photocopier	Assumes asset replaced every 5 years.
Office Equipment Replacement	Office desks and chairs	Assumes asset replaced every 10 years. Allocation included in the Building/Furniture Maintenance unit cost.
Vehicle Replacement	Annual allowance for the cost to replace 4WD vehicles	It is assumed that; (i) a 4WD vehicle is required for every 6 professional/technical staff located at the provincial level and every 12 professional/technical staff located at the district level, (ii) the effective life of a vehicle is 7 years, and (iii) the cost of the vehicle is the province-specific price.



Boat Replacement	Annual allowance for the cost to replace boats	It is assumed that; (i) <i>where significant boat travel is required a 40 horsepower banana boat is required for every 10 professional/technical staff located at either the provincial or district levels</i> , (ii) the effective life of a boat is 5 years, and (iii) the cost of the boat is the province-specific price.
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6.3 Costing Staff Training & Workshops

The study assumes that all public servants receive some training on a periodic basis. More specifically the study assumes each year 3% of public servants receive externally provided training. Half of these public servants are assumed to attend a two-week management training course provided by the Papua New Guinea Institute of Public Administration (PNGIPA) in Port Moresby, while the other half attend a 2-week training course provided in the provincial capital with a trainer provided by the PNGIPA.

The study also assumes, each sector provides a 5-day in-service training per year for 50% of its staff and this is provided at the provincial headquarters (unless otherwise indicated and justified in the sector specific assumptions set out below).

And finally, any training of community members is determined by the requirements of each sector (see below) and that in these cases only the cost of the trainers, refreshments and course materials are included. No participant costs are included.

Table 77: Assumptions for Training & Workshops

Overhead Description	Input Unit	Key cost assumptions & basis of calculation
Training for public servants	National Training course	Assumes 1.5% of public servants attend a 2-week PNGIPA management training course in Port Moresby. Costs include return airfares [+ in-province travel costs if apt], course fees, accommodation, and travel allowances.
	Provincial Training course	Assumes 1.5% of public servants attend a 2-week training course in the provincial capital by a PNGIPA trainer. Costs include costs of a trainer and course materials, travel costs to the provincial centre, accommodation, and travel allowances for district staff.
<u>In-service</u> training for provincial sector program management staff	Provincial Training course	Assume 50% of program management staff receive 5 days of training per year at the provincial capital. Costs include trainers travel costs, participants travel costs from the facility to the district or provincial centre plus accommodation and travel allowances, venue hire, course materials, simple refreshments [not meals]. Generally assumed to be 20 participants unless a lesser number is appropriate.
Community members	<i>Refer to the relevant sector for information</i>	
Standard provisions for workshops	Workshop – see relevant sector/division for detail	Costs include: travel from workstation to either district or provincial location for workshop, course materials, light refreshments, and where apt venue hire.

6.4 Costing Travel Routes

The cost of travel in this study falls within two areas. The first relates to the general cost of around town travel. This around town travel cost is provided for under the administrative overheads costing. The second is for specific administrative and service delivery activities. For example, the cost of annual budget workshops at the district level, or the cost of a health outreach extension patrol.

The travel routes exercise modelled a complex web of routes that administration, sector, and frontline service delivery staff need to regularly travel to carry out their duties.

There are three types of *within province* travel:

- (i) travel by service delivery personnel to administrative centers (district/LLGs) and service delivery points (facilities or extension points);
- (ii) public servants traveling from lower levels administrative centers (LLGs or districts) to larger administrative centers (provincial or district) for training etc.; and
- (iii) community members traveling from households to administrative centers (provincial/district or LLG) for training.

The table below groups the various routes that were mapped [involving the use of GIS technology] and outlines the divisions/sectors that use the routes and the 'driver' of the coverage that applies.

Table 78: Categories of Travel Routes

Type of travel	Sectors	Coverage
District		
Province – District – Province	Office of the Administrator, Internal Audit, Policy Planning and Research, Education, Commerce, Agriculture, Natural Resource Management, Health, Community Development, Infrastructure	Number of Districts (actual location)
LLG		
Province – LLG – Province	Assembly, Office of the Administrator, LLG Administration	Number of LLGs (actual location)
District – LLG – District	Policy/Planning, Audit, District Administrator	Number of LLGs (actual location)
Facility/Community		
Provincial – Village	Communication, Environment, Land Administration, HIV	Village extension points selected to be within 2 hours walk of the population.
Provincial – Health Centre	Health	Number of Health Centres (locations)
District – Village	Police, Community Development, Agriculture	Village extension points selected to be within 2 hours walk of the population
LLG – Village	Village Courts	Number of Village Courts (actual locations)

District – School	Education	Number of schools (actual locations)
District – Health Centre	Health	Number of Health Centre (actual locations)
Health Centre – Village/ Aid post	Health	Village extension points selected to be within 2 hours walk of the population.
Health Centre – School	Health	Number of and location of schools

The cost of travel to service delivery points is derived from the costs of fuel, travel allowance and accommodation. The table below sets out the basis of use for these costs.

Table 79 : Assumptions for Travel-related Costs

Cost	Basis of Use
Fuel	The cost of fuel is calculated from return distance from provincial/district capital to designated service delivery point multiplied by the cost per kilometre for zoom or diesel (depending on the mode of transport is boat or car). If travel is by plane, then the cost of fuel is taken to be the price of the return ticket.
Travel allowance	The cost of travel allowances is calculated from number of travel days plus the number of days in each location multiplied by the DPM approved travel allowance for rural areas multiplied by the number of people making the visit.
Accommodation	The cost of accommodation is calculated from number of nights away multiplied by the cost of accommodation allowances (as provided by DPM) multiplied by the number of people making the visit.

Other assumptions and data sources are as follows.

Table 80: Other notes on Travel Routes Costs & Sources

Data	Source
Routes	The routes are province specific and based on the normal pattern of travel around the province. Information on travel routes and modes of transport was plotted on maps during interviews with provincial/ district public servants.
Mapping	These maps were then to plot the exact distance travelled on each travel route with the assistance of the Arc GIS mapping software.
Fuel consumption & price	Average consumption levels were established for travel by vehicle and boat. Fuel spot prices were surveyed by district.
Airfare prices	Spot prices of commercial airfares were surveyed for all applicable air routes.
Foot	When travel is by foot, travel time rather than distance is required to be calculated as foot travel has no additional financial cost, but there are costs involved in providing travel and accommodation allowances to public servants. Foot travel time was based on one of two levels, either in flat terrain or in mountainous terrain.
Public Transport	Travel by frontline [facility] staff from their facility to the district or provincial headquarters is based on a proxy. The proxy is the relevant cost of the proxy public transport fare selected for that district (NEFC selected and established the price of an average LLG-District fare and an average LLG-Province fare in each district).

Regular *out-of-province* costs refer to the cost of travelling from the provincial capital to Port Moresby on duty travel. These costs are outlined below.

Table 81: Assumptions on out-of-Province Travel Route Costs

Data	Source
Air fare	Priced as Air Niugini and Airlines commercial airfares
Travel allowance	DPM approved rate for within province and out-of-province visit
Accommodation	Cost of mid-level accommodation in Port Moresby

6.5 Costing Statutory Boards

Most provinces operate statutory Boards in several sectors. While not all provinces currently have all of these boards, the following Boards have been assumed to be in existence for the purpose of this costing exercise:

- Tourism Board
- Cultural Committee
- Provincial Youth Council
- Education Board
- Teacher Appointment Sub-Committee
- Provincial Health Authority Board (Updated Assumption)
- District Health Management Committee
- Provincial HIV Committee
- Transport Board
- Procurement Committee (Updated Assumption)
- Provincial Land Board
- Physical Planning Board
- Provincial Land Dispute Committee (PLDC) (New Assumption)

The study assumed that Boards, unless detailed within specific legislations, have the following structure and its members are paid travel and sitting fees based on a standard payment schedule:

- Twelve members, half of which are public servants and half private sector or community members
- The community members on the Board receive sitting fee for each day the board sits (the Chairmen of the board receives K314 per day [K100 in 2005], the Deputy Chair K156 per day [K80 in 2005] and ordinary Board members receive K156 per day [K50 in 2005]).

Note: Public servants on the boards do not receive a sitting fee.

Half of the Board members come from outside the provincial capital and hence are paid travel costs, travel allowances and accommodation costs. It is assumed that these all come from the “median LLG” in their province and travel is cost on that basis. It is assumed that refreshments are provided during board meetings, but not other meals.



Appendix

APPENDIX 1: Definitions of Costing Terms Used

Terms	Definition
Asset Procurement	Refers to the purchase of an asset. Example: the replacement of a motor vehicle.
Basket of Local Costs	Refers to an activity where the underlying cost is based on a set of goods priced locally (i.e., the price is specific to either the province or the district) Example: the procurement of elementary school supplies is based on a standard set of supplies cost at local prices.
Local Costs	Refers to an activity where the underlying cost is based on local prices (i.e. the price is specific to either the province or the district) Example: the procurement of elementary school supplies is based on a standard set of supplies cost at local prices.
National Responsibility	Refers to an activity that is deemed to be a national responsibility. No cost is estimated in the study for these activities. Example: postal charges to send grades 8, 10 and 12 school examination papers from Port Moresby to the province are deemed to be a national responsibility.
National Standard Costs	Refers to an activity where the underlying cost is based on a cost allocation or price that applies nationally to all provinces/districts. Example: The maintenance of unsealed roads has a uniform cost per kilometre of road which applies to all provinces.
No Unique Costs	Refers to an activity that is deemed to incur no additional costs. In these instances any cost related to the activity is deemed to have already been estimated (and absorbed) in another activity. Example: the submission to the Provincial Education Board to establish a new school. This activity is assumed to happen at a regular meeting.
Travel Calculation	Refers to an activity where the underlying cost is based on the costing models travel calculation methodology. Example: the collection of exam papers from schools is based on a travel calculation.
Unit Cost	Refers to the cost to undertake one unit of a particular activity. Example: The maintenance of roads has a uniform cost per kilometre which is an example of a 'unit cost'.

APPENDIX 2: Cost Estimates for all Provinces

Sector / Division	Level	Activity	Western	Gulf	Central	MBP	Oro	SHP	Hela	Enga	WHP	Jiwaka	Simbu	EHP	Morobe	Madang	ESP	Sandaun	Manus	NIP	ENB	WNB	Total
Office of Administrator	Province	Administration	131,992	375,296	182,193	176,980	296,625	264,071	133,520	166,834	129,006	147,512	206,752	205,983	327,501	242,952	336,113	189,675	110,481	534,501	100,782	262,790	4,521,560
		Human Resources	13,094	17,526	58,721	37,140	13,434	14,483	49,186	30,187	30,278	11,793	22,529	28,782	92,726	71,178	80,579	23,421	4,168	41,060	18,387	31,001	689,613
		Liaison	100,425	71,693	58,683	74,028	61,552	76,219	74,339	69,793	61,593	60,521	67,034	68,687	81,806	72,674	79,991	96,093	70,772	70,080	69,710	66,988	1,452,681
	Regional Bodies	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	2,000,000
		Administration	48,694	88,203	293,146	173,890	50,503	141,569	204,380	126,909	110,622	80,805	104,560	128,882	416,688	345,638	485,857	74,339	39,393	173,792	102,120	153,526	3,343,337
Internal Audit	LLG	No function performed at this level																					0
		Province	22,857	111,747	102,805	79,638	85,821	18,951	57,907	74,565	55,651	55,631	94,324	75,311	165,225	40,954	159,204	42,993	23,194	0	41,539	61,271	1,369,788
	Human Resources	9,424	9,722	8,407	9,171	8,947	8,747	9,300	9,477	8,954	9,007	9,122	9,257	10,318	8,816	10,607	19,608	8,970	8,790	9,164	16,154	202,352	
		Professional Association Membership	6,000	12,000	6,000	6,000	6,000	6,000	6,000	6,000	12,000	6,000	3,000	3,000	6,000	6,000	6,000	3,000	6,000	6,000	9,000	3,000	120,000
		Audit	35,941	15,298	22,196	23,002	11,385	21,507	15,086	17,378	12,243	10,575	21,102	25,949	39,626	26,384	30,064	35,945	9,359	11,510	16,392	20,009	420,951
LLG Administration	District	Administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37,436	0	0	0	38,381	75,817
		No function performed at this level																					0
	LLG	Administration	68,572	0	41,122	39,819	42,911	75,805	57,907	18,641	55,651	0	94,324	225,934	20,653	143,339	119,493	42,993	0	496,124	41,539	81,695	1,666,631
		Human Resources	52,830	66,252	89,743	133,740	152,722	9,564	136,172	111,889	64,028	31,829	91,873	42,453	181,925	123,677	173,274	173,204	138,789	185,897	143,718	233,540	2,337,119
		Policy Coordination	46,851	19,138	34,356	35,933	10,719	34,083	23,651	28,336	21,524	17,164	37,459	43,964	63,014	45,239	39,305	42,784	5,359	13,868	25,934	14,649	604,330
Human Resources	District	Administration	0	52,615	0	0	0	7,741	13,888	27,655	0	15,878	0	15,878	0	0	0	47,363	0	10,820	0	0	175,931
		LLG Support and Coordination	90,933	47,921	65,392	72,210	46,927	66,482	54,688	64,113	37,958	26,050	73,653	83,783	128,752	84,698	107,560	112,444	61,713	47,402	67,867	98,028	1,438,572
		LLG Administration	37,512	66,312	80,763	107,266	110,594	8,714	108,785	102,089	48,658	32,199	91,343	33,839	123,346	99,310	167,897	103,432	130,760	139,177	150,282	159,038	1,892,316
	Province	LLG Supervision	571,041	293,514	443,263	565,823	295,725	180,530	126,746	240,765	115,537	57,465	116,931	177,061	675,660	552,891	471,308	586,027	121,111	310,679	326,350	411,578	6,640,006
		Administration	45,715	379,940	185,049	219,004	257,464	322,171	96,512	149,129	222,602	129,807	340,285	225,934	289,143	245,724	199,005	214,963	208,745	41,344	103,847	163,390	4,039,774
Policy, Planning and Research	Province	Human Resources	15,871	3,666	2,255	2,465	3,008	3,548	1,269	1,807	2,411	1,530	4,168	2,650	3,854	2,909	2,437	2,970	2,161	462	1,123	4,508	65,073
		Organisation Management	12,384	10,859	6,390	9,751	8,761	10,543	10,543	10,648	9,982	9,982	10,021	10,048	9,275	9,922	10,899	11,192	11,117	11,269	11,071	10,140	205,544
		Administration	69,560	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,930	79,490
	LLG	No function performed at this level																					0
		Administration	22,857	67,098	123,366	179,185	128,732	113,707	135,117	130,488	148,402	92,719	151,238	112,967	123,919	163,816	79,602	64,489	139,164	62,016	83,077	81,695	2,209,695
Finance and Administration	Province	Human Resources	12,683	647	12,851	4,033	3,339	1,252	8,260	10,342	1,608	1,093	12,948	9,570	1,652	1,939	17,404	11,297	1,441	693	899	1,041	115,192
		Policy Dissemination	16,153	7,321	15,028	15,066	8,649	11,828	13,786	13,853	11,874	8,401	15,428	19,879	34,655	22,253	16,392	18,526	4,833	8,567	11,444	14,948	289,405
		Planning	14,940	6,907	11,224	9,938	6,418	8,007	8,708	7,186	5,663	5,894	8,992	8,572	14,688	11,324	9,756	14,024	5,098	5,970	7,267	7,489	177,965
	Information Management	2,000	907	2,675	1,150	2,722	1,590	2,500	1,575	1,250	25,000	6,000	875	1,800	2,225	4,730	2,225	2,225	830	1,475	850	64,604	
		Research	7,975	4,690	7,341	7,599	4,377	9,075	6,683	7,328	4,455	3,249	8,227	9,961	14,804	8,395	12,388	9,482	5,509	4,523	7,399	5,423	148,864
Legal Services	District	Administration	53,766	0	57,448	10,817	10,208	0	27,045	38,002	0	0	57,858	41,243	0	0	101,887	39,910	0	0	0	0	438,188
		Planning	31,496	16,451	34,694	34,555	15,652	38,621	24,631	39,785	30,820	24,055	51,656	62,316	70,492	47,395	48,521	48,558	8,311	16,210	30,670	20,394	695,682
		No function performed at this level																					0
	LLG	Administration	0	201,145	226,171	159,275	150,188	113,707	135,117	167,770	241,153	92,719	113,428	244,762	433,715	225,247	398,010	236,459	208,745	62,016	124,616	265,509	3,799,753
		Human Resources	9,122	1,941	2,756	1,792	1,755	1,252	4,073	2,033	2,612	1,093	1,389	12,754	5,782	13,069	4,874	3,267	2,161	4,976	1,348	3,384	81,433
Assembly Services	Province	Budget	111,433	74,886	70,252	89,146	62,380	81,132	86,165	87,357	77,647	91,873	93,004	98,156	139,207	108,552	100,362	114,690	66,220	76,802	85,075	92,257	1,806,597
		Revenue	7,820	7,820	7,820	7,820	7,820	7,820	7,820	7,820	7,820	7,820	7,820	7,820	7,820	7,820	7,820	7,820	7,820	7,820	7,820	7,820	156,402
		Administration	42,677	0	0	0	0	0	7,741	0	0	0	0	49,053	0	55,142	0	0	0	21,774	0	0	176,388
	LLG	Budget	62,507	27,626	53,234	53,418	19,165	40,719	40,061	45,310	32,537	22,656	55,578	63,692	112,983	71,432	63,786	77,076	14,049	24,899	40,666	49,217	970,571
		Revenue	9,384	6,256	12,512	12,512	6,256	15,640	9,384	15,640	12,512	9,384	18,768	25,024	18,768	12,512	18,768	12,512	3,128	6,256	12,512	6,256	259,627
Assembly Services	LLG	Budget	26,173	10,026	11,259	14,668	11,137	6,444	8,050	10,083	5,580	3,378	11,102	11,879	20,966	18,232	15,193	31,569	12,655	9,767	9,281	31,864	279,285
		Revenue	2,346	1,564	3,128	3,128	1,564	3,910	2,346	3,910	3,128	2,346	4,692	6,256	7,038	4,692	4,692	3,128	782	1,564	3,128	1,564	64,907
		Administration	0	0	20,961	0	0	37,902	38,605	18,641	55,651	55,631	94,324	18,828	20,653	20,477	39,801	21,496	0	0	20,769	40,847	504,387
	Province	Human Resources	6,650	6,141	4,902	5,772	5,442	6,453	6,543	6,297	6,452	6,505	7,020	6,092	5,889	6,072	6,642	6,799	6,227	6,278	6,437	6,422	125,035
		Professional Association Costs	2,174	2,174	2,174	2,174	2,174	2,174	2,174	2,174	2,174	2,174	2,174	2,174	2,174	2,174	2,174	2,174	2,174	2,174	2,174	2,174	34,784
Assembly Services	District	Prosecutor/Defend Provincial and LG cases	80,707	53,250	60,166	69,077	41,967	62,056	51,206	57,728	55,380	45,216	70,238	67,713	78,334	77,053	73,254	81,293	43,654	47,073	60,118	46,919	1,222,402
		No function performed at this level																					

LLG	Province	DDA Board Meetings	151,286	63,650	73,229	94,928	56,032	69,449	65,542	69,488	44,615	33,728	82,651	94,669	143,988	100,554	119,081	161,164	139,630	62,612	79,860	203,246	1,909,383	
		Council Meetings	6,352,758	2,388,974	3,963,662	4,001,326	2,969,243	3,276,824	2,161,954	3,036,003	1,199,585	1,180,959	1,509,958	1,715,648	8,288,158	5,667,585	7,200,073	8,602,865	792,081	1,101,684	4,384,406	2,533,210	72,326,955	
Agriculture	LLG	Province	Administration	22,857	134,097	82,244	79,638	107,277	56,854	135,117	186,411	111,301	74,175	94,524	207,106	144,572	430,017	159,204	214,963	278,327	41,344	83,077	61,271	2,704,376
			Human Resources	13,772	6,385	35,959	7,061	23,669	626	4,073	18,341	23,041	3,814	24,936	35,641	37,681	66,024	33,569	66,308	9,296	4,745	8,906	7,750	431,565
			Supervision	43,635	15,922	28,997	29,501	6,431	25,508	19,364	17,618	13,949	10,733	25,668	26,814	48,008	35,593	28,586	36,353	3,216	10,653	18,431	11,433	456,413
			Administration	59,882	40,752	178,316	34,054	110,946	0	7,741	76,720	83,341	22,084	124,643	162,320	150,010	315,523	207,436	233,829	78,606	21,774	46,590	38,381	1,992,097
			Extension Services	3,179,515	1,605,036	2,850,716	2,483,480	1,814,574	1,165,175	909,864	1,794,159	1,005,944	363,708	829,669	1,281,629	4,023,073	3,413,202	2,887,926	3,168,412	588,480	1,448,031	1,660,813	1,914,870	38,388,775
	District	District	Farmer Training	931,059	592,831	679,935	946,242	703,546	1,149,166	1,358,153	1,071,221	882,136	946,143	935,054	1,393,822	1,683,348	1,234,001	1,347,202	1,118,089	491,811	698,366	940,285	2,101,234	21,203,645
			Information and Awareness	84,787	39,021	78,266	92,263	58,870	103,175	154,360	93,467	69,942	79,469	92,602	111,328	189,382	138,003	123,948	111,117	47,601	46,525	84,038	74,671	1,873,037
			No function performed at this level	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Administration	22,857	67,048	102,805	99,547	85,821	94,756	193,025	167,770	129,851	0	56,714	112,967	268,490	163,816	159,204	128,978	139,164	82,687	62,308	122,542	2,260,352
			Human Resources	272	13,450	20,897	9,822	15,248	1,043	6,742	6,958	6,864	2,930	5,232	9,688	8,076	12,659	10,350	18,002	1,441	924	7,209	8,531	166,540
Commerce and SME	LLG	Province	Policy Development/Coordination	26,375	10,547	18,888	19,162	5,460	10,449	13,377	13,429	10,522	6,179	15,927	18,841	44,192	27,134	18,724	27,197	2,076	7,893	12,708	22,632	332,152
			Business Development	22,192	20,158	14,200	18,681	17,361	19,137	19,377	19,878	18,989	18,989	19,042	19,077	18,047	18,910	20,212	21,602	20,502	20,705	20,441	19,200	387,658
			Provincial SME Conference	6,016	3,058	4,899	4,364	4,879	3,398	7,379	3,923	3,158	4,563	3,690	3,277	5,194	5,083	4,042	5,971	4,315	3,534	3,643	6,847	91,432
			District SME Promotional Events	18,602	6,333	10,747	11,535	21,144	9,003	7,002	6,129	4,831	3,759	9,082	9,120	12,973	10,006	14,961	1,072	3,719	6,536	4,109	168,718	168,718
			Tourism	313,041	262,813	267,966	276,423	279,341	265,071	286,461	268,707	269,531	266,951	265,818	268,059	282,462	278,638	267,594	341,841	272,454	277,178	265,369	286,608	5,562,826
	District	District	Administration	0	78,015	99,679	43,921	70,114	0	20,168	24,897	20,913	23,609	23,866	39,702	15,835	55,959	52,562	55,703	0	37,438	38,381	700,765	700,765
			Commercial/Business Project Support	107,497	56,675	92,369	91,005	46,990	89,386	77,642	90,317	56,124	47,500	101,722	117,244	186,418	121,326	133,434	125,421	50,778	50,718	84,816	95,938	1,822,275
			No function performed at this level	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Administration	0	44,699	82,244	0	21,455	0	0	130,488	0	55,631	0	82,612	81,908	39,801	64,489	23,194	0	41,539	122,542	790,603	790,603
			Human Resources	0	431	4,777	0	251	0	1,581	0	0	656	0	1,101	970	1,971	891	240	0	1,925	3,987	18,781	18,781
Community Development	LLG	Province	Equipment operating costs	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	1,000,000	
			Content Development	29,104	11,257	16,069	17,577	11,346	19,207	16,183	12,991	6,230	4,623	12,335	15,471	30,400	16,158	23,463	29,701	12,213	9,322	11,015	11,085	315,748
			Administration	0	0	21,118	0	0	0	0	0	0	0	0	0	0	9,473	0	0	0	0	8,988	9,930	49,508
			No function performed at this level	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Administration	45,715	89,398	61,683	0	150,188	94,756	96,512	37,282	129,851	111,263	189,047	75,311	185,878	122,862	218,906	150,474	162,358	20,672	145,385	81,695	2,169,236
	District	District	Human Resources	544	10,147	47,184	4,554	9,895	1,043	5,726	3,873	8,675	5,704	11,508	14,243	11,636	21,308	2,681	16,778	1,681	231	8,108	5,585	191,705
			Sports Development	75,161	45,709	65,464	72,755	55,978	75,007	56,461	67,398	51,326	52,648	72,004	74,770	105,373	85,935	84,371	87,184	42,719	63,247	64,182	68,329	1,366,022
			Youth Extension	235,478	187,457	289,818	221,191	179,235	199,333	512,992	332,849	554,516	337,532	459,793	377,595	472,601	378,425	378,425	378,425	378,425	378,425	378,425	378,425	6,790,930
			Child Welfare	85,387	40,929	83,555	84,626	71,193	97,500	139,134	94,205	71,123	111,173	77,595	81,895	156,225	144,465	95,073	95,073	95,073	95,073	95,073	95,073	1,756,661
			Community Development	118,867	75,505	146,390	148,007	78,446	180,854	112,868	181,270	147,355	110,707	215,793	286,763	323,743	217,937	215,693	160,911	41,730	78,453	145,451	80,358	3,067,062
Correctional Services	LLG	Province	Administration	0	55,964	233,649	20,685	40,295	0	16,756	14,921	27,655	35,162	50,256	65,083	40,684	99,597	0	42,234	0	37,438	28,452	808,832	
			Community Development	4,755	2,971	5,805	4,715	2,590	6,393	4,380	6,856	4,840	6,093	7,417	10,496	11,628	7,853	7,853	6,666	1,186	2,289	4,617	2,908	112,316
			Community Halls and Resource Centres	35,000	25,000	40,000	40,000	22,500	50,000	35,000	42,500	27,500	20,000	50,000	60,000	82,500	47,500	70,000	45,000	30,000	25,000	45,000	30,000	822,500
			Sports Development	11,837	7,014	14,409	13,874	7,090	17,423	12,273	18,018	13,460	11,763	20,375	26,498	32,175	21,762	20,630	14,886	3,575	6,784	13,573	7,870	295,300
			No function performed at this level	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	District	District	Administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Human Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Detention	115,363	0	1,098,388	409,283	296,234	224,299	11,333	0	1,387,513	256,781	293,240	462,146	1,011,538	591,176	280,929	182,291	173,853	540,408	589,769	577,205	8,501,750
			Transfer and Repatriation	11,017	11,017	11,017	11,017	11,017	11,017	11,017	11,017	11,017	11,017	11,017	11,017	11,017	11,017	11,017	11,017	11,017	11,017	11,017	11,017	220,338
			Administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Disaster Management	LLG	Province	No function performed at this level	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			Administration	22,857	0	61,683	59,728	64,366	37,902	0	0	37,088	18,905	0	103,265	61,431	0	42,993	23,194	20,672	20,769	81,695	656,546	656,546
			Human Resources	272	0	752	672	752	417	0	0	437	232	0	1,377	727	0	594	240	231	225	1,041	7,968	7,968
			Training & Awareness	9,301	3,177	5,373	5,768	1,072	4,501	3,501	3,065	2,415	1,879	4,541	4,560	8,518	6,486	5,003	7,480	536	1,859	3,268	2,054	84,358
			Disaster Coordination	5,161	2,680	4,126	4,384	2,568	5,056	3,869	3,912	2,244	1,641	4,208	5,138	8,172	4,577	6,741	5,864	3,097	2,513	3,781	3,011	82,7

Environment	District	Elementary School Supplies	669,876	326,606	743,122	544,253	439,328	769,858	538,750	797,975	1,815,798	1,181,049	735,827	1,089,861	1,431,059	1,070,319	1,472,612	835,156	166,830	423,562	677,759	4,889,658	20,569,261
		Primary School Supplies	2,238,390	1,030,694	1,471,332	1,447,393	738,898	1,534,912	980,666	1,376,890	2,983,335	1,957,267	1,647,341	3,119,496	3,871,457	2,560,751	3,871,457	3,080,831	563,744	966,639	1,846,318	9,408,784	46,156,540
		Secondary School Supplies	487,677	155,776	338,011	381,155	186,619	661,019	307,849	665,906	1,316,491	620,720	964,761	1,388,034	842,842	352,928	1,800,174	386,915	198,943	153,855	582,927	1,953,310	13,745,606
		Administration	10,478	44,102	160,113	33,348	60,174	83,483	52,405	75,694	55,311	35,162	42,655	89,315	94,751	78,055	27,939	98,838	0	21,774	64,682	0	1,127,280
		Payroll Administration	177,226	64,255	77,515	85,259	49,264	60,515	37,696	60,340	31,008	35,189	60,732	71,538	126,397	100,406	106,601	164,765	30,324	51,000	60,290	158,369	1,607,690
	LLG	Inspection and Advisory Visits	699,145	247,323	366,940	442,900	263,399	391,373	233,238	373,112	211,581	210,124	372,744	424,058	712,814	557,708	527,666	719,355	334,926	306,803	334,926	585,738	8,118,226
		School Maintenance	2,357,291	1,297,483	2,650,420	2,594,085	2,083,735	4,065,935	2,257,837	4,071,114	4,323,753	3,456,843	3,807,039	6,659,217	4,607,874	6,956,867	3,949,824	664,620	1,908,445	3,198,952	2,816,121	70,661,967	80,661,967
		Administration	0	0	20,361	0	0	0	0	57,907	18,441	0	18,544	0	56,484	61,959	0	21,496	46,388	62,016	41,539	61,721	466,806
		Human Resources	0	0	1,910	0	0	0	0	761	226	0	219	3,062	662	3,838	0	0	297	480	693	1,927	14,851
		Environmental Management	16,631	9,113	8,101	8,722	10,115	7,763	9,247	6,255	4,799	4,891	5,175	5,380	6,802	6,780	13,200	8,231	7,511	5,134	7,435	158,861	18,861
District	Information/Promotion	97,355	47,863	87,372	91,684	73,712	102,318	141,679	96,391	73,979	114,527	79,629	84,883	160,796	149,380	96,164	104,814	44,791	58,250	79,308	77,053	1,862,048	
	Administration	0	0	9,066	0	0	0	0	0	0	0	15,467	0	12,197	0	0	0	0	9,132	0	45,881	0	
LLG	No function performed at this level	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Administration	22,857	156,446	41,122	99,547	64,366	0	0	0	18,641	0	0	37,889	18,828	144,572	122,862	159,204	128,978	208,745	62,016	0	83,077	1,989,750
Fisheries	District	Human Resources	3,913	21,948	8,368	7,805	10,927	0	0	226	0	0	463	3,602	11,225	7,740	1,950	12,421	2,161	0	7,434	3,467	103,650
		Supervision	27,830	12,707	13,181	19,791	4,287	2,469	6,120	0	2,340	0	2,428	15,969	27,686	16,680	15,524	2,144	7,930	14,834	21,348	213,449	0
		Administration	11,243	139,144	40,193	33,104	50,503	0	0	0	0	0	16,904	53,589	31,978	0	34,430	0	37,438	9,930	458,456	0	
		Monitoring and Enforcement	120,945	69,358	74,249	106,509	66,220	27,580	22,341	0	16,207	0											

	Rural Airtraps	1,890,000	810,000	1,170,000	855,000	990,000	495,000	450,000	630,000	1,350,000	1,215,000	1,305,000	1,665,000	1,620,000	1,350,000	180,000	720,000	540,000	17,820,000
	Jetties	407,618	88,136	209,322	1,211,867	297,458	0	0	0	0	528,815	187,289	187,289	264,407	407,628	925,426	539,832	473,730	5,728,825
	Bridge Maintenance	1,916,933	154,238	132,039	132,039	440,679	214,831	115,675	154,381	1,762,715	1,344,071	705,086	1,079,663	198,305	110,170	154,238	440,679	88,136	11,659,198
	Road Maintenance	17,266,945	6,126,676	16,602,185	8,099,483	4,243,097	9,528,193	15,346,942	13,903,841	11,375,870	21,091,943	16,781,362	24,807,793	7,564,697	5,431,994	6,270,687	14,758,066	5,598,022	24,638,402
	District Administration	0	20,376	0	0	20,148	13,639	0	16,296	0	31,379	0	87,302	8,816	27,504	0	104,371	9,930	340,362
	District Communication	164,178	192,044	359,239	175,023	139,329	89,056	140,143	280,286	84,411	169,318	322,899	295,096	262,404	225,249	138,047	196,888	84,411	3,801,225
	Rural Electricity	367,394	261,588	495,102	523,909	131,126	343,389	277,804	526,415	221,780	436,124	437,802	945,269	616,330	610,390	645,126	169,828	260,457	7,999,998
	LLG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	No function performed at this level	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Province	114,287	44,699	61,683	139,366	107,277	37,302	57,907	37,820	55,651	55,631	37,809	18,828	206,531	184,293	176,105	128,978	115,970	1,995,528
	Human Resources	1,361	1,704	752	6,256	1,253	417	761	2,270	2,404	656	463	221	5,098	2,182	5,275	6,859	1,201	693
	Conferences	16,644	5,040	7,100	18,681	13,021	4,934	9,868	4,969	9,494	4,760	4,769	22,559	23,637	25,765	16,202	15,377	10,352	2,062
	Alienated Land	73,968	40,154	47,146	51,357	42,096	44,779	46,125	42,345	37,403	44,384	47,690	60,655	53,231	45,790	84,095	36,571	43,029	47,212
	Survey	35,246	20,586	28,731	28,983	15,840	27,791	23,110	23,845	21,207	18,795	28,674	30,855	42,256	33,637	30,194	17,951	23,448	18,341
	Physical Planning Board	47,993	28,870	30,639	33,874	34,751	29,569	33,596	30,400	32,530	29,273	29,445	31,366	35,345	33,734	29,245	62,083	31,320	34,766
	Customary Land	14,552	5,628	8,034	8,789	5,673	9,603	8,091	6,495	3,115	2,311	6,167	7,736	15,200	8,079	11,731	14,851	6,106	4,661
	District Administration	0	10,188	0	21,441	0	0	0	6,782	6,583	0	9,133	0	17,845	19,515	0	19,347	0	110,834
	LLG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	No function performed at this level	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Province	0	0	0	21,455	18,951	19,302	18,641	37,100	18,544	18,806	37,656	20,653	20,477	19,901	21,496	0	20,769	40,847
	Human Resources	0	0	0	251	209	254	226	402	219	232	442	275	242	244	297	0	225	521
	Provincial Land Dispute Committee	33,389	14,246	16,015	19,250	20,128	14,945	18,972	15,777	17,906	14,649	14,821	16,762	20,721	19,110	14,622	47,459	16,696	20,143
	Local Land Courts	15,196	7,464	12,199	5,768	4,823	12,540	9,396	9,496	6,167	4,559	12,044	13,135	21,381	13,654	16,793	14,983	6,431	6,147
	District Administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Training	24,183	9,060	13,505	6,753	6,475	14,092	12,737	13,427	7,649	6,276	16,731	15,488	26,063	15,137	19,263	26,116	9,820	8,436
	Inspection & Monitoring	37,963	18,601	27,530	27,530	18,640	22,522	19,841	22,946	13,084	8,738	26,108	29,029	46,690	32,166	38,774	46,575	24,425	18,342
	Land Mediation Supplies	14,072	8,410	12,690	8,790	7,569	16,820	11,774	14,297	9,251	6,728	16,820	18,652	26,987	15,213	21,250	13,665	10,992	8,410
	District Administration	22,857	67,048	0	0	0	94,756	19,302	55,923	0	0	131,795	20,653	122,862	0	21,496	0	82,687	20,769
	Human Resources	272	647	0	0	0	1,043	254	678	0	0	1,546	275	1,455	0	297	0	924	225
	Landowner Consultation	20,210	7,425	12,891	13,679	3,216	11,682	8,610	8,809	6,974	5,367	12,296	13,407	21,860	16,188	13,221	17,105	1,608	4,790
	District Administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LLG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	No function performed at this level	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Province	794,292	240,256	1,151,414	418,098	488,110	1,544,325	149,594	1,607,799	2,072,885	565,586	1,484,022	1,703,919	1,321,798	1,310,529	845,772	521,284	289,924	645,995
	District Administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	No function performed at this level	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LLG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	No function performed at this level	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Province	22,857	22,349	20,561	79,638	21,455	94,756	173,722	74,565	37,100	55,631	56,714	18,828	20,653	61,431	79,602	64,489	46,388	124,031
	Human Resources	2,837	5,981	15,905	896	8,391	1,043	10,946	12,651	5,846	5,049	695	3,567	275	727	975	8,749	480	3,698
	District Administration	15,640	33,913	77,541	0	40,295	0	36,924	53,676	20,382	35,162	0	16,521	0	0	0	26,973	0	10,820
	Training	154,604	188,091	221,524	200,315	91,001	232,636	234,898	333,105	152,222	151,036	246,585	208,492	217,575	210,452	231,865	267,744	105,769	105,651
	Supervision	73,835	81,841	95,996	96,129	58,299	129,709	105,590	170,863	85,970	75,193	115,073	110,491	118,505	111,884	124,523	93,737	61,941	56,929
	District Courts Magistrates Support (VC	17,944	17,896	23,006	23,408	7,956	19,529	16,334	29,572	14,685	10,890	30,507	20,089	16,754	16,427	21,727	50,527	12,500	11,655
	Allowances	800,914	1,175,810	1,414,380	1,363,258	783,873	2,044,886	1,601,828	2,641,312	1,346,317	1,192,850	1,755,194	1,704,072	1,704,072	1,584,787	1,840,398	1,056,525	800,914	783,873
	VC Supplies	70,945	108,395	126,245	120,400	69,230	180,600	141,470	233,275	118,895	105,350	159,395	160,510	150,500	139,865	162,540	93,310	69,230	72,240
	LLG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL COST	69,477,457	33,105,230	62,513,068	51,740,273	33,130,432	56,689,974	37,734,683	62,045,317	59,079,543	43,055,976	53,437,938	82,393,670	103,441,355	78,024,922	95,279,867	64,528,517	23,276,219	36,078,319
																			58,095,632
																			67,305,011
																			1,170,436,402



NATIONAL ECONOMIC & FISCAL COMMISSION