

Helpdesk Research Report

Political economy of Papua New Guinea and the water, sanitation and hygiene sector

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Question

Examine the political economy of Papua New Guinea, including actors, power dynamics and barriers, with specific reference to the water, sanitation and hygiene sector. Including, where possible, evidence related to:

- *New Ireland and Autonomous Region of Bougainville*
- *Gender Equity and Social Inclusion*
- *SDG 6 & current factors influencing inequalities in access to WASH*
- *Constraints and opportunities specific to the WASH sector*

Contents

1. Overview
2. The PNG Context
3. Governance: actors, structures and dynamics
4. Service delivery
5. Sector case studies
6. The WASH Sector
7. Political economy issues by province
8. References

1. Overview

The political economy of Papua New Guinea is characterised by formal and customary governance actors, structures and institutions, weak governance and corruption. Traditional institutions and structures including 'big man' politics, the wantok system and customary land tenure have been overlaid with formal governance structures including national, provincial and local governments with administration located at these three levels as well as the district level. There is strong political interference in the workings of the administration and alleged widespread corruption. Formal actors, including the national parliament and political parties, are weak.

Decentralisation is a key feature of PNG's political system, including responsibility for service provision being devolved to the provincial and local levels. There are concerns that decentralisation has increased political interference in service delivery. Formal government funding for service delivery includes discretionary funds for members of parliament (MPs) to spend in their electorates as part of broader Service Improvement Program (SIPs) grants for the Provincial, District and Local levels, where MPs also play a key role in determining how funding is spent.

Service delivery is declining across PNG, including falls in the percentage of the population with access to water, sanitation and hygiene (WASH). This report provides an overview of some key aspects of PNG's political economy, with specific reference to service delivery. Assessments of formal and informal institutions and structures as well as specific sectors, including WASH, roads and forests highlight a number of common themes including:

- **The importance of customary structures:** clans, 'big men' politics (where leaders are chosen for their ability to distribute resources), the wantok system (whereby 'big men' distribute resources to their kinship group) and customary land tenure (where land ownership rights are inalienable) regulate the lives of Papua New Guineans, especially given the country's scattered and low population density. Reilly et al. (2015) argue that local behaviour and customary governance are the fundamental determinants of service delivery.
- **Service delivery is conditioned by patron-client relations and clientelism across the different levels of administration.** For example, road maintenance and construction are subject to political interference with projects being selected for funding based on MPs' proposals. Clientelism has led to a number of incomplete projects across sectors.
- **Corruption:** this includes attempts to avoid regulations in the forestry sector, unofficial favours for elites, and bribes.

Findings specific to the WASH sector include a general consensus that the sector faces three main challenges: limited institutional framework and sector responsibilities, limited budgetary allocations and limited human resources. This has resulted in NGOs and donors being the main service providers. Bottlenecks identified in the evidence include: poor planning and decision-making mechanisms, unclear sector responsibilities (particularly in the rural sector); available government funds such as the SIPs are not used for WASH (despite WASH being a provincial and local responsibility), a lack of operations and maintenance for existing water supply schemes and poor sector monitoring and a lack of available data.

Customary institutions and structures condition the WASH sector in a number of ways including the strong clan-based culture limiting civil society participation: for example, village WASH committees have disbanded after projects have finished. Gender equity and social inclusion (GESI) are strong areas of concerns in PNG, which ranks 157 out of 189 of the UNDP's Gender Inequality Index. Whilst women and girls are responsible for WASH at household level, they have limited decision-making power and there are

some concerns around safety (for example 11.4% of women and girls responding to a 2009-10 survey reported that safety concerns affected their willingness to walk for water) (ADB, 2017).

PNG has varying degrees of autonomy for its provinces, for example, Bougainville is an autonomous region scheduled to hold an independence referendum in October 2019, whilst New Ireland is seeking greater autonomy. This report includes some evidence specific to these two provinces, although they exhibit similar trends to those identified in the broader literature on PNG. This includes the importance of customary structures and institutions. The Bougainville crisis (1989-2001) has had a number of impacts on the province's political economy including limited economic activity and revenue reliance on PNG. Whilst women in Bougainville have greater political representation than in PNG, gender inequality is still high. Information on New Ireland province was hard to locate during the course of this review.

The evidence base for this request was fairly small and drew on a number of key institutes including the PNG National Research Institute, the Lowy Institute, the State, Society & Governance in Melanesia Program at ANU College of Asia and Pacific, and the Development Policy Center at Crawford, ANU as well input from experts on PNG. Only a small number of sources address the political economy of PNG and the evidence base for the WASH sector is largely drawn from the development banks and NGOs. As evidence related to the WASH sector was limited, this report draws on a slightly broader range of literature addressing service delivery in PNG.

2. The PNG Context

Home to 8.25 million people, PNG has a diverse number of social and ethnic groups and there are strong local and clan-based affinities and allegiances (World Bank, 2017). Approximately, 87% of the population live in rural areas, and of the urban areas, only Port Moresby, the capital, and Lae have populations over 30,000 (there are populations are 365,000 and 88,000 respectively) (World Bank, 2017). As such population density is low: 14 people per km² (World Bank, 2017).

PNG has some of the lowest scores in its human development indicators, despite substantial natural wealth and recent positive economic performance (World Bank, 2017). PNG did not achieve its Millennium Development Goals and in 2010, the poverty rate was 39.9% (42% rural versus 29% urban) (World Bank, 2017). The economy is dominated by agriculture, forestry and fishing (where most of the population are informally employed) and the mineral and energy extraction sectors (the main sources of export earnings) (World Bank, 2017). Academics have painted a dire picture of PNG's economic situation including falling government revenues due to changes in commodity prices, cuts to basic services, evidence of negative economic growth and a fixed, overvalued exchange rate (Walton, 2019).

PNG's lack of infrastructure facilities (especially in rural areas), coupled with a prevailing scenario of weak institutions, transparency and accountability, are major constraints to economic development and delivery of basic services to the population (World Bank, 2017, p. 1).

3. Governance: actors, structures and dynamics

PNG has three levels of government (national, provincial and local) and four levels of administration (national, provincial, district and local) (Walton, 1995). The Government is headed by the Prime Minister (PM). The position of Governor-General, Queen Elizabeth II's representative in PNG is weak (Reilly et al., 2015).

Key threats to good governance in PNG include corruption, political interference and business influence over government according to interviews conducted for a 2019 study into subnational administration (Walton, 2019). PNG is one of the most corrupt countries in the world, with Transparency International ranking it the 138th most corrupt country out of 180 countries ranked, with a score of 28 out of 100 (with 0 signifying very corrupt and 100 signifying very clean¹. Political leaders have also undermined the country's independent anti-corruption body that was seeking to investigate political leaders (Dornan, 2016).

Decentralisation is a key feature of PNG's political system. PNG has a system of government in which different arrangements apply to different parts of the country (Wolfers, 2007). The constitution allows for provincial governments to acquire functions and powers in stages (Wolfers, 2007).

A key problem in the decentralisation of PNG's governance systems is 'vested interests' which tend to find ways to maintain the status quo when it comes to governance: it is necessary to find ways to go around vested interests and reflect more directly the demands and concerns of the people (Reilly et al., 2015). There is concern that decentralisation has increased political interference in service delivery and the public service (Walton, 2019). Decentralisation has also led to greater engagement with the private sector at the subnational level and public-private partnership, which can inflame tensions between government and the surrounding communities (Walton, 2019). Findings show that business influence on subnational governments is high and poorly monitored (Walton, 2019). It is likely that decentralisation reforms have increased requests for unofficial favours from business and political elites (Walton, 2019).

The National Level

PNG has a unicameral parliament composed of a two-tier system of 111 members elected by Limited Preferential Voting. Since 2007 no party has won enough seats to form a government, resulting in broad coalitions and weak party allegiances (Brown et al., 2015). Parliamentary terms last for five years and elections have taken place as scheduled since independence in 1977. Parliament is comprised of:

- 89 'open' MPs elected from open electorates in the country's 89 districts. The boundaries of open electorates have not kept pace with population growth and mobility, resulting in some electorates being larger than others, which in turn impacts on service delivery in the over-populated electorates;
- 22 'regional' MPs, one per province, who on election also become the governor for the province that elected them. Some of PNG's most prominent politicians were regional MPs, including former Prime Minister (PM) Michael Somare;
- The Speaker, who is relatively powerful as s/he cannot be removed from power constitutionally (Reilly et al., 2015; Brown, Nott & Shaw, 2015)².

Regional electorates are designed to encourage candidates to develop support beyond their localised tribal and clan loyalties, however the "reality of PNG politics means that it is almost impossible for even a genuinely outstanding candidate to be elected in many open seats without a substantial clan support base" (Reilly et al., 2015, p. 40).

A primary factor in PNG's political stability in recent years is the government's control and distribution of electoral development funds under the District SIPs and the Provincial SIPs grants, which are allocated

¹ <https://www.transparency.org/country/PNG#> [retrieved 24/7/2019].

² Regional/provincial MPs with national ministerial positions, the Parliament's Speaker and Opposition Leader however are unable to fulfil the role of governor (Reilly et al., 2015).

to each MP (Kama, 2017) (these funds are discussed further in the section 4 of this report). Legislation provides for the funds' allocation, but the amounts, and their timing, is at the discretion of the executive government through its influence on the state's finance department (Kama, 2017). This discretion means the executive can influence MPs behaviour and help to consolidate power against potential challenges (Kama, 2017).

Clientelism is a strong feature of PNG politics. Voters in PNG have a clear preference for particular, localised benefits over national ones and vote for candidates with extra-familial ties and those who have a track record of being 'helpful' (Wood, 2018). In some cases there is also vote buying, whereby candidates spend money before an election to show that they are the sort of person who would be willing to help if they got elected (Wood, 2018). As such, PNG's MPs often represent the interests of their tribe, district and province due to strong localised pressure and expectations as opposed to the national interest (Kama, 2017). This creates space for political elites to push their own agendas as long as they "keep locally focused MPs 'happy' with what they need for their electorates" (Kama, 2017). It also creates a number of governance problems including: a lack of focus by MPs on the national interest, government contracts being allocated on the basis of personal ties and civil servants being appointed on the basis of political connections (Wood, 2018).

Standish (2016) argues that resource extraction revenues were used to fund high levels of DISPs (Papua New Guinea Kina (PNK) 15 million in 2015) and PISPs³. The end of the resource boom due to falling commodity prices means that less funds are available for DISPs and PISPs. Standish (2016) speculated that this could have consequences for the PM at the time, Peter O'Neill due to PNG's 'money politics'⁴: O'Neill resigned in May 2019 following a number of allegations of mismanagement⁵.

The Provincial Level

The 1995 Organic Law on Provincial Governments and Local-Level Governments instituted provincial assemblies headed by the Provincial Governor, who is also the regional MP. Provincial assemblies include one nominated women's representative as well as representatives from local governments and councils and paramount chiefs/their representatives where the paramount chieftaincy system is in existence. The Provincial Governor picks a number of local level government presidents to become members of the Provincial Executive Council: this has politicised the provincial bureaucracy and led to growing corruption and cronyism (Reilly et al., 2015).

Reilly et al. (2015) argue that the 1995 Organic Law has created additional challenges for governance and service delivery including: weakened accountability mechanisms in the provinces; MPs having direct access to funding but lacking the capability to deliver services; provincial governments continuing to lack resources and oversight of what happens at the district level; strengthened national politicians' control over delivery of provincial and local level services; increased political interference from MPs; displacing provincial administrators from their responsibilities; and, disbursement of funds on politically motivated grounds.

³ <https://www.internationalaffairs.org.au/australianoutlook/png-politics-after-the-boom/> [retrieved 24/7/2019].

⁴ <https://www.internationalaffairs.org.au/australianoutlook/png-politics-after-the-boom/> [retrieved 24/7/2019].

⁵ <https://www.theguardian.com/world/2019/may/26/papua-new-guineas-prime-minister-peter-oneill-resigns> [retrieved 24/7/2019].

The District and Local Level

District and provincial structures are based around Local Level Governments (LLGs). There are generally three LLGs per district corresponding to an open electorate, with LLG presidents being members of provincial assemblies (Reilly et al., 2015). Relevant dynamics for service delivery include: LLGs are often located in the MP's geographic centre of power which can be distant from existing nodes of service delivery and detached from district offices; they have insignificant funding; and, committed staff are often lacking (Reilly et al., 2015).

At the ward level, each ward elects a councillor who sits on the LLG assembly. The Ward Development Committee is tasked with preparing a ward development plan, whilst each LLG assembly is tasked with preparing a 5-year plan taking account of the ward development plans in their area (Duncan & Banga, 2018). District-level plans are then prepared incorporating the plans of the constituent LLGs (Duncan & Banga, 2018).

Customary governance and authority mechanisms

Assessments of PNG include that most Papua New Guineans continue to be regulated by custom and the government system with central authority has limited impact on the majority of people (Nonggorr, 1993 quoted in Larcom, 2016). Precolonial PNG was typically comprised of small, decentralised communities, with few or no layers of judicial hierarchy (Larcom, 2016). Local leadership was largely competitive and dependent on personal qualities: clan or family leaders or 'big men' (chosen for their personal attributes) usually shared power within a village (often a collection of hamlets) rather than a designated chief and there was generally no level of jurisdiction above this authority (in some areas paramount chiefs exist) (Larcom, 2016). Larcom (2016) argues that precolonial institutions (particularly decentralised customary political authority and customary land rights) show little sign of abating in their importance and may in fact be growing in strength relative to the state. These institutions have been overlaid with different and competing state institutions (Larcom, 2016).

The wantok system: At the local level the majority of the population still live in customary societies with strong clan and tribal affiliations. The resulting Wantok system, referring to those that speak the same language, but representing a system of reciprocity between friendship and kinship groups, means that decisions related to local law and order, as well as resource management issues, are made at a very local level, and can sometimes challenge the governments local elected representatives (such as the ward councillors) (Brown, Nott & Shaw, 2015; Walton, 2019). In the absence of a welfare state, the wantok system provides important social protection for many citizens (Walton, 2019). Walton (2019) argues that although many Papua New Guineans most strongly identify with their clan or tribe, regional affiliations are also a part of citizens' identities, particularly for those living in urban centres.

'Big man' politics: a two-way patron-client interaction whereby status is derived from one's ability to distribute resources to people in one's village (Dornan, 2016). The adoption of the Westminster style of government following independence in PNG, has according to some commentators transposed this practice to the national level, with legislators seeking to distribute national resources to their wantok (Dornan, 2016).

Customary land tenure is extremely widespread in PNG and has some constitutional protections: 97% of all land is customarily owned. Across PNG there is the notion of the 'inalienability' of land tenure: people are custodians of the land for future generations and as such land cannot be voluntarily and permanently assigned outside of one's own group (Larcom, 2016). This has led to customary land owners contesting the

legitimacy of land exchanges, for example, for natural resource exploitation, arguing they have been denied their birth rights (Larcom, 2016).

In precolonial times, there were individual land use rights, but control rights were held collectively and could not be transferred outside the group (Larcom, 2016). During the Australian colonial administration in the post Second World War period, customary land rights were largely respected, and attempts to introduce individual land titling were limited, although land settlement schemes, plantations and estates did appear during this period including palm oil estates (Larcom, 2016). The problem of landless people began to appear, which has increased in the independence period. The land settler schemes, and the Special Agricultural and Business Leases, which were introduced in the 1970s have been the subject of land disputes. Of the 17 leases investigated by a 2013 government inquiry into SABLs, only three did not involve serious landowner disputes including land that was subject to pre-existing customary ownership disputes, or disputes between different groups of landowners (some agreeing with the lease arrangements, and others disputing them) (Larcom, 2016).

4. Service delivery

Service delivery mechanisms

The 1995 Organic Law decentralised service delivery to the provincial and local-level governments (Walton, 2019). A 2009 review of the law's implementation found that the decentralisation agenda was undermined by inadequate funding, poor capacity, poor oversight and political manipulation (Kalinoe 2009 quoted in Walton, 2019).

Discretionary electoral development funds have been disbursed to MPs since the 1980s for development projects in their electorate (Ketan, 2013). The amount of funding has dramatically increased since the 1980s, largely linked to rises in government revenues from natural resource extraction (Kama, 2017; Standish, 2013). The constitution of PNG guarantees each district PNK 500,000 in district support grants annually, but amounts have varied over the years in line with each government's rural development policy (Ketan, 2013).

Reilly et al. (2015) argue that Electoral Development Funds (EDFs) are an unaccountable mechanism and that central government figures and local 'big men' are able to influence discretionary spending at the local level. This has had an effect on electoral politics and governance as MPs invest funds in personal networks to secure support (Reilly et al., 2015). There is evidence that some EDFs have been misappropriated and slush funds created (Reilly et al., 2015).

District and Provincial Service Improvement Program funding was introduced in 2008 by central government as a mechanism to fund infrastructure supporting service delivery (Duncan & Banga, 2018). In addition to the discretionary funding MPs receive, non-discretionary funding is also allocated: governors have at least PNK 1 million each at their disposal, under both discretionary and non-discretionary components of the provincial support grants, which is much less than the total funds available to Open MPs (Ketan, 2013).

Service Improvement Program (SIPs) funding arrangements have increased political interference, political competition, money politics and election violence (Walton, 2019; Reilly et al., 2015). MPs are personally involved in deciding how money is allocated and implemented, raising concerns about corruption and poor administration (Walton, 2019). In 2013, 22 LLG elections in the Highlands were

declared as failed by the PNG Electoral Commissioner on the basis of widespread fraud and violence (Reilly et al., 2015). The negative influence of national MPs was a noticeable impediment to free and fair elections for the reason that some national MPs supported LLG candidates' campaigns as part of efforts to establish patron–client relations and to ensure their control over LLG councillors (Reilly et al., 2015). Despite these challenges, Reilly et al. (2015) argue that LLG councillors are still the most directly accountable office holders to the people.

The 2014 District Development Authorities Act transferred responsibility for most service delivery to the local level. District Development Authorities (DDAs) were rolled out across PNG's 89 districts in 2015 and allocate DISP funding and LLG ISP funding (Duncan & Bunga, 2018). They are statutory authorities that can enter into contracts for works and services (Duncan & Bunga, 2018). Under this arrangement part of the provincial budget can be allocated to districts and the district administrator (the CEO of the DDA Board) can be delegated power by the relevant minister over district services, including water supply (Duncan & Bunga, 2018). District administrators/CEOs can approve up to PGK 500,000 in expenditure (Duncan & Bunga, 2018). The DDA Board is chaired by the district's MPs, with different district MPs setting up the DDAs differently: this could pose challenges for the Provincial and Local Level Services Monitoring Authority, particularly around establishing benchmarks and comparing performance (Duncan & Bunga, 2018).

Service delivery dynamics

Service delivery is declining across PNG and despite increases in resourcing since the 1990s, it is still failing to reach most citizens (Reilly et al., 2015)⁶. Ketan's (2013, p. 1) review of the Western Highlands Provincial government found that service delivery was characterised by "a woeful record of administrative ineptitude, dreadful financial management and political interference with public service functions". Service delivery is especially challenging in remote areas (Walton, 2019). Reilly et al.'s (2015) review of governance systems and service delivery argues that none of the basic institutional features of PNG's political system can be held directly responsible for service delivery failures, rather changes are needed to public service culture, popular attitudes and political leaders: the way institutions are used and abused are the key issue. Government at all levels does not seem to feel threatened by its poor performance on service delivery, suggesting that the link between service delivery and losing power (which has been highlighted in the literature on other countries) does not seem to work to promote better governance in PNG (Reilly et al., 2015, p. 9).

Local behaviour and customary governance are the fundamental determinants of service delivery in PNG, rather than macro-economic factors (Reilly et al., 2015). Reilly et al. (2015, pp. 67) argue that the drivers of poor service delivery in PNG are political economy constraints: "the problems with service delivery stem not from a lack of funds per se, but from ineffective or inefficient mechanisms for developing policy, setting priorities, delivering funds and monitoring performance". The authors argue that symptoms of poor service delivery include poor staff quality, the presence of political appointees, poor financial management and the allocation of services amongst others (Reilly et al., 2015).

⁶ Under the 1977 Organic Law many service delivery functions were devolved to provincial administrations. However, they were not accompanied by financial transfers, so service delivery was poor (Duncan & Bunga, 2018).

The PNG pattern of poor service delivery fits into what has been classified as an 'oligarch and clan' scenario wherein weak political and economic institutions are fought over by fragmented, competitive elites (Reilly et al., 2015). Duncan and Banga (2018) argue that the change in provincial administration from elected provincial politicians under the 1977 Organic Law, to provincial administrations headed by the regional MP as the provincial governor under the 1995 Organic Law was not motivated by a concern to improve service delivery but to reduce competition. Elected provincial politicians were a source of competition for national MPs for funds distributed to the provinces and the LLGs (Duncan & Banga, 2018).

MPs are seen as a key conduit for service delivery to their electorates because other systems of service delivery do not work (Reilly et al., 2015). There are political incentives for MPs to seek election, not because of the difference they can make, but to gain access to state resources and money which they can distribute to their electorates and wantoks (Reilly et al., 2015). In this context, implementation of service delivery is considered a matter of distribution money rather than building sustainable bureaucratic structures (Reilly et al., 2015). For example, governors' support staff in Port Moresby often handle budget formulation, instead of public servants in the provinces (Reilly et al., 2015).

Clientelism is a feature of the DDAs and impacts service delivery (Duncan & Banga, 2018). The structure of the DDA Board membership allows the district MP to largely control budget allocations and override heads of the LLGs (Duncan & Banga, 2018). Evidence of this can be seen in incomplete projects undertaken without proper coordination, planning and budgeting; and Ward Development Plans and LLGs being rarely considered when implementing service delivery (Duncan & Banga, 2018). Political interference is also an issue: the 2014 Public Services (Management) Act gives MPs a formal role in the appointment of senior public servants, including at the subnational level (Walton, 2019).

The wantok system impacts on the public service in the PNG. The public service is PNG's biggest employer, with 10% of its 105,000 staff working in provincial administrations (Walton, 2019)⁷. A 2019 study into four subnational administrations, including New Ireland, found that public servants are often ill-informed about the laws and rules guiding their role, and under enormous pressure to provide unofficial favours to businesses, politicians and their wantoks, which can lead to illegal activities (Walton, 2019).

Challenges in service provision

In examining the challenges of service provision in PNG, Duncan and Banga (2018) argue that it is useful to think about supply side issues (the range of mechanisms behind service delivery) and the demand side (demand for effective service delivery amongst the population). Supply side issues include Duncan & Banga, 2018; Reilly et al., 2015; Walton, 2019):

- Fiscal transfers from the Treasury to the Provinces/Districts are variable with funds being released too slowly or too late to be spent effectively. Cash flow crises mean public servants pay is often late and departments do not received promised funds.
- Hiring in the civil service is likely to be related to clan or family membership, which makes it difficult to have effective sanctions in place for poor performance.
- Building human capacity: deficiencies in human capacity in many districts could mean there will be little improvement in service delivery for a considerable time.
- Local technical capacity: this includes both a lack of funding for technical staff at the local level, including funding to travel within their district, and staff shortages as skilled people are more likely

⁷ The government has set a target of 30% of public service leadership roles being filled by women (Walton, 2019).

to join the national civil service: Enticing them to move back to the districts because service delivery has been transferred to the local level is, ironically, made more difficult because local services have improved little. Hence, teachers, engineers, medical staff, etc. are reluctant to move because district services are poor.

Demand-side issues include:

- Low literacy and numeracy in rural PNG: this means it is unlikely people can engage with planning processes and community monitoring of service provision. For example, the Budget Tracking Initiative, established by the government's Consultative Implementation and Monitoring Council works with LLG Presidents, Ward councillors, Ward development committee members, community, NGO, Church, women and youth leaders to equip them to establish expenditure priorities, understand, develop and review Ward plans, use the appropriate laws and budget information to access funds for development projects at the local government level, and understand key concepts of monitoring and the use of report cards in monitoring and reporting on government activities at the provincial and local level. However, it is likely to take a long time to train people given the low educational attainment in PNG.
- Particularly in rural areas, most Papua New Guineans do not hold any individual assets to which the delivery of services would add value. Whilst all citizens hold an asset in the form of human capital this has not translated into demands for better education and health services. This can partly be explained by poor employment opportunities leading to a low value attached to education.
- Funds spent at the district and local level are not raised at the district and local level, which creates a moral hazard problem by which spending someone else's money means you do not have a keen interest in it being spent well.

5. Sector case studies

Roads

Road infrastructure across PNG is either lacking or in disrepair due to deficient road management and funding (Dornan, 2016). The reach of the national road network is limited: of PNG's approximately 30,000km of roads, 9,000km are deemed important to the national economy and are therefore under the jurisdiction of the national government, the remainder are under the jurisdiction of the provincial and district level governments (Dornan, 2016). The bulk of development funding for the road sector in PNG is currently directed towards management and rehabilitation of existing roads.

PNG's geography and geology poses challenges as high rainfall, steep slopes and muddy terrain in much of the country complicate maintenance efforts and increase costs: it is not uncommon for the Department of Works and Implementation to report final expenditure over 50% of contract value (Dornan, 2016). Other challenges in service provision include (Dornan, 2016):

- **Inadequate funding:** By 2007, only 35% of PNG's national roads were in a good condition (defined as passable by a two wheel drive vehicle in wet weather), largely due to a reduction in road maintenance funding over many years, mirrored by broader reductions in infrastructure spending. Funding increases partly due to the resources boom increasing government revenues, ended in 2015 due to the fall in commodity prices: funding available for the road sector in 2015 was

approximately 44% lower than in 2014, with projections that available funding in 2019 will only be 15% of what was available in 2014.

- **Lack of capacity:** inadequate funding reduced the capacity to plan and implement maintenance activities, with the Department of Works and Implementation, the agency traditional responsible for road maintenance, being the most affected.
- **Limited road management capacity in the private sector:** due to inconsistent provision of maintenance contracts and a resource boom that made it difficult to recruit skilled professionals given the attractive salaries in other economic sectors. . Limited competition between contractors has driven prices higher, while negotiating road work and the sourcing of raw materials with landowners has often been a challenge, with claims for compensation and attacks on road maintenance crews a common occurrence

The 2003 National Roads Authority Act established the Road Fund and the National Roads Authority (NRA), however, both actors have had limited impact on roads conditions and have not achieved their primary objectives (Dornan, 2016). The two actors continue effectively to function as pilots and there is evidence that they have detrimental to the road sector as they fragmented donor support and technical assistance for roads and duplicated work (Dornan, 2016).

Both actors are overseen by an independent board comprising seven representatives from road user organisations and four civil servants from the major road sector agencies (the chair must come from the private sector) (Dornan, 2016). The Road Fund is designed to provide a consistent source of funding for maintenance of the road network. However, it has failed to establish a reliable source of revenue (representing just 1.5% of total government spending on maintenance and rehabilitation).

The NRA plans, manages and procures maintenance activities on a commercial basis. It is officially responsible for 2,200 km of the 9,000 km national road network, however, it actually only maintains 443km of road with the remainder managed by the Department of Works: roads were not transferred to its responsibility until 2009. The sections that have been transferred are in poor condition and there is an informal agreement that the Department of Works will rehabilitate them: this informal agreement undermines accountability and demonstrates a lack of political engagement.

Key dynamics in the political economy of PNG's road infrastructure provision and management include:

- **Lack of support and engagement by political leaders:** development partners were instrumental in the creation of the Road Fund and the NRA. Whilst the Minister for Transport and Works supported the initiative, there was minimal involvement from other members of parliament.
- **'Big man' politics and political influences** impact both road construction and rehabilitation projects at the national and local level. Political considerations often take precedence over other factors and only a small number of road projects suggested by the civil service are funded: half of the budget funding allocated goes to projects not proposed by the civil service. These projects are usually the initiative of political leaders themselves and not supported by analysis. Proposals over PNK 10 million have to be considered by the National Executive Council, where proposals are frequently altered on the basis of political priorities.
- **Corruption:** There is anecdotal evidence to suggest that this increases the cost of road maintenance. Bureaucratic systems to prevent corruption do not function effectively: for example, the Central Supply and Tenders Board and the Office of the State Solicitor must approve expenditure over PNK 300,000. But, it can take between 40 and 50 weeks to approve contracts over PNK 10 million (Dornan, 2016).

Forests

Efforts to exploit PNG's extensive natural resources, including its native forests have not translated into progress on its socio-economic development indicators (Laurance et al., 2012, p. 36). In the forestry sector this is largely due to the absence of value added activities: raw logs mainly cut by a Malaysian timber company are exported to China for processing (Laurance et al., 2012). The forestry sector has been subject to a number of land use disputes. Larcom (2016) argues that customary institutions help to generate natural resource conflicts, particularly as state institutions are overlain on these customary institutions creating an acute and dysfunctional form of legal pluralism which generates a repeating pattern of property rights contests.

Resource exploitation companies need to have permission from customary landowners before they can start exploitation and issues around land use and land leasing are contentious. There are examples of 'big men' politics affecting this process with village 'big men' exchanging timber rights for cash: this has led to short-term gains for communities as proceeds from the timber are often concentrated in the hands of well-connected individuals and elites (Flier, 2012; Laurance et al., 2012).

From the 1990s, clans were required to form Incorporated Land Groups as part of processes clarifying indigenous rights in industrial logging and other projects. These Groups transferred approval for large timber projects to a National Forest Board, an independent body chaired by the Secretary of the Department of the Environment and Conservation, which could specify investments in community development as part of the agreement before granting approval (these community development terms have often not been realised and there are examples of clans suing corporations for compensation) (Flier, 2012; Laurance et al., 2012). The Forest Authority, the central government's forest-management agency, acts as an intermediary, obtaining timber rights from landowners and negotiating Forest Management Agreements with timber corporations as well as distributing royalty payments to landowners.

A number of dynamics condition outcomes in the forestry sector including:

- Corruption: there is serious corruption in the sector, which was branded 'out of control' by a 1989 Royal Inquiry. Efforts by the World Bank to promote forestry reform have been frustrated. Within PNG there are serious frustrations about the poor implementation of forestry reforms. Politically connected corporations and individuals often flout/circumvent reforms designed to improve forest governance.
- Special Agricultural and Business Leases (SABLs) often grant 99 year land leases and have been labelled a 'way to bypass' the timber-rights approval process and circumvent the laws regulating industrial logging and plantations, and a form of 'land grab'. SABLs are granted by the Department of Land, Environment and Conservation, and the Department of Agriculture, with little involvement from the Forestry Authority. In many cases SABLs have been granted without the free and prior informed consent of a majority of traditional land owners, and may end up alienating communities from their traditional lands.
- Attempts to limit customary land rights: in 2010 the government removed key land-rights protections, including the right to sue corporations for past or anticipated environmental damage. Issues are now referred to the Secretary of Land, Environment and Conservation, with no possibility for further lawsuits or appeals. This reduces customary land-owners abilities to contest projects.

- Competing claims over the same resource and land disputes can increase the likelihood of both companies seeking to exploit natural resources and the customary land owners seeking to 'cash in'.
- Rimbunan Hijau: a Malaysian company which is responsible for approximately 60% of all timber harvests. It is also deeply embedded in PNG's economy, owning several businesses, one of only two national newspapers. It has been implicated in government investigations of corruption and has fought efforts to reduce timber harvests in PNG. It is very influential (Filer, 2012; Laurance et al., 2012; Laurance et al., 2011; Larcom, 2016).

6. The WASH Sector

Estimates of WASH access demonstrate drops in progress between 1990 and 2015 for water (40% accessing safe water in 1990 against 34% in 2015), and for improved sanitation from 20% in 1990 to 19% in 2015 (World Bank, 2015). Whilst there have been increases in the number of people accessing safe water, these have mainly been experienced in rural water access and have not kept pace with population growth: rural sanitation and urban WASH access have stagnated (World Bank, 2015). PNG currently ranks at the bottom of the Pacific countries for WASH health related statistics: diarrhoea is a major cause of morbidity with 6,000 WASH related deaths annually, whilst cholera re-emerged in 2009 after a 50 year absence (World Bank, 2017). As well as causing hardship at the household, level poor access to WASH has economic impacts (World Bank, 2017).

The government of PNG aims to achieve middle income country status by 2030 and become a top 50 ranking HDI country by 2050 (World Bank, 2017). Its National Strategy for Responsible Sustainable Development (StaRS) recognises water resources as key renewable natural resource and strategic asset and also aims to increase access to affordable and reliable WASH (World Bank, 2017). PNG is not on track to meet its self-determined target of 70% having access to water and sanitation by 2030 and 100% by 2050 (World Bank, 2017).

From 2006 onwards the PNG–European Union Rural Water Supply and Sanitation Programme has been the only substantial rural water supply and sanitation activity. It has financed water system construction and provided hygiene education and community development training (ADB, 2015).

Historically there has been a lack of policy attention to, and public funding, for WASH (World Bank, 2017). There was a general consensus across the literature consulted for this review that there are three key challenges:

- **Limited institutional framework and sector responsibilities:** until very recently, PNG did not have any agencies designated to be responsible for water sector policy and regulation, nor for overall planning, implementation and management of water and sanitation services (WSSDP, 2016). There is a lack of effective organisational frameworks and coordination (ADB, 2015). The ADB (2017, p. 3) argue that there continues to be a need to address institutional performance and coordination between key agencies, giving careful consideration to barriers and enablers within the unique institutional context of the PNG water sector (ADB, 2017, p. 3).
- **Limited budgetary allocations:** The key bottleneck according to ADB (2015) has been the low priority the government of PNG has traditionally given to water and sanitation, including limited financial investment. A 2013 sector assessment estimated that funding requirements for the sector are quite large: USD 2 billion in investments is needed to reach the Government's 2030

targets and USD 20 million will be needed annually for Operation & Maintenance of current and future infrastructure (World Bank, 2017). The 2016 PNG budget included, for the first time, a budget of PGK 1 million for the WASH sector (World Bank, 2017).

- **Limited human resources:** The World Bank (2017) argues that the lack of experienced human resources is an immediate challenge to the sector.

When combined, these three challenges have resulted in a sector whereby service provision is largely provided by NGOs and donors. Where politicians are engaged, the priority remains improved water supply (Brown, Nott & Shaw, 2015), as opposed to sanitation and hygiene.

Legislative framework

The National WASH Policy 2015-2030 is PNG's first sector wide national policy for WASH. The policy aims to: improve sector coordination and leadership, increase funding, develop and manage an effective management information system, improved and consistent approaches to WASH service delivery, appropriate technology provision, enhanced private sector participation and partnerships, and sector capacity building and training (Cleary & Tugum, 2015). Policy goals include: reducing WASH-related disease morbidity and mortality; improving livelihood opportunities and economic growth by improving health and reducing economic and financial losses; and, increasing the equity of services between rural, peri-urban and urban areas, and for disadvantaged groups (World Bank, 2017, pp. 4-5).

The National WASH Policy defines organisational responsibilities, targets (e.g. 70% rural access to water and sanitation by 2030), and sets definitions and minimum standards (e.g. safe, convenient and sustainable (Cleary & Tugum, 2015). It was developed under the leadership of the Department of National Planning and Monitoring (DNPM). The World Bank (2017, p. 3) argues that the policy is crucial “to the effort to remedy the hitherto fragmented and uncoordinated provision of WSS [water supply and sanitation] services in PNG”. The policy was the culmination of several years of work by the government, donors including the World Bank and non-government stakeholders (World Bank, 2017).

Other relevant policies include:

- The 2000 Environment Act and associated 2002 Environment (Prescribed Activities) Regulation that requires Environmental Permits for the operation of potable water treatment plants with a design capacity of greater than 1 million litres per day; abstraction or use of water for commercial purposes; and the construction of major hydro power schemes or water supply reservoirs inundating an area greater than 5km² (WSSDP, 2016).
- The 1996 Land Act: actors must be aware of customary land tenure, with ABD (2015) arguing that land availability issues obstructed the construction of two planned urban sewerage schemes under an ADB financed project completed in 2008 (ADB, 2015).
- The 1973 Public Health Act: establishes drinking water quality and the Department of Health as the agency responsible for monitoring and regulation. The DoH adopted WHO drinking water quality standards. The 1984 The Public Health (Drinking Water) Regulation provides for the construction of water supply and treatment installations, standards for untreated water and drinking water and regulate inspection, sampling and analysis of water (WSSDP, 2016).

Actors

Government actors

The National WASH Policy includes the establishment of a National Water, Sanitation and Hygiene Authority (NWSHA) responsible for policy implementation, sector regulation, coordination and systemisation, monitoring and capacity building (World Bank, 2017). However, this authority has not yet been brought online. In the interim the National Executive Committee agreed to establish a WASH Project Management Unit (PMU) within the Department for National Planning and Monitoring, however, the pre-existing National WASH Task Force will continue its role of oversight of policy implementation (World Bank, 2017). The PMU was established with minimum staffing and a WASH Sector Coordinator was recruited to lead policy implementation (World Bank, 2017). It is envisaged that over time the PMU will assume more of the roles and functions planned for NWSHA, whilst efforts to legally establish the NWSHA are undertaken in parallel (World Bank, 2017).

Legislation established the NWSHA was expected to go to Parliament in 2018/2019 but no updates on this could be found during the course of this review. The World Bank (2017) argues that high levels of government commitment will be needed to ensure the policy is implemented. To support implementation, the World Bank is undertaking a project to support the design of essential instruments including sector strategies, district level WASH development plans, and sector monitoring databases. The European Union (EU) has provided short term technical assistance to the WASH PMU to for the development of a five-year WASH Strategy, an organisational development plan, a WASH Operations Manual, and WASH Communication and Promotions Plans (World Bank, 2017).

Arrangements envisaged for the NWSHA include:

- Headquarters in Port Moresby with provincial and district offices.
- A board including representatives from public and private sectors and civil society.
- A mandate to undertake water supply and sanitation service delivery at the national, urban and rural levels and work with existing sector institutions and organisations (ADB, 2017).

Other government actors include (Cleary & Tugum, 2015; CS WASH Fund, 2015):

- the Department of National Planning and Monitoring (chair of the National WASH Task Force);
- the Department of Health (the 2010-2020 National Health Plan designates the department as the agency responsible for planning and coordinating safe community water supplies and waste disposal, however it has no financial resources for implementation);
- Sub-national administrations responsible for monitoring the use of provincial, district and local level funding. This includes the DDAs, who are responsible for water supply and sanitation service delivery. However, the World Bank (2017) argues that as new structures it may take some time for the outcome/success of these new arrangements to be gauged and that WASH programmes in the districts could be negatively affected during the period of institutional transition.
- The Treasury, the Independent Public Business Corporation, Dept of Implementation and Rural Development, Dept of Environment and Conservation, and the Dept of Provincial and Local Level Government Affairs also play a role in WASH.

State-owned enterprises

Eda Ranu and Water PNG are state owned enterprises responsible for service provision in the capital district, and other urban areas respectively: a handful of other urban centres have some service provision

provided by their subnational governments (World Bank, 2017). Both SOEs are required by legislation to operate profitably and deliver financial returns to the state. As such they do not have incentives to expand service provision in unprofitable areas including peri-urban areas and smaller urban centres (World Bank, 2017). In 2013 a Community Service Obligation policy to address this issue was approved but it has not been implemented. This policy included provision for government funding to SOEs to cover revenue gaps in providing services in unprofitable areas (where revenue from user charges would not cover the full cost of service delivery or provide a commercial return) (World Bank, 2017).

In 2015, Water PNG was operating in 14 out of 20 provincial centres and 6 out of the 89 district towns (Brown, Nott & Shaw, 2015). Water PNG has a responsibility to promote rural WASH, but it does not provide services due to its commercial mandate. It has no policy making influence and policy coordination with other agencies as well as its customers is limited (ADB, 2017). An ADB Provincial Towns Water Supply and Sanitation Project aimed to build the capacity of Water PNG to deliver urban water and sanitation did not proceed as planned and the project was only rated as partly successfully (ADB, 2017).

Non-state actors

The majority of available WASH services in rural and peri-urban areas are provided by non-state actors including private resource extraction companies, church/faith-based groups, and NGOs, both domestic and international are active in WASH service provision in rural areas (World Bank, 2017; Brown et al., 2015). Activities have been limited to specific geographical areas, are reliant on unreliable funding streams, and have limited O&M (World Bank, 2017). The lack of sector coordination and monitoring means that these 'off budget' WASH activities are installed 'under the radar', which restricts long-term national planning, budgeting and government support (World Bank, 2017; Brown et al., 2015). The ADB is re-entering PNG's water sector, following completion of a Provincial Towns Water Supply and Sanitation Project completed in 2008, with technical assistance to support improved sector management and strengthen the government's capacity to implement the WASH policy (ADB, 2017).

Challenges

Despite advances made in terms of developing a national legislative framework for the sector "NGOs continue to work in a vacuum in rural areas with very little government leadership in the sector, with little coordination between agencies, no sector planning, investment or monitoring" (Brown, Nott & Shaw, 2015, p. 3). Whilst some of the challenges in ensuring universal WASH access can be traced to PNG's geography (there is a large rural population in scattered and poorly accessible locations), there are a number of challenges within the sector itself including fragmented and uncoordinated service delivery (Brown et al., 2015).

Planning

The World Bank's WSSDP (2016) argues that there are **no systematic or integrated planning or financing mechanisms in place that could provide for comprehensive national planning and decision-making, financing and implementation of water and sanitation infrastructure**. As such it recommends focusing on building WASH sector institutions and establishing district level WASH planning and decision making (WSSDP, 2016).

The rural WASH sector suffers from unclear responsibilities. Water PNG has a mandate to promote access to water and sanitation in rural areas, but it has been largely inactive due to its urban focus and commercial

mandate (Brown et al., 2015). The Department of Health's 2010-2020 National Health Plan aims to increase the number of households with access to safe drinking water, sanitation and effective waste disposal, but there are no specific targets related to this and the department lacks financial and human resources (Brown et al., 2015).

Financial

The planning and decision-making mechanisms for allocating financial resources to the sector at the national and subnational levels are unclear (World Bank, 2017). The national budgeting system does not distinguish fully between water and sanitation budgets and budget monitoring and reporting is incomplete (World Bank, 2017).

There is no overall sector level coordination or planning for the public financing of WASH infrastructure (World Bank, 2017). Financing for WASH occurs on a case by case basis through the Provincial/District MPs and the LLGs President's annual discretionary and non-discretionary funding (World Bank, 2017). It is unclear how budget allocations are made or spent: public financial management systems are weak and accountability is lacking (World Bank, 2017). In terms of the rural sector, no budget is allocated to the Department of Health, whilst in urban areas non-revenue water is high (50%) due to illegal connections and low tariff collections, which leads to inadequate revenues to support operations and maintenance (O&M) (ADB, 2017). Securing funding to undertake sector development is a key challenge (ADB, 2017).

Service Improvement Program funding has not largely been used for WASH provision. The SIPs represent a large potential source of funding for WASH, however, very little of this funding has been allocated to WASH to date (ADB, 2017; Brown et al., 2015). There are some examples of it being used in peri-urban settlements around Port Moresby and for dropping off rainwater catchment tanks in rural areas (Brown, Nott & Shaw, 2015). ABD (2017) argues that existing funding from the government's development budget does not lead to real progress. Where funding has been used allocations have been poorly reported, ad hoc and almost exclusively for water as opposed to sanitation or hygiene (Brown et al., 2015). There are currently no guidelines for using this funding to improve access to WASH and departments that could be more active in the sector, such as the Department of Health, have lacked incentives to engage (Brown et al., 2015). However, the DISPs still represent the largest source of potential public WASH funding (Brown et al., 2015).

Where government funds are allocated to WASH, they are largely allocated to urban initiatives with no government budget specifically allocated to rural WASH (Brown et al., 2015). The EU filled this funding gap between 2006 and 2012, funding NGOs to provide rural WASH (Brown et. al, 2015). In urban areas there are poor service levels due to factors including the growth in informal settlements (e.g. approximately half of Port Moresby's 800,000 population live in informal settlements) with insecure land tenure (ADB, 2017). Service providers are already struggling to provide acceptable services to existing customers and keep up with the pace of growth in formalised settlements (ADB, 2017).

Implementation

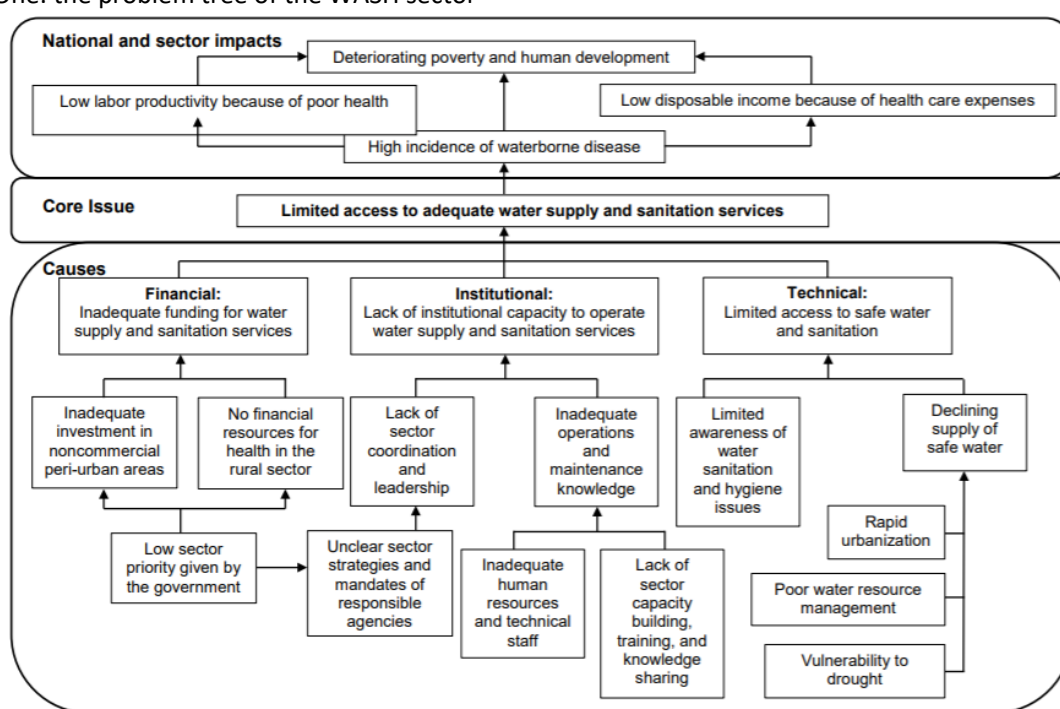
PNG's strong clan-based culture presents challenges for service provision including impeding the role of independent regulators and limiting civil society participation (IFS-UTS, 2011). For example, AusAID's Community Development Scheme aimed to build the capacity of non-state actors in the WASH sector, administering one-third of small grants from 2001-2007 to WASH related initiatives: however, there is

evidence that village committees formed under this programme disbanded shortly after the programme ended (IFS-UTS, 2011).

Human Resources in the sector are limited in terms of both quality and quantity ADB (2017). A 2013 human resources capacity assessment by the International Water Association based on data collected between 2011 and 2012 found that there were shortages of personnel in areas including technical and technical field staff, management and financial staff and social development staff. A key blockage appears to be engineering staff (IWA, 2013). Brown et al. (2015) argue that significant strengthening of the human resource capacity in the sector is needed if the targets outlined in the National WASH Policy are going to be achieved. Challenges include: a lack of implementation guidelines for WASH programming means a broad spectrum of approaches are being applied; there is limited coordination of activities resulting in missed opportunities for inter-agency knowledge sharing and transfer; a limited supply of new graduates; and, Environmental Health Officers, who have been trained in Participatory Hygiene and Sanitation Transformation and some in Community Lead Total Sanitation, are largely under-employed due to the Department of Health's lack of WASH funding (Brown et al., 2015; ADB, 2017). The decentralisation of WASH provision to the provisional and local level with the DDAs as the mechanism to support improved service delivery has not been accompanied by any government capacity building programme, which could result in inconsistencies in implementation (Brown et al., 2015). This is a concern as the capacity of provincial governments is highly variable (CS WASH Fund, 2015).

Monitoring is weak across the sector (including river monitoring stations freshwater availability and drinking water quality) and O&M is largely absent (IFS-UTS, 2011, World Bank, 2017). Outside of Water ONG and Eda Ranu areas schemes are largely monitored and O&M is lacking in many areas (World Bank, 2017). The lack of available data across the sector is also a challenge (World Bank, 2017). There is no management information system for the WASH sector. The World Bank (2016) argues that a system combining mobile phone data collection with an interface to an internet based system for data sharing and reporting would be feasible.

Figure One: the problem tree of the WASH sector



Source: ADB (2017).

Gender and social inclusion

Across the Pacific, including in PNG, there are inequalities of access to WASH between women and men, people with disabilities, rich and poor, and in rural and urban areas (CS WASH Fund, 2015). People with disabilities need particular attention (CS WASH Fund, 2015). Anderson et al. (2019) argue that substantial effort will be needed in PNG to achieve SDG6, with a lacking of adequate financing being identified as a challenge by the UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) and Tracking Financing to WASH (TrackFin) (Anderson et al., 2019).

Gender inequality is high in PNG with the country ranked 157 out of 187 countries in the UNDP's Gender Inequality Index. While women are taking on more leadership and public representational roles, perceptions of domestic roles and powers, gender equality and gender norms remain entrenched in many communities: gender-based violence levels are also high (World Bank, 2017, p. 14; Brown et al., 2015). At the household level, women exercise limited control over resources and household decision-making (World Bank, 2017). Women and girls are responsible for fetching water, boiling water for drinking and caring for sick family members: as well as being time consuming activities, women and girls also report safety concerns around fetching water, for example 11.4% of female respondents in a 2009-10 survey reported that security concerns affect their willingness to walk to fetch water (World Bank, 2017; ADB, 2017). Women have also reported concerns about the risk of attack if using bush toilets at night (ADB, 2017). A lack of WASH facilities at schools also affects girls' attendance and female teachers (ADB, 2017).

Support for civil society participation in rural WASH governance is particularly needed to ensure meaningful participation of women. Although the primary users of water, a review in 2007 reports that women are typically excluded from decision making processes in rural PNG and when permitted to attend meetings, rarely given the opportunity to have their perspectives heard (IFS-UTS, 2011). The Civil Society WASH Fund programme, supported by Australia, includes gender plans for supported WASH schemes and Gender Equality and Social Inclusion (GESI) monitoring. One of the aims of the World Bank work in PNG is to help systemise and encourage the entrenchment of gender-based approaches in government systems including the District WASH plans (World Bank, 2017, p. 14).

The World Bank's Rural WASH Sustainability Study

The World Bank's Rural WASH Sustainability Study surveyed 20 villages in four provinces (the Eastern Highlands, Central, Morobe, and Madang) in December 2014, with villages selected on the basis of having a functioning water system that have been used for at least four years (World Bank, 2016). Of these communities six were rated as high performing in terms of sustainability and five were rated as sub-standard or no service (World Bank, 2016). Water management committees were not performing strongly: committees had been established by the implementing agency during the intervention period and indications are that they are more effective when their structure is determined by the community rather than being imposed (World Bank, 2016). For example, when they have strong links to existing leadership structures: most of the villages demonstrated strong adherence to PNG's customary structures (e.g. male-dominated, chiefly leadership) (World Bank, 2016).

Specific gender equity and social inclusion findings from the study include:

- **WASH access benefits women:** in villages with sustained access to WASH women reported that it was of great benefit to them. In communities where WASH was inadequate the burden of water collection fell mostly on women, who returned to collecting water from unimproved sources, spending considerable amounts of time doing so.
- **Men remain the decision-makers with regards to WASH:** women tended to value the benefits of a household toilet more than men, who mostly made the decision about whether or not to build a toilet. Women generally reported participating in WASH activities, but changes in women's empowerment were small. Whilst women provided labour for WASH construction activities, they did not necessarily participate in planning. If they did participate in planning, they reported not being listened to and not having decision-making power.
- **Greater attention is needed to issues of marginalisation:** there was some evidence of marginalised households in the villages surveyed. These households were not always provided with good access to community water supply. For example, there was no tap-stand near their house or social pressure prevented them from using it. This meant household members often had to walk long distances (20-40 minutes) to collect water.
- **Communities members argued that family members are responsible for assisting persons with disabilities:** Most communities identified that there were people with disabilities in their community, with the consistent response being that their families would help them with accessing water and using a toilet. There was no evidence that any of the WASH programs provided targeted assistance for people with a disability (World Bank, 2016).

7. Political economy issues by province

Bougainville

Bougainville is a richly complex multi-ethnic and multi-linguistic society with significant regional diversity (Bell & McVeigh, 2018). Similarly to the rest of PNG, Bougainville is governed by a parliamentary system but characterised by customary institutions and structures (Dyer et al., 2019).

The 2001 Bougainville Peace Agreement established the Autonomous Region of Bougainville (ARoB) and the Autonomous Bougainville Government (ABG). The 'crisis' as the conflict in Bougainville is known began in 1989 but has its roots in a dispute over the Panguna copper and gold mine operated by Bougainville Copper Limited, a subsidiary of Rio Tinto, which opened in 1972 (Larcom, 2016). A group of customary land owners demanded compensation from BCL over the loss of land to the mine and its supporting infrastructure (Larcom, 2016). The land acquisition process had followed PNG state law but failed to take into account Bougainville customary institutions and the notion of the 'inalienability' of customary land rights: for example, for many customary land owners the idea of 'permanent voluntary alienation' from customary land did not exist as they saw themselves as the custodians of the land for future generations of kinfolk (Larcom, 2016).

Following a period of sabotage by a group of local landowners led by Francis Ona, the mine was closed in 1989, triggering a separatist civil war against the PNG state and further fighting between different factions

within Bougainville (Larcom 2016; Dyer et al., 2019)⁸. The crisis destroyed most of Bougainville's infrastructure, resulted in thousands of lives lost and people displaced, and the withdrawal of the PNG state (Larcom, 2016).

The Bougainville Peace Agreement linked interim autonomy to a future referendum: this created a compromise between the Bougainville aspiration of independent statehood and the aspiration of Government of PNG's desire for unity (Bell & McVeigh, 2018). The compromise enabled parties within Bougainville to unite to achieve the peace agreement, and enabled PNG to find a compromise with Bougainville (Bell & McVeigh, 2018). The referendum is scheduled for October 2019. Bell and McVeigh (2018) argue that the referendum poses significant risks to stability and functioning of relationships within Bougainville, between the two governments and even within PNG (as other provinces are also calling for greater autonomy). The result will have to be ratified by the PNG Parliament, which introduces ambiguity about the implementation of the referendum (Bell & McVeigh, 2018).

Current governance arrangements for AROB include a House of Representatives as a legislative body and Buka as the administrative capital. The Joint Supervisory Body facilitates consultation and cooperation between the PNG national government and the AROB gov for the prevention and resolution of disputes in implementing the Peace Agreement (Wolfers, 2007). The ABG's planning framework includes:

- the Bougainville Vision;
- The Strategic Development Plan 2018-2022 focusing on social development, economic development, infrastructure development (including WASH) and the government framework;
- Sector development plans and departmental corporate plans

The ABG states that its planning documents will have to be renewed once the result of the referendum is known⁹. Nisira (2017) argues that the ABG faces difficulties because of weakness in administration and policy development capacity in the public service as a result of the crisis. **The ABG has largely failed to improve service delivery, partly linked to corruption which has inhibited good governance** (Reilly et al., 2015).

There is limited acceptance of outside law and its institutions and in parts of Bougainville chiefs and paramount chief enjoy considerable power (Nisira, 2017; Larcom, 2016). Prior to the crisis, law and order matters were largely dealt with by local clan leaders under 'kastom' (customary norms and values). The crisis severely disrupted traditional leadership (Nisira, 2017).

Traditionally there have been five rules of land ownership in Bougainville: different people own different property rights over the same piece of land (e.g. harvesting rights versus the ability to exchange ownership); the persons owning each set of rights tend to be multiple rather than individual; while some joint owners tend to exercise more decisive authority, disposal normally requires consensus; permanent rights over land can be exchanged under certain circumstances, but such exchanges are kept between kinfolk (unless through force); and unauthorized trespass is taken very seriously (Larcom, 2016).

⁸ Following PNG's independence from Australia in 1975, Bougainville declared independence, however, this was unsuccessful and it was absorbed politically into PNG, but with a degree of regional autonomy (Bell & McVeigh, 2018).

⁹ <https://bougainvillenews.files.wordpress.com/2018/06/bougainville-strategic-plan-2018-2022.pdf> [retrieved 21/7/2019].

Dynamics in Bougainville's political economy, according to a 2018 evaluation of New Zealand's aid programme in PNG, include:

- **A post conflict environment** including the planned referendum on independence from PNG. The conflict upended the traditional social order and is thought to have contributed to high rates of domestic abuse, breakdown in government services and support networks, and increased prevalence of substance abuse (Dyer et al., 2019). Children who grew up during the conflict are a 'lost generation' lacking the necessary job skills, education and economic opportunities to become gainfully employed (Dyer et al., 2019).
- **Limited local economic activity:** economic activities are largely based on smallholder agriculture. Bougainville is PNG's largest cocoa producer. There are some fishery, small-scale mining and micro enterprises activities. Although, its significant mining and energy potential remains inactive.
- **Revenue reliance of the national PNG government:** in 2016, 10% of the AGB's revenue to fund its budget was derived locally, the rest comes in grants from the PNG national government and donors. The broader fiscal challenges of PNG impact on the revenue that is available to the ABG.
- **Fiscal constraints:** Departments of the ABG are reporting 60% funding cuts and no funding transfers outside of salaries for most of 2017. There are very limited funds for government funded development activities (Adam Smith International, 2018).

The conflict had a significant impact on Bougainville, including the destruction of government presence, service infrastructure, the disruption of economic activity, and notable departure of human capital. Within the population there remains unresolved tensions, unaddressed trauma, high levels of gender-based violence, distrust of the state including police, and weak institutions. The resolution of tensions, traumas, trust and community resilience remains an ongoing process that varies across communities and locations (Adam Smith International, 2018).

Divisions and tensions still exist within Bougainville for example: several different Me'ekamui factions, none of which participated in the weapons disposal process under the BPA remain in possession of numerous firearms (Nisira, 2017). This includes the Me'ekamui Government of Unity, based at Panguna and with links with several small, but high risk mining investors, and the original Me'ekamui led by Chris Uma and based in Arawa, they control the Morgan Junction Road Block and sometimes limit access to the Panguna area (Nisira, 2017). With a number of the different factions in Bougainville there are connections to resource extraction investors and deals (Nisira, 2017).

Women have greater access to politics than their counterparts in mainland PNG, in terms of reserved seats for women, but gender inequality is still high. Women have three reserved seats in the ABG Parliament and in 2015 Josephine Getsi became the first woman to win an open seat against a man (Dyer et al., 2019). Efforts in the 2015 elections showed strong success in outreach to women, increasing the number of women elected (Baker, 2015). However, there are social expectations for women to vote along tribal and family lines during elections (Bell & McVeigh, 2018). Dyer et al.'s (2019) study into violence against women in elections in Bougainville found that it manifests in two ways: physical, often in the form of domestic violence stemming from conflict over the election or other political pressures, and socio-psychological, in the form of gossip, harassment and threats (Dyer et al., 2019).

The 2016 Community Government Act established 47 urban and rural assemblies comprised of individual wards, which must elect one man and one woman representative: the leadership roles for each community

government must rotate between male and female representatives¹⁰. This system replaces the Council of Elders structure established under the first Bougainville constitution. However, advances are underscored by the continued conflict between women's new leadership responsibilities and traditional caretaking roles (Dyer et al., 2019).

Most of Bougainville has matrilineal land rights (men relocate to their wife's village after marriage and children belong to the wife's clan), however, colonialism and conflict have eroded this system and its positive effects (Dyer et al., 2019). Members of local CSOs assert, however, that they have seen shifts in the engagement and acceptance of women in leadership positions, most notably community and church leadership (Dyer et al., 2019).

New Ireland

In 2019, the (now former) PM Peter O'Neill agreed that New Ireland would have greater control over their administration and finances (Walton, 2019). The New Ireland Provincial Government is democratically elected with its offices located in the provincial capital, Kavieng, and district administrations in Kavieng and Namatanai. The province comprises 149 islands spread over 23,000 square kilometres of sea, with a total land area of 9,557 square kilometres (Walton, 2019). The island nature of the province can make service delivery difficult, but in some sectors, for example functional literacy, the province has performed well: a 2011 survey on the provinces found that functional literacy was highest in New Ireland (Walton, 2019).

Mining company Newcrest provide some WASH services in the province. The provincial government is a stakeholder in the Lihir mine, owned by Newcrest, and has received approx. PNK 95 million in revenues¹¹. Between 2011 and 2017, Newcrest, the operators of Lihir Gold Mine have delivered PNK 93 million (USD 34 million) in education, health and infrastructure projects across New Ireland, under the Tax Credit Scheme (Layton, 2018)¹². Projects are implemented by AT Projects, a social enterprise, who have experience working on DFAT funded WASH projects in Manus and Nautilus Minerals funded WASH projects in New Ireland (Layton, 2018). In New Ireland WASH activities funded by Newcrest have included education on basic health and hygiene including safer sanitation practices, and waste management (e.g. not throwing litter in the sea); provision of infrastructure including ventilation-improved pit latrines and rainwater catchments; focus on involvement on unemployed youth in constructing infrastructure; and, materials are locally sourced (Layton, 2018).

New Ireland has been the site of a number of forestry related SABLs, described by some commentators as land grabs and corrupt (e.g. Filer, 2012). There have also been allegations about the corrupt use of provincial resources for campaigning by the province's governor in the 2017 (Walton, 2019).

8. References

¹⁰ <https://www.lowyinstitute.org/the-interpreter/challenges-women-bougainville> [retrieved 21/7/2019].

¹¹ <http://www.lihir.info/the-gold-mine/stakeholders/new-ireland-provincial-government> [retrieved 19/7/2019].

¹² The Tax Credit Scheme was introduced by the national government in 1992 to improve relationships between resource companies and host communities (Layton, 2018). It allows resource companies to offset as credit 0.75% of its annual assessable income against its annual tax on profits payable to the national government (Layton, 2018).

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